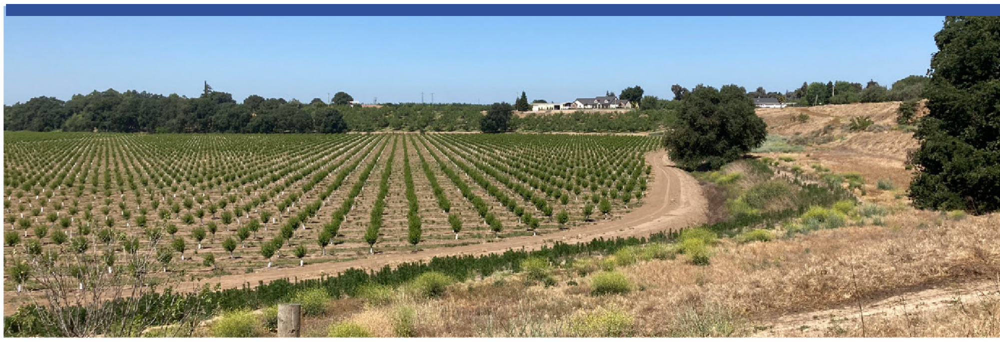
September 2022



INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Riverbank Regional Recycled Water Project

PREPARED FOR:

City of Riverbank
6707 Third Street
Riverbank, CA 95367
209.869.7128

City of Riverbank
Public Works Department

2901 High Street, Riverbank, CA 95367
Office (209) 869-7128 FAX (209) 869-7045

PUBLISH DATE: September 21, 2022 **LEGAL**
DEPT: Public Works

CITY OF RIVERBANK

NOTICE OF AVAILABILITY AND INTENT TO ADOPT MITIGATED NEGATIVE DECLARATION

Riverbank Regional Recycled Water Project

The City of Riverbank has prepared an Initial Study and proposed Mitigated Negative Declaration for the Riverbank Regional Recycled Water Project in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). Based on the Initial Study, the City has determined that although the proposed project could have a significant effect on the environment, there would not be a significant effect because the City has incorporated mitigation measures into the project that would avoid significant effects or reduce the effects to an insignificant level. A public hearing for the proposed project to consider adopting the proposed Mitigated Negative Declaration and approving the project is tentatively scheduled for Tuesday, December 13, 2022, at 6:00 p.m. in City Hall Council Chambers at 6707 3rd Street, Suite B, Riverbank, CA 95367. Copies of the IS/MND are available for public review at www.riverbank.org, and at City of Riverbank City Hall, 6707 Third Street, Riverbank, 95367.

PROJECT LOCATION: The City of Riverbank is located on the south side of the Stanislaus River along State Highway 108 in Stanislaus County 94 miles east of San Francisco, 75 miles south of Sacramento, 100 miles north of Fresno, and 108 miles west of Yosemite National Park. The project site is located at the Riverbank Wastewater Treatment Plant on the north side of the Stanislaus River in San Joaquin County at 23865 Santa Fe Road.

PROJECT DESCRIPTION: The City of Riverbank proposes to upgrade and expand its existing wastewater treatment plant to produce high quality (disinfected tertiary treated) recycled water for use on nearby agricultural lands. The project would include construction of new preliminary, secondary, and tertiary treatment and disinfection facilities and a recycled water storage tank, reconfiguration of existing treatment and percolation ponds to provide additional seasonal recycled water storage, installation of a recycled water distribution system, and expansion of treatment capacity to serve planned growth in the City through the year 2050. The City proposes to distribute the recycled water to two adjacent land owners that have expressed interest in receiving recycled water from the project for irrigation of walnut orchards.

MITIGATION MEASURES: The City has incorporated mitigation measures into the project for potentially significant project impacts related to biological resources, cultural resources, paleontological resources, transportation, and tribal cultural resources.

PUBLIC REVIEW PERIOD: The City of Riverbank will accept public and agency comments on the IS/MND during a 30-day public review period starting on September 21, 2022, and closing on October 20, 2022. Written comments will be accepted up until 5:00 pm on October 20, 2022. Comments may be delivered via e-mail to mriddell@riverbank.org, or by postal service or hand delivery to the City of Riverbank, Public Works Department, 6707 Third Street, Riverbank, CA 95367, Attn: Michael Riddell, Director of Public Works.

PUBLIC HEARING: A public hearing to consider adopting the proposed Mitigated Negative Declaration and approving the project is tentatively scheduled for Tuesday, December 13, 2022, at 6:00 p.m. in the City Hall Council Chambers, 6707 Third Street, Suite B, Riverbank, CA 95367.

Meeting facilities are accessible to persons with disabilities. Any person requiring special assistance to participate in the meeting should notify the Administration Dept. at (209) 863-7122 or cityclerk@riverbank.org at least seventy-two (72) hours prior to the meeting.

Initial Study/Mitigated Negative Declaration

for the

Riverbank Regional Recycled Water Project

Prepared for:

City of Riverbank
6707 Third Street
Riverbank, CA 95367
209.869.7128
Contact: Michael Riddell, Director of Public Works
mriddell@riverbank.org

Prepared by:

Ascent Environmental, Inc.
455 Capitol Mall, Suite 300
Sacramento, CA 95814
916.444.7301
Contact: Andrea L. Shephard, PhD, Senior Project Manager
andrea.shephard@ascentenvironmental.com

September 2022

20210199.01

TABLE OF CONTENTS

Section			Page
LIST OF ABBREVIATIONS			VI
MITIGATED NEGATIVE DECLARATION			1
1	INTRODUCTION		1-1
	1.1	California Environmental Quality Act Guidance	1-1
	1.2	Purpose of this Document	1-1
	1.3	Public Review Process	1-2
	1.4	Document Organization	1-2
2	PROJECT DESCRIPTION		2-1
	2.1	Project Background and Overview	2-1
	2.2	Project Location	2-1
	2.3	Project Objectives	2-3
	2.4	Existing Wastewater Characteristics and Facilities	2-3
	2.5	Existing Water Pollution Control Requirements	2-4
	2.6	Proposed Project	2-8
	2.7	Project Construction	2-21
	2.8	Project Operations	2-26
	2.9	Required Permits and Project Approvals	2-27
3	ENVIRONMENTAL CHECKLIST		3-1
	3.1	Aesthetics	3-5
	3.2	Agriculture and Forestry Resources	3-10
	3.3	Air Quality	3-15
	3.4	Biological Resources	3-28
	3.5	Cultural Resources	3-49
	3.6	Energy	3-54
	3.7	Geology and Soils	3-59
	3.8	Greenhouse Gas Emissions	3-66
	3.9	Hazards and Hazardous Materials	3-73
	3.10	Hydrology and Water Quality	3-85
	3.11	Land Use and Planning	3-100
	3.12	Mineral Resources	3-103
	3.13	Noise	3-105
	3.14	Population and Housing	3-117
	3.15	Public Services	3-120
	3.16	Recreation	3-123
	3.17	Transportation	3-126
	3.18	Tribal Cultural Resources	3-132
	3.19	Utilities and Service Systems	3-136
	3.20	Wildfire	3-150
	3.21	Mandatory Findings of Significance	3-156
4	COMPLIANCE WITH FEDERAL REGULATIONS		4-1
	4.1	Archaeological and Historic Preservation Act	4-1

4.2 Clean Air Act 4-1
4.3 Coastal Barrier Resources Act 4-4
4.4 Coastal Zone Management Act 4-4
4.5 Endangered Species Act 4-4
4.6 Environmental Justice 4-5
4.7 Farmland Protection Policy Act 4-9
4.8 Fish and Wildlife Coordination Act 4-10
4.9 Floodplain Management 4-10
4.10 Magnuson-Stevens Fishery Conservation and Management Act 4-11
4.11 Migratory Bird Treaty Act 4-11
4.12 National Historic Preservation Act 4-12
4.13 Protection of Wetlands 4-12
4.14 Rivers and Harbors Act 4-13
4.15 Safe Drinking Water Act and Sole Source Aquifer Protection 4-13
4.16 Wild and Scenic Rivers Act 4-13

5 REFERENCES 5-1

6 REPORT PREPARERS 6-1

Appendices

Appendix A – Project Construction Assumptions
Appendix B – Air Quality, Greenhouse Gas Emissions, and Energy Modeling Assumptions and Results
Appendix C – Botanical and Wildlife Species Evaluated for the Potential to Occur on the Project Site
Appendix D – Noise Modeling Assumptions and Results

Figures

Figure 2-1 Project Location 2-2
Figure 2-2 Riverbank WWTP – Existing Site Layout 2-5
Figure 2-3 Proposed Project 2-9
Figure 2-4 Riverbank WWTP – Proposed Upgrades 2-15
Figure 2-5 Riverbank WWTP – Proposed Process Flow Diagram 2-17
Figure 3.4-1 Project Features and Land Cover 3-31
Figure 3.10-1 Flood Zones 3-93

Tables

Table 2-1 Pond Freeboard Requirements 2-7
Table 2-2 Potential Recycled Water Use Areas 2-8
Table 2-3 Projected Flows and Loads by 2050 2-11
Table 2-4 Proposed WWTP and Associated Storage and Distribution Facility Improvements 2-12
Table 2-5 Project Construction Sequence and Durations 2-21
Table 2-6 Monthly Crop Irrigation Volume per Acre 2-26
Table 2-7 Irrigation Delivery at 1.6 mgd and 2.29 mgd of Recycled Water Production 2-27

Table 3.3-1 National and California Ambient Air Quality Standards ... 3-16
Table 3.3-2 Sources and Health Effects of Criteria Air Pollutants ... 3-17
Table 3.3-3 Summary of Construction-Generated Emissions of Criteria Air Pollutants and Precursors ... 3-24
Table 3.3-4 Summary of Operations-Generated Emissions of Criteria Air Pollutants and Precursors ... 3-25
Table 3.4-1 Special-Status Species Known or with the Potential to Occur in the Project Site ... 3-34
Table 3.7 1 Soil Types in the Areas of Ground Disturbance ... 3-61
Table 3.8-1 Summary of Construction-Generated GHG Emissions ... 3-70
Table 3.8-2 Summary of Operational GHG Emissions ... 3-71
Table 3.13-1 FICON Significance of Change in Noise Exposure ... 3-105
Table 3.13-2 FTA Indoor Ground-Borne Vibration Impact Criteria for General Vibration Assessment ... 3-106
Table 3.13-3 FTA Construction Damage Vibration Criteria ... 3-106
Table 3.13-4 County of San Joaquin Acceptable Noise Levels by Land Use ... 3-107
Table 3.13-5 San Joaquin County Maximum Allowable Noise Exposure – Stationary Noise Source (Part II) ... 3-108
Table 3.13-6 [City of Riverbank] Maximum Allowable Noise Exposure from Transportation Noise Sources at Noise-Sensitive Land Uses ... 3-109
Table 3.13-7 [City of Riverbank] Performance Standards for New Projects Affected By, or Including, Non-Transportation Noise Sources ... 3-110
Table 3.13-8 [City of Riverbank] Noise Level Performance Standards for Non-Transportation Noise Sources ... 3-111
Table 3.13-9 Existing Noise Levels at Nearby Sensitive Receptors ... 3-112
Table 3.13-10 Noise Emission Levels from Construction Equipment ... 3-113
Table 3.13-11 Estimated Temporary Noise Levels During Selected Construction Phase ... 3-113
Table 4-1 San Joaquin Valley Air Basin Attainment Status ... 4-2
Table 4-2 *De Minimis* Thresholds for Determining Applicability of General Conformity Requirements for Federal Actions in the San Joaquin Valley Air Basin ... 4-3
Table 4-3 Summary of Construction-Generated Emissions of Criteria Air Pollutants and Precursors ... 4-3
Table 4-4 Environmental Justice Study Area ... 4-6
Table 4-5 Demographics of the Environmental Justice Study Area, San Joaquin County, and Stanislaus County ... 4-7
Table 4-6 Income and Poverty Status in the Environmental Justice Study Area, San Joaquin County, and Stanislaus County ... 4-8

LIST OF ABBREVIATIONS

°C	degrees Celsius
AAQA	ambient air quality analysis
AB	Assembly Bill
ADWF	average dry weather flow
AFV	alternative fuel vehicle
AFY	acre-feet per year
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act of 1972
APN	Assessor's Parcel Number
AWMP	agricultural water management plan
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
Basin Plan	Water Quality Control Plan for the Sacramento and San Joaquin River Basins
BAU	business-as-usual
bgs	below the ground surface
BMP	best management practice
BOD	biological oxygen demand
BPS	Best Performance Standards
CAA	federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFÉ	corporate average fuel economy
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Cal/OSHA	California Occupational Safety and Health Administration
CalEPA	California Environmental Protection Agency
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCaIC	Central California Information Center
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act

CESA	California Endangered Species Act
CFC	California Fire Code
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
City	City of Riverbank
CNEL	community noise equivalent level
CO	carbon monoxide
CO_2	carbon dioxide
CRHR	California Register of Historical Resources
CUPA	Certified Unified Program Agencies
CV-SALTS	Central Valley Salinity Alternatives for Long-Term Sustainability
CWA	Clean Water Act
CWSRF	Clean Water State Revolving Fund
cy	cubic yard
DAF	dissolved air flotation
dBA	A-weighted decibels
DDW	State Water Resources Control Board Division of Drinking Water
diesel PM	particulate matter exhaust from diesel engines
District	South San Joaquin Irrigation District
DOC	California Department of Conservation
DOT	US Department of Transportation
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EGU	electric generating unit
EOP	Emergency Operations Plan
EPA	United States Environmental Protection Agency
EPAct	Energy Policy Act of 1992
ESA	federal Endangered Species Act
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FICON	Federal Interagency Committee on Noise
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FPP	Farmland Protection Program
FPPA	Farmland Protection Policy Act
FR	Federal Register

FTA	Federal Transit Administration
gal	gallon
General Order	Water Reclamation Requirements for Recycled Water Use (Order WQ 2016-0068-DDW)
GHG	greenhouse gas
GMF	granular media filtration
gpcd	gallons per capita per day
gpm	gallons per minute
GSA	groundwater sustainability agency
HAP	hazardous air pollutant
HCP	habitat conservation plan
Hot Spots Act	Air Toxics Hot Spots Information and Assessment Act of 1987
hp	horsepower
HRA	health risk assessment
IEPR	integrated energy policy report
IFI	Important Farmlands Inventory
in/sec	inches per second
IS/MND	initial study/mitigated negative declaration
kWh	kilowatt hours
lb/day	pounds per day
L_{eq}	hourly equivalent sound level
LESA	Land Evaluation and Site Assessment
LHMP	local hazard mitigation plan
L_{max}	maximum instantaneous levels
mg/L	milligrams per liter
mgal	million gallons
mgd	million gallons per day
MID	Modesto Irrigation District
mL	milliliters
MPN	most probable number
MRP	Monitoring and Reporting Program
MRZ	Mineral Resource Zone
$MTCO_2e$	million tons of carbon dioxide equivalent

NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEHRP	National Earthquake Hazards Reduction Program
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	New Source Review
NTU	nephelometric turbidity unit
O_3	ozone
OES	Office of Emergency Services
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PCC	Public Contract Code
PG&E	Pacific Gas and Electric Company
PM	particulate matter
PM_{10}	respirable particulate matter with an aerodynamic diameter of 10 micrometers or less
$PM_{2.5}$	fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1970
PPV	peak particle velocity
PRC	Public Resources Code
project	Riverbank Regional Recycled Water Project
RCRA	Resource Conservation and Recovery Act of 1976
ROG	reactive organic gases
RWQCB	regional water quality control board
SB	Senate Bill
SCADA	Supervisory Control and Data Acquisition
SGMA	Sustainable Groundwater Management Act of 2014
SJCOG	San Joaquin Council of Governments
SJMSCP	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District

SMAQMD	Sacramento Metropolitan Air Quality Management District
SMARA	California Surface Mining and Reclamation Act of 1975
SNMP	Salt and Nitrate Management Plan
SO_2	sulfur dioxide
SO_X	oxides of sulfur
SR	State Routes
SRA	State Responsibility Area
SSJID	South San Joaquin Irrigation District
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	Technical Advisory Committee
TAC	toxic air contaminant
TMDL	total maximum daily load
tpy	tons per year
TSS	total suspended solids
TTC	temporary traffic control
Unified Program	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
UV	ultraviolet light
VdB	vibration decibels
VMT	vehicle miles traveled
WDR	Waste Discharge Requirement
WQO	Water Quality Objective
WWTP	wastewater treatment plant
$\mu g/m^3$	micrograms per cubic meter

PROPOSED MITIGATED NEGATIVE DECLARATION

PROJECT: RIVERBANK REGIONAL RECYCLED WATER PROJECT

LEAD AGENCY: CITY OF RIVERBANK

Under CEQA, the lead agency is the public agency with primary responsibility for approval of the project. The City of Riverbank (City) is the CEQA lead agency because it is responsible for implementation and operation of the Riverbank Regional Recycle Water Project (project).

PROJECT DESCRIPTION SUMMARY

The project includes upgrades to the existing Riverbank Wastewater Treatment Plant (WWTP), located on the north side of the Stanislaus River in San Joaquin County. Project improvements would include construction of new preliminary, secondary, and tertiary treatment and disinfection facilities, construction of a recycled water storage tank, reconfiguration of existing treatment and percolation ponds to provide additional seasonal recycled water storage, and installation of a recycled water distribution system to initially serve nearby agricultural users. To support these facility improvements, the project would include interconnecting piping, utility and backup power supply improvements, and site grading and drainage improvements. In addition, new electrical and controls buildings, as well as shop and maintenance buildings, would be constructed at the site to support the expanded WWTP. Upon completion, the proposed facilities would treat up to 2.29 million gallons per day average dry weather flow and produce and deliver up to approximately 2,500 acre-feet per year of Title 22 recycled water at an approximate maximum rate of 4,350 gallons per minute. These improvements are needed to meet the requirements for Title 22 unrestricted recycled water use, provide wastewater treatment adequate to treat City wastewater flows and loads projected by 2050, provide for expandable recycled water treatment and storage capacity, and produce and distribute recycled water to the potential agricultural use areas.

FINDINGS

An Initial Study has been prepared to assess the project's potential effects on the environment and the significance of those effects. Based on the Initial Study, it has been determined that the project would not have any significant effects on the environment once mitigation measures are implemented. The conclusion is supported by the following findings:

1. The project would have no impact related to agriculture and forestry resources, land use and planning, mineral resources, and recreation.
2. The project would have a less-than-significant impact on aesthetics, air quality, energy, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, population and housing, public services, utilities and service systems and wildfire.
3. Mitigation is required to reduce potentially significant impacts related to biological resources, cultural resources, geology and soils, transportation, and tribal cultural resources to less-than-significant levels.

The City shall implement the following mitigation measures to avoid or minimize environmental impacts. Implementation of these mitigation measures would reduce the environmental impacts of the project to a less-than-significant level.

Biological Resources

Mitigation Measure 3.4-1: Avoid and Minimize Impacts to Valley Elderberry Longhorn Beetle

To avoid and minimize project impacts to valley elderberry longhorn beetle, the City may obtain approval from the San Joaquin County Council of Governments Habitat Technical Advisory Committee and Board of Directors for project coverage under the SJMSCP, and will implement the following measures consistent with the avoidance and minimization measures in the SJMSCP (SJCOG 2000a):

- Indirect impacts to valley elderberry longhorn beetle will be minimized by implementing the following:
  - All elderberry shrubs to be avoided during construction activities will be fenced or flagged as close to construction limits as possible.
  - A minimum avoidance area of at least 20 feet from the dripline of each elderberry plant will be maintained to avoid direct impacts that could damage or kill the plant.
  - A qualified biologist will provide training for all contractors, work crews, and any onsite personnel on the status of valley elderberry longhorn beetle, its host plant and habitat, the need to avoid damaging the elderberry shrubs, and the possible penalties for non-compliance.
  - A qualified biologist will inspect the work area prior to commencement of construction and will monitor the work area at project-appropriate intervals to assure that all avoidance and minimization measures are implemented.
  - Project activities, such as truck traffic or other use of machinery, will not create excessive dust on the project site, such that the growth or vigor of elderberry shrubs is adversely affected. Enforcement of a speed-limit and watering dirt roadways are potential methods to minimize excessive dust creation.
  - Herbicides will not be used within the dripline of any elderberry shrub. Insecticides will not be used within 98 feet of any elderberry shrub. All chemicals will be applied using a backpack sprayer or similar direct application method. Mechanical weed removal within the dripline of any elderberry shrub will be limited to the season when adults are not active (August – February) and will avoid damaging the elderberry.
  - Following completion of construction, affected areas will be returned to pre-project conditions.
- If avoidance of elderberry shrubs is not feasible, the health and vigor of the shrubs could be damaged, which could result in death or injury to valley elderberry longhorn beetles. The City will obtain approval from the San Joaquin Council of Governments Habitat Technical Advisory Committee and Board of Directors for project coverage under the SJMSCP or consult with USFWS under Section 7 of the ESA to obtain take coverage and implement required conservation and minimization measures. No elderberry shrub will be trimmed or removed until authorization has been issued. Conservation and minimization measures will include, but may not be limited to, the following:
  - Elderberry shrubs that would be directly impacted will be transplanted to a USFWS approved mitigation site during the dormant period for elderberry shrubs (November 1 through February 15).
  - If elderberry shrubs without evidence of valley elderberry longhorn beetle exit holes cannot be transplanted, the City will provide compensation within SJMSCP Preserves or other USFWS approved mitigation site at a ratio of at least three new plants for each stem 1 inch in diameter or greater at ground level.
  - If elderberry shrubs with evidence of valley elderberry longhorn beetle exit holes cannot be transplanted, the City will provide compensation within SJMSCP Preserves or other USFWS approved mitigation site at a ratio of at least six new plants for each stem 1 inch in diameter or greater at ground level.

Significance after Mitigation

With implementation of Mitigation Measure 3.4-1, the City would avoid and minimize adverse effects on valley elderberry longhorn beetle from construction and operation of the project by implementing construction setbacks from elderberry shrubs, and protecting shrubs from indirect impacts or transplanting shrubs and providing compensation for removal of shrubs consistent with the SJMSCP, or conservation measures developed in consultation with USFWS. Pursuant to the Final EIR/EIS for the SJMSCP, dated November 15, 2000, and certified by the San Joaquin

Council of Governments on December 7, 2000, implementation of avoidance and minimization measures in the SJMSCP is expected to reduce project-related impacts to valley elderberry longhorn beetle to a less-than-significant level (SJCOG 2000b). That document is hereby incorporated by reference and is available for review during regular business hours at the San Joaquin Council of Governments (555 E. Weber Avenue, Stockton, CA 95202) or online at: www.sjcog.org. Therefore, with the implementation of Mitigation Measure 3.4-1, the project would not result in substantial adverse effects on the viability of the species, and the impact to valley elderberry longhorn beetle would be clearly reduced to less than significant with mitigation incorporated.

Mitigation Measure 3.4-2: Avoid and Minimize Impacts to Western Pond Turtle

To avoid potentially significant impacts on western pond turtle, the City may obtain approval from the San Joaquin County Council of Governments Habitat Technical Advisory Committee and Board of Directors for project coverage under the SJMSCP and will implement the following measures consistent with the avoidance and minimization measures in the SJMSCP (SJCOG 2000a). All mitigation listed below will be limited to construction within 0.3 mile of suitable aquatic habitat:

- A preconstruction survey for western pond turtle shall be conducted by a qualified biologist within 48 hours of commencing work in aquatic habitat suitable for the species. If no pond turtles are observed, no further mitigation is necessary.
- During draining of the existing water storage ponds within the WWTP associated with construction of the project, a qualified biologist shall be present to monitor for presence of western pond turtles. If pond turtles are observed, a qualified biologist, with approval from CDFW, shall relocate pond turtles to the nearest area with suitable aquatic habitat that will not be disturbed by project-related construction activities (i.e., Stanislaus River).
- If nesting areas for pond turtles are identified on the project site, a no-disturbance buffer area of 300 feet shall be established around the nesting site (which may be immediately adjacent to the river or extend up to 400 feet away from the river in uplands). These buffers shall be indicated by temporary fencing if construction has or will begin before nesting periods have ended. (The period from egg laying to emergence of hatchlings is normally April to November.)

Significance after Mitigation

With implementation of Mitigation Measure 3.4-2, the City would avoid and minimize adverse effects on western pond turtle from construction and operation of the project by implementing preconstruction surveys and buffers around nesting sites consistent with the SJMSCP. Pursuant to the Final EIR/EIS for the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), dated November 15, 2000, and certified by the San Joaquin Council of Governments on December 7, 2000, implementation of avoidance and minimization measures in the SJMSCP is expected to reduce project-related impacts to western pond turtle to a less-than-significant level (SJCOG 2000b). That document is hereby incorporated by reference and is available for review during regular business hours at the San Joaquin Council of Governments (555 E. Weber Avenue, Stockton, CA 95202) or online at: www.sjcog.org. Therefore, with the implementation of Mitigation Measure 3.4-2, the project would not have a substantial adverse effect on the viability of local or regional populations of the species, and the impact to western pond turtle would be clearly reduced to less than significant with mitigation incorporated.

Mitigation Measure 3.4-3: Avoid and Minimize Impacts to Swainson's Hawk, Coopers Hawk, Osprey, and White-tailed Kite

To avoid, minimize, and mitigate impacts on Swainson's hawk and white-tailed kite, the City may obtain approval from the San Joaquin County Council of Governments Habitat Technical Advisory Committee and Board of Directors for project coverage under the SJMSCP or consult with CDFW and obtain take authorization for Swainson's hawk under CFGC Section 2081, and will implement the following measures consistent with the avoidance and minimization measures in the SJMSCP (SJCOG 2000a):

- If project activity will commence between February 15 and September 15, a qualified biologist will be retained to conduct preconstruction surveys for active nests on and within 0.5 mile of the project site no more than 14 days and no less than 7 days before work begins.

- If an occupied Swainson's hawk nest is identified during preconstruction surveys, a 0.25-mile no-disturbance buffer will be established. If an occupied Cooper's hawk, osprey, or white-tailed kite nest is identified during preconstruction surveys, a no-disturbance buffer of at least 100 feet will be established around the nest. All project activities will be avoided within the buffer area until a qualified biologist confirms that the nest is no longer active or that the young have fully fledged.
- If a Swainson's hawk nest tree becomes occupied during construction activities, then all construction activities shall remain a distance of two times the dripline of the tree, measured from the nest, and the nest shall be monitored by a qualified biologist. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance buffer shall be increased until the agitated behavior ceases.

<u>Significance after Mitigation</u>

With implementation of Mitigation Measure 3.4-3, the City would avoid and minimize adverse effects on Swainson's hawk Cooper's hawk, osprey, and white-tailed kite from construction and operation of the project by implementing preconstruction surveys and buffers around occupied nesting sites consistent with the SJMSCP or conservation measures developed in consultation with CDFW. Pursuant to the Final EIR/EIS for the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), dated November 15, 2000, and certified by the San Joaquin Council of Governments on December 7, 2000, implementation of avoidance and minimization measures in the SJMSCP is expected to reduce project-related impacts to Swainson's hawk Cooper's hawk, osprey, and white-tailed kite to a less-than-significant level (SJCOG 2000b). That document is hereby incorporated by reference and is available for review during regular business hours at the San Joaquin Council of Governments (555 E. Weber Avenue, Stockton, CA 95202) or online at: www.sjcog.org. Therefore, with the implementation of Mitigation Measure 3.4-3, the project would not have a substantial adverse effect on the viability of the local or regional populations of the species, and the impact to Swainson's hawk, Cooper's hawk, osprey, and white-tailed kite would be clearly reduced to less than significant with mitigation incorporated.

Mitigation Measure 3.4-4: Avoid and Minimize Impacts to Other Special-Status Birds

To avoid, minimize, and mitigate impacts on California horned lark, loggerhead shrike, yellow-breasted chat, and yellow warbler nests; burrowing owl burrows; black-crowned night heron, great blue heron, great egret, snowy egret and tricolored blackbird colonies, the City may obtain approval from San Joaquin County Council of Governments Habitat Technical Advisory Committee and Board of Directors for project coverage under the SJMSCP and will implement the following measures consistent with the avoidance and minimization measures in the SJMSCP (SJCOG 2000a):

- A qualified biologist shall conduct a preconstruction survey for any project activity that would occur during the nesting bird season (February 1–August 31) within 500 feet of suitable nesting habitat for special-status birds, including shrubs, riparian vegetation, trees, and barren areas within the WWTP, access road, and pipeline alignment. The survey shall be conducted within 14 days before project activity begins.
  - If no black-crowned night heron, great blue heron, great egret, snowy egret, or tricolored blackbird colonies, or other special-status nesting birds are found, no further mitigation is required.
  - If active black-crowned night heron, great blue heron, great egret, snowy egret, or tricolored blackbird colonies are found, a qualified biologist shall establish a setback of 500 feet from colonial nesting areas for these species, which shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.
  - If active burrowing owl burrows or California horned lark, loggerhead shrike, song sparrow, yellow-breasted chat, or yellow warbler nests are found, a qualified biologist shall establish a setback of 500 feet from the California horned lark nest, 250 feet from the burrowing owl burrow, or 100 feet from the loggerhead shrike, yellow-breasted chat, or yellow warbler nest as applicable, during the nesting season (February 1–August 31) unless a qualified biologist verifies through non-invasive means that the birds have not begun egg laying, or

that juveniles from the occupied burrows or nests are foraging independently and are capable of independent survival. For burrowing owls, once the fledglings are capable of independent survival the owls may be evicted using passive relocation as described in the California Department of Fish and Game's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012).

<u>Significance after Mitigation</u>

With the implementation of Mitigation Measure 3.4-4, the City would avoid and minimize adverse effects on special-status birds from construction and operation of the project by implementing preconstruction surveys and buffers around active nests consistent with the SJMSCP. Pursuant to the Final EIR/EIS for the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), dated November 15, 2000, and certified by the San Joaquin Council of Governments on December 7, 2000, implementation of avoidance and minimization measures in the SJMSCP is expected to reduce project-related impacts to special-status birds to a less-than-significant level (SJCOG 2000b). That document is hereby incorporated by reference and is available for review during regular business hours at the San Joaquin Council of Governments (555 E. Weber Avenue, Stockton, CA 95202) or online at: www.sjcog.org. Therefore, the project would not have a substantial adverse effect on local or regional population viability of special-status birds, and the impact would be clearly reduced to less than significant with mitigation incorporated.

Mitigation Measure 3.4-5: Avoid and Minimize Impacts to Common Raptors and Other Nesting Birds

The City will implement the following measures to avoid impacts to common raptors and other common nesting birds.

- A qualified biologist shall conduct a preconstruction survey for any project activity that would occur during the nesting bird season (February 1–August 31) within suitable nesting habitat for common raptors and other nesting birds, including shrubs, riparian vegetation, trees, and barren areas within the WWTP, access road, and pipeline alignment. The survey shall be conducted within 14 days before project activity begins.
- If occupied nests are identified during the preconstruction survey, the qualified biologist shall determine and establish an appropriate no-disturbance buffer based on bird species; listing status; and other factors, including distance from construction activity, type and duration of construction, and whether the nest is within the line of sight of construction activity. The size of the buffer may be adjusted if the qualified biologist determines that such an adjustment would not be likely to adversely affect the nest. Project activities will be avoided within the buffer area until a qualified biologist confirms that the nest is no longer active or that the young have fully fledged.

<u>Significance after Mitigation</u>

With the implementation of Mitigation Measure 3.4-5, the City would avoid and minimize disturbance of nests through pre-construction surveys and non-disturbance buffers around active nests. Therefore, the project would not have a substantial adverse effect on local or regional population viability of common raptors and other nesting birds, and the impact would be clearly reduced to less than significant with mitigation incorporated.

Mitigation Measure 3.4-6: Avoid and Minimize Impacts to Western Red Bat Roosts

To avoid and minimize impacts to special-status bat roosts, the City may obtain approval from San Joaquin County Council of Governments Habitat Technical Advisory Committee and Board of Directors for project coverage under the SJMSCP and will implement the following measures consistent with the avoidance and minimization measures in the SJMSCP (SJCOG 2000a):

- Within 14 days prior to initiating work, a qualified bat biologist will inspect the portions of the project site where ground disturbance would occur (i.e., north access road, distribution pipeline alignment, WWTP) and adjacent areas (within 250 feet) for bat roosts (mature trees in the riparian woodland, and mixed oak woodland portions of the project site). Surveys will consist of a daytime pedestrian survey looking for evidence of bat use (e.g., guano) and/or an evening emergence survey to note the presence or absence of bats within potential roosts. If no bat roosts are found, then no further mitigation will be required.
- If evidence of bat use is observed, the number and species of bats using the roost will be determined. Acoustic bat detectors may be used to supplement survey efforts if needed to determine the species of roosting bats, but are not required.

- If an active western red bat maternity roost is detected, an avoidance buffer of 250-feet will be maintained from May 1 until young are flying (typically through August).
- If roosts of western red bat are determined to be present within the project site and within 250 feet of construction, work may be performed within a 250-foot buffer of the roost outside of the breeding season (May 1 through August 31) when the daytime temperature is 50 degrees Fahrenheit or greater.

<u>Significance after Mitigation</u>
With the implementation of Mitigation Measure 3.4-6, the City would avoid and minimize disturbance of western red bat roosts by implementing preconstruction surveys and avoidance buffers consistent with the SJMSCP. Pursuant to the Final EIR/EIS for the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), dated November 15, 2000, and certified by the San Joaquin Council of Governments on December 7, 2000, implementation of avoidance and minimization measures in the SJMSCP is expected to reduce project-related impacts to special-status bats to a less-than-significant level (SJCOG 2000b). That document is hereby incorporated by reference and is available for review during regular business hours at the San Joaquin Council of Governments (555 E. Weber Avenue, Stockton, CA 95202) or online at: www.sjcog.org.. Therefore, the project would not have a substantial adverse effect on local or regional population viability of western red bat, and the impact would be clearly reduced to less than significant with mitigation incorporated.

Cultural Resources

Mitigation Measure 3.5-1: Protect Unanticipated Archaeological Resource Discoveries
In the event that a prehistoric archeological site (such as any unusual amounts of stone, bone, or shell) or a historic-period archaeological site (such as concentrated deposits of bottles or bricks, amethyst glass, or other historic refuse), is uncovered during grading or other construction activities, all ground-disturbing activity within 100 feet of the discovery shall be halted until a qualified archaeologist can assess the significance of the find. The City will be notified of the potential find and a qualified archeologist shall be retained to investigate its significance. If the find is a prehistoric archeological site, the geographically and culturally affiliated Native American group shall be notified and Mitigation Measure 3.5-1 shall be implemented. Any previously undiscovered resources found during construction will be recorded on appropriate California Department of Parks and Recreation 523 forms and evaluated for significance under all applicable regulatory criteria. If the archaeologist determines that the find does not meet the California Register of Historical Resources standards of significance for cultural resources, construction may proceed. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), the archaeologist shall work with the City to follow accepted professional standards such as further testing for evaluation or data recovery, as necessary. If artifacts are recovered from significant historic archaeological resources, they shall be housed at a qualified curation facility. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, and analyzes and interprets the results.

<u>Significance after Mitigation</u>
Implementation of Mitigation Measure 3.5-1 would reduce impacts to archaeological cultural resources to a less-than-significant level by requiring implementation of preservation options and proper curation if significant artifacts are recovered.

Geology and Soils

Mitigation Measure 3.7-1: Retain Qualified Paleontologist to Conduct Project Design Review
Prior to completion of project design and the beginning of construction, the City of Riverbank shall retain a qualified paleontologist to review the project plans and all geotechnical reports to determine whether construction activities would affect native sediments containing sensitive paleontological resources. The qualified paleontologist will provide

these findings in writing and provide recommendations for paleontological monitoring during construction, if necessary. If the project would not disturb native soils, no further action would be necessary.

Mitigation Measure 3.7-2: Prepare Paleontological Resources Impact Mitigation Plan

In the event that construction activities occur in native sediments identified as being sensitive for paleontological resources, the City of Riverbank shall retain a qualified paleontologist to prepare a Paleontological Mitigation Plan (PMP) consistent with the guidelines of the Society of Vertebrate Paleontology (2010). The PMP will be prepared prior to construction and will include requirements for paleontological resource monitoring to inspect exposed rock units during active excavations within geologically sensitive sediments.

Mitigation Measure 3.7-3: Conduct Paleontological Monitoring

In the event that construction activities occur in native sediments identified as being sensitive for paleontological resources, the City of Riverbank shall retain a qualified paleontologist prior to construction to monitor grading and trenching activities during construction of the project. The paleontological monitor will have authority to temporarily divert ground-disturbing activities away from exposed fossils to professionally and efficiently recover the fossil specimens and collect associated data. If potentially significant paleontological resources are discovered during ground-disturbing activities, the contractor will stop all work within 60 feet of the discovery until the paleontological monitor can remove the fossils and retrieve associated data. If fossils are collected, they will be transported to a paleontological laboratory for processing where they will be prepared to the point of identification, identified by qualified experts, and listed in a database to facilitate analysis. If discovered, significant specimens will be deposited in a designated paleontological curation facility.

Significance after Mitigation

With the implementation of Mitigation Measures 3.7-1, 3.7-2, and 3.7-3, the City would avoid and minimize the potential to destroy a unique paleontological resource or site by implementing paleontological design review, preparing a PMP, conducting paleontological monitoring, and in the event paleontological resources are discovered, by providing data retrieval, fossil collection and processing, and curation as appropriate. Therefore, the project would not have a substantial adverse effect on potentially significant paleontological resources, and the impact would be clearly reduced to less than significant with mitigation incorporated.

Transportation

Mitigation Measure 3.17-1: Prepare and Implement a Temporary Traffic Control Plan

Before project construction is begun in any existing public roadway rights-of-way, the City of Riverbank shall coordinate with the agency with jurisdictional control of the affected roadway (e.g., County of San Joaquin) to determine the required process, permits, and approvals. Additionally, the construction coordinator shall prepare a temporary traffic control (TTC) plan in accordance with the latest edition of the California Manual on Uniform Traffic Control Devices and to the satisfaction of the appropriate agency. The TTC plan shall be subject to review by all affected agencies and, at a minimum, shall:

- describe the proposed work zone (e.g., include a site plan and vicinity map showing right-of-way lines, the centerline, the edge of pavements, the curb, the gutter, the sidewalk, and all existing utilities);
- describe the type of work and location clearly (e.g., dimensions relative to the right-of-way, centerline, edge of pavement);
- describe detours and/or lane closures if applicable;
- identify the need for flag-persons where warranted;
- describe appropriate tapers and lengths, signs, and spacing;
- describe appropriate channelization devices and spacing;
- identify work hours/work days;

- identify proposed speed limit changes if applicable;
- describe roadways affected by the work;
- describe trucks, including the number and size of trucks per day, expected arrival/departure times, and truck circulation patterns;
- identify all staging areas; and
- ensure that adequate emergency vehicle access to all surrounding parcels and properties is maintained at all times.

Significance after Mitigation

The implementation of Mitigation Measure 3.17-1 would reduce temporary traffic hazards associated with project construction by requiring coordination between the City and San Joaquin County, which has jurisdiction over an affected roadway, and requiring that the construction contractor prepare and implement a TTC plan that meets with the approval of that agency. Therefore, with implementation of Mitigation Measure 3.17-1, the project would not substantially increase traffic hazards and the impact would be clearly reduced to less than significant with mitigation incorporated.

Mitigation Measure 3.17-1: Prepare and Implement a Temporary Traffic Control Plan

Mitigation Measure 3.17-1 shall be implemented, as described above.

Significance after Mitigation

The implementation of Mitigation Measure 3.17-1 would reduce temporary impacts associated with emergency access by requiring the construction contractor to prepare and implement a TTC plan that meets with the approval of San Joaquin County, the agency with jurisdiction over the affected roadways, and ensures that adequate emergency vehicle access to all surrounding parcels and properties is maintained at all times. Therefore, the potentially significant impact on emergency access would be less than significant with mitigation incorporated.

Tribal Cultural Resources

Mitigation Measure 3.18-1: Protect Unanticipated Discoveries of Potential Tribal Cultural Resources

If any suspected tribal cultural resources, including midden soil, artifacts, chipped stone, exotic rock (nonnative), or unusual amounts of baked clay, shell, or bone, are discovered during ground-disturbing construction activities, all work shall cease within 100 feet of the find. Appropriate tribal representative(s) shall be immediately notified and shall determine whether the find is a tribal cultural resource (pursuant to PRC Section 21074). If the find is determined to be a tribal cultural resource, the appropriate tribal representative(s) will make recommendations for further evaluation and treatment, as necessary. If the find is determined not to be a tribal cultural resource as defined in PRC Section 21074, construction may proceed.

Preservation in place is the preferred alternative under CEQA and the tribes' protocols, and every effort must be made to preserve the resources in place, including through project redesign. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, or returning objects to a location within the project vicinity where they will not be subject to future impacts. Tribes do not consider curation of tribal cultural resources to be appropriate or respectful and request that materials not be permanently curated unless approved by the tribal representative. Treatment that preserves or restores the cultural character and integrity of a tribal cultural resource may include tribal monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil (soils containing and surrounding the discovery).

Significance after Mitigation

Implementation of Mitigation Measure 3.18-1 would reduce impacts on tribal cultural resources by requiring appropriate treatment and proper care of significant tribal cultural resources, in the case of a discovery. This impact would be less than significant with mitigation incorporated.

1 INTRODUCTION

This initial study/mitigated negative declaration (IS/MND) has been prepared by the City of Riverbank (City) to evaluate potential environmental effects resulting from implementing the Riverbank Regional Recycled Water Project (project). Chapter 2, "Project Description," presents the detailed project information.

1.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT GUIDANCE

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An IS is prepared by a lead agency to determine whether a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]) and thus to determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, a public agency shall prepare a proposed negative declaration or mitigated negative declaration when: (a) The initial study shows that there is no substantial evidence that the project may have a significant impact on the environment, or (b) The initial study identifies potentially significant effects, but: (1) Revisions in the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level. In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment and, therefore, does not require the preparation of an environmental impact report (EIR). By contrast, an EIR is required when the project may have a significant environmental impact that cannot clearly be reduced to a less-than-significant level by adopting mitigation or by making revisions to the project design.

As described in the environmental checklist (Chapter 3), with mitigation incorporated, implementing the project would not result in any significant environmental impacts. Therefore, an IS/Proposed MND is the appropriate document for compliance with the requirements of CEQA. This IS/Proposed MND conforms to these requirements and to the content requirements of State CEQA Guidelines Section 15071.

Under CEQA, the lead agency is the public agency with primary responsibility for approving the project. The City is the CEQA lead agency because it has primary responsibility for approving and carrying out the project.

The project may receive financial assistance from the federal Clean Water State Revolving Fund (CWSRF) program established by the Federal Water Pollution Control Act, as amended. This program is administered nationally by the US Environmental Protection Agency, and in certain instances, the administration has been delegated to the states. In California, administration of the CWSRF program has been delegated to the State Water Resources Control Board (SWRCB). In turn, SWRCB requires that all projects being considered under the CWSRF program must comply with CEQA and certain federal environmental protection laws. SWRCB refers to these requirements collectively as "CEQA-Plus." Therefore, this IS/Proposed MND has been prepared in accordance with the *State Environmental Review Process for the State Water Resources Control Board Clean Water State Revolving Fund Program* (SWRCB 2017), and its content is expanded beyond the typical requirements of an IS to include additional CEQA-Plus information in the IS analysis and associated appendices. (See Chapter 4, "Compliance with Federal Regulations," for a complete list of federal laws addressed in compliance with CWSRF program requirements.) SWRCB, as a responsible agency for the project, will consider this CEQA document before any CWSRF loan authorization.

1.2 PURPOSE OF THIS DOCUMENT

CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. An MND, which requires inclusion of an IS, is a public document used by the decision-making lead agency to determine whether a project may have a significant adverse impact on the environment. If the agency finds that the project as proposed may have a significant adverse impact on the environment but that the impact would be clearly reduced to a less-than-significant level through implementation of specific mitigation measures, an MND shall be prepared.

This IS/Proposed MND is a public information document that describes the project, existing environmental setting at the project site, and potential environmental impacts of construction and operation of the project. It is intended to inform the public and decision makers of the project's compliance with CEQA, the State CEQA Guidelines, and CWSRF program requirements.

1.3 PUBLIC REVIEW PROCESS

This IS/Proposed MND is being made available to the public for review and comment at www.riverbank.org. It will be available for a 30-day public review period from Wednesday, September 21, 2022, to Thursday, October 20, 2022.

Supporting documentation referenced in this document is available for review at:

City of Riverbank
City Hall
6707 3rd Street
Riverbank, CA 95367

Comments should be addressed to:

Michael Riddell, Director of Public Works
City of Riverbank
Public Works Department
6707 3rd Street
Riverbank, CA 95367

E-mail comments may be addressed to mriddell@riverbank.org and must be received by 5:00 pm on Thursday, October 20, 2022.

If you wish to mail written comments, they must be postmarked no later than Thursday, October 20, 2022.

After comments are received from the public and reviewing agencies, the City may (1) adopt the MND and approve the project, (2) undertake additional environmental studies, or (3) abandon the project. If the project is approved and funded, the project proponent may proceed with the project.

1.4 DOCUMENT ORGANIZATION

This IS/Proposed MND is organized as follows:

- **Mitigated negative declaration:** The proposed MND identifies the project and lead agency, and briefly summarizes the proposed project and findings of the IS.
- **Chapter 1, "Introduction":** This chapter introduces the environmental review process and describes the purpose and organization of this IS/Proposed MND.
- **Chapter 2, "Project Description":** This chapter provides the project background; identifies the basic project objectives; provides a detailed description of the project, including construction and operations; and identifies potential required permits and approvals.
- **Chapter 3, "Environmental Checklist":** This chapter presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines for the different issues whether project actions would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any impacts were determined to be potentially significant, an EIR would be required. For this project, however, none of the impacts were determined to be potentially significant.
- **Chapter 4, "Compliance with Federal Regulations":** This chapter provides a discussion of compliance with federal executive orders and regulations required for CEQA-Plus compliance.
- **Chapter 5, "References":** This chapter lists the references used to prepare this IS/Proposed MND.
- **Chapter 6, "Report Preparers":** This chapter identifies the individuals who prepared this IS/Proposed MND.

2 PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND AND OVERVIEW

The City of Riverbank (City) is proposing to expand capacity at its wastewater treatment plant (WWTP) to accommodate future growth. The existing WWTP treats effluent to an equivalent secondary level and discharges the treated effluent to land on the WWTP site where it is disposed through percolation and evaporation. There are no existing water rights for reuse of the treated effluent. The treatment capacity of the WWTP is currently limited to approximately 1.8 million gallons per day (mgd) and capacity of the existing disposal ponds is limited.

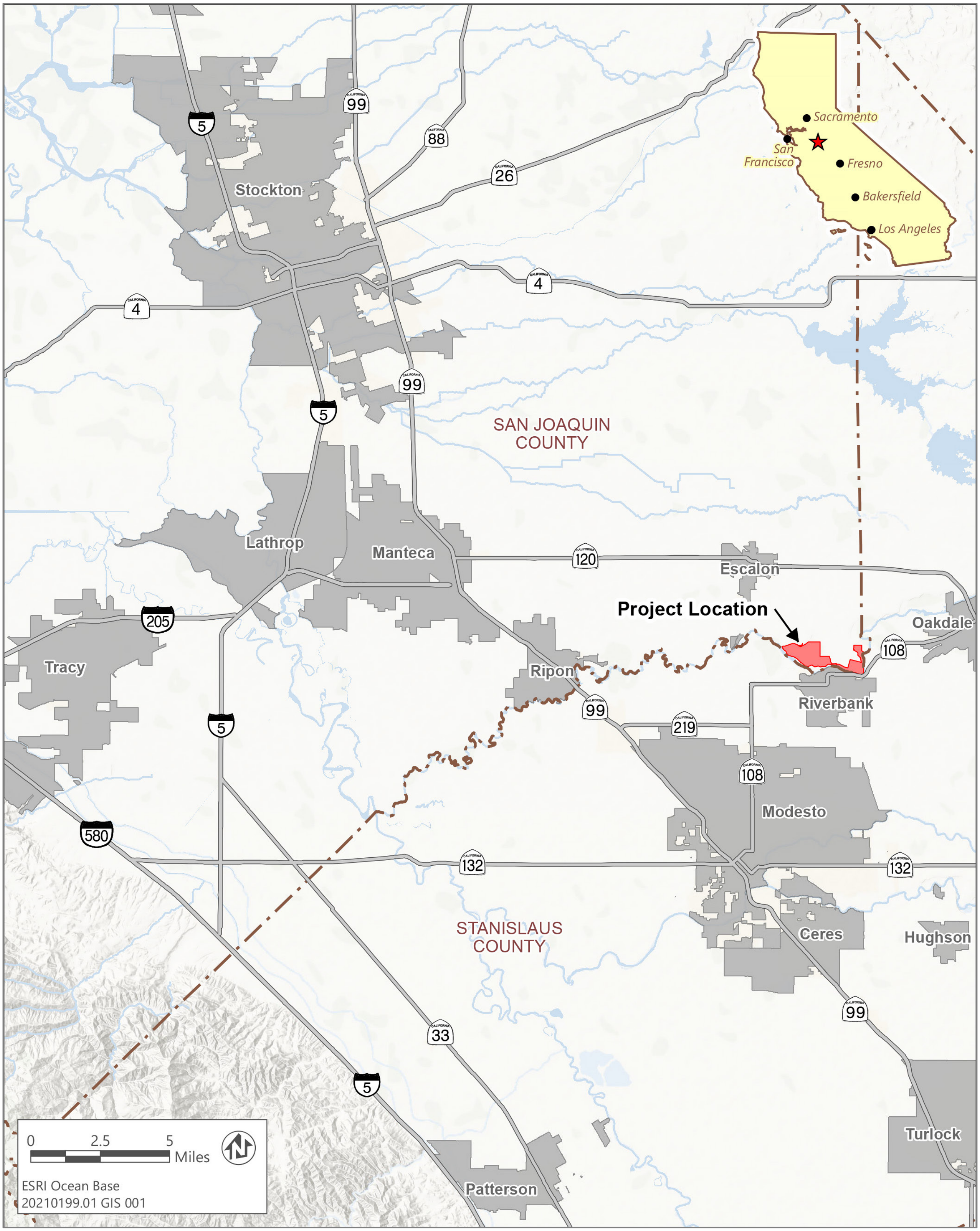
Wastewater flows to the Riverbank WWTP are projected to increase up to approximately 6 mgd at city buildout. To accommodate growth, the WWTP facilities would need to be expanded, which would require consideration of a new permit from the Central Valley Regional Water Quality Control Board (RWQCB). The existing process of effluent disposal through percolation to groundwater would also likely be subject to regulation under the newly enacted Central Valley Salinity Alternatives for Long-Term Sustainability program as included in the Water Quality Control Plan for the Sacramento and San Joaquin River Basin (Basin Plan) through the Salt and Nitrate Control Program Basin Plan Amendments (CVRWQCB 2019, 2020). Although the WWTP is not located in a Priority 1 groundwater basin, it is likely to be subject to the nitrogen management requirements of this program in the near future. In addition, further improvements to the treatment method may be required based on water quality requirements. Therefore, new and/or expanded means of treatment and effluent disposal, including reuse, are needed to accommodate future growth in the city.

The WWTP, which is located on the north side of the Stanislaus River in San Joaquin County within the Eastern San Joaquin Groundwater Subbasin, is surrounded by agricultural lands to the north, east, and west. A significant cone of depression that exists within the Eastern San Joaquin Subbasin east of Stockton has led to the overall decline in groundwater levels in the subbasin north of the WWTP site. The project, which involves upgrade and expansion of the Riverbank WWTP to accommodate growth in the city through 2050 and produce disinfected tertiary recycled water, would create a source of high-quality irrigation water that could contribute to greater water balance in the subbasin by replacing some of the groundwater that would otherwise be used for irrigation.

The project involves upgrades to the existing city WWTP, including new secondary and tertiary treatment and disinfection facilities, construction of a recycled water storage tank, reconfiguration of existing treatment and percolation ponds to provide additional seasonal recycled water storage, and installation of a recycled water distribution system to initially serve nearby agricultural users.

2.2 PROJECT LOCATION

The city of Riverbank is located on the south side of the Stanislaus River along State Route 108 in Stanislaus County, 94 miles east of San Francisco, 75 miles south of Sacramento, 100 miles north of Fresno, and 108 miles west of Yosemite National Park. The City WWTP is located on the north side of the Stanislaus River in San Joaquin County at 23865 Santa Fe Road (Assessor Parcel Numbers: 247-260-02, 247-250-04, and 247-250-22). Agricultural lands that would receive recycled water in the near term are located adjacent to the WWTP. The project location is shown in Figure 2-1.



Source: Prepared by Ascent Environmental in 2022.

Figure 2-1 Project Location

2.3 PROJECT OBJECTIVES

The proposed project has the following objectives:

- Provide wastewater treatment capacity to serve projected population growth in the city of Riverbank over a 30-year planning horizon.
- Maximize production and use of recycled water to offset use of groundwater from the Eastern San Joaquin Groundwater Subbasin for irrigation.
- Produce treated wastewater that meets the requirements for disinfected tertiary recycled water under the California Code of Regulations (CCR) Title 22 to achieve a high degree of grower acceptability.
- Provide a scalable recycled water delivery system that may be expanded in the future as the availability of and demand for recycled water increases.
- Provide efficient and cost-effective wastewater services to the city of Riverbank.

2.4 EXISTING WASTEWATER CHARACTERISTICS AND FACILITIES

This section describes the city's existing wastewater characteristics, treatment process, and treatment facilities.

2.4.1 Existing Flows and Loads

The City WWTP serves the approximately 2,485-acre city of Riverbank, the population of which in 2021 was approximately 25,243 people (City of Riverbank 2022).

Influent to the WWTP includes flows from currently and historically active industrial discharges and domestic wastewater sources. The largest industrial dischargers include Compass Foods, Riverbank Army Ammunition Plant Local Redevelopment Authority, and Stanislaus Cheese. Domestic wastewater sources include residential, institutional, public facility, and commercial sources. Unit wastewater generation rates in the city range from 55 gallons per capita per day (gpcd) to 63 gpcd. (KSN 2022a)

Influent wastewater flows (flows into the plant) from the city are affected by seasonal events. During the wet season, infiltration and inflow (I/I) (e.g., rainfall and groundwater seeping through cracks into sewer pipes or through other utility access points) increase influent to the plant; during dry-period flows, occurring predominantly in July, August, and September, flows are lower. Recent annual average flows have ranged from 1.49 million mgd to 1.61 mgd (KSN 2022a).

Seasonal increases in wastewater flows resulting from I/I typically occur in the months of December through March, but with occasional increases in influent flows occurring as late as May. Seasonal peak flows typically occur during very heavy rain periods, resulting in peak influent flows reaching more than 4.0 mgd. During the winter season, peak day influent flows frequently reach 2.3 to more than 3.0 mgd (KSN 2022a).

Annual average influent concentrations of biological oxygen demand (BOD) and total suspended solids (TSS), which range from 236 milligrams per liter (mg/L) to 428 mg/L and from 144 mg/L to 340 mg/L, respectively, are generally consistent with wastewater strength associated with a mixture of primarily residential flows with some commercial and industrial contribution (KSN 2022a).

2.4.2 Existing Treatment Facilities

Existing facilities at the City's 150-acre WWTP consist of a headworks system, two aerated treatment ponds, two polishing ponds, eight evaporation/percolation ponds, 13 groundwater monitoring wells, and associated piping and mechanical components. Figure 2-2 shows the layout of the existing WWTP. Flow is gravity fed through the system and controlled with system valving/piping. The WWTP is operated and maintained by one supervisor and two maintenance workers. Most of the WWTP facilities were constructed before the 1990s, and upgrades were made to the ponds in the early 2010s and to the aeration system in the mid-2010s (KSN and BC 2022).

A trestle over the Stanislaus River connects the City's sewer system to the WWTP. The collection system consists of 66 miles of gravity pipe and 10 sewer pump stations. The current average wastewater flow into the facility is approximately 1.6 mgd.

The headworks of the facility includes two parallel influent channels, each about 2.5 feet wide by 3 feet deep. One of the channels is equipped with a grinder, mechanical screen, screenings compactor, and Parshall flume with bubbler tube for flow metering. The second channel is equipped with a manual bar rack used as a bypass of the grinder and screen. The bypass channel is used during peak influent conditions (high rainfall events), when instantaneous inflow can exceed the Parshall flume's ability to reliably measure flows above 7 mgd. Because of the uncertainty of measurement in peak flows, it is anticipated that current peak wet weather flows may reach as high as 10 mgd. A composite autosampler is used to sample WWTP influent for water quality monitoring.

From the headworks, wastewater is directed to ponds T-1 and T-2 for treatment (see Figure 2-2). These ponds operate in series as completely mixed aerated treatment ponds using the Biolac aeration system, which consists of four blowers, and numerous fine-bubble diffusers (tube assemblies) attached to moving chains that facilitate mixing and aeration of the wastewater. Each pond has a synthetic lining and was designed for a hydraulic retention time of 7.72 days (15.4 days total).

Effluent from the aerated ponds flows from pond T-2 to polishing ponds T-3 or T-4, and then the effluent from ponds T-3 and T-4 is disposed of by percolation and evaporation in ponds P-2 through P-9 (see Figure 2-2). Ponds T-3 and T-4 are equipped with mechanical surface aerators. Pond T-3 has three 75-horsepower (hp) aerators, and T-4 has two 75-hp aerators. Effluent from pond T-3 is conveyed to pond T-4 and then flows into pond P-2, from which it is diverted to ponds P-3 through P-9 from various points within pond P-2 (see Figure 2-2). The City uses ponds P-2 and P-4 through P-7 as the primary means of disposal, and ponds P-3, P-8, and P-9 are used for supplemental disposal and storage during high-flow periods. Percolation through the pond bottom makes up the majority of treated wastewater disposal. Evaporation into the atmosphere is estimated to account for 15 percent of the monthly disposal volume in summer and less than 2 percent in winter.

2.5 EXISTING WATER POLLUTION CONTROL REQUIREMENTS

Current discharge requirements for the WWTP are prescribed under Waste Discharge Requirements (WDRs) Order No. 94-100 and the associated monitoring and reporting program, which was adopted by the Central Valley RWQCB, on April 22, 1994. A summary of applicable WDRs is provided below.

As defined in the WDRs, the WWTP is prohibited from the following actions:

- discharge of wastes to surface waters or surface water drainage courses;
- bypass or overflow of untreated or partially treated waste; and
- discharge of waste classified as "hazardous" or "designated," as defined in Title 22, Chapter 15, Section 2521(a) and 2522(a) of the CCR.

The following additional discharge specifications are listed in the WDRs:

- The monthly average dry weather discharge flow shall not exceed 7.9 mgd.
- Objectionable odors originating at the facility shall not be perceivable beyond the limits of the property.
- Dissolved oxygen content in the upper 1 foot of wastewater in ponds shall not be less than 1.0 mg/L.
- Treatment facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout related to floods with a 100-year return frequency.
- Ponds shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation (based on a 100-year return period) and ancillary inflow and infiltration during the nonirrigation season.

Source: Data provided by KSN in 2022; adapted by Ascent Environmental in 2022.

Figure 2-2 Riverbank WWTP – Existing Site Layout

The WDRs specify freeboard requirements for the treatment and disposal ponds (i.e., vertical distance between the maximum normal water elevation in the pond and the top of the berm); however, since the adoption date of the WDRs, ponds have been renamed and their functions have been modified. The same freeboard requirements apply to each location despite changes in name or function. Table 2-1 describes the freeboard requirements listed in the WDRs and the modifications made to each pond.

Table 2-1 Pond Freeboard Requirements

Pond Listed in WDRs (1994)	Minimum Freeboard	Pond Modification Since Adoption of WDRs
Summer Pond No. 1	1 foot	Converted to percolation pond P-2
Summer Aeration Cell	2 feet	Converted to aerated treatment pond T-4
Summer Pond No. 2	2 feet	Converted to percolation pond P-6
Summer Pond No. 3	2 feet	Converted to percolation pond P-5
Winter Pond	2 feet	Converted to aerated treatment pond T-3
South Levee of Domestic Percolation Ponds	2 feet	Converted to two Biolac treatment ponds (T-1 and T-2) and two percolation ponds (P-3 and P-4)

Note: Freeboard is the vertical distance between the maximum normal water elevation in the pond and the top of the berm.

Source: KSN and BC 2022.

The groundwater limitations contained in the WDRs state that discharge from the WWTP shall not cause underlying groundwater to:

- be degraded;
- contain chemicals, heavy metals, or trace elements in concentrations that adversely affect beneficial uses or exceed maximum contaminant levels specified in 22 CCR, Division 4, Chapter 15;
- exceed a most probable number (MPN) of total coliform organisms of 2.2/100 milliliters (mL) over any 7-day period;
- exceed concentrations of radionuclides specified in 22 CCR, Division 4, Chapter 15;
- contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses; or
- contain concentrations of chemical constituents in amounts that adversely affect agricultural use.

The following applicable sludge disposal requirements are specified in the WDRs:

- Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner that is consistent with Chapter 15, Division 3, Title 23, of the CCR and approved by the executive officer.
- Use and disposal of sewage shall comply with existing federal and state laws and regulations, including permitting requirements and technical standards included in 40 Code of Federal Regulations 503.

The WWTP is in compliance with the WDRs, with the following exceptions:

- Nitrate and ammonia concentrations in groundwater sampled from several interior monitoring wells dominated by effluent exceed recommended groundwater limitations.
- Dissolved oxygen in ponds T-1 and T-2 periodically fall below the 1.0 mg/L limit.

2.6 PROPOSED PROJECT

2.6.1 Regulatory Framework

The California Water Code establishes SWRCB and RWQCBs and grants them the power to permit and approve recycled water programs. The RWQCBs issue permits for water reuse applications. These permits specify the requirements for water recycling, including treatment, monitoring, reporting, and effluent water quality. Water quality criteria are enforced using WDRs, water reclamation requirements, or other appropriate permits issued by the RWQCB. The RWQCB works with SWRCB Division of Drinking Water (DDW) to verify that reuse projects meet the criteria in CCR Title 22 before issuing a discharge permit. CCR Title 22, which establishes the guidelines for permitting and implementing recycled water programs and focuses on public health protection, is administered by DDW. Before approval of a recycled water project, a Title 22 engineering report must be developed and submitted to DDW for review and approval.

To meet the needs of recycled water users and provide for a high degree of grower acceptability, production of disinfected tertiary recycled water is proposed. Disinfected tertiary recycled water, also sometimes referred to as "Title 22 unrestricted recycled water," is wastewater that has been oxidized, filtered, and disinfected such that secondary effluent total coliform has a median concentration of ≤2.2 MPN/100 mL; has an average turbidity of 2 nephelometric turbidity units (NTUs) or less (or 0.2 NTU for microfiltration); and includes either a chlorine disinfection process that provides a contact time value of at least 450 milligrams-minutes per liter always, with a modal contact time of no less than 90 minutes, or a disinfection process that is demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2 or polio virus.

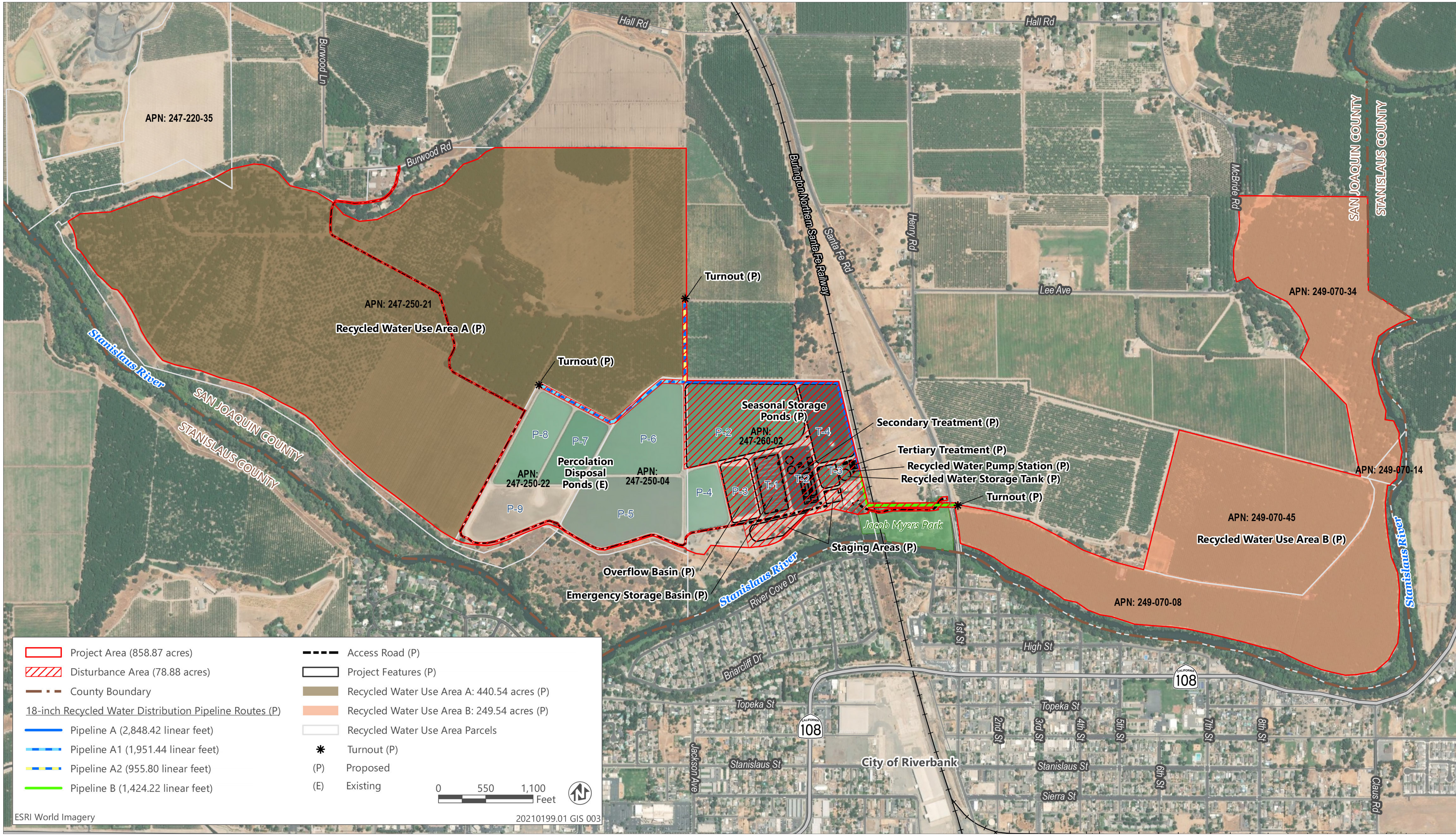
2.6.2 Recycled Water Use Area

The City has identified two landowners that have expressed interest in receiving recycled water from the proposed project for irrigation of walnut orchards on agricultural lands adjacent to the WWTP. These potential recycled water use areas occupy portions of or all of six parcels, as summarized in Table 2-2, and encompass a total of approximately 690 acres (ac) (Figure 2-3).

Table 2-2 Potential Recycled Water Use Areas

Landowner/Recycled Water Use Area	Assessor's Parcel Number	Reuse Area (acres)
Beard's Quality Nut Company (Use Area A)		
	247-220-35	0.54
	247-250-21	440.00
Barton Ranch, Inc. (Use Area B)		
	249-070-08	94.15
	249-070-14	2.34
	249-070-34	71.87
	249-070-45	81.18

Source: Data compiled by Ascent Environmental in 2022.



Source: Data provided by KSN in 2022; adapted by Ascent Environmental in 2022.

Figure 2-3 Proposed Project

2.6.3 Surrounding Land Uses

Jacob Myers Park, a regional park along the northern bank of the river, is located along the southern border of the potential use areas and the Riverbank WWTP, and agricultural lands border the remainder of the project area. A Burlington Northern and Santa Fe Railway railroad track runs through the project area east of the WWTP. Of the crops grown in the surrounding area, nut crops make up the largest percent. Almonds and walnuts account for approximately 56 percent and 22 percent of the crops grown in the surrounding area, respectively. Irrigation of crops in this area is typically through micro sprinklers or drip irrigation.

2.6.4 Projected Wastewater Flows and Loads

Future growth in the city is managed under the policies of the City's General Plan and under adopted zoning. Future city wastewater flows and loads to the WWTP are expected to increase as a result of infill development and new development within the City's sphere of influence. No new significant industrial discharges are known to be planned.

For purposes of the proposed project, future flows and loads to the City's WWTP are based on future population growth projected to 2050 rather than at buildout of the city, which is expected to occur well beyond the proposed 30-year planning horizon. In 2050, the city's population is estimated to reach approximately 36,766 (KSN and BC 2022: Table 12). Based on this population projection, wastewater flows in 2050 are projected to be 2.29 mgd with flow and loading characteristics, as summarized in Table 2-3.

Table 2-3 Projected Flows and Loads by 2050

Wastewater Characteristic	Unit	Planning Criteria
Flows		
ADWF	mgd	2.29
Peak month peaking factor	Unitless	1.2
Peak day peaking factor	Unitless	3.0
Loads		
BOD		
Average BOD daily load	lbs/d	6,650
BOD peak month peaking factor	Unitless	1.4
BOD peak day peaking factor	Unitless	3.1
TSS		
Average TSS daily load	lbs/day	6,100
TSS peak month peaking factor[1]	Unitless	1.4
TSS peak day peaking factor[1]	Unitless	3.1
Nitrogen		
TKN load[2]	lbs/day	1,070
TKN peak month peaking factor[3]	Unitless	1.4
TKN peak day peaking factor[3]	Unitless	3.1

Notes: ADWF = average dry weather flow; BOD = biological oxygen demand; lbs/d = pounds per day; mgd = million gallons per day; TKN = total Kjeldahl nitrogen; TSS = total suspended solids.

1 Peaking factors for TSS based on BOD peaking factors.

2 Because of limited nitrogen data, a unit TKN load factor of 0.029 pound per capita per day was assumed based on a typical ratio of TKN/BOD of 0.21.

3 Peaking factors for TKN assumed based on BOD peaking factors.

Source: KSN and BC 2022.

2.6.5 Project Features

To meet the requirements for Title 22 unrestricted recycled water use, provide wastewater treatment adequate to treat wastewater flows and loads projected by 2050, provide for expandable recycled water treatment and storage capacity, and produce and distribute recycled water to the potential use areas, the proposed project would include improvements to the WWTP and construction of recycled water storage and distribution facilities (see Figure 2-3).

The facilities described below and summarized in Table 2-4 are proposed to treat up to 2.29 mgd average dry weather flow (ADWF) and produce and deliver approximately 2,500 acre-feet per year (AFY) of Title 22 recycled water at a rate of 4,350 gallons per minute (gpm).

Table 2-4 Proposed WWTP and Associated Storage and Distribution Facility Improvements

Facility	Upgrades
Primary treatment and flow equalization facilities	Upgraded grinders (2)
	Upgraded screening equipment (2)
	New vactor truck[1] receiving station platform
	New anoxic basin splitter
	Modified emergency storage and overflow basins (ponds T1 and P3, respectively)
	New plant and storm drain pump stations (2 duty, 1 standby)
Secondary treatment system and solids handling	Pond T2 demolished and filled for secondary treatment space
	New oxidation ditch effluent splitter (1)
	New mechanical aerators (2 per train, 4 total)
	New anoxic basins (2)
	New oxidation ditches (2)
	New secondary effluent splitter (1)
	New secondary clarifiers (2)
	New RAS/WAS pump stations (3 duty, 2 standby)
	New secondary scum pump stations (1 duty, 1 standby)
	Pond T3 partially converted to WAS storage basin and partially demolished and filled for tertiary treatment space
	New sludge feed pump stations (1 duty, 1 standby)
	New polymer and screw press facility (1)
	New interim solids storage area
Tertiary treatment and disinfection system	New filter feed pump stations (2 duty, 1 standby)
	New DAF units (2)
	New rapid mix basins (2)
	New 3,500-gal coagulant storage tank and pump (1)
	New flocculation basins (2)
	New granular media filters (1 duty, 1 standby)
	New UV reactors (2)
	New 12,500-gal coagulant tank and metering pumps (4)
	New 5,000-gal hypochlorite storage tank and pump (1)
	New plant water pump stations (2 duty, 2 standby)
Secondary effluent seasonal storage	Ponds T4 and P2 converted to seasonal storage basins (2)
	New secondary effluent return pump stations (1 duty, 1 standby)
Recycled water storage and distribution system	New 900,000-gal recycled water storage tank (1)
	New recycled water pump stations (2 duty, 1 standby)

Notes: DAF = dissolved air flotation; gal = gallon; RAS = return activated sludge; UV = ultraviolet light; WAS = waste activated sludge.

[1] Vactor trucks suction sludge, solids, and liquids during maintenance of the sewer collection system and transport this material to the wastewater treatment plant for processing.

Source: Data provided by KSN in 2022; compiled by Ascent Environmental in 2022.

To support the facility improvements listed in Table 2-4, the project would include interconnecting piping, utility and backup power supply improvements, and site grading and drainage improvements. In addition, to support the expanded WWTP, a new electrical and controls building, as well as shop and maintenance buildings, would be constructed at the site.

WASTEWATER TREATMENT PLANT UPGRADES

Improvements to the Riverbank WWTP to upgrade the level of treatment and expand treatment capacity to accommodate growth projected to occur by 2050 would include headworks facility upgrades to provide reliable grinding and screening capacity; upgrades to the wastewater treatment process to provide oxidation, biological nutrient removal, filtration, and disinfection; and construction of other buildings and structures to support operation of the WWTP. A site layout for the upgraded WWTP is shown in Figure 2-4, and a process flow diagram is shown in Figure 2-5. Conveyance of flows through the secondary process would continue to be gravity fed, similar to existing facilities, with treated water supplied to the tertiary facilities via pumping.

The proposed WWTP upgrades are modular in design and laid out in a fashion to accommodate expansion in the future beyond the 2050 planning horizon. However, the proposed facilities are not sized beyond the capacity needed to treat the projected 2.29-mgd flow, which is based on the projected population of 36,766 by 2050.

Primary Treatment and Flow Equalization

Because the existing headworks facility has additional capacity in its bypass channel and provides the desired level of primary treatment under average flow conditions, a full overhaul of the facility would not be required. Instead, an upgrade to existing equipment and addition of new grinding and screening equipment in the bypass channel are proposed. These upgrades would provide redundancy to allow for one channel to be taken offline during low-flow periods for maintenance, as well as provide increased grinding/screening capacity for peak influent flows. In addition, inclusion of a vactor receiving station for disposal of trucked-in waste is proposed to be included in the upgraded headworks facility to allow the City to manage wastes collected from maintenance of the collection system using vactor trucks capable of suctioning sludge, solids, and liquid. This station would be located downstream of the screening process.

Existing lined pond T-1 would be converted from a treatment pond to an emergency storage pond for emergency and flow equalization storage, and existing lined pond P-3 would be converted to serve as an overflow basin into which high flows from pond T-1 could be diverted for temporary storage and then later pumped back to pond T-1 and returned to the influent channel or through the secondary treatment facilities splitter box.

Secondary Treatment Facilities

Following screening, the WWTP influent would receive secondary treatment before percolation or further treatment for reuse. To meet secondary treatment requirements, removal of total BOD and TSS is required. The existing treatment ponds system is not able to remove TSS and cannot provide adequate aeration for the projected increase in flows and loadings to meet anticipated water quality requirements. In addition, the treatment pond system cannot consistently control nitrogen at the level expected to meet requirements of the Salt and Nitrate Control Program Basin Plan Amendments. Therefore, improvements to the secondary treatment facilities would include solids separation and additional aeration capacity and biological nutrient removal. To achieve this, the existing treatment pond system would be demolished and replaced with an oxidation ditch that would include at least two trains, each with anoxic submersible mixers to provide mixing in the anoxic zones, and aerators to provide oxygen for BOD removal and ammonia conversion. Two secondary clarifiers would also be added to separate and return solids to the oxidation ditch. This design would provide redundancy for worst-case conditions (maximum month loading, cold temperature, and peak flows). The system could also be operated with either one secondary clarifier or the oxidation ditch out of service.

Tertiary Treatment and Disinfection Facilities

To meet the requirements of disinfected tertiary recycled water for unrestricted reuse, the secondary effluent would be tertiary treated and then disinfected. The proposed facilities would be sized to treat 2.29 mgd ADWF (1,600 gpm), the WWTP's permitted average dry weather flow, which, in concert with continued use of the existing disposal ponds, is expected to be adequate to serve growth in the city through 2050.

The tertiary treatment and disinfection process would include pretreatment by coagulation/flocculation followed by granular media filtration (GMF) and then ultraviolet light (UV) disinfection. Because of the potential for growth of algae in the seasonal storage ponds, a secondary effluent pretreatment system consisting of dissolved air flotation (DAF) units may be installed and used before tertiary treatment when effluent from seasonal storage is being treated. The following discussion provides further information on the proposed tertiary treatment and disinfection process and facilities.

DAF Rapid Treatment System

Fouling of granular media caused by algal solids formed when algae is mixed with coagulant is a common issue encountered when storage pond water is treated through GMF. Although secondary effluent from the oxidation ditch would be the primary source of effluent to be treated to tertiary levels, as influent flows increase, some secondary effluent stored in pond T-4 or P-2 could be returned to the tertiary treatment system to supplement the supply of recycled water. To reduce or control the amount of GMF solids loading caused by the formation of algal solids, two 50-foot-long-by-13-foot-wide-by-10-foot-high DAF units capable of handling 1,600 gpm may be installed upstream of the tertiary treatment facilities. Motorized valves would be used to either deliver secondary effluent directly to the tertiary process or direct it through the DAF units before tertiary treatment. (Bypassing of the DAF units would occur when seasonal storage pond effluent is not being returned to the tertiary treatment system.) Coagulant injection to the DAF units would be fed from pumps in the chemical feed system installed in the tertiary facility. Solids produced by the DAF units would be pumped to the waste activated sludge storage basin.

Pretreatment System – GMF Rapid Mixing and Flocculation

A rapid mix and flocculation system would be installed upstream of the filters to enhance filtration performance. Secondary effluent would be pumped to a rapid mix basin. A chemical feed system would be used to inject coagulant (e.g., alum or PACl [polyaluminum chlorohydrate]) into the rapid mix tank where flow would be flash-mixed to begin the coagulation process. Flow would leave the rapid mix basin and enter the flocculation tank. Each flocculation tank would provide a minimum of 15 minutes of hydraulic retention time at 1,600 gpm to achieve proper coagulation and flocculation. Because of the size of the flocculation basins and the simplicity of their mechanical parts and because it is anticipated that flocculation would be required only intermittently, redundant flocculation tanks are not proposed at the buildout condition. Each tank would have a dedicated mixer. Flow would discharge from each individual flocculation tank into a common header that could distribute flow to the filters.

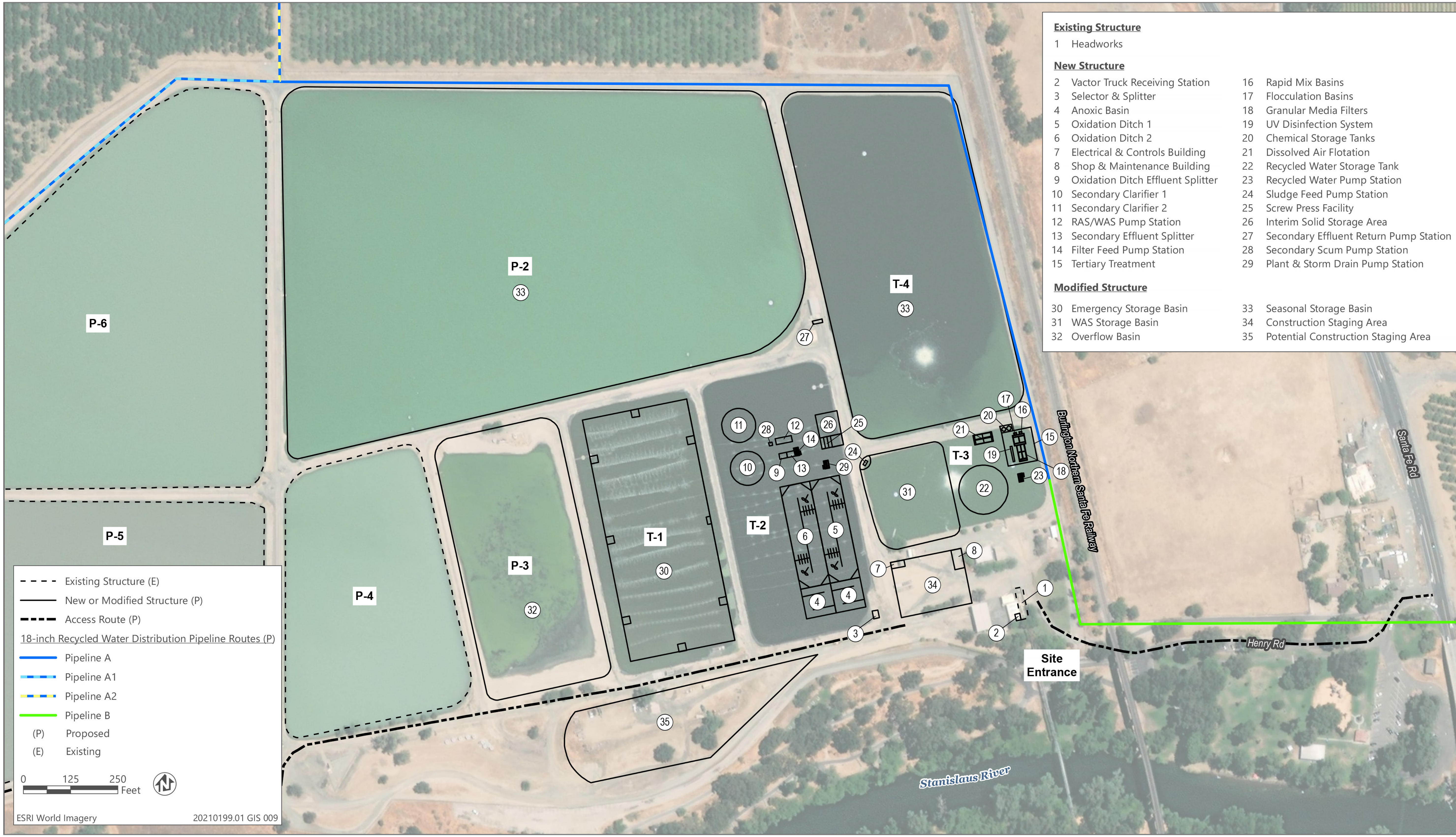
The chemical addition system would consist of one 12,500-gallon (gal) coagulant storage tank and four pumps (two duty, two standby) to convey chemicals to the rapid mix and flocculation basins and the DAF units separately. A bypass around the rapid mix and flocculation system would be provided to allow water to be sent directly to the filters when water quality (turbidity) does not require pretreatment before filtration.

Filtration

Following pretreatment, particulate matter would be filtered from the secondary effluent using a GMF system. The filtration system would produce filtered effluent with a turbidity that does not exceed any of the following standards in compliance with Title 22 regulations for tertiary recycled water:

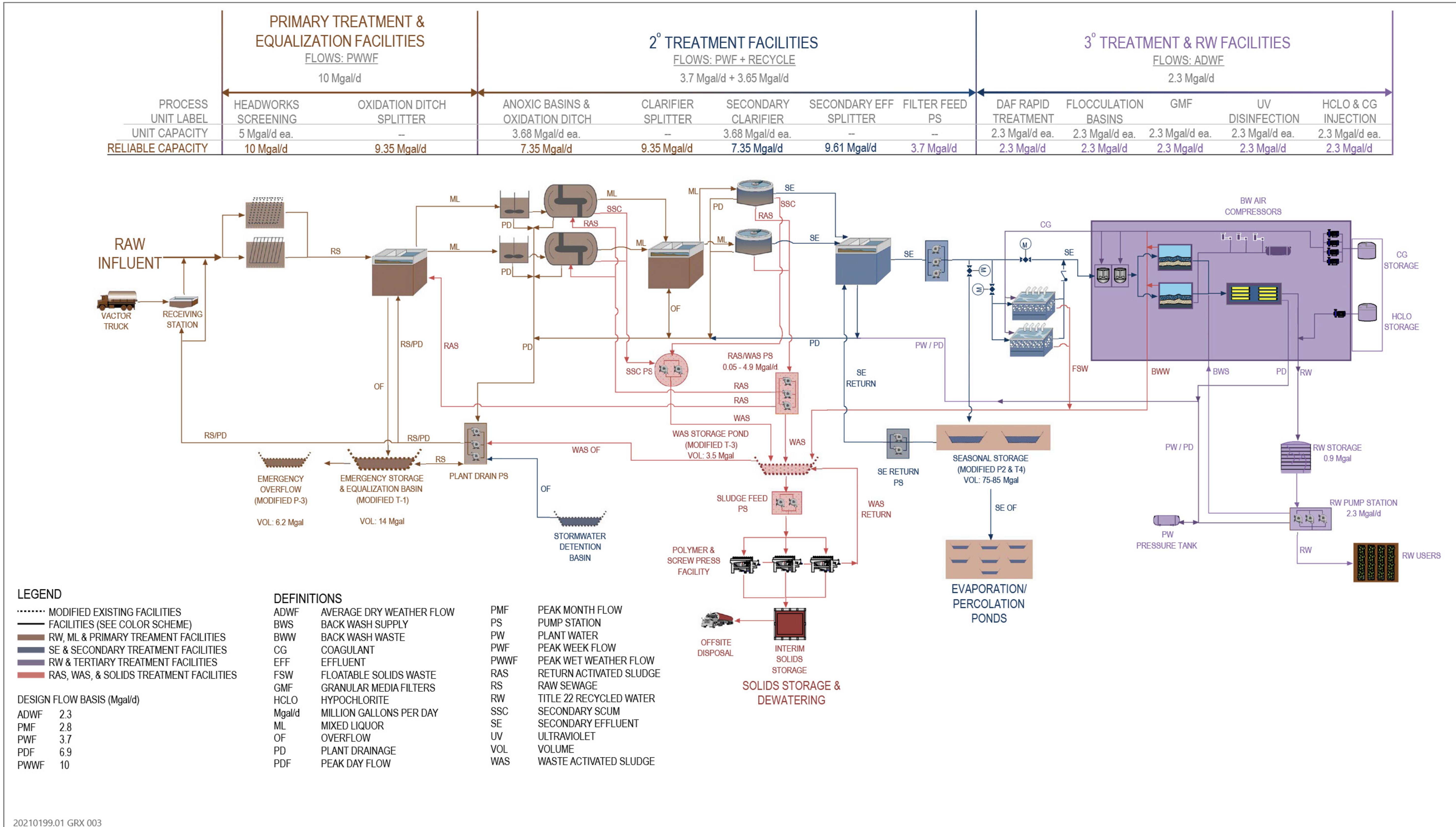
- an average turbidity of 2 NTUs within a 24-hour period,
- 5 NTUs, more than 5 percent of the time within a 24-hour period (e.g., 72 minutes within a 24-hour period), or
- 10 NTUs at any time (diversion of wastewater is required if turbidity exceeds 10 NTUs).

The GMF system would consist of four deep-bed anthracite/sand filters (three duty, one standby) with a capacity of 1,600 gpm and backwashing equipment constructed downstream of the mixing and flocculation system.



Source: Data provided by KSN in 2022; adapted by Ascent Environmental in 2022.

Figure 2-4 Riverbank WWTP – Proposed Upgrades



Source: Data provided by KSN in 2022; adapted by Ascent Environmental in 2022.

Figure 2-5 Riverbank WWTP – Proposed Process Flow Diagram

During filtration, secondary effluent would be pumped to the top of the filter basins containing sand and support gravel. Solids would be captured on the sand as it flows through the filter bed, and then the filtered water would be collected from each filter and conveyed to the disinfection system for further treatment.

A backwash cycle would be installed and initiated to periodically clean the filters using the tertiary treated effluent when solids accumulation on the media increases head loss across the filter to a threshold value. The backwash facilities would recycle filter backwash water to the headworks.

Turbidity meters would also be installed after the filtration process and before disinfection. The turbidity meters would continuously log data and be capable of retaining data history.

Disinfection System

Following tertiary treatment, the effluent would be disinfected using a UV disinfection system. The UV system would include low-pressure high-output lamps with automatic sleeve cleaning. Filter unit effluent would be routed through a connecting pipe and into a common UV influent channel. Water levels in the UV open-channel system would be controlled using a level control structure, which keeps the UV equipment continually submerged. Flows from the UV channels would be conveyed to a common effluent channel/pipeline and on to storage and distribution.

A programmable logic controller would adjust the UV dose based on a validated UV dose equation to maintain UV dose delivery at or above the required reduction equivalent dose set point without overdosing through "dose pacing." An ultraviolet transmittance meter would be installed postfiltration, and a flowmeter would be included to allow UV dose pacing.

A davit crane or roof crane would be used to allow removal of UV banks from service in the open-channel system. Walkways with a minimum width of 3 feet would be provided on both sides and between the UV channels to facilitate maintenance.

Hypochlorite Chemical Addition System

Before the tertiary treated disinfected effluent is stored in the proposed on-site recycled water storage tank described below, facilities would be provided to allow injection of sodium hypochlorite into the recycled water to provide a chlorine residual sufficient to prevent any biological growth in the recycled water storage tank. The chemical addition system would likely consist of one 5,000-gal sodium hypochlorite storage tank and one pump to inject chemicals into the tertiary treated and disinfected effluent.

Backup Power

To ensure continued operation of the secondary treatment system during power outages, two approximately 450-kilowatt (kW) diesel backup generators would be installed; each generator would handle one of the two secondary treatment trains (Whittlesey, pers. comm., 2022). A third 450-kW diesel backup generator could also be installed to power auxiliary operations and the tertiary treatment system during power outages (Whittlesey, pers. comm., 2022). The installation of these generators may be integrated such that any one of the three generators could provide power to the secondary, tertiary, or auxiliary systems as deemed necessary by the WWTP staff at the time. To recharge the battery, burn off excess moisture, and help to keep the system lubricated, the backup generators would be test-run monthly for at least 30 minutes.

Other Buildings and Structures

To support operation of the WWTP, a new, approximately 1,000-square-foot air-conditioned electrical building and approximately 5,000-square-foot air-conditioned shop maintenance building would also be constructed near the entrance to the WWTP (Whittlesey, pers. comm., 2022).

Other improvements to support operation of the treatment facilities would include:

- upgrades to the MID and/or Pacific Gas and Electric Company electrical services to the site;
- site paving, grading, and drainage to provide for access to the facilities and contain site drainage to be discharged to the site disposal ponds;

- radio communications equipment to provide for integration of the WWTP systems with the City's Supervisory Control and Data Acquisition (SCADA) system, including communication and control to the remote recycled water turnouts;
- facilities for the storage, treatment, and dewatering of process biosolids; and
- incidental fencing, gate replacement/improvement, and access road repaving to support new facilities.

RECYCLED WATER STORAGE AND DISTRIBUTION FACILITIES

Improvements to recycled water storage and distribution facilities would include construction of a recycled water distribution pump station, reconfiguration of existing percolation ponds to provide seasonal storage, installation of two recycled water storage tanks to provide operational storage, and construction of distribution pipelines and turnouts to serve nearby agricultural fields. Operational storage of recycled water is required for direct delivery to landowners in the use area to meet variability of recycled water demands and provide for controlled delivery of recycled water for internal plant use and off-site agricultural use under variable recycled water demands. Operational storage also provides for a source of water for GMF backwash.

Seasonal storage, through modification of ponds T-4 and P-2, would be integrated into the ongoing percolation disposal operation and would augment availability of secondary effluent for tertiary treatment during peak irrigation months, normally June, July, and August.

The proposed recycled water storage and distribution facilities are described below, and the planned layout of facilities on the WWTP site is shown in Figure 2-4. The planned distribution pipeline alignments are shown in Figure 2-3.

Seasonal Storage Ponds

Wastewater flows into the WWTP year-round, and recycled water demands are highest during the summer months. During periods of low recycled water demand, the City proposes to divert treated effluent before the tertiary treatment process and store and/or dispose of the secondary treated effluent on-site at the WWTP.

Based on projected wastewater flows by 2050 (2.29 mgd), water balance calculations assuming a 1-in-100-year precipitation event, average evaporation rates, and continued use of most of the City's percolation ponds, the estimated amount of on-site seasonal storage that would be required is approximately 155 million gallons (mgal) (KSN 2022b). The project includes modifying ponds T-4 and P-2 to provide seasonal storage for up to an estimated 85 mgal of secondary effluent that would be either discharged to the on-site percolation disposal ponds or pumped to the tertiary treatment system to supplement the production of recycled water during summer months.

Recycled Water Storage Tanks

One belowground prestressed concrete 900,000-gal storage tank would be installed on the WWTP site to store recycled water needed to meet irrigation demands. Piping connecting the UV reactors and hypochlorite injection system to the recycled water storage tank would convey tertiary effluent to the tank.

Recycled Water Distribution Pump Station

The recycled water distribution pump station would have three approximately 75-hp pumps (two duty, one standby) with room to add one additional pump in the future. The pumps would have a combined delivery rate of 2,900 gpm and would operate an average of 12 hours per day. Within the same pump station area, there would be two other pump systems to serve the plant water system.

Two pumps (one duty, one standby) would provide backwash water at a rate potentially up to 3,200 gpm to the GMF and are expected to operate only 2 hours per day when recycled water is being produced. The other set of two pumps (one duty, one standby) would provide approximately 765 gpm of plant water to the treatment system for various uses, such as washdown, spray systems, and scum control. The plant water pumps would operate up to approximately 6 hours per day.

Recycled Water Distribution Pipelines and Turnouts

Recycled water from the WWTP would be pumped to individual landowners in the use area through approximately 5,400–6,300 linear feet of newly constructed pipelines (expected to range in size from 12 inches to 18 inches in diameter) that would deliver pressurized irrigation water to the agricultural users. The point of connection to the recycled water user's site would be an aboveground turnout either on the City's property or on the agricultural properties. The turnouts would include valves, a flow meter, pressure instruments, a control panel, and radio communication facilities to communicate with the WWTP SCADA system. Recycled water users would connect their existing irrigation systems to the recycled water distribution system at the turnout (see Figure 2-3). The pipelines would provide pressurized filtered water to the designated points-of-connection within the end user's existing irrigation system.

The pipeline route to agricultural property east of the WWTP is shown in Figure 2-3. Two potential routes for the pipeline that would deliver recycled water to assessor's parcel number 247-250-21 to the northwest have been identified and are shown in Figure 2-3. Both of these routes are evaluated at a project level in this document; however, only one pipeline would be constructed to serve the property to the northwest.

2.7 PROJECT CONSTRUCTION

2.7.1 Construction Schedule and Sequencing

Construction of the proposed project is anticipated to begin in October 2024 and last approximately 27 months, ending in December 2026. For purposes of the analysis in this IS/MND, it is assumed that construction would occur in the approximate sequence shown in Table 2-5. For all components, construction would typically be limited to those hours consistent with the noise ordinance of the jurisdiction in which the construction would occur (i.e., City of Riverbank or San Joaquin County). Typical work hours would be Monday through Friday from 7:00 a.m. to 3:30 p.m. in the fall, winter, and spring months and 6:00 a.m. to 2:30 p.m. during the summer months. Extended work hours and days per week may be required to meet project milestones.

Table 2-5 Project Construction Sequence and Durations

Construction Phase	Estimated Start Date	Estimated End Date	Duration (weeks)
Mobilization	10/1/2024	10/7/2024	1
Haul road construction	10/7/2024	10/22/2024	2
Oonds T-2, T-3, and T-4 dewatering	10/7/2024	11/6/2024	4
Utility locating/potholing	10/7/2024	10/21/2024	2
Ponds T-2, T-3, and T-4 demolition	11/6/2024	11/26/2024	3
Sludge handling (move from T-4 to P-3)	12/1/2024	12/21/2024	3
Mass excavation	12/21/2024	1/20/2025	4
Rough grading	1/20/2025	2/4/2025	2
Pipeline excavation, lay, and backfill (deep)	2/4/2025	3/6/2025	4
Oxidation ditches 1 and 2 and anoxic basin construction	3/6/2025	11/26/2025	38
Oxidation ditches 1 and 2 and anoxic basin backfilling	11/26/2025	12/10/2025	2
Underground electrical installation for oxidation ditches 1 and 2 and anoxic basin	12/10/2025	12/24/2025	2
Clarifiers 1 and 2 construction	3/6/2025	9/22/2025	29
Clarifiers 1 and 2 backfilling	9/22/2025	10/2/2025	1
Sludge handling equipment and solids storage construction	9/22/2025	12/6/2025	11

Construction Phase	Estimated Start Date	Estimated End Date	Duration (weeks)
Splitter structures and pump stations construction (primary and secondary treatment)	9/22/2025	12/6/2025	11
Splitter structures and pump stations backfilling (primary and secondary treatment)	12/6/2025	12/20/2025	2
Process piping pump stations and splitter structures installation (secondary treatment)	12/20/2025	3/5/2026	11
Underground electrical installation for clarifiers 1 and 2, splitter structures, pump stations, and solids handling	12/20/2025	2/18/2026	9
Electrical building, generator pad, and shop/maintenance building construction	2/1/2026	10/9/2026	36
Miscellaneous above-grade equipment pads/equipment construction	3/1/2026	4/30/2026	9
Recycled water storage tank 1 construction	8/1/2025	3/9/2026	31
Recycled water storage tank 1 backfilling	3/9/2026	3/19/2026	1
Process piping tertiary pump stations and splitter structures installation	3/19/2026	4/18/2026	4
Distribution pipeline A and A1 or A2 construction	4/18/2026	5/6/2026	3
Distribution pipeline B construction	4/18/2022	5/6/2022	3
Tertiary treatment facility construction	4/18/2026	10/15/2026	26
Ultraviolet light disinfection facility construction	7/18/2026	10/16/2026	13
Control structures, pump stations, and miscellaneous construction (tertiary treatment and disinfection)	5/1/2025	7/20/2025	11
Underground electrical installation for tertiary and disinfection area	10/16/2025	11/25/2025	6
Fine grading and site paving	9/1/2026	11/15/2026	11
Dewatered sludge off-hauling	10/1/2026	10/31/2026	4
Demobilization	11/15/2026	11/30/2026	2

Source: Whittlesey, pers. comm., 2022.

2.7.2 Construction Equipment, Staging Areas, and Import/Export

The estimated type and quantity of construction equipment, materials, and haul trips and the volume of earthmoving required to construct the proposed project are summarized in Appendix A. Staging of equipment and materials during construction would occur at the WWTP site, as shown in Figure 2-3, but may also occur adjacent to the roadways in existing public utility easements or at other previously disturbed sites if they are present close to the project site.

A total of approximately 964 round-trip haul trips using 14-cubic-yard (cy) dump trucks would be required to import subgrade and paving materials to the site from up to 20 miles away, and another 1,420 round-trip haul trips using 9-cy concrete trucks would be required to import concrete from up to 20 miles away for structures and slabs. Approximately 4,750 loads using 27-cy dump trucks would be transported across 0.5 mile from pond T-4 to pond T-2 and/or T-3 for general earth cut-and-fill transport on-site. In addition, approximately 890 loads using 27-cy dump trucks containing dried secondary sludge from pond T-4 would be exported from the site approximately 20 miles to the Forward Landfill in Manteca, California. Another 30 loads using 27-cy dump trucks would be needed to export the pond T-2 liner to the landfill.

2.7.3 Construction Methods and Labor Force

This section summarizes the proposed methods that would be used and the number of workers anticipated during peak construction of each major project activity.

TEMPORARY CONSTRUCTION ACCESS POINT AND ROAD

Access to the WWTP site is limited because of a constrained access point. The entrance to the WWTP has an overhead rail crossing that creates height and width limitations for transportation of construction materials and equipment. In addition, existing WWTP operations that use this access point would need to continue uninterrupted use through the expected 27-month construction timeline. Therefore, a temporary access point and road would be required to support the transportation of construction materials and equipment.

The proposed temporary access point would be located northwest of the project site, off Burwood Road. An approximately 9,000-foot-long temporary access road would be constructed between the access point and the WWTP site on a combination of private farm roads and existing WWTP roads, both currently unimproved. Improvements would include fine grading followed by placement of aggregate base rock on the existing roads.

The temporary construction access road would be maintained throughout the construction timeline. This road would be watered as necessary to prevent fugitive dust caused by vehicular traffic.

Encroachment permits for the temporary access point would be acquired as required by San Joaquin County. Temporary easements would be obtained from individual property owners as required for the temporary construction access point and the portion of the road on private property.

POND DEWATERING AND DEMOLITION

Construction of the major facilities would be completed in the areas of existing wastewater treatment ponds T-2 and T-3. Earthen material would be excavated from pond T-4 for fill to construct the proposed treatment facilities at the location of ponds T-2 and T-3. To accommodate construction, ponds T-2, T-3, and T-4 would be dewatered, existing improvements slated for removal in these ponds would be demolished, and the accumulated sludge would be removed. Then the surfaces would be prepped for fill and construction as necessary. In ponds T-2 and T-3, aeration equipment, conveyance facilities, and the liner would be demolished and disposed of. Pond T-4 does not contain treatment improvements and would require limited demolition. With construction slated to start in fall 2024, pond T-4 would be dewatered as part of normal WWTP operations by operations staff (before construction), starting in early summer 2024 to allow sludge material in the pond to dry enough for removal. Trash pumps would be used to dewater the ponds slated for improvement, and the dewatering water would be discharged to other ponds on-site for disposal. After the water has been drained from the ponds, low ground pressure (LGP) dozers would be used to windrow the sludge for further drying and pick up by transport equipment. The sludge material would be transported out of the respective ponds using a combination of pumps, scrapers, and dozers and stockpiled for further drying in existing pond P-3. To support this transport, a motor grader would maintain the haul road on the site, and a water truck would be employed to control dust. The stockpiled sludge material would be allowed to dry and then would be transported to a disposal facility permitted to take the material as daily cover.

MASS EXCAVATION AND ROUGH GRADING

Excavation (cut of approximately 128,200 cy) from pond T-4 would commence following dewatering, demolition, and sludge removal from the ponds. Excavated material would be transported to ponds T-2 and T-3 to meet specific fill grades for construction elevations. Most excavated material from pond T-4 would be stockpiled on-site in the construction staging area to be used as future fill in the staged construction fill operations associated with the secondary and tertiary treatment facilities. The mass excavation would require aeration of the existing soil to further dry the cut material to be used as fill within ponds T-2 and T-3. This aeration and conditioning would continue until the soil is within 3 percent of optimum moisture content for compaction purposes. The aeration would be accomplished using LGP dozers to rip the pond bottom. After the pond bottom is ripped and dried, the material would be windrowed for pickup by scrapers for transport to ponds T-2 and T-3 as fill. A motor grader would maintain the haul road on the site, and a water truck would be employed to control dust. Material to be stockpiled on-site would be excavated and transported in the same manner, except moisture conditioning and drying would not be as critical.

Rough grading would coincide with mass excavation and would entail prepping surfaces for additional excavation and to receive fill for construction of the major structures, oxidation ditches, clarifiers, and tank. The open-cut and sloping method of excavation would be used to allow safe excavations for construction of major facilities without the need for shoring. The material produced from these excavations, depending on the moisture content, would be incorporated into the mass excavation, cut-and-fill process with the remainder stockpiled at the north end of existing pond T-2 for future use as backfill material at the secondary treatment process area.

FACILITIES CONSTRUCTION

Treatment facilities construction would begin following the rough grading operations. Concrete would be the primary building material used to construct the treatment facilities. Construction would likely start with secondary treatment facilities. It is expected that one concrete crew would construct the oxidation ditches, and another concrete crew would construct the clarifiers concurrently. Before concrete work for the clarifiers is initiated, the deep piping/clarifier influent piping would be set in place and backfilled. After concrete walls are completed for these structures, they would be backfilled. The backfill operations of the open-cut excavations with sloped sides for the oxidation ditches and the clarifiers would create the area necessary to construct the various splitter structures and pump structures in the secondary treatment facilities. The concrete crews associated with oxidation ditches and the clarifiers would then split off. One crew would move to the various pump stations and splitter structures at the secondary treatment facilities, and the other crew would move to the tertiary treatment facility and initiate concrete construction of the recycled water storage tank.

The construction of the various pump stations and splitter structures at the secondary treatment facilities would require open-cut excavations with sloped sides similar to those created for the oxidation ditches and clarifiers. After the walls are completed for these structures, they would be backfilled.

Following the vertical concrete work for the various pump stations and splitter structures at the secondary treatment facilities, process and drainage piping connecting the structures would be initiated. After the piping is installed, it would be backfilled to near finished grade in the area to establish the subgrade.

After the subgrade is established in the secondary treatment facility area, the electrical duct banks would be installed between respective electrical buildings and equipment loads (e.g., pumps, aerators, and monitoring devices).

For the tertiary facilities, which would consist of storage, pumping, DAF, filtration, and disinfection facilities, excavations would vary in depth to accommodate the different base elevations for each component. The storage and pumping structures would be constructed at much lower elevations than the filtration and disinfection facilities and would require open-cut side-sloped excavations that encroach on the filtration and disinfection facilities. Following excavation for and before concrete work, deep piping would be installed between the tank and pump station. After the walls are completed for these structures, they would be backfilled. Process piping connecting the structures would be installed during the backfilling process and up to the elevation necessary for the disinfection facility. Following vertical concrete construction of the disinfection facility, construction of the filtration facility, which would be at subgrade, would commence.

Following subgrade establishment in the tertiary treatment facility area, the electrical duct banks would be installed between respective electrical buildings and the equipment loads e.g., pumps, aerators, and monitoring devices).

BUILDING CONSTRUCTION

The project would also involve construction of two buildings: a shop maintenance building and an electrical building. These structures would be air-conditioned, have concrete foundations and at-grade pads, and be standard metal or concrete masonry unit buildings. Initial construction would employ the concrete crew coming from the splitter and pump structures at the secondary treatment area to set forms to outline the building footprints and allow for the respective trades to install electrical and plumbing. Vertical construction would start following the concrete work and coincide with electrical, plumbing, and finishes respective of the office, lab, and maintenance areas.

PIPELINE CONSTRUCTION

Open-cut construction is the proposed option for installing all pipelines, manholes, air vents, and turnouts on the WWTP site, along existing roadways, and on private lands. Generally, the open-cut trench would be up to approximately 4 feet wide and up to 12 feet deep, depending on the pipe size, existing utility locations, and pipe bedding requirements. Shoring may be required to provide trench stability.

Open-cut construction would occur within private, unpaved farm roads adjacent to reuse areas and is not anticipated to affect cultivated areas. However, temporary and permanent easements would be obtained from individual growers as needed and coordinated to avoid the need to remove crops.

Open-cut construction would involve cutting and removing pavement in a couple of locations where paved roadways need to be crossed (i.e., entrance to Jacob Myers Park and the Riverbank WWTP, and the crossing along Santa Fe Road). Asphalt would be cut using large saw blades mounted on a special cart that would be pushed by a construction laborer. The asphalt would be lifted in large chunks and slabs from the cut area by a front-end loader or backhoe into a dump truck for off-hauling. Upon completion of pipeline installation, affected roadways would be repaved in accordance with the requirements of the affected jurisdiction.

Affected roadway segments may be closed temporarily during pipeline installation activities. Traffic control operations would be noticed at the location of the temporary traffic restrictions a week in advance of any roadwork that would impede the flow of traffic (i.e., closes the road, closes a traffic lane, or closes the road shoulder).

Based on recent groundwater monitoring data, shallow groundwater in the project area is substantially lower than the expected bottom elevations of the trench excavations. Therefore, it is not expected that continuous groundwater dewatering would be required. However, if incidental perched groundwater is encountered or if rainfall occurs during trenching and installation, then the water would be removed from the trench using temporary sump pumps, and the removed water would be disposed of at the WWTP using the percolation ponds.

The use of heavy equipment for excavation likely would involve continuous use of an excavator to fill dump trucks that would make intermittent trips to the stockpile area on the WWTP site. Typically, two or more dump trucks are used to allow continuous offloading from the excavator. In addition, dump trucks hauling material from off-site sources for pipeline bedding and backfill would make semicontinuous trips to the site as pipe is being installed. A front-end loader would be used to lift pipe segments from a flat-bed delivery truck and position the pipe in the trench. In publicly accessible areas, temporary trench plates would be installed over the trench at the end of each workday.

During open trenching, excavated trench materials would be sidecast within approved work areas and reused as appropriate for backfill. Excess material would be either stockpiled or used on the WWTP site for general site fill and finish grading.

FINE GRADING AND PAVING SITE

Fine grading of the project site would commence at the sludge storage facility and secondary treatment facility area to establish the subgrade for improved roadway access to the structures to support operations and maintenance and to provide finish-grading of areas to be landscaped. The progression would then move east toward the electrical building and shop maintenance building area, headworks, and tertiary facility. Finally, surfaces at the existing treatment plant facility improvements would be restored. Following fine grading of the site, paving would commence. Paving would be a combination of concrete and asphalt concrete. Concrete would be used at the sludge storage area and as a skirt for most all the structures. Asphalt concrete would be used for access roads to and between the major structures to support vehicular and crane access.

CONSTRUCTION WORKFORCE

Throughout the project construction, the workforce is anticipated to range from approximately 10 to 53 workers per day. The average number of workers on-site would be approximately 28 over the 566 total working days of the project. Overlap between the beginning of construction for the tertiary treatment facilities and the completion of the secondary treatment facilities would result in a maximum total workforce of approximately 53 workers for a period of approximately 1 week.

2.8 PROJECT OPERATIONS

Wastewater flows into the WWTP year-round. The highest demand for recycled water for irrigation is in the summer months, when rainfall is lowest and crops are in peak production. During the winter months, when irrigation demand is low, the WWTP would produce effluent treated to secondary standards, and instead of receiving further treatment and being distributed off-site for beneficial reuse, the secondary effluent would be diverted and stored in a seasonal storage pond (T-4 or P-2) and/or disposed of on-site in the existing percolation ponds at the WWTP if storage in the seasonal storage ponds is exceeded. During summer, when irrigation demand is high, secondary treated effluent stored in the seasonal storage pond would be returned to the headworks for further treatment along with influent from the city to produce tertiary treated disinfected effluent.

Following treatment and disinfection, the recycled water would be conveyed to the on-site 900,000-gal recycled water storage tank. Before the recycled water enters the storage tank, it would be injected with sodium hypochlorite to provide a chlorine residual sufficient to prevent any biological growth in the tank. During the irrigation season, the storage tank would provide up to 5.75 hours of storage at 1.6-mgd ADWF. The combined 1.8 mgal of storage that would be constructed at buildout of the system would provide approximately 6.9 hours of storage at 2.29-mgd ADWF. Delivery of recycled water to the landowners would be accomplished by the recycled water pump station and would occur when the landowners call or otherwise contact the WWTP staff, typically 24 hours to 1 week in advance.

Walnuts are currently grown in the proposed use areas. Table 2-6 summarizes the required monthly crop irrigation volume per acre for nut orchards, such as walnut orchards, based on evapotranspiration less average monthly precipitation. July is expected to have the largest volume demand for recycled water (1.79 mgal, or 5.51 acre-feet) per acre. Peak irrigation delivery rates may vary depending on the irrigation schedule demands that the individual growers require for their crops.

Table 2-6 Monthly Crop Irrigation Volume per Acre

Irrigation Volume	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Crop demand (mgal)	0.06	0.00	0.00	0.00	0.00	0.00	0.07	0.19	0.19	0.24	0.26	0.23
Crop demand (af)	0.17	0.00	0.00	0.00	0.00	0.00	0.21	0.59	0.59	0.74	0.79	0.69

Notes: af = acre-feet; mgal = million gallons.

Source: KSN 2022b.

Based on the current flows, the WWTP has the potential to produce approximately 1.6 mgd, or 2,500 AFY, of Title 22 recycled water at a peak irrigation flow rate of 2,610 gpm. This amount would be sufficient to irrigate a 30-acre block of agricultural land in the proposed use area once every 7 days, or a total of 210 ac (KSN and BC 2022). At the proposed recycled water production rate of 2.29 mgd anticipated by 2050, the WWTP could produce and deliver up to 2,500 AFY of Title 22 recycled water at a peak irrigation flow rate of 4,350 gpm, enough to irrigate a 50-acre block once every 7 days, or a total of 350 ac (KSN 2022b). More frequent irrigation is not proposed, because it would reduce overall crop demand, thereby reducing daily recycled water delivery requirements below WWTP capacity. Irrigation of a larger area is also not proposed, because the demand for recycled water associated with a larger irrigation area would exceed the production capacity of the WWTP, which would require the addition of substantially more recycled water storage or an additional source of water.

Table 2-7 summarizes potential irrigation delivery parameters for the use area at 1.6 and 2.29 mgd of recycled water production.

Table 2-7 Irrigation Delivery at 1.6 mgd and 2.29 mgd of Recycled Water Production

Parameter	Unit	At 16. Mgd ADWF	At 2.29 mgd ADWF
Total irrigated area	ac	210	350
Peak daily irrigation area	ac	30	50
Irrigation efficiency	%	85	85
Day between irrigation	Days	7	7
Irrigation duration	hrs	11	11
Peak irrigation flow rate	gpm	2,610	4,350

Notes: ac = acres; ADWF = average dry weather flow; hrs = hours; gpm = gallons per minute; mgd = million gallons per day; % = percent.

Source: KSN and BC 2022.

The WWTP may require a total of four operators for normal WWTP operations. Routine maintenance performed by the operators would involve scheduling and performing pump, valve, aerator, UV system, and monitoring equipment repairs at the maintenance shop.

Energy demand associated with the proposed project after it is completed would increase because of the need to incorporate additional pumps and pumping stations to serve the secondary, tertiary, solids handling, storm drainage, and recycled water delivery systems at the upgraded WWTP and the recycled water distribution system. Energy demand would also increase over time as flows to the WWTP increase and recycled water use expands to offset irrigation demand within a larger portion of the proposed reuse areas. In the first year of operation at a recycled water production rate of 1.6 mgd, the estimated energy demand may be 6,632,000 kilowatt-hours (kWh), and in the future, at a recycled water production rate of 2.29 mgd, the estimated energy demand may reach 9,620,000 kWh (Whittlesey, pers. comm., 2022). To provide enough reliable power to maintain treatment efficacy in the event of a power outage, three 450-kW diesel generators are planned for installation, as described in Section 2.6.5 above.

Modesto Irrigation District (MID) provides electricity to the equipment at the WWTP. The project would not require off-site modifications to MID infrastructure or upsizing of off-site power systems or supplies to meet the project's energy demands. However, the City would initiate review with MID to determine whether the project would require on-site upgrades to meet the expanded WWTP power needs, such as relocating power poles, upsizing an existing transformer, or constructing a new transformer within the project site.

2.9 REQUIRED PERMITS AND PROJECT APPROVALS

In addition to having primary responsibility for project approval and implementation, the City, as the lead agency under CEQA, has the principal responsibility for ensuring that CEQA requirements and all other applicable regulations are met. The following responsible agencies may have permitting approval or review authority over the project, or portions thereof, and their potential required permits or approvals:

- Central Valley RWQCB—Porter-Cologne Water Quality Control Act waste discharge requirements for discharge of construction dewatering water and treated wastewater to land
- San Joaquin Valley Air Pollution Control District—authority to construct; Title V permit to operate; air quality management plan consistency determination
- San Joaquin County—coverage under the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan for potential impacts on biological resources pursuant to the federal Endangered Species Act and California Endangered Species Act; flood hazard development permit; roadway easement; encroachment permit

- State Office of Historic Preservation—National Historic Preservation Act Section 106 compliance; concurrence with effect determination
- SWRCB—approval of SRF financing; DDW approval under General Order WQ 2016-0068-DDW for recycled water use consistent with the Uniform Statewide Recycling Criteria (CCR Title 22, Division 4, Chapter 3); CCR Title 22 Engineering Report approval; Clean Water Act Section 402 National Pollutant Discharge Elimination System stormwater permit for general construction

3 ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION

1. Project Title: Riverbank Regional Recycled Water Project
2. Lead Agency Name and Address: City of Riverbank, 6707 Third Street, Riverbank, CA 95367
3. Contact Person and Phone Number: Michael Riddell, Director of Public Works, 209.869.7128
4. Project Location: 23865 Santa Fe Road, Riverbank, CA, San Joaquin County
5. Project Sponsor's Name and Address: City of Riverbank, 6707 Third Street, Riverbank, CA 95367
6. General Plan Designation: Riverbank GP: Civic (C); San Joaquin County GP: Public (P/F) and General Agriculture (AG-40)
7. Zoning: Public Facility (P-F)
8. Description of Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

   The City of Riverbank proposes to upgrade and expand its existing wastewater treatment plant to produce disinfected tertiary treated recycled water for distribution to nearby agricultural landowners. The project would include construction of new preliminary, secondary, and tertiary treatment and disinfection facilities and a recycled water storage tank, reconfiguration of existing treatment and percolation ponds to provide additional seasonal recycled water storage, installation of a recycled water distribution system, and expansion of capacity to serve planned growth in the city through the year 2050. The City proposes to distribute the recycled water to two land owners that have expressed interest in receiving recycled water from the project for irrigation of walnut orchards.

9. Surrounding Land Uses and Setting:

   The land surrounding the project site is primarily agricultural. Of the crops grown in the surrounding agricultural area, nut crops make up the largest percent. The project site is bordered by agricultural lands to the west, north, and east. The Stanislaus River runs beyond the southern border of the project site. Jacob Myers Park, a regional park along the north bank of the river, is located along the southern border of the potential use areas and the project site. A Burlington Northern and Santa Fe Railway railroad track runs through the project area east of the project site.

10. Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement)

    State Water Resources Control Board, State Office of Historic Preservation, Central Valley Regional Water Quality Control Board, San Joaquin Valley Air Pollution Control District, San Joaquin County.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.? *Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.*

    See Section 3.18, "Tribal Cultural Resources," below.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Where checked below, the topic with a potentially significant impact will be addressed in an environmental impact report.

- [ ] Aesthetics
- [ ] Agriculture and Forestry Resources
- [ ] Air Quality
- [ ] Biological Resources
- [ ] Cultural Resources
- [ ] Energy
- [ ] Geology and Soils
- [ ] Greenhouse Gas Emissions
- [ ] Hazards and Hazardous Materials
- [ ] Hydrology and Water Quality
- [ ] Land Use and Planning
- [ ] Mineral Resources
- [ ] Noise
- [ ] Population and Housing
- [ ] Public Services
- [ ] Recreation
- [ ] Transportation
- [ ] Tribal Cultural Resources
- [ ] Utilities and Service Systems
- [ ] Wildfire
- [ ] Mandatory Findings of Significance
- [ ] None
- [x] None with Mitigation Incorporated

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project could not have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.

☒ I find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

☐ I find that the proposed project **MAY** have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Marisela H. Garcia

Printed Name

City Manager

Title

City of Riverbank

Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a) the significance criteria or threshold, if any, used to evaluate each question; and
    b) the mitigation measure identified, if any, to reduce the impact to less than significance.

3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
I. Aesthetics.				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to aesthetics, light, and glare are applicable to the project.

STATE

California Building Code

The California Building Code (CBC) (California Code of Regulations [CCR], Title 24, Part 2) contains various building standards derived and adapted from the International Building Code, authorized by the California legislature, that address California building issues, including several that are applicable to the visual condition of a site (especially at night). They include standards for outdoor lighting intended to improve energy efficiency, minimize light pollution and nighttime glare, and provide design solutions to shield and control outdoor lighting fixtures.

California Scenic Highway Program

California's Scenic Highway Program was created by the California Legislature in 1963 and is managed by the California Department of Transportation (Caltrans). The goal of this program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. A highway may be designated "scenic" depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers' enjoyment of the view (Caltrans 2022).

LOCAL

San Joaquin County 2035 General Plan

The primary scenic resources within San Joaquin County (when visibility conditions permit) consist of views of the Delta and the agriculturally rich valley floor, as well as panoramic views of the Coastal ranges and the Sierra. Because of the flatness of most of San Joaquin County's terrain and often poor air quality, most scenic views are limited to near and medium range as provided by viewpoints such as public recreation areas and roadways. San Joaquin County has designated 26 local roadways within the County as local scenic routes. Interstate 5 and State Routes (SR) 4 and 99 are all County-designated scenic roadways. Interstates 5 and 580 are designated as state scenic highways.

The following policies from the Community Development and the Natural and Cultural Resources Elements of the San Joaquin County General Plan are relevant to aesthetics with respect to the project (San Joaquin County 2017a):

- **Policy LU-3.10 - Visual Access:** The County shall encourage new development to maintain views of hillsides, creeks, and other distinctive natural areas by regulating building orientation, height, and bulk.
- **Policy NCR-7.1. Scenic Roadways:** The County shall protect the visual character of designated scenic roadways.
- **Policy NCR-7.2. Views from Public Lands and Roadways:** The County shall ensure that views of waterways, hilltops, and oak groves from public land and public roadways are protected, and public access is provided to them whenever possible.
- **Policy NCR-7.4. Visually Complementary Development:** The County shall require new development adjacent to scenic resources to be sited and designed to visually complement those resources, except in MR-Z designated areas.
- **Policy NCR-7.7. Reducing Light Pollution:** The County shall encourage project designs, lighting configurations, and operational practices that reduce light pollution and preserve views of the night sky.
- **Policy NCR-7.8. Underground Utility Lines:** The County shall require all new electric and communication distribution facilities adjacent to scenic routes to be placed underground, whenever feasible. Where overhead utility lines are unavoidable, every effort should be made to reduce the visual impact through elements of design.

City of Riverbank General Plan 2005-2025

The Community Character and Design Element of the City's General Plan emphasizes how development should relate to the user, visual characteristics, and how buildings and other improvements should function in the greater context of the community. The Community Character and Design Element is the basis for the aesthetic regulation of public and private land and structures.

The following policies from the Community Character and Design Element of the City's General Plan are relevant to aesthetics with respect to the project (City of Riverbank 2009):

- **Policy DESIGN-11.2:** The City will require the use of durable, high quality building materials to lower maintenance and replacement needs and ensure the aesthetic appeal of new development.
- **Policy DESIGN-14.3:** When new development, re-development, or maintenance of industrial and bulk retail complexes occurs, the City will require aesthetic and landscaping improvements of facades and entry features oriented to the street that will strengthen the identity of Riverbank.
- **Policy DESIGN-14.4:** When new development, re-development, or maintenance of industrial and bulk retail complexes occurs adjacent to environmentally sensitive areas, the City will require landscaping improvements that will maintain or strengthen existing aesthetic qualities and environmental functions.
- **Policy DESIGN-15.4:** The City will require and pursue the preservation and enhancement of public access to riverfront recreation / natural areas while protecting sensitive habitats.
- **Policy DESIGN-16.1:** Approved plans, projects, and subdivision requests shall retain and enhance scenic views of Stanislaus River.

- **Policy DESIGN-16.2:** The City will encourage the preservation of healthy, attractive native vegetation during land development. Where this is not possible, the City will require site landscaping that uses appropriate native plant materials.
- **Policy DESIGN-17.1:** The City will support development standards that minimize environmental impacts of development through an appropriate balance of regulations and incentives. Incentives could be tied to compliance with criteria applied throughout the development process.
- **Policy DESIGN-17.2:** Lighting in development projects shall include low, pedestrian scaled, ornamental street lights, and shall otherwise design lighting as to prevent glare and spillover onto adjacent properties and to prevent any glare that could affect motorists or bicyclists.
- **Policy DESIGN-18-1:** The City will promote safe and sustainable energy collection and distribution systems that draw from renewable energy sources.
- **Policy DESIGN-18.2:** The City will encourage passive and natural lighting systems in architectural design to conserve electricity.
- **Policy DESIGN-18.3:** The City will encourage building-site orientation, articulated windows, roof overhangs, appropriate insulation materials and techniques, and other architectural features that allow for improved passive interior climate control.
- **Policy DESIGN-18.4:** The City will ensure that municipal buildings are LEED™ certified and promote LEED™ certification of multi-family, commercial, and industrial properties.
- **Policy DESIGN-19.1**: The City will establish site design criteria for allowing natural hydrological systems to function with minimum or no modification.
- **Policy DESIGN-19.2:** The City will promote the use of rain gardens, open ditches or swales, and pervious driveways and parking areas in site design to maximize infiltration of storm water and minimize runoff into environmentally critical areas.
- **Policy DESIGN-19.3:** The City will promote inclusion of passive rainwater collection systems in site and architectural design for non-potable water (gray-water) storage and use, thereby saving potable (drinking) water for ingestion.

3.1.2 Environmental Setting

Aesthetic resources are generally defined as both the natural and built features of the landscape that contribute to the public's experience and appreciation of the environment. Depending on the extent to which a project's presence would alter the perceived visual character and quality of the environment, aesthetic impacts may occur.

VISUAL CHARACTER OF THE PROJECT SITE AND SURROUNDING AREA

The project site is located on the north side of the Stanislaus River in San Joaquin County at 23865 Santa Fe Road, adjacent to the City of Riverbank, California. The City of Riverbank is located in Stanislaus County, which is in the northern portion of the San Joaquin Valley in central California. The Stanislaus River forms the boundary between Stanislaus County to the south and San Joaquin County to the north. The Stanislaus River is one of multiple rivers in the San Joaquin Valley that flow west from the Sierra Nevada into the San Joaquin River (City of Riverbank 2009). Although the project site is located across the Stanislaus River in San Joaquin County, it is still owned and operated by the City of Riverbank.

As discussed in Section 2, "Project Description," existing facilities at the 150-acre WWTP consist of a headworks system, two aerated treatment ponds, two polishing ponds, eight evaporation/percolation ponds, 13 groundwater monitoring wells, and associated piping and mechanical components. Figure 2-2 in Section 2, "Project Description," depicts the layout of the existing WWTP.

The land surrounding the project site is primarily agricultural. Of the crops grown in the surrounding agricultural area, nut crops make up the largest percent. Almonds and walnuts account for approximately 56 percent and 22 percent of the crops grown in the surrounding area, respectively. The project site is bordered by agricultural lands to the west, north, and east. The Stanislaus River runs beyond the southern border of the project site. Jacob Myers Park, a regional park along the north bank of the river, is located along the southern border of the potential use areas and the project site. A Burlington Northern and Santa Fe Railway railroad track runs through the project area to the east of the project site.

The nearest sensitive viewers include visitors at Jacob Myers Park and the persons living in the residences located to the south of the Stanislaus River across River Cove Drive and to the east of the project site. Although the topography is primarily flat, the residences to the south and to the east do not have direct views of the Riverbank WWTP due to the general distance from the project site (over 500 feet) and the riparian area buffer surrounding the existing Riverbank WWTP.

STATE SCENIC HIGHWAYS AND SCENIC RESOURCES

A highway may be designated as "scenic" depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers' enjoyment of the view. There are no eligible or officially designated state scenic highways located near the project site (Caltrans 2018). Interstate 5, as it passes through Stanislaus County, is a designated scenic highway, and is located approximately 23 miles southwest of the project site. According to the City's General Plan, the Stanislaus River is identified as a community asset that provides natural beauty and function and is considered a scenic resource offering scenic views (City of Riverbank 2009).

3.1.3 Discussion

a) Have a substantial adverse effect on a scenic vista?

Less-than-significant impact. A scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. The project site is located in a primarily agricultural area. Although the project site is located on the north side of the Stanislaus River, which, according to the City of Riverbank General Plan, is identified as a community asset that provides natural beauty and function and is considered a scenic resource offering scenic views, implementation of the project would not alter views of this scenic resource due to the riparian area buffer surrounding the existing Riverbank WWTP. Views of the project area from publicly available locations around the site would not substantially change. Therefore, the project would not have a substantial adverse effect on a scenic vista, and this impact would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No impact. No designated state scenic highways are within the vicinity of the project site (Caltrans 2018). The nearest designated state scenic highway is Interstate 5, as it passes through Stanislaus County, and is located approximately 23 miles southwest of the project site. Although the project site is located on the north side of the Stanislaus River, which, according to the City of Riverbank General Plan, is identified as a community asset that provides natural beauty and function and is considered a scenic resource offering scenic views, implementation of the project would not alter views of this scenic resource due to the riparian area buffer surrounding the existing Riverbank WWTP. Therefore, the project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway and no impact would occur.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-significant impact. The project site is primarily surrounded by agricultural lands. Although the project would include construction of new facilities within the existing WWTP, the addition of like buildings and facilities to an already developed site would not substantially change the existing views of the site. Furthermore, the proposed facilities would not be visible to persons living in the nearby residences located to the east of the project site or to the south (across Stanislaus River and River Cove Drive), or to persons visiting Jacobs Myers Park (which is located along the southern border of the potential use areas and the project site).

The project would not substantially change the visual character of the site because the project would be located at the already developed WWTP site. The new pipelines would be underground, and the two proposed structures at the WWTP site would be standard metal buildings and would not alter views due to the riparian area buffer surrounding the existing Riverbank WWTP. The project would be visually consistent with the existing WWTP and would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Therefore, this impact would be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less-than-significant impact. Construction activities would occur during daylight hours and would not require nighttime lighting. Construction equipment is unlikely to have reflective surfaces and would not be a substantial source of glare in the area. The project would include construction of two buildings: a 5,000-square-foot air-conditioned shop maintenance building, and a 1,000-square-foot air-conditioned electrical building, as well as installation of pipelines, manholes, air vents, and turnouts within the WWTP site, along existing roadways and within private lands. The two structures would be constructed near the entrance to the WWTP and would have concrete foundations and at-grade pads, and be standard metal buildings, which are not highly reflective (Whittlesey, pers. comm., 2022). These project features would not be a substantial source of glare in the area. The new pipelines would be underground. In order to facilitate operation, the new facilities would have limited lighting which would be shielded and downcast to prevent light pollution on surrounding residences and the night sky. Therefore, the project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. This impact would be less than significant.

3.2 AGRICULTURE AND FORESTRY RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
II. Agriculture and Forestry Resources.				
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.				
In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Regulatory Setting

FEDERAL

United States Department of Agriculture

The United States Department of Agriculture (USDA) is responsible for developing and executing federal laws related to farming, forestry, and food. The USDA aims to meet the needs of farmers and ranchers, promote agricultural trade and production work to assure food safety, protect natural resources, assist rural communities, and address hunger in the United States. While local agricultural operations may interface with USDA programs, data resources, requirements, and procedures, federal regulations do not typically influence or have permitting authority over local land use projects under CEQA review.

The Natural Resources Conservation Service (NRCS), a federal agency within the USDA, is the agency primarily responsible for the implementation of the Farmland Protection Policy Act (FPPA). The purpose of the FPPA is to minimize federal programs' contribution to the conversion of farmland to nonagricultural uses by ensuring that federal programs are administered in a manner that is compatible with state, local and private programs designed to protect farmland. NRCS provides technical assistance to federal agencies, state, and local governments, and tribes or non-profit organizations that desire to develop farmland protection programs and policies.

The FPPA also established the Farmland Protection Program (FPP) and the Land Evaluation and Site Assessment (LESA). The LESA system ranks lands for suitability and inclusion in the FPP. LESA evaluates several factors, including soil potential for agricultural uses, location, market access, and adjacent land uses. The LESA system has spawned many variations, including the California LESA model, which is used in California's Farmland Mapping and Monitoring Program (FMMP), described below.

STATE

Land Conservation Act of 1965

Agricultural preserve contracts are executed through procedures enabled by the California Land Conservation Act of 1965, also known as the Williamson Act. A contract may be entered into for property with agricultural, recreational and open space uses in return for decreased property taxes. The County Agricultural Preserve Rules of Procedure require certain minimum parcel sizes and land use restrictions applicable to agricultural preserve lands under their respective contracts. The minimum length of Williamson Act contracts is ten years. Because the contract term automatically renews on each anniversary date (unless certain steps are taken), the actual contract length is essentially indefinite. To be eligible for Williamson Act designation, a minimum 100 acres of non-prime land is typically required, and that land must be used to produce an agricultural commodity that is plant or animal and is produced in California for commercial purposes.

California Department of Conservation Farmland Mapping and Monitoring Program

Within the California Natural Resources Agency, the California Department of Conservation (DOC) provides services and information that promote informed land-use decisions and sound management of the state's natural resources. As noted above, DOC manages the FMMP, which supports agriculture throughout California by developing maps and statistical data for analyzing land use impacts to farmland.

The developed maps are called the Important Farmlands Inventory (IFI). The IFI categorizes land based on the productive capabilities of the land. There are many factors that determine the agricultural value of land, including the suitability of soils for agricultural use, whether soils are irrigated, the depth of soil, water-holding capacity, and physical and chemical characteristics. To categorize soil capabilities under the FMMP, two soil classification systems are used: the Capability Classification System and the Storie Index (which takes into account other factors as well, such as slope and texture). The FMMP data is updated every 2 years.

FMMP rates the production potential of agricultural land according to the following classifications:

- Prime Farmland. Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. These are Class I and Class II soils.
- Farmland of Statewide Importance. Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Unique Farmland. Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California.

- **Farmland of Local Importance.** Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
- **Grazing Land.** Land on which the existing vegetation is suited to the grazing of livestock.
- **Urban and Built-Up Land.** Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- **Other Land.** Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas, not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.
- **Water.** This is used to describe perennial water bodies with an extent of at least 40 acres.

California Public Resources Code

Agricultural and forestry lands within California are defined by the California Public Resources Code (PRC) as follows:

- Section 21060.1(a) defines "agricultural land" as prime farmland, farmland of statewide importance, or unique farmland, as defined by the USDA land inventory and monitoring criteria, as modified for California.
- Section 21060.1(b) states the following: In those areas of the state where lands have not been surveyed for the classifications specified in subdivision (a), "agricultural land" means land that meets the requirements of "prime agricultural land" as defined in paragraph (1), (2), (3), or (4) of subdivision (c) of Section 51201 of the Government Code.
- Section 21095 amended CEQA to provide lead agencies with an optional methodology, the LESA Model, to ensure that significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process. The LESA Model evaluates measures of soil resource quality, a given project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. For a given project, the factors are rated, weighted, and combined, resulting in a single numeric score. The project score becomes the basis for making a determination of a project's potential significance.

LOCAL

San Joaquin County 2035 General Plan

The following policies from the Public Health and Safety, Natural and Cultural Resources, and Community Development Elements of the San Joaquin County General Plan are relevant to agriculture with respect to the project:

- **Policy PHS-6.3. GHG Reduction Strategies:** The County shall promote greenhouse gas emission reductions by encouraging efficient farming methods (e.g., no-till farming, crop rotation, cover cropping); supporting the installation of renewable energy technologies; and protecting grasslands, open space, oak woodlands, riparian forest and farmlands from conversion to urban uses.
- **Policy NCR-5.6. Energy Facilities on Prime Farmland:** The County shall discourage the placement of energy facilities on Prime Farmland.
- **Policy LU-1.7. Farmland Preservation:** The County shall consider information from the State Farmland Mapping and Monitoring Program when designating future growth areas in order to preserve prime farmland and limit the premature conversion of agricultural lands.

City of Riverbank General Plan 2005-2025

The following policies from the Economic Development, Public Services and Facilities, and Conservation and Open Space Elements of the City's General Plan are relevant to agriculture with respect to the project:

- Policy ED-6.1: Acknowledging the significant agricultural economy in Stanislaus County, the City will continue to accommodate industries that serve the agricultural trade and have supplier relationships with primary farming activity in Stanislaus and San Joaquin counties.
- Policy PUBLIC-3.3: The City will not induce urban growth by providing wastewater facilities to areas outside the Planning Area or areas not planned for urban development, such as areas designated for agriculture or open space.
- Policy CONS-3.1: The City will prepare a comprehensive Sustainable Agricultural Strategy intended to conserve agricultural production in the Stanislaus River Watershed, herein defined as the area within Stanislaus County and San Joaquin County between the Tuolumne and Calaveras Rivers, attributable to implementation of the 2025 General Plan. This strategy should provide flexibility so that it can be tied to land-use and regional agricultural preservation policies, and is intended to be funded on a fair-share basis by those projects that have a significant impact on the conversion of Important Farmlands, a non-renewable resource, to urban use. In determining a level of significance, it is the intent of the City to use quantifiable, measurable inputs and if a project has a significant impact on Farmland resources, then the project will mitigate for this impact.

3.2.2 Environmental Setting

The project site is located across the Stanislaus River in San Joaquin County but is owned and operated by the City of Riverbank, which is in Stanislaus County. According to the City of Riverbank General Plan, the land use classification for the project site is Civic (C) (City of Riverbank 2009) and according to the San Joaquin County General Plan, the project site land use is designated Public Facility (P/F) (San Joaquin County 2017a). No areas of the project site have active Williamson Act contracts, however, two parcels (Assessor's Parcel Number [APN] 24724010 and APN 24726001) located immediately north of the project site are under Williamson Act contracts (SJV Gateway 2015).

FARMLAND

The project site is mapped by the DOC as Urban and Built-Up Land (DOC 2018). The land to the south and to the east of the project site is mapped as Farmland of Local Importance, the land immediately to the west of the project site is mapped as Farmland of Statewide Importance, and the land immediately to the north of the project site is mapped as Prime Farmland (DOC 2018).

EXISTING FORESTRY RESOURCES

Forestry resources include forest land, timberland, and timberland production zones. Definitions used for these categories are those found in the PRC and California Government Code. Forest land is defined as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forestry resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits (PRC Section 12220[g]). Timberland is land, other than land owned by the federal government or land that is designated as experimental forest, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products (PRC Section 4526). Timberland production zones are areas that have been devoted to and used for growing and harvesting timber and compatible uses (Government Code Section 51104(g)).

Based on these definitions, lands within the project site are not considered forestry or timber-production lands nor are they designated as forestland.

3.2.3 Discussion

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No impact. As discussed in Section 3.2.2, the project site is designated as Urban and Built-Up Land (DOC 2018). Project construction and operation would occur within existing developed uses, including under existing private roadways and at the existing WWTP facility. Therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), to non-agricultural use and no impact would occur.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No impact. There are no areas within the project site that are under Williamson Act contract. Therefore, implementation of the project would not conflict with existing zoning for agricultural use or a Williamson Act contract. Project construction and operation would occur within existing developed uses, including under existing private roadways and at the existing WWTP facility. Therefore, the project would not conflict with agricultural zoning or a Williamson Act contract and no impact would occur.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No impact. As discussed in Section 3.2.2, the project site and surrounding land uses are not designated as forest or timber-production lands; therefore, no forestry resources could be affected by project implementation. There would be no conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC section 12220(g)), timberland (as defined by PRC section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). Therefore, the project would not conflict with existing zoning for, or cause rezoning of, forest land and no impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. As discussed in Section 3.2.2, the project site and surrounding land uses are not designated as forest or timber-production lands; therefore, no forestry resources could be affected by project implementation. Therefore, the project would not result in the loss of forest land or conversion of forest land to non-forest use, and no impact would occur.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No impact. As discussed in Section 3.2.2, the project site is designated as Urban and Built-Up Land (DOC 2018). Project construction and operation would occur within existing developed uses, including under existing private roadways and at the existing WWTP facility. Therefore, the project would not involve changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use, and no impact would occur.

3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?	☒ Yes		☐ No	
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Regulatory Setting

Air quality in the project area is regulated through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality within the air basin are discussed below.

FEDERAL

United States Environmental Protection Agency

The United States Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates draw primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments were made by Congress in 1990. EPA's air quality efforts address both criteria air pollutants and precursors and hazardous air pollutants (HAPs). EPA regulations concerning criteria air pollutants and precursors and HAPs are presented in greater detail below.

<u>Criteria Air Pollutants</u>

The CAA required EPA to establish the National Ambient Air Quality Standards (NAAQS) (42 United States Code Section 7409). As shown in Table 3.3-1, EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}), fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead. Table 3.3-2 summarizes the sources of these criteria air pollutants and their health effects. The primary standards protect the public health, and the secondary standards protect public welfare. The

CAA also requires each state to prepare a State Implementation Plan (SIP) for attaining and maintaining the NAAQS. The CAA Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. Individual SIPs are modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

Table 3.3-1 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS)[1,2]	National (NAAQS)[3]	
			Primary[2,4]	Secondary[2,5]
Ozone (O_3)	1-hour	0.09 ppm (180 μg/m^3)	–	Same as primary standard
	8-hour	0.070 ppm (137 μg/m^3)	0.070 ppm (137147 μg/m^3)	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Same as primary standard
	8-hour	9.0 ppm[6] (10 mg/m^3)	9 ppm (10 mg/m^3)	
Nitrogen dioxide (NO_2)	Annual arithmetic mean	0.030 ppm (57 μg/m^3)	0.053 ppm53 ppb (100 μg/m^3)	Same as primary standard
	1-hour	0.18 ppm (339 μg/m^3)	100 ppb (188 μg/m^3)	—
Sulfur dioxide (SO_2)	24-hour	0.04 ppm (105 μg/m^3)	—	—
	3-hour	—	—	0.5 ppm (1,300 μg/m^3)
	1-hour	0.25 ppm (655 μg/m^3)	75 ppb (196 μg/m^3)	—
Respirable particulate matter (PM_{10})	Annual arithmetic mean	20 μg/m^3	—	Same as primary standard
	24-hour	50 μg/m^3	150 μg/m^3	
Fine particulate matter ($PM_{2.5}$)	Annual arithmetic mean	12 μg/m^3	12.0 μg/m^3	15 μg/m^3
	24-hour	—	35 μg/m^3	Same as primary standard
Lead [6]	Calendar quarter	—	1.5 μg/m^3	Same as primary standard
	30-Day average	1.5 μg/m^3	—	—
	Rolling 3-Month Average	–	0.15 μg/m^3	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 μg/m^3)	No national standards	
Sulfates	24-hour	25 μg/m^3		
Vinyl chloride [6]	24-hour	0.01 ppm (26 μg/m^3)		
Visibility-reducing particles	8-hour	Extinction of 0.23 per km		

1 California standards for ozone, carbon monoxide, SO_2 (1- and 24-hour), NO_2, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

3 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m^3 is equal to or less than one. The $PM_{2.5}$ 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

4 National primary standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[5] National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[6] The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. This allows for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Notes: μg/m^3 = micrograms per cubic meter; km = kilometers; mg/m^3 = milligrams per cubic meter; ppb = parts per billion; ppm = parts per million.

Source: CARB 2016.

Table 3.3-2 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	Increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	Permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	Headache, dizziness, fatigue, nausea, vomiting, death	Permanent heart and brain damage
Nitrogen dioxide (NO_2)	Combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	Coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cyanosis, chest pain, rapid heartbeat, death	Chronic bronchitis, decreased lung function
Sulfur dioxide (SO_2)	Coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO_2 exposure to chronic health impacts
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	Fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO_2 and ROG	Breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	Alterations to the immune system, carcinogenesis
Lead	Metal processing	Reproductive/ developmental effects (fetuses and children)	Numerous effects including neurological, endocrine, and cardiovascular effects

[1] Acute health effects refer to immediate illnesses caused by short-term exposures to criteria air pollutants at fairly high concentrations. An example of an acute health effect includes fatality resulting from short-term exposure to carbon monoxide levels in excess of 1,200 parts per million.

[2] Chronic health effects refer to cumulative effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations. An example of a chronic health effect includes the development of cancer from prolonged exposure to particulate matter at concentrations above the national ambient air quality standards.

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.

Source: EPA 2018.

Hazardous Air Pollutants and Toxic Air Contaminants

Toxic air contaminants (TACs), or in federal parlance, HAPs, are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; or short-term acute effects, such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants for which acceptable levels of exposure can be determined and for which the ambient standards have been established (Table 3.3-1). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

EPA and the California Air Resources Board (CARB) regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum available control technology or best available control technology for air toxics to limit emissions.

STATE

California Air Resources Board

CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish California Ambient Air Quality Standards (CAAQS) (Table 3.3-1).

Criteria Air Pollutants

CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to attain and maintain the CAAQS by the earliest date practical. The CCAA specifies that local air districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources. The CCAA also provides air districts with the authority to regulate indirect emission sources.

Toxic Air Contaminants

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (Hot Spots Act) (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB has identified approximately 200 TACs. Particulate matter (PM) exhaust from diesel engines (diesel PM) was added to CARB's list of TACs in 1998.

After a TAC is identified, CARB then adopts an airborne toxics control measure for sources that emit that particular TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate best available control technology for toxics to minimize emissions.

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

AB 617 of 2017 aims to help protect air quality and public health in communities around industries subject to the state's cap-and-trade program for greenhouse gas emissions. AB 617 imposes a new state-mandated local program to address non-vehicular sources (e.g., refineries, manufacturing facilities) of criteria air pollutants and TACs. The bill requires CARB to identify high-pollution areas and directs air districts to focus air quality improvement efforts through adoption of community emission reduction programs within these identified areas. Currently, air districts review individual sources and impose emissions limits on emitters based on best available control technology, pollutant type, and proximity to nearby existing land uses. This bill addresses the cumulative and additive nature of air pollutant health effects by requiring community-wide air quality assessment and emission reduction planning.

CARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of CARB's Risk Reduction Plan and other regulatory programs, it is estimated that emissions of diesel PM will be less than half of those in 2010 by 2035 (CARB 2022a). Adopted regulations are also expected to continue to reduce formaldehyde emissions emitted by cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

LOCAL

San Joaquin Valley Air Pollution Control District

<u>Criteria Air Pollutants</u>

The San Joaquin Valley Air Pollution Control District (SJVAPCD) is the primary agency responsible for planning to meet the NAAQS and CAAQS in the San Joaquin Valley Air Basin (SJVAB), in which the project site is located. SJVAPCD works with CARB and EPA to maintain the region's portion of the SIP for ozone and $PM_{2.5}$. The SIP is a compilation of plans and regulations that govern how the region and state will comply with the federal CAA requirements to attain and maintain the NAAQS for ozone and $PM_{2.5}$. The SJVAB has been designated as nonattainment with respect to the NAAQS and CAAQS for ozone and $PM_{2.5}$ in addition to CAAQS for PM_{10} (EPA 2022; CARB 2022a).

SJVAPCD also enforces air quality regulations, educates the public about air quality, and implements a number of programs to provide incentives for the replacement or retrofit of older diesel engines and to influence land use development in the SJVAB.

All projects are subject to adopted SJVAPCD rules and regulations in effect at the time of construction. Specific rules applicable to the project may include but are not limited to the following:

- **Regulation VIII—Fugitive Dust PM_{10} Prohibitions:** Rules 8011–8081 are designed to reduce PM_{10} emissions (predominantly dust and dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, and landfill operations. Compliance with Regulation VIII does not constitute mitigation because it is already required by law (SJVAPCD 2015). Thus, compliance is assumed in this analysis.
- **Rule 2010—Permits Required:** This rule applies to anyone who plans to or does operate, construct, alter, or replace any source operation that may emit air contaminants or may reduce the emission of air contaminants. The project would be subject to SJVAPCD permitting requirements for stationary sources such as back-up generators.
- **Rule 2201—New and Modified Stationary Source Review Rule:** This rule applies to all new stationary sources and all modifications of existing stationary sources. Stationary sources are subject to SJVAPCD permit requirements if, after construction, they emit or may emit one or more affected pollutant. This rule requires the use of Best Available Control Technology (BACT) to minimize potential emissions from new and modified equipment and processes. Specific to the project, the BACT for emergency diesel-fired engines, including backup generators, requires engines greater than 50 horsepower (hp) to be in compliance with emission limits that are equivalent to the EPA Tier 4 final standards (for all permits requested after April 29, 2022) (SJVAPCD 2022).
- **Rule 2550—Federally Mandated Preconstruction Review for Major Sources of Air Toxics:** This rule applies to applications to construct or reconstruct a major air toxics source.
- **Rule 3135—Dust Control Plan Fee:** This rule requires applicants to submit a fee in addition to a dust control plan. The purpose of this fee is to recover SJVAPCD's cost for reviewing such plans and conducting compliance inspections.

- **Rule 4002—National Emissions Standards for Hazardous Air Pollutants**: This rule applies to all sources of HAPs and requires them to comply with the standards, criteria, and requirements set forth therein.
- **Rule 4101—Visible Emissions:** This rule prohibits emissions of visible air contaminants to the atmosphere and applies to any source operation that emits or may emit air contaminants.
- **Rule 4102—Nuisance:** This rule applies to any source operation that emits or may emit air contaminants or other materials. If such emissions create a public nuisance, the owner/operator could be in violation and be subject to enforcement action by SJVAPCD.
- **Rule 4601—Architectural Coatings:** This rule limits volatile organic compounds from architectural coatings by specifying storage, cleanup, and labeling requirements for architectural coatings.
- **Rule 9510—Indirect Source Review:** This rule is intended to reduce or mitigate emissions of NO_X and PM_{10} from the construction- and operation-related emissions of new land use development in the SJVAPCD. This rule requires specific percentage reductions in estimated onsite construction and operation emissions, and/or payment of a prescribed off-site mitigation fee for required reductions that cannot be met on the project site. Construction emissions of NO_X and PM_{10} exhaust must be reduced by 20 percent and 45 percent, respectively. Operational emissions of NO_X and PM_{10} must be reduced by 33.3 percent and 50 percent, respectively. The rule applies to commercial development projects of 2,000 square feet and larger, so the project would be subject to Rule 9510. Per Section 4.4.3 of Rule 9510, any project whose primary functions are subject to Rules 2010 and 2201 is exempted from Rule 9510. The provisions of Rule 9510 are described in more detail in the analysis of environmental impacts and mitigation measures.

In addition, if modeled construction- or operation-related emissions for a project exceed SJVAPCD's mass emission thresholds for criteria air pollutants and precursors then SJVAPCD recommends implementing mitigation to reduce these emissions. As a form of mitigation, a project proponent may enter into a Voluntary Emission Reduction Agreement with SJVAPCD to reduce the project-related impact on air quality to a less-than-significant level. A Voluntary Emission Reduction Agreement is a mitigation measure by which the project proponent provides pound-for-pound mitigation of emissions increases through a process that funds and implements emission reduction projects (SJVAPCD 2015).

Toxic Air Contaminants

At the local level, air districts may adopt and enforce CARB control measures. Under SJVAPCD Rule 2010 ("Permits Required"), Rule 2201 ("New and Modified Stationary Source Review"), and Rule 2550 ("Federally Mandated Preconstruction Review for Major Sources of Air Toxics"), all sources that possess the potential to emit TACs are required to obtain permits from SJVAPCD. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including New Source Review standards and air toxics control measures. SJVAPCD limits emissions and public exposure to TACs through multiple programs. SJVAPCD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. Sensitive receptors are people, or facilities that generally house people (e.g., residences, schools, hospitals), that may experience adverse effects from unhealthful concentrations of air pollutants.

Odors

Although offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable stress among the public and often generating citizen complaints to local governments and SJVAPCD. SJVAPCD Rule 4102 ("Nuisance") regulates odorous emissions.

San Joaquin County 2035 General Plan

San Joaquin County General Plan, Community Development Element, includes goals and policies to accommodate new growth while encouraging a majority of growth to occur within incorporated cities. The following policies from the Community Development Element are relevant to air quality with respect to the project (San Joaquin County 2017a):

- **Policy LU-1.2. Accommodating Future Growth:** The County shall ensure that the General Plan designates sufficient land for urban development to accommodate projected population and employment growth.

The Public Health and Safety Element of the San Joaquin General Plan includes the following applicable to policies:

- **Policy PHS-5.1 Air Quality Monitoring** The County shall participate in programs to monitor harmful air contaminants to determine their impacts.
- **Policy PHS-5.2 San Joaquin Valley Air Pollution Control District Coordination** The County shall coordinate with the San Joaquin Valley Air Pollution Control District (SJVAPCD) during the review of new development projects which have the potential for causing adverse air quality impacts.
- **Policy PHS-5.3 Cross-Jurisdictional Air Quality Issues** The County shall coordinate with neighboring jurisdictions and affected agencies to address cross-jurisdictional and regional transportation and air quality issues.
- **Policy PHS-5.4 Innovative Mitigation Measures** The County shall encourage innovative mitigation measures and project redesign to reduce air quality impacts by coordinating with the SJVAPCD, project applicants, and other interested parties.
- **Policy PHS-5.5 Air District Best Performance Standards** The County shall consider the Best Performance Standards adopted by SJVAPCD during the review of new development proposals.
- **Policy PHS-5.6 Toxic Air Contaminants** The County shall require effective buffers between residential areas and other sensitive receptors and non-residential land uses, such as highways, trucking centers, gasoline dispensing facilities, and dry cleaners, that generate toxic air contaminants.
- **Policy PHS-5.7 TAC Exposure Reduction Measures for New Development** The County shall require new development projects to implement all applicable best management practices that will reduce exposure of sensitive receptors (e.g., hospitals, schools, daycare facilities, elderly housing and convalescent facilities) to toxic air contaminants.
- **Policy PHS-5.8 Minimize Motor Vehicle Emissions** The County shall strive to minimize motor vehicle emissions through land use and transportation strategies, as well as by promotion of alternative fuels.
- **Policy PHS-5.9 Particulate Emissions from Construction** The County shall support SJVAPCD efforts to reduce PM_{10} and $PM_{2.5}$ emissions from construction, grading, excavation, and demolition to the maximum extent feasible and consistent with State and Federal regulations.
- **Policy PHS-5.10 Particulate Emissions from County Roads** The County shall require PM_{10} and $PM_{2.5}$ emission reductions on County-maintained roads to the maximum extent feasible and consistent with State and Federal regulations.
- **Policy PHS-5.11 Paving Materials** The County shall require all access roads, driveways, and parking areas serving new commercial and industrial development to be constructed with materials that minimize particulate emissions and are appropriate to the scale and intensity of use.
- **Policy PHS-5.12 Agricultural Best Management Practices** The County shall encourage agricultural operations to incorporate Best Management Practices, such as: paving roads; screening cropland with windbreaks; limiting tilling, grading, and pesticide use on high-wind days; and changing harvesting equipment to minimize air quality hazards from pesticides and reduce PM_{10} and $PM_{2.5}$ emissions consistent with State and Federal regulations.
- **Policy PHS-5.13 Industrial Best Management Practices** The County shall require industrial facilities to incorporate economically feasible Best Management Practices and control technology to reduce PM10 and PM2.5 emissions consistent with State and Federal regulations.
- **Policy PHS-5.14 Energy Consumption Reduction** The County shall encourage new development to incorporate green building practices and reduce air quality impacts from energy consumption.

City of Riverbank General Plan 2005-2025

The City of Riverbank General Plan, Air Quality Element, addresses the City's goals, policies, and implementation strategies for maintaining and improving air quality during and after the buildout of the General Plan. The overarching air quality goal is to minimize Riverbank's contribution to existing and potential future air quality problems, whether experienced locally, regionally, or globally. The following policies from the Air Quality Element of the City's General Plan are relevant to the project:

- **Policy AIR-2.1:** The City of Riverbank, in coordination with the San Joaquin Valley Air Pollution Control District, will require approved projects, plans, and subdivisions to reduce particulate emissions from construction, grading, excavation, and demolition to the maximum extent feasible.
- **Policy AIR-3.1:** The City will provide adequate sites for industrial development, while minimizing the health risks to people resulting from industrial toxic or hazardous air pollutant emissions.
- **Policy AIR-3.3**: The City of Riverbank will ensure that industrial, manufacturing, and processing facilities that may produce toxic or hazardous air pollutants are located at an adequate distance from residential areas and other sensitive receptors.

The following policies from the Public Services and Facilities Element of the City's General Plan also are relevant to air quality with respect to the project:

- **Policy PUBLIC-3.1:** The City will require that wastewater collection, conveyance, and treatment facilities meet or exceed local, State, and federal standard
- **Policy PUBLIC-3.2** The City will identify and utilize, as feasible, best environmental practices and technologies for wastewater collection, conveyance, and treatment.

3.3.2 Environmental Setting

San Joaquin County, and the rest of the SJVAB, is designated as nonattainment with respect to the CAAQS and NAAQS for ozone (CARB 2020). Ozone is a secondary pollutant resulting from reaction of reactive organic gases (ROG) and oxides of nitrogen (NO_X) in the presence of sunlight. The county is designated as nonattainment for the CAAQS for PM_{10} and attainment for the NAAQS for PM_{10}; and the county is designated as nonattainment for the CAAQS and NAAQS for $PM_{2.5}$ (CARB 2020).

The thresholds of significance listed below were adopted by SJVAPCD for evaluating emissions generated during the construction and operational phase of a project (SJVAPCD 2015).

Ozone Precursors

- ROG: 10 tons per year (tpy)
- NO_X: 10 tpy

Particulate Matter

- PM_{10} and $PM_{2.5}$: 15 tpy

Carbon Monoxide

- CO: 100 tpy

Oxides of Sulfur

- Oxides of sulfur (SO_X): 27 tpy

Toxic Air Contaminants

- If the project would be considered significant if the project would expose the public to substantial levels of TACs so that the probability of contracting cancer for the Maximally Exposed Individual equals or exceeds 20 in 1 million or an acute or chronic Hazard Index that equals or exceeds 1 for the Maximally Exposed Individual for non-carcinogens.

Odor Impacts

- If the project would result in sensitive receptors being located closer than the screening level distances designated by SJVAPCD for specific facility types (e.g., landfill, wastewater treatment plant, chemical manufacturing plant).

- In addition, if emissions of any of these criteria pollutants (ROG, NO_X, PM_{10} and $PM_{2.5}$, CO, SO_X) would exceed a screening criterion of 100 pounds per day (lb/day), SJVAPCD requires site-specific ambient air quality analysis (AAQA) to determine whether the project would result in a localized exceedance or cumulatively considerable contribution to an exceedance of a NAAQS or CAAQS (SJVAPCD 2015: 93–94).

These SJVAPCD thresholds of significance for criteria pollutant emissions are based on SJVAPCD New Source Review (NSR) offset requirements for stationary sources. Emission reductions achieved through implementation of SJVAPCD offset requirements are a major component of SJVAPCD's air quality plans. Thus, projects with emissions below the thresholds of significance for criteria pollutants are considered to not conflict or obstruct implementation of SJVAPCD's air quality plan.

3.3.3 Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less-than-significant impact. SJVAPCD has established thresholds of significance for criteria pollutant emissions, which are based on NSR offset requirements for stationary sources. Stationary sources in the SJVAPCD are subject to some of the toughest regulatory requirements in the nation. Emission reductions achieved through implementation of SJVAPCD offset requirements are a major component of the SJVAPCD's air quality plans. Thus, for purposes of CEQA analysis, projects with emissions below the thresholds of significance for criteria pollutants would be determined to not conflict or obstruct implementation of the SJVAPCD's air quality plan (SJVAPCD 2015: 65).

As noted under item b) below, the project would not result in a significant increase in short-term construction or long-term operational emissions because the proposed additions to the existing project site would not introduce levels of emissions which exceed SJVAPCD thresholds. Additionally, the project would maximize production and use of recycled water to offset use of groundwater which would help provide wastewater treatment capacity to serve projected population growth in the City of Riverbank over a 30-year planning horizon. Thus, the project would not conflict or obstruct implementation of SJVAPCD's air quality plan. This impact would be less than significant.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less-than-significant impact. As discussed above, San Joaquin County and the rest of the SJVAB is designated as nonattainment with respect to the CAAQS and NAAQS for ozone and $PM_{2.5}$ and with respect to the CAAQS for PM_{10}. Past, present, and future development projects contribute to the adverse air quality in the SJVAB on a cumulative basis. By its very nature, air pollution throughout the SJVAB is a cumulative impact. A project's individual emissions can contribute to existing cumulatively significant adverse air quality impacts. As explained in SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (2015), and consistent with CEQA, if a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, SJVAPCD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If project-related emissions do not exceed the identified significance thresholds, including SJVAPCD's mass emission thresholds of 10 tpy for ROG or NO_X, 15 tpy for PM_{10} and $PM_{2.5}$, 100 tpy for CO, and 27 tpy for SO_X, its emissions would not be cumulatively considerable, and would not result in significant adverse air quality impacts. Additionally, if project emissions exceed a screening criterion of 100 lb/day for each of these criteria pollutants (ROG, NO_X, PM_{10} and $PM_{2.5}$, CO, SO_X), then a site-specific AAQA would be required.

Construction would include upgrades to the existing City WWTP, including new secondary and tertiary treatment and disinfection facilities, construction of a recycled water storage tank, reconfiguration of existing percolation ponds to provide additional seasonal recycled water storage, and installation of a distribution system to initially serve nearby agricultural users. Construction of the project is anticipated to begin in October 2024 and last approximately 27 months, ending in December 2026. The estimated type and quantity of construction equipment, materials, haul trips, and the earthmoving volumes were provided by the project applicant and are summarized in Appendix A. Sources of construction emissions include equipment exhaust, delivery truck and haul truck vehicle exhaust, construction worker commute vehicles, and fugitive dust associated with earth movement. Emissions were estimated using a combination of emission factors and methodologies published and recommended by CARB and other agencies, including the California Emissions Estimator Model (CalEEMod), version 2020.4.0 and CARB's EMFAC2021 model. Implementation of feasible control measures to reduce fugitive dust emissions during construction are regulated through mandatory compliance with SJVAPCD Regulation VIII. Compliance is assumed in this analysis.

Once constructed, operational emission sources would be associated with routine maintenance performed by four operators (workers) and pumps to pump the additional water demand. Moreover, there would be occasional maintenance and delivery trips to bring in materials, as well as haul trucks to transport biosolids to land application sites. For purposes of analysis, it was assumed there would be 24 material delivery trips and 16 biosolids haul trips per year per the project applicant. The new pumps would be electrically powered and would require 6,632,000 kilowatt-hours (kWh) in the first year of operation (assumed to be 2027), and 9,620,000 kWh at a future date (assumed to be 2050).

Construction- and operations-related emissions of criteria air pollutants and precursors were summed at the daily and annual time scale for comparison with SJVAPCD's daily screening criteria and annual thresholds of significance. Modeling outputs are provided in Appendix B.

As shown in Table 3.3-3, construction-generated emissions of ROG, NO_X, PM_{10}, $PM_{2.5}$, CO, SO_X, would not exceed the annual mass emission thresholds during any year of construction nor would peak daily emissions exceed the daily screening criteria on the maximum day of construction. Thus, emissions of criteria air pollutants and precursors generated by project construction would not contribute to the nonattainment status of the SJVAB for any criteria air pollutants, and no site-specific ambient air quality modeling is required. This impact would be less than significant.

Table 3.3-3 Summary of Construction-Generated Emissions of Criteria Air Pollutants and Precursors

Construction Source	Emissions					
	ROG	NO_X	PM_{10}	$PM_{2.5}$	CO	SO_X
Annual Emissions (tons/year)						
2024	0.1	1.0	1.4	0.3	0.1	0.003
2025	0.2	1.6	1.9	0.3	0.1	0.004
2026	0.1	1.4	1.4	0.4	0.1	0.004
SJVAPCD Mass Emission Threshold (tons/year)	*10*	*10*	*15*	*15*	*100*	*27*
Exceed Significance Threshold?	*No*	*No*	*No*	*No*	*No*	*No*
Daily Emissions (lb/day)	7	5051	20	5	71	<1
SJVAPCD Screening Criteria (lb/day)	*100*	*100*	*100*	*100*	*100*	*100*
Exceed Screening Criteria?	*No*	*No*	*No*	*No*	*No*	*No*

Notes: CO = carbon monoxide; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; ROG = reactive organic gases; SO_X = oxides of sulfur; tpy = tons per year.

Refer to Appendix B for detailed assumptions and modeling output files.

Source: Modeling conducted by Ascent Environmental in 2022.

As shown in Table 3.3-4, operations-generated emissions of ROG, NO_X, PM_{10}, $PM_{2.5}$, CO, SO_X, would not exceed the annual mass emission thresholds nor would daily emissions exceed the daily screening criteria. Thus, emissions of criteria air pollutants and precursors generated by project operations would not contribute to the nonattainment status of the SJVAB for any criteria air pollutants, and no site-specific ambient air quality modeling is required. This impact would be less than significant.

Table 3.3-4 Summary of Operations-Generated Emissions of Criteria Air Pollutants and Precursors

Operational Source	Emissions					
	ROG	NO_X	PM_{10}	$PM_{2.5}$	CO	SO_X
Annual Emissions (tons/year)						
Area Sources	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
Mobile Sources	0.01	0.01	0.01	<0.01	0.05	<0.01
Stationary Sources	0.02	0.07	<0.01	<0.01	0.06	<0.01
Total Annual Emissions	0.06	0.07	0.02	0.01	0.11	<0.01
SJVAPCD Mass Emission Threshold	*10*	*10*	*15*	*15*	*100*	*27*
Exceed Significance Threshold?	*No*	*No*	*No*	*No*	*No*	*No*
Daily Emissions (lb/day)						
Area Sources	0.15	<0.01	<0.01	<0.01	<0.01	<0.01
Mobile Sources	0.03	0.05	0.07	0.02	0.29	<0.01
Stationary Sources	0.13	0.36	0.02	0.02	0.33	<0.01
Total Daily Emissions	0.31	0.41	0.09	0.04	0.62	<0.01
SJVAPCD Screening Criteria (lb/day)	*100*	*100*	*100*	*100*	*100*	*100*
Exceed Screening Criteria?	*No*	*No*	*No*	*No*	*No*	*No*

Notes: CO = carbon monoxide; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; ROG = reactive organic gases; SO_X = oxides of sulfur; tpy = tons per year.

Refer to Appendix B for detailed assumptions and modeling output files.

Source: Modeling conducted by Ascent Environmental in 2022.

c) Expose sensitive receptors to substantial pollutant concentrations?

Criteria Air Pollutants and Precursors

Less-than-significant impact. The closest sensitive receptors to the project area are the residential land uses across the Stanislaus River, along River Cove Drive, approximately 615 feet (188 meters) south of the southern edge of the project area, and the residential land uses along Santa Fe Road, approximately 645 feet (197 meters) east of the eastern edge of the project area. Other nearby land uses are predominately agricultural uses and open space. As discussed in b) above, the project would not result in regional (e.g., ROG, NO_X, PM_{10}) or local (e.g., CO) emissions of criteria air pollutants or precursors that would exceed applicable SJVAPCD-adopted thresholds of significance. Thus, project-generated emissions of criteria air pollutant and precursors would not expose sensitive receptors to substantial pollutant concentrations. This impact would be less than significant.

Toxic Air Contaminants

Less-than-significant impact. Particulate exhaust emissions from diesel-fueled engines (i.e., diesel PM) were identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of diesel PM outweighs the potential for all other health impacts (OEHHA 2003). Construction-related activities would result in temporary, short-term project-generated emissions of diesel PM from the exhaust of off-road, heavy-duty diesel equipment for site preparation, excavation, and paving. Based on the construction analysis presented above and summarized in Table 3.3-1, daily and annual exhaust emissions of $PM_{10,}$ considered a surrogate for diesel PM, would be less than one lb/day during construction. Emissions would occur over most of the 150-acre WWTP area.

Considering the highly dispersive properties of diesel PM, the relatively low level of diesel PM emissions that would be generated during project construction, and the relatively short duration of construction activities, construction-related TAC emissions would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in 1 million or a hazard index greater than 1.0.

The project would include three 450-kW (or 603 hp) diesel backup generators, which are included to provide reliable power to maintain treatment efficacy in the event of a power outage. The backup generators would be test-run monthly for a period of at least 30 minutes. For purposes of analysis, it was assumed each monthly test-run would last one hour. As noted above, SJVAPCD Rule 2201 requires all backup diesel generators greater than 50 horsepower to be installed after April 29, 2022, to be equipped with engines in compliance with Tier 4 final emission limits. Generators permitted as part of the project would be subject to this rule and associated BACT requirements.

To determine whether emissions from backup generator testing activities would be potentially significant, the SJVAPCD's Prioritization Risk Screening Tool was used to screen for long-term cancer and chronic hazards (there are no acute risk factors for diesel PM). This tool calculates potential health risk impacts from exposure to TACs associated with the operation of stationary equipment or industrial processes. The annual and maximum daily pounds of TAC emissions are the inputs to determine the maximum cancer, chronic, and acute risk impacts to receptors at different receptor distances.

Based on SJVAPCD's guidance in using its Prioritization Risk Screening Tool, if a cancer prioritization score exceeds a cancer risk value of 10 at the nearest residential receptor, the project (or facility) is considered high priority, and a quantitative health risk assessment (HRA) is required.) Following the use of the Prioritization Risk Screening Tool, the prioritization score from operation of the backup generator at the nearest sensitive receptor (188 meters or approximately 615 feet) is estimated to be 4.0 without BACT, and 0.27 with BACT, assuming each generator is tested 12 hours per year, which is well below SJVAPCD's prioritization screen score of 10, thus not warranting the preparation of a quantitative operational HRA. Therefore, project operation would not expose sensitive receptors to an incremental increase in cancer risk. This impact would be less than significant.

<u>Carbon Monoxide Concentrations</u>

Less-than-significant impact. Under certain meteorological conditions, CO concentrations near roadways and/or intersections may reach unhealthy levels at nearby sensitive land uses, such as residential units, hospitals, schools, and childcare facilities. SJVAPCD provides a screening methodology to determine whether CO emissions generated by traffic at congested intersections have the potential to exceed, or contribute to an exceedance of, the 8-hour CAAQS of 9.0 micrograms per cubic meter ($\mu g/m^3$) or the 1-hour CAAQS of 20 $\mu g/m^3$. SJVAPCD has established that if neither of the following criteria are met at all intersections affected by the project, the project would result in no potential to create a violation of the CO standard:

- A traffic study for the project indicates that the Level of Service (LOS) on one or more streets or at one or more intersections in the project vicinity will be reduced to LOS E or F; or
- A traffic study indicates that the project will substantially worsen an already existing LOS F on one or more streets or at one or more intersections in the project vicinity.

As noted in Section 3.17, "Transportation", vehicle miles traveled (VMT) has replaced congestion as the metric for determining transportation impacts (see CEQA Guidelines Section 15064.3). Congestion-related metrics, such as LOS, are no longer analyzed in most CEQA documents. Regardless, the project is primarily a construction project that would result in minor operational traffic changes relative to baseline conditions. Construction worker and truck activity would be minimal and temporary and would not add vehicles to nearby roadways that would potentially create a violation of the CO standard. Once operational, the project may increase maintenance-related trips long-term due to the increase in size and number of facilities associated with implementation of the project, but these trips would be minimal and would not result in traffic that could create a violation of the CO standard Therefore, neither of SVJAPCD-recommended criteria would be met to result in a potential for a CO hotspot and this impact would be less than significant.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-than-significant impact. The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Although offensive odors rarely cause physical harm, they may still be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

SJVAPCD provides odor screening guidance, which can be used as a screening tool to qualitatively assess a project's potential to adversely affect area receptors. If the project would result in sensitive receptors being located closer than the screening level distances, a more detailed analysis should be provided. The project is an expansion of the existing WWTP. Based on SJVAPCD, the screening distance for this type of facility is 2 miles. The closest sensitive receptor is 615 feet (or 0.12 miles) away. Thus, the screening criteria is not met, and further analysis is required.

As described in Section 2, "Project Description", the project site is subject to Waste Discharge Requirements, which states that objectionable odors originating at the facility shall not be perceivable beyond the limits of the property. Consistency with Waste Discharge Requirements will ensure that the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, since the Waste Discharge Requirements prohibit objectionable odors originating at the facility to be perceivable beyond the limits of the property. Therefore, while the project is closer than the recommended screening distance, these requirements would ensure that objectionable odors are not perceived at sensitive receptors beyond the property line.

Additionally, construction associated with the project could expose existing nearby residents to odorous emissions from diesel equipment. However, such emissions would be short-term in nature and would dissipate rapidly with increasing distance from the source.

Implementation of the project would not involve the construction or operation of any major odor sources, and no new sensitive receptors would be introduced by the project. Thus, the project would not result in the exposure of residences or other sensitive receptors to objectionable odors. As a result, this impact would be less than significant.

3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
IV. Biological Resources.				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the US Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the US Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.4.1 Regulatory Setting

FEDERAL

Federal Endangered Species Act

The federal Endangered Species Act (ESA) (16 United States Code [USC] Section 1531 et seq.) regulates the taking of species listed under the ESA as threatened or endangered. Section 9 of the ESA prohibits any person from "taking" an endangered or threatened fish or wildlife species. "Take" is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The U.S. Fish and Wildlife Service (USFWS) has also interpreted the definition of "harm" to include substantial habitat modification that could result in take. Section 10 regulates incidental take if a non-federal agency is the lead agency for an action that results in take and no other federal agencies are involved in permitting or funding the action; an application for an incidental take permit under Section 10 would require preparation of a habitat conservation plan (HCP), which can take many years to prepare, or enrollment in an existing HCP such as the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). If a project would result in take of a federally listed species and there is a federal nexus through federal funding or permitting by a federal agency, the federal lead agency is required to initiate federal interagency cooperation, and

Section 7 could provide take authorization. In some circumstances the federal lead agency can delegate the responsibility for Section 7 to a non-federal agency such as the State Water Resources Control Board.

STATE

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from the California Department of Fish and Wildlife (CDFW) is required for projects that could result in the "take" of a plant or animal species that is listed by the state as candidate, threatened, or endangered. Under CESA, "take" is defined as an activity that would directly or indirectly kill an individual of a species, but the CESA definition of take does not include "harm" or "harass," like the federal ESA definition does. Authorization for take of state-listed species can be obtained through a California Fish and Game Code (CFGC) Section 2081 incidental take permit.

California Fish and Game Code Sections 3503 and 3503.5

Section 3503 of the CFGC states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the CFGC states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders Falconiformes and Strigiformes), including their nests or eggs. Projects typically comply with this requirement to avoid take by implementing pre-construction nest surveys and nesting period restrictions if nests are found.

LOCAL

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

An HCP is a federal planning document that is prepared pursuant to Section 10 of ESA. An approved HCP within a defined plan area allows for the incidental take of species and habitat that are otherwise protected under ESA during development activities. A natural community conservation plan (NCCP) is a state planning document administered by CDFW. An approved NCCP within a defined plan area allows for the incidental take of species and habitat that are otherwise protected under CESA during growth and development activities.

The SJMSCP, which is an HCP and an NCCP, in accordance with ESA Section 10(a)(1)(B) and CESA Section 2081(b) Incidental Take Permits, provides compensation for the conversion of open space to non-open space uses that affect the plant, fish, and wildlife species covered by the plan, hereinafter referred to as "SJMSCP Covered Species."

Participation in the SJMSCP is voluntary; however, the City of Riverbank General Plan (Policy CONS-4.3) requires compliance with the SJMSCP for projects within San Joaquin County, for covered activities as applicable (i.e., when take authorization is required).

The 97 SJMSCP Covered Species include 25 state-listed and/or federally listed species: 27 plants (six listed), four fish (two listed), four amphibians (one listed), four reptiles (one listed), 33 birds (seven listed), 15 mammals (three listed), and 10 invertebrates (five listed).

The SJMSCP is administered by a Joint Powers Authority consisting of members of the San Joaquin Council of Governments (SJCOG), CDFW, and USFWS. Development project applicants are given the option of participating in the SJMSCP to streamline compliance with required local, state, and federal laws regarding biological resources and typically avoid having to approach each agency independently. According to the SJMSCP, adoption and implementation by local planning jurisdictions provide full compensation and mitigation for impacts on plants, fish, and wildlife. Adoption and implementation of the SJMSCP also secures compliance pursuant to state and federal laws, such as CEQA and the Porter-Cologne Water Quality Control Act. The SJMSCP is intended to support issuance of CFGC Section 2081 incidental take permits and incidental take permits under Section 10 of the ESA for species covered under the SJMSCP.

Applicants pay mitigation fees on a per-acre basis, as established by the Joint Powers Authority, according to the measures needed to mitigate impacts on the various habitats and biological resources covered by the SJMSCP. Development occurring on land that has been classified under the SJMSCP as "no-pay" would not be required to pay a fee. This category usually refers to already urbanized land and infill development areas.

San Joaquin County Code of Ordinances

Chapter 9-1505 of the San Joaquin County Code of Ordinances requires permits for the removal of native oak trees, heritage oak trees, or historical trees; and requires design constraints, and protection measures be implemented for trees that are retained within the construction zone of a project.

San Joaquin County 2035 General Plan

The following policies from the Natural and Cultural Resources Element of the San Joaquin General Plan are relevant to biological resources with respect to the project:

- **Policy NCR-2.1 Protect Significant Biological and Ecological Resources:** The County shall protect significant biological and ecological resources including: wetlands; riparian areas; vernal pools; significant oak woodlands and heritage trees; and rare, threatened, and endangered species and their habitats.
- **Policy NCR-2.2 Collaboration for Species Protection:** The County shall collaborate with the California Department of Fish and Wildlife during the review of new development proposals to identify methods to protect listed species.
- **Policy NCR-2.3 San Joaquin County Multi-Species Habitat Conservation and Open Space Plan:** The County shall continue to implement the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan to mitigate biological impacts resulting from open space land conversion. (RDR/PSP/IGC)
- **Policy NCR-2.8 Natural Open Space Buffer:** The County shall require a natural open space buffer to be maintained along any natural waterway to provide nesting and foraging habitat and to protect waterway quality.
- **Policy NCR-2.9 Protect Fisheries:** The County shall encourage and support efforts to protect fisheries, including:
  - reducing the level of pesticides and fertilizers and other harmful substances in agricultural and urban runoff,
  - designing and timing waterway projects to protect fish populations, and
  - operating water projects to provide adequate flows for spawning of anadromous fish.

City of Riverbank General Plan 2005-2025

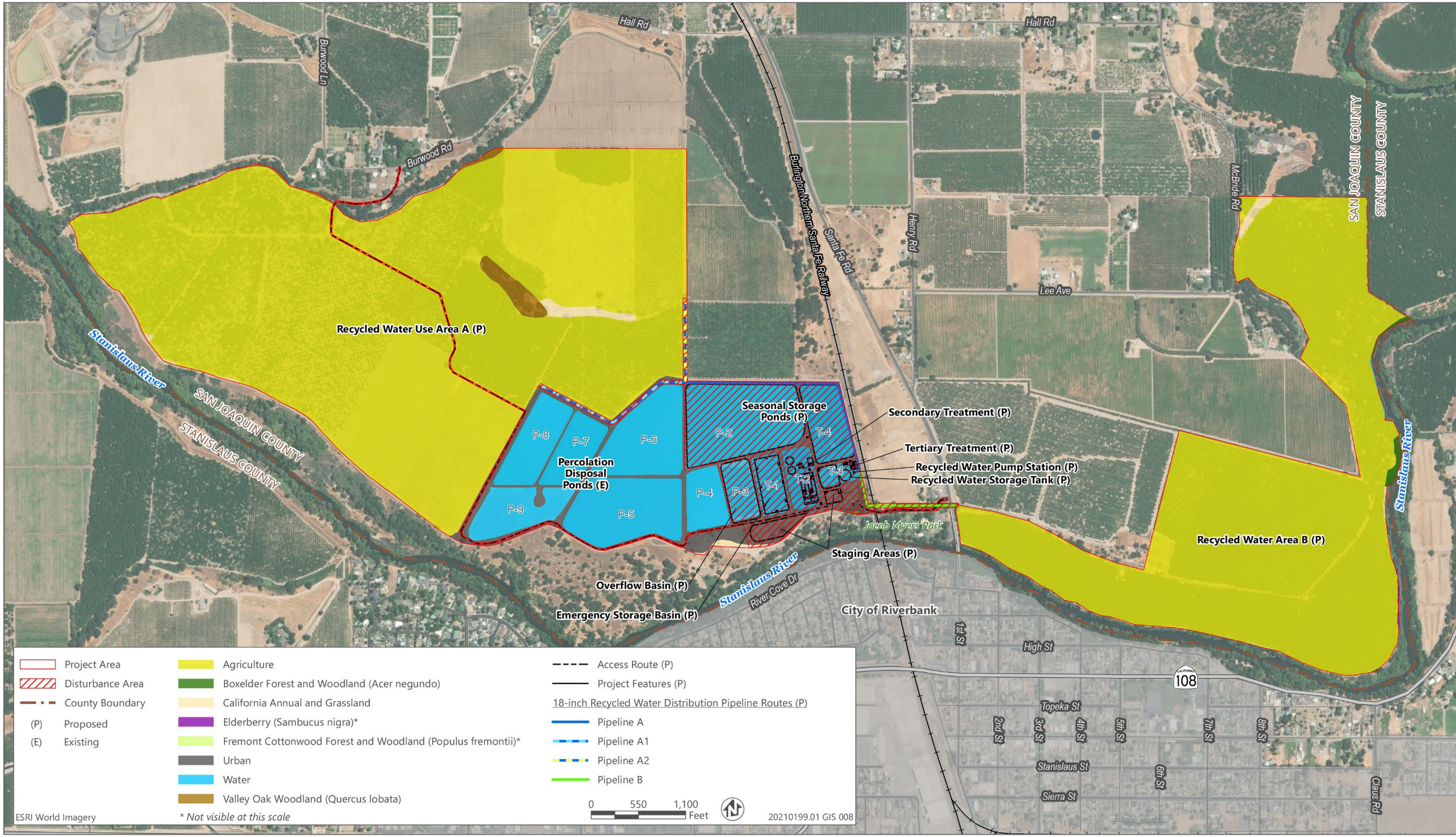
The following policy from the Conservation and Open Space Element of the City's General Plan (City of Riverbank 2009) is relevant to biological resources with respect to the project:

- **Policy CONS-4.3**: The City will require compliance with the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan for projects to expand Jacob Myers Park, or other projects within San Joaquin County as applicable.

3.4.2 Environmental Setting

LAND COVER WITHIN THE PROJECT SITE

The land cover within the project site is mostly cultivated agricultural land consisting of walnut and almond orchards. The existing WWTP and storage ponds are mostly unvegetated, with isolated trees and low-growing herbaceous cover and barren disturbed areas. Natural land cover types within the project site include California annual grassland, valley oak (*Quercus lobata*) woodland, and box elder (*Acer negundo*) forest and woodland (Figure 3.4-1). Small areas of Fremont cottonwood forest (*Populus fremontii*) and elderberry (*Sambucus nigra*) land cover types were also mapped in the project area on the river side edge of Recycled Water Area B.



Source: Data provided by Kjeldsen, Sinnock & Neudeck in 2022; adapted by Ascent in 2022.

Figure 3.4-1 Project Features and Land Cover

SPECIAL-STATUS SPECIES

Special-status species are defined as species that are legally protected or that are otherwise considered sensitive by federal, state, or local resource agencies. Special-status species are species, subspecies, or varieties that fall into one or more of the following categories, regardless of their legal or protection status:

- officially listed by California (under CESA) or the federal government (under ESA) as endangered, threatened, or rare;
- a candidate for state or federal listing as endangered, threatened, or rare;
- taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in CCR Section 15380 of the CEQA Guidelines;
- species identified by CDFW as species of special concern;
- species listed as fully protected under the CFGC;
- species afforded protection under local planning documents, such as SJMSCP; and
- taxa considered by the CDFW to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR). The CDFW system includes five rarity and endangerment ranks for categorizing plant species of concern; the three that are considered special-status for the purpose of this report are summarized as follows:
  - CRPR 1A Plants presumed to be extinct in California;
  - CRPR 1B – Plants that are rare, threatened, or endangered in California and elsewhere; and
  - CRPR 2 Plants that are rare, threatened, or endangered in California but more common elsewhere.

The term "California species of special concern" is applied by CDFW to animals not listed under ESA or CESA, but that are considered to be declining at a rate that could result in listing, or that historically occurred in low numbers and known threats to their persistence currently exist. CDFW's fully protected status was California's first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

A list of special-status species with the potential to occur in the project area was developed through a review of relevant databases and other available information. The CNPS Inventory of Rare and Endangered Plants (CNPS 2022) and CDFW's California Natural Diversity Database (CNDDB) (CNDDB 2022a) were reviewed for specific information on documented observations of special-status species previously recorded in the project site and vicinity. A search of the CNDDB and CNPS was conducted for the following US Geological Survey 7.5' quadrangles surrounding the project area: Riverbank, Waterford, Oakdale, Escalon, Brush Lake, Ceres, Denair, Avena, and Salida. In addition, an official species list was received for the project from the USFWS IpaC database.

The determination of the probability that any species may occur in the project site was determined based on the range of the species, distance to documented occurrences, suitable habitat within the project site, and other factors. The full list of botanical and animal species evaluated for the potential to occur within the project site are shown in Appendix C. The special-status species with the potential to occur within the project site are shown in Table 3.4-1.

Table 3.4-1 Special-Status Species Known or with the Potential to Occur in the Project Site

Species	Status[1] Federal	State	Other[2]	Habitat	Potential for Occurrence[3]
Invertebrates					
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	T		SJMSCP: Yes	Riparian scrub. Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *Caerulea*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	Could occur: Riparian habitat associated with the Stanislaus River is located directly adjacent to the project area. Numerous elderberry shrubs were observed during the reconnaissance surveys located within 165 feet of the disturbance footprint. The species was documented to occur historically along the north bank of the Stanislaus River adjacent to the WWTP (CNDDB 2022a).
Fish					
Green sturgeon southern distinct population segment *Acipenser medirostris*	FT		SJMSCP: Yes	Aquatic, Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters. These are the most marine species of sturgeon. Abundance increases northward of Point Conception. Spawns in the Sacramento, Klamath, and Trinity Rivers. Spawns at temperatures between 8-14 degrees C. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	Could Occur: There are no aquatic features within the project area suitable for green sturgeon; however, the species may be present within the Stanislaus River directly adjacent to the eastern application area.
Chinook salmon – Central Valley fall / late fall-run Evolutionary Significant Unit *Oncorhynchus tshawytscha*		SSC	SJMSCP: No	Sacramento/San Joaquin flowing waters. Populations spawning in the Sacramento and San Joaquin rivers and their tributaries.	Could Occur: There are no aquatic features within the project area suitable for Chinook salmon; however, the species may be present within the Stanislaus River directly adjacent to the eastern application area.
Hardhead *Mylopharodon conocephalus*		SC	SJMSCP: No	Aquatic. Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters. Low to mid-elevation streams in the Sacramento-San Joaquin drainage. Also present in the Russian River. Clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.	Could Occur: There are no aquatic features within the project area suitable for hardhead; however, the species may be present within the Stanislaus River directly adjacent to the eastern application area.
Steelhead – Central Valley DPS *Oncorhynchus mykiss irideus* pop. 11	T		SJMSCP: No	Aquatic. Sacramento/San Joaquin flowing waters. Populations in the Sacramento and San Joaquin rivers and their tributaries.	Could Occur: There are no aquatic features within the project area suitable for steelhead; however, the species may be present within the Stanislaus River directly adjacent to the eastern application area.

Species	Status[1]			Habitat	Potential for Occurrence[3]
	Federal	State	Other[2]		
Amphibians and Reptiles					
Western pond turtle *Emys marmorata*		SC	SJMSCP: Yes	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.3 mile from water for egg-laying.	Could Occur: Riparian vegetation adjacent to the project area, as well as undisturbed portions of the WWTP and application areas, may be used by western pond turtle as upland habitat. Unidentified turtles were seen using the existing treatment ponds during the site visit on May 17, 2022. Nearest documented occurrence is approximately 7 miles from the project area (CNDDB 2022a).
Birds					
Cooper's hawk *Accipter cooperi*			SJMSCP: Yes	Cismontane woodland, riparian forest, riparian woodland, upper montane coniferous forest. Woodland, chiefly of open, interrupted, or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	Could occur: Riparian forest adjacent to the project area is potentially suitable nesting habitat for this species.
Sharp-shinned hawk *Accipter striatus*			SJMSCP: Yes	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland. Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes with plucking perches are critical requirements. Nests usually within 275 feet of water.	Could occur: Riparian habitat adjacent to project area is suitable foraging habitat for the species. Project is outside of the breeding range of the species.
Tricolored blackbird *Agelaius tricolor*		T	SJMSCP: Yes	Freshwater marsh, swamp, and wetland. Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Could occur: Riparian forest adjacent to the project area is potentially suitable nesting habitat for this species; however, no nesting habitat is present within the project area, and the orchards within the project area are not likely to support foraging tricolored blackbird.
Great egret *Ardea albus*			SJMSCP: Yes	Brackish marsh, estuary, freshwater marsh, marsh and swamp, riparian forest, and wetlands. Colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	Could occur: Riparian forest adjacent to the project area is potentially suitable nesting habitat for this species.
Great blue heron *Ardea herodias*			SJMSCP: Yes	Brackish marsh, estuary, freshwater marsh, marsh and swamp, riparian forest, and wetlands. Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	Could occur: Riparian forest adjacent to the project area is potentially suitable nesting habitat for this species.

Species	Status[1]			Habitat	Potential for Occurrence[3]
	Federal	State	Other[2]		
Burrowing owl *Athene cunicularia*		SC	SJMSCP: Yes	Coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley and foothill grassland. Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Could Occur: The project area includes low-growing open grassland and open ruderal habitats containing ground squirrel burrows that may provide suitable burrows for this species.
Swainson's hawk *Buteo swainsoni*		T	SJMSCP: Yes	Great Basin grassland, riparian forest, riparian woodland, valley and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Known to Occur: Large riparian and other trees within and adjacent to the project area provide potential nesting habitat for this species. Swainson's hawks were observed nesting in oak trees just north of the WWTP along the railroad right of way in 2003 (CNDDB 2022a).
Yellow warbler *Dendroica petechia brewsteri*		SC	SJMSCP: Yes	Riparian forest, riparian scrub, riparian woodland. Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascade Range and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	Could occur: Riparian forest adjacent to the project area is potentially suitable nesting habitat for this species.
White-tailed kite *Elanus leucurus*		FP	SJMSCP: Yes	Forages in grasslands and agricultural fields; nests in riparian zones, oak woodlands, and isolated trees.	Could Occur: Large riparian and other trees within and adjacent to the project area provide potential nesting habitat for this species.
California horned lark *Eremophila alpestris actia*			SJMSCP: Yes	A common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent. Found from grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above treeline.	Could occur: Grassland adjacent to the project area is potentially suitable nesting habitat for this species.
Merlin *Falco columbarius*			SJMSCP: Yes	Estuary, Great Basin grassland, valley and foothill grassland. Seacoast, tidal estuaries, open woodlands, savannas, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	Could occur: Grassland and oak woodlands within the project area are potentially suitable foraging habitat for this species.

Species	Status[1]			Habitat	Potential for Occurrence[3]
	Federal	State	Other[2]		
Yellow-breasted chat *Icteria virens*		SC	SJMSCP: Yes	Riparian forest, riparian scrub, riparian woodland. Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	Could occur: Riparian forest adjacent to the project area is potentially suitable nesting habitat for this species.
Loggerhead shrike *Lanius ludovicianus*		SC	SJMSCP: Yes	Broken woodlands, savanna, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Could occur: Riparian forest adjacent to the project area is potentially suitable nesting habitat for this species.
Black-crowned night heron *Nycticorax nycticorax*			SJMSCP: Yes	Marsh and swamp, riparian forest, riparian woodland, and wetlands. Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.	Could occur: Riparian trees adjacent to the project area may provide potential nesting habitat for this species.
Osprey *Pandion haliaetus*			SJMSCP: Yes	Riparian forest. Ocean shore, bays, fresh-water lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	Could occur: Large riparian and other trees within and adjacent to the project area provide potential nesting habitat for this species, which may forage within the Stanislaus River.
Mammals					
Townsend's big-eared bat *Corynorhinus townsendii*		SC	SJMSCP: Yes	Broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow & seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub. Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Could occur: The project area and adjacent riparian corridor may provide foraging habitat for this species, which has been recorded to occur upstream along the Stanislaus River near Knights Ferry (CNDDB 2022a). However, the project area does not likely support roosts for Townsends' big-eared bat because structures in the area that may provide suitable shelter are subject to regular human disturbance.
Western mastiff bat *Eumops perotis californicus*		SC	SJMSCP: Yes	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Could occur: The project area and adjacent riparian corridor may provide foraging habitat for this species. There is a historical record of the species approximately 5.5 miles east of the project area, and more recent occurrences upstream along the Stanislaus River (CNDDB 2022a). While there is no roosting habitat within the project area, the railroad bridge over the Stanislaus River near the project area may support roosts of this species.

Species	Status[1]			Habitat	Potential for Occurrence[3]
	Federal	State	Other[2]		
Yuma myotis bat *Myotis yumanensis*			SJMSCP: Yes	Lower montane coniferous forest, riparian forest, riparian woodland, upper montane coniferous forest. Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings, or crevices.	**Could occur:** The project area and adjacent riparian corridor may provide foraging habitat for this species. While there is no roosting habitat within the project area, the railroad bridge over the Stanislaus River near the project area may support roosts of this species.
Western red bat *Lasiurus blossevillii*		SC	SJMSCP: Yes	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland. Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	**Could Occur:** Riparian trees adjacent to the project area, as well as large oaks within the application areas, may provide roosting habitat for this species.

Notes: ESA = Federal Endangered Species Act; CESA = California Endangered Species Act; SJMSCP = San Joaquin County Multi-Species Habitat Conservation and Open Space Plan; DPS= Distinct Population Segment

[1] Legal Status Definitions

Federal:
T Threatened (legally protected)

State:
SC Species of special concern (no formal protection other than CEQA consideration)
T Threatened (legally protected

[2] Other

SJMSCP = species covered by the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan

[3] Potential for Occurrence Definitions

Could occur: Suitable habitat is available in the project site; however, there are little to no other indicators that the species might be present.
Known to occur: The species, or evidence of its presence, has been reported by others within the project site.

Sources: CNDDB 2022a; SJCOG 2000.

SENSITIVE NATURAL COMMUNITIES

Based on the land covers present (Figure 3.4-1) and the reconnaissance surveys conducted on May 17 and July 8, 2022, the following vegetation alliances were identified within the project site:

- *Acer negundo* (61.440.00) Box-elder forest and woodland (S3)
- *Populus fremontii* (61.130.00) Fremont cottonwood forest and woodland (S3)
- *Quercus lobata* (71.040.00) Valley oak woodland and forest (S3)

These vegetation alliances have a state rarity ranking of S3 and are therefore considered sensitive natural communities under CEQA.

POTENTIALLY JURISDICTIONAL AQUATIC RESOURCES

Based on the aquatic resources delineation report for the project (Ascent Environmental 2022a), no potentially jurisdictional wetlands or other waters of the United States and/or state are located within 50 feet of the access road, pipeline alignment, or within the existing WWTP site.

3.4.3 Discussion

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the US Fish and Wildlife Service?

Less than significant with mitigation incorporated.

Special-Status Wildlife

Twelve special-status wildlife species are known to occur or could occur within or adjacent to the project site (Table 3.4-1). The potential for the project to result in impacts to each of these species is disclosed below.

Valley Elderberry Longhorn Beetle

Valley elderberry longhorn beetle is listed under ESA as threatened and is a SJMSCP covered species. Critical habitat for valley elderberry longhorn beetle does not occur within the project area. The species was documented to occur between the existing WWTP and the Stanislaus River in 1991 (CNDDB 2022a). Blue elderberry (*Sambucus nigra* ssp. *caerulea*) is the obligate larval host plant for valley elderberry longhorn beetle (USFWS 2017a) and elderberry plants with exit holes indicating valley elderberry longhorn beetle activity have been documented within Jacob Myers Park directly adjacent to the project area (River Partners 2007). Blue elderberry is an important component of riparian ecosystems in California. It can be found as an overstory plant or understory plant within these communities. In addition to riparian habitat, elderberry shrubs may be found in historic floodplain, floodplain terraces, along canals and ditches, and other areas where shrub roots can access subsurface water (USFWS 2017a).

During the reconnaissance-level biological surveys, elderberry shrubs were observed within the project impact footprint along pipeline A2, and directly adjacent to pipeline A and the WWTP facility.. Although elderberry shrubs were noted during the reconnaissance surveys, these surveys did not constitute protocol-level surveys for the presence of elderberry shrubs that could provide habitat for valley elderberry longhorn beetle. However, these elderberry shrubs are within 2,526 feet of other elderberry shrubs and the known occurrence in Jacob Myers Park, which increases the likelihood that these shrubs are occupied (USFWS 2017a).

While elderberry shrubs may occur in or adjacent to the application areas, there would be no project related ground disturbance in these areas where shrubs are located. Furthermore, any impact to valley elderberry longhorn beetle from recycled water application would be discountable because recycled water would be applied at agronomic rates similar to current irrigation practices. However, there are elderberry shrubs within pipeline alignment A1 and adjacent to the disturbance footprint of pipeline alignment A and the WWTP facility, and adverse effects on valley elderberry longhorn beetle from constriction activities may occur. Potential adverse effects from the construction of pipeline A 1 include damage or killing of elderberry shrubs as the result of direct removal, cutting of roots, changes in hydrology, or construction dust. Construction of other portions of the project (e.g., pipeline alignment A and the WWTP facility), while not likely to result in direct removal of shrubs or roots, could still have indirect effects on elderberry shrubs (i.e., changes in hydrology and construction dust). The damage or death of elderberry shrubs would reduce habitat and may result in death of individual valley elderberry longhorn beetle if these shrubs are occupied. Therefore, project construction, and associated ground disturbance and dust, could result in damage or removal of elderberry shrubs, and injury or death of valley elderberry longhorn beetle, which would be a substantial adverse effect on the species and a significant impact.

Mitigation Measure 3.4-1: Avoid and Minimize Impacts to Valley Elderberry Longhorn Beetle

To avoid and minimize project impacts to valley elderberry longhorn beetle, the City may obtain approval from the San Joaquin County Council of Governments Habitat Technical Advisory Committee and Board of Directors for project coverage under the SJMSCP, and will implement the following measures consistent with the avoidance and minimization measures in the SJMSCP (SJCOG 2000a):

Indirect impacts to valley elderberry longhorn beetle will be minimized by implementing the following:

- All elderberry shrubs to be avoided during construction activities will be fenced or flagged as close to construction limits as possible.
- A minimum avoidance area of at least 20 feet from the dripline of each elderberry plant will be maintained to avoid direct impacts that could damage or kill the plant.
- A qualified biologist will provide training for all contractors, work crews, and any onsite personnel on the status of valley elderberry longhorn beetle, its host plant and habitat, the need to avoid damaging the elderberry shrubs, and the possible penalties for non-compliance.
- A qualified biologist will inspect the work area prior to commencement of construction and will monitor the work area at project-appropriate intervals to assure that all avoidance and minimization measures are implemented.
- Project activities, such as truck traffic or other use of machinery, will not create excessive dust on the project site, such that the growth or vigor of elderberry shrubs is adversely affected. Enforcement of a speed-limit and watering dirt roadways are potential methods to minimize excessive dust creation.
- Herbicides will not be used within the dripline of any elderberry shrub. Insecticides will not be used within 98 feet of any elderberry shrub. All chemicals will be applied using a backpack sprayer or similar direct application method. Mechanical weed removal within the dripline of any elderberry shrub will be limited to the season when adults are not active (August – February) and will avoid damaging the elderberry.
- Following completion of construction, affected areas will be returned to pre-project conditions.
- If avoidance of elderberry shrubs is not feasible, the health and vigor of the shrubs could be damaged, which could result in death or injury to valley elderberry longhorn beetles. The City will obtain approval from the San Joaquin Council of Governments Habitat Technical Advisory Committee and Board of Directors for project coverage under the SJMSCP or consult with USFWS under Section 7 of the ESA to obtain take coverage and implement required conservation and minimization measures. No elderberry shrub will be trimmed or removed until authorization has been issued. Conservation and minimization measures will include, but may not be limited to, the following:
  - Elderberry shrubs that would be directly impacted will be transplanted to a USFWS approved mitigation site during the dormant period for elderberry shrubs (November 1 through February 15).
  - If elderberry shrubs without evidence of valley elderberry longhorn beetle exit holes cannot be transplanted, the City will provide compensation within SJMSCP Preserves or other USFWS approved mitigation site at a ratio of at least three new plants for each stem 1 inch in diameter or greater at ground level.
  - If elderberry shrubs with evidence of valley elderberry longhorn beetle exit holes cannot be transplanted, the City will provide compensation within SJMSCP Preserves or other USFWS approved mitigation site at a ratio of at least six new plants for each stem 1 inch in diameter or greater at ground level.

<u>Significance after Mitigation</u>

With implementation of Mitigation Measure 3.4-1, the City would avoid and minimize adverse effects on valley elderberry longhorn beetle from construction and operation of the project by implementing construction setbacks from elderberry shrubs, and protecting shrubs from indirect impacts or transplanting shrubs and providing compensation for removal of shrubs consistent with the SJMSCP, or conservation measures developed in consultation with USFWS. Pursuant to the Final EIR/EIS for the SJMSCP, dated November 15, 2000, and certified by the San Joaquin Council of Governments on December 7, 2000, implementation of avoidance and minimization measures in the SJMSCP is expected to reduce project-related impacts to valley elderberry longhorn beetle to a less-than-significant level (SJCOG 2000b). That document is hereby incorporated by reference and is available for review during regular business hours at the San Joaquin Council of Governments (555 E. Weber Avenue, Stockton, CA 95202) or online at: www.sjcog.org. Therefore, with the implementation of Mitigation Measure 3.4-1, the project would not result in substantial adverse effects on the viability of the species, and the impact to valley elderberry longhorn beetle would be clearly reduced to less than significant with mitigation incorporated.

Special-Status Fish Species

The Stanislaus River, which is adjacent to the project area, provides suitable habitat for the Central Valley distinct population segment of steelhead, and southern distinct population segment of green sturgeon which are listed under the ESA as threatened. In addition, the river may also provide suitable habitat for Chinook salmon – Central Valley fall / late fall-run Evolutionary Significant Unit and hardhead, CDFW species of special concern.

The construction of project features including WWTP modifications, pond modifications, storage tank, pump station, distribution pipelines, access route, and staging areas would not occur within the Stanislaus River, its associated riparian vegetation, or waters that drain to the river. Although the proposed access road crosses over a canal that previously may have drained to the river, the canal is no longer operational and does not convey water, and no work is proposed within the canal. For this reason, adverse direct effects on special-status fishes are not anticipated to occur as a result of project construction.

Ground disturbance would occur no closer than approximately 200 feet from the Stanislaus River and as such no vibration impacts that would adversely affect special-status fishes would occur. While construction is anticipated to occur during the normal rainy season for the project region, the project would employ water quality best management practices (BMPs) to control runoff from ground disturbing activities. Therefore, construction of the project is not likely to result in contaminated runoff to the Stanislaus River, or any waterbody that drains into the Stanislaus River and construction related indirect effects to habitat for special-status fishes is not anticipated. As discussed in Section 2.3, the application of recycled water would occur at current application rates and is not anticipated to result in run-off to the Stanislaus River or waters that drain to the river. Therefore, no direct impacts to special-status fishes would occur, and indirect impacts would be insignificant or discountable. The project is not likely to have a substantial adverse effect on Chinook salmon – Central Valley fall / late fall-run Evolutionary Significant Unit or hardhead and is not likely to adversely affect the Central Valley distinct population segment of steelhead or green sturgeon. The project would have no impact on special-status fish species.

Steelhead Critical Habitat

The Stanislaus River is designated critical habitat for the Central Valley distinct population segment (DPS) of steelhead (NOAA 2002, 2022). The physical and biological features that are essential for conservation of Central Valley steelhead that occur within the portion of the Stanislaus River adjacent to the project site are:

Freshwater migration corridors free of obstruction and excessive predation with water quantity and quality conditions and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels, and undercut banks supporting juvenile and adult mobility and survival; and

Freshwater rearing sites with water quantity and floodplain connectivity to form and maintain physical habitat conditions and support juvenile growth and mobility; water quality and forage supporting juvenile development; and natural cover such as shade, submerged and overhanging large wood, log jams and beaver dams, aquatic vegetation, large rocks and boulders, side channels, and undercut banks.

As discussed above, the project would not occur within the Stanislaus River and would therefore not have any direct effects on steelhead critical habitat or physical and biological features that are essential for conservation of the species. In addition, due to the distance from critical habitat, construction activities are not likely to result in vibration impacts, and through the use of water quality BMPs contaminated runoff to critical habitat would be avoided to the extent that any effect would be discountable. In addition, as discussed in Section 2.3, the application of recycled water would occur at agronomic rates and is not anticipated to result in run-off to the Stanislaus River or waters that drain to the river. Therefore, the project is not likely to adversely affect critical habitat for steelhead, and the project would have no impact on critical habitat for steelhead.

Western Pond Turtle

Western pond turtle is a CDFW species of special concern and a covered species under the SJMSCP. The construction of project features including WWTP improvements, pond modifications, storage tank, pump station, distribution pipelines, access routes, and staging areas would not occur within the Stanislaus River, its associated riparian vegetation, or waters that drain to the river. In addition, the application of recycled water would occur at agronomic rates and is not anticipated to result in run-off to the Stanislaus River or waters that drain to the river. Therefore, the project would not result in adverse impacts to aquatic habitat for western pond turtle. However, due to the proximity of the project site to the Stanislaus River, portions of the project site (within 0.3 mile of the river) with uncompacted soils may be used as upland nesting habitat by western pond turtles. The construction of the project would not result in a reduction of upland habitat, because modifications to access roads would occur within the existing road footprint, and modifications to the WWTP and staging areas would occur within the footprint of the existing facility, which do not provide upland habitat. In addition, where the access road and pipeline work areas overlap with natural habitats, the disturbance would be temporary and restored to previously existing conditions after construction.

However, because the project site overlaps with upland habitat, the construction of the project could therefore result in turtles being crushed by construction equipment. In addition, turtles could be trapped within the open trench during construction of the distribution pipelines, and western pond turtle nests could be destroyed. The death of western pond turtles and destruction of nests would be a substantial adverse effect on the local and regional population of this species; therefore, the impact of the project on western pond turtle would be potentially significant.

Mitigation Measure 3.4-2: Avoid and Minimize Impacts to Western Pond Turtle

To avoid potentially significant impacts on western pond turtle, the City may obtain approval from the San Joaquin County Council of Governments Habitat Technical Advisory Committee and Board of Directors for project coverage under the SJMSCP and will implement the following measures consistent with the avoidance and minimization measures in the SJMSCP (SJCOG 2000a). All mitigation listed below will be limited to construction within 0.3 mile of suitable aquatic habitat:

- A preconstruction survey for western pond turtle shall be conducted by a qualified biologist within 48 hours of commencing work in aquatic habitat suitable for the species. If no pond turtles are observed, no further mitigation is necessary.
- During draining of the existing water storage ponds within the WWTP associated with construction of the project, a qualified biologist shall be present to monitor for presence of western pond turtles. If pond turtles are observed, a qualified biologist, with approval from CDFW, shall relocate pond turtles to the nearest area with suitable aquatic habitat that will not be disturbed by project-related construction activities (i.e., Stanislaus River).
- If nesting areas for pond turtles are identified on the project site, a no-disturbance buffer area of 300 feet shall be established around the nesting site (which may be immediately adjacent to the river or extend up to 400 feet away from the river in uplands). These buffers shall be indicated by temporary fencing if construction has or will begin before nesting periods have ended. (The period from egg laying to emergence of hatchlings is normally April to November.)

Significance after Mitigation

With implementation of Mitigation Measure 3.4-2, the City would avoid and minimize adverse effects on western pond turtle from construction and operation of the project by implementing preconstruction surveys and buffers around nesting sites consistent with the SJMSCP. Pursuant to the Final EIR/EIS for the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), dated November 15, 2000, and certified by the San Joaquin Council of Governments on December 7, 2000, implementation of avoidance and minimization measures in the SJMSCP is expected to reduce project-related impacts to western pond turtle to a less-than-significant level (SJCOG 2000b). That document is hereby incorporated by reference and is available for review during regular business hours at the San Joaquin Council of Governments (555 E. Weber Avenue, Stockton, CA 95202) or online at: www.sjcog.org.. Therefore, with the implementation of Mitigation Measure 3.4-2, the project would not have a substantial adverse effect on the viability of local or regional populations of the species, and the impact to western pond turtle would be clearly reduced to less than significant with mitigation incorporated.

Swainson's Hawk, Cooper's Hawk, Merlin, Osprey, and White-Tailed Kite

The project area contains suitable foraging habitat for merlin, but is not within the breeding range of the species. The project contains suitable foraging habitat and potential nesting trees for Swainson's hawk, which is listed as threatened under CESA and covered under the SJMSCP. In addition, a Swainson's hawk nest was documented just outside of the project site, along the railroad alignment in 2003. The recycled water use area portions of the overall project site contain oaks in some locations that could be suitable nesting habitat for Swainson's hawk and white-tailed kite; however, the application of the recycled water would occur at agronomic rates and using methods that are the same as existing conditions. Therefore, no impacts from operations of the project are anticipated. No tree removal is anticipated as part of the project, and the project would not remove potential roosts or foraging habitat for merlin. However, potentially suitable nesting trees for Swainson's hawk, Cooper's hawk, osprey, and white-tailed kite are located on the project site and within 0.25 mile of the project site. If construction occurs between February 15 and September 15, construction noise and human disturbance from construction activities could result in nest abandonment, or loss of eggs and young, which would be a substantial adverse effect on the local and regional population of the species. Therefore, the project would have a potentially significant impact on Swainson's hawk, Cooper's hawk, Osprey, and white-tailed kite, .

Mitigation Measure 3.4-3: Avoid and Minimize Impacts to Swainson's Hawk, Coopers Hawk, Osprey, and White-tailed Kite

To avoid, minimize, and mitigate impacts on Swainson's hawk and white-tailed kite, the City may obtain approval from the San Joaquin County Council of Governments Habitat Technical Advisory Committee and Board of Directors for project coverage under the SJMSCP or consult with CDFW and obtain take authorization for Swainson's hawk under CFGC Section 2081, and will implement the following measures consistent with the avoidance and minimization measures in the SJMSCP (SJCOG 2000a):

- If project activity will commence between February 15 and September 15, a qualified biologist will be retained to conduct preconstruction surveys for active nests on and within 0.5 mile of the project site no more than 14 days and no less than 7 days before work begins.
- If an occupied Swainson's hawk nest is identified during preconstruction surveys, a 0.25-mile no-disturbance buffer will be established. If an occupied Cooper's hawk, osprey, or white-tailed kite nest is identified during preconstruction surveys, a no-disturbance buffer of at least 100 feet will be established around the nest. All project activities will be avoided within the buffer area until a qualified biologist confirms that the nest is no longer active or that the young have fully fledged.
- If a Swainson's hawk nest tree becomes occupied during construction activities, then all construction activities shall remain a distance of two times the dripline of the tree, measured from the nest, and the nest shall be monitored by a qualified biologist. If construction activities cause the nesting bird to vocalize, make defensive flights at intruders, get up from a brooding position, or fly off the nest, then the no-disturbance buffer shall be increased until the agitated behavior ceases.

Significance after Mitigation

With implementation of Mitigation Measure 3.4-3, the City would avoid and minimize adverse effects on Swainson's hawk Cooper's hawk, osprey, and white-tailed kite from construction and operation of the project by implementing preconstruction surveys and buffers around occupied nesting sites consistent with the SJMSCP or conservation measures developed in consultation with CDFW. Pursuant to the Final EIR/EIS for the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), dated November 15, 2000, and certified by the San Joaquin Council of Governments on December 7, 2000, implementation of avoidance and minimization measures in the SJMSCP is expected to reduce project-related impacts to Swainson's hawk Cooper's hawk, osprey, and white-tailed kite to a less-than-significant level (SJCOG 2000b). That document is hereby incorporated by reference and is available for review during regular business hours at the San Joaquin Council of Governments (555 E. Weber Avenue, Stockton, CA 95202) or online at: www.sjcog.org. Therefore, with the implementation of Mitigation Measure 3.4-3, the project would not have a substantial adverse effect on the viability of the local or regional populations of the species, and the impact to Swainson's hawk, Cooper's hawk, osprey, and white-tailed kite would be clearly reduced to less than significant with mitigation incorporated.

Other Special-Status Bird Species

Loggerhead shrike, yellow-breasted chat, yellow warbler, and burrowing owl are CDFW species of special concern, and tricolored blackbird is listed as threatened under CESA. All five species are covered species under the SJMSCP. California horned lark, black-crowned night heron, great blue heron, great egret, and snowy egret are also SJMCP covered species.

Yellow-breasted chat and yellow warbler, may nest within the riparian habitat adjacent to the project site, which also may contain tricolored blackbird, black-crowned night heron, great blue heron, and great egret, snowy egret colonies. Although, no colonies have been documented in this area. Loggerhead shrike may nest within the shrub savannah adjacent to the project area. Burrowing owls nest in burrows that have been constructed by ground squirrels and other similar human-created structures (e.g., unused pipe openings) that occur within barren areas or habitats with low growing vegetation. Ground squirrel burrows were observed within the WWTP, access road, and pipeline work areas during the reconnaissance survey on May 17, 2022. California horned lark nests in grasslands, and although the grassland within the project site is likely too small to support nesting larks, the grasslands adjacent to the project site may be suitable for this species.

The recycled water use area portions of the overall project site are less than 25 feet from suitable riparian habitat in some locations; however, the application of recycled water would occur at agronomic rates and using methods that are the same as existing conditions. Therefore, no impacts from operations of the project on these species are anticipated. The majority of construction activities would occur greater than 100 feet from suitable habitat for loggerhead shrike, yellow-breasted chat, and yellow warbler and no direct or indirect impacts to these species from these activities are anticipated. However, the improvements to the access road would occur within 100 feet of loggerhead shrike, yellow-breasted chat, and yellow warbler habitat, and indirect impacts could result from this activity. Construction and staging activities would occur within 500 feet of potential tricolored blackbird, black-crowned night heron and snowy egret habitat and indirect impacts from construction and staging activities within this distance to riparian habitat could result in disturbance of a nesting colony and loss of eggs and young. Similarly, construction activities may occur within 100 feet of California horned lark nests and burrowing owl burrows, which could result in the disturbance of nesting activities, or destruction of nests and loss of eggs and young. The disturbance of special-status bird nests, if nests occur within or adjacent to the project site, would be a substantial adverse effect on the local and regional populations of these species. Therefore, this impact would be potentially significant.

Mitigation Measure 3.4-4: Avoid and Minimize Impacts to Other Special-Status Birds

To avoid, minimize, and mitigate impacts on California horned lark, loggerhead shrike, yellow-breasted chat, and yellow warbler nests; burrowing owl burrows; black-crowned night heron, great blue heron, great egret, snowy egret and tricolored blackbird colonies, the City may obtain approval from San Joaquin County Council of Governments Habitat Technical Advisory Committee and Board of Directors for project coverage under the SJMSCP and will implement the following measures consistent with the avoidance and minimization measures in the SJMSCP (SJCOG 2000a):

- A qualified biologist shall conduct a preconstruction survey for any project activity that would occur during the nesting bird season (February 1–August 31) within 500 feet of suitable nesting habitat for special-status birds, including shrubs, riparian vegetation, trees, and barren areas within the WWTP, access road, and pipeline alignment. The survey shall be conducted within 14 days before project activity begins.
    - If no black-crowned night heron, great blue heron, great egret, snowy egret, or tricolored blackbird colonies, or other special-status nesting birds are found, no further mitigation is required.
    - If active black-crowned night heron, great blue heron, great egret, snowy egret, or tricolored blackbird colonies are found, a qualified biologist shall establish a setback of 500 feet from colonial nesting areas for these species, which shall be established and maintained during the nesting season for the period encompassing nest building and continuing until fledglings leave nests. This setback applies whenever

construction or other ground-disturbing activities must begin during the nesting season in the presence of nests that are known to be occupied. Setbacks shall be marked by brightly colored temporary fencing.

- If active burrowing owl burrows or California horned lark, loggerhead shrike, song sparrow, yellow-breasted chat, or yellow warbler nests are found, a qualified biologist shall establish a setback of 500 feet from the California horned lark nest, 250 feet from the burrowing owl burrow, or 100 feet from the loggerhead shrike, yellow-breasted chat, or yellow warbler nest as applicable, during the nesting season (February 1–August 31) unless a qualified biologist verifies through non-invasive means that the birds have not begun egg laying, or that juveniles from the occupied burrows or nests are foraging independently and are capable of independent survival. For burrowing owls, once the fledglings are capable of independent survival the owls may be evicted using passive relocation as described in the California Department of Fish and Game's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012).

<u>Significance after Mitigation</u>
With the implementation of Mitigation Measure 3.4-4, the City would avoid and minimize adverse effects on special-status birds from construction and operation of the project by implementing preconstruction surveys and buffers around active nests consistent with the SJMSCP. Pursuant to the Final EIR/EIS for the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), dated November 15, 2000, and certified by the San Joaquin Council of Governments on December 7, 2000, implementation of avoidance and minimization measures in the SJMSCP is expected to reduce project-related impacts to special-status birds to a less-than-significant level (SJCOG 2000b). That document is hereby incorporated by reference and is available for review during regular business hours at the San Joaquin Council of Governments (555 E. Weber Avenue, Stockton, CA 95202) or online at: www.sjcog.org. Therefore, the project would not have a substantial adverse effect on local or regional population viability of special-status birds, and the impact would be clearly reduced to less than significant with mitigation incorporated.

<u>Common Raptors and Other Nesting Birds</u>
While common raptors and other nesting birds do not fit the criteria for special-status species as defined in this analysis, it is standard for public entities such as the City to analyze project impacts to common raptors and other common nesting birds protected under CFGC Section 3503 and Section 3503.5 and under the Migratory Bird Treaty Act. Construction of the project could result in the disturbance or destruction of nests of common raptors and other nesting birds that may nest within the project site and may result in loss of eggs and young. The loss of nests could be a substantial adverse effect on the local populations of these species. Therefore, this impact would be potentially significant.

Mitigation Measure 3.4-5: Avoid and Minimize Impacts to Common Raptors and Other Nesting Birds

The City will implement the following measures to avoid impacts to common raptors and other common nesting birds.

- A qualified biologist shall conduct a preconstruction survey for any project activity that would occur during the nesting bird season (February 1–August 31) within suitable nesting habitat for common raptors and other nesting birds, including shrubs, riparian vegetation, trees, and barren areas within the WWTP, access road, and pipeline alignment. The survey shall be conducted within 14 days before project activity begins.
- If occupied nests are identified during the preconstruction survey, the qualified biologist shall determine and establish an appropriate no-disturbance buffer based on bird species; listing status; and other factors, including distance from construction activity, type and duration of construction, and whether the nest is within the line of sight of construction activity. The size of the buffer may be adjusted if the qualified biologist determines that such an adjustment would not be likely to adversely affect the nest. Project activities will be avoided within the buffer area until a qualified biologist confirms that the nest is no longer active or that the young have fully fledged.

<u>Significance after Mitigation</u>
With the implementation of Mitigation Measure 3.4-5, the City would avoid and minimize disturbance of nests through pre-construction surveys and non-disturbance buffers around active nests. Therefore, the project would not

have a substantial adverse effect on local or regional population viability of common raptors and other nesting birds, and the impact would be clearly reduced to less than significant with mitigation incorporated.

Special-Status Bat Species

The project site contains suitable foraging habitat for the CDFW species of special-concern Townsend's big-eared bat, and western mastiff bat, as well as the Yuma myotis bat. However, roosting habitat for these species is not present in the project site. The project would not have any adverse effect on foraging by Townsend's big-eared bat, or western mastiff bat because operations would not result in a reduction of irrigation or agricultural production, and the new facilities would be placed within the existing WWTP site.

Western red bat, a CDFW species of special-concern and SJMSCP covered species, not only may forage in the project site, but the large oaks and riparian trees within and adjacent to the project site may provide suitable roosting habitat for this species. The recycled water use area portions of the overall project site contain trees suitable for roosting by western red bat in some locations; however, the application of recycled water would occur at agronomic rates and using methods that are the same as existing conditions. Therefore, no impacts from operations of the project are anticipated. While no tree removal is anticipated, western red bats roost within the foliage of large trees and tree trimming could result in direct impacts, including injury or death. Indirect impacts from noise and vibration could also result in the loss of roosts, injury, or death of western red bat if tree trimming, grading, trenching or other construction activities take place within 250 feet of suitable roosts during roosting season (March 1 through August 31). The loss of western red bat roosts would result in a substantial adverse effect on the local and regional population of this species. Therefore, this impact would be potentially significant.

Mitigation Measure 3.4-6: Avoid and Minimize Impacts to Western Red Bat Roosts

To avoid and minimize impacts to special-status bat roosts, the City may obtain approval from San Joaquin County Council of Governments Habitat Technical Advisory Committee and Board of Directors for project coverage under the SJMSCP and will implement the following measures consistent with the avoidance and minimization measures in the SJMSCP (SJCOG 2000a):

- Within 14 days prior to initiating work, a qualified bat biologist will inspect the portions of the project site where ground disturbance would occur (i.e., north access road, distribution pipeline alignment, WWTP) and adjacent areas (within 250 feet) for bat roosts (mature trees in the riparian woodland, and mixed oak woodland portions of the project site). Surveys will consist of a daytime pedestrian survey looking for evidence of bat use (e.g., guano) and/or an evening emergence survey to note the presence or absence of bats within potential roosts. If no bat roosts are found, then no further mitigation will be required.
- If evidence of bat use is observed, the number and species of bats using the roost will be determined. Acoustic bat detectors may be used to supplement survey efforts if needed to determine the species of roosting bats, but are not required.
- If an active western red bat maternity roost is detected, an avoidance buffer of 250-feet will be maintained from May 1 until young are flying (typically through August).
- If roosts of western red bat are determined to be present within the project site and within 250 feet of construction, work may be performed within a 250-foot buffer of the roost outside of the breeding season (May 1 through August 31) when the daytime temperature is 50 degrees Fahrenheit or greater.

Significance after Mitigation

With the implementation of Mitigation Measure 3.4-6, the City would avoid and minimize disturbance of western red bat roosts by implementing preconstruction surveys and avoidance buffers consistent with the SJMSCP. Pursuant to the Final EIR/EIS for the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), dated November 15, 2000, and certified by the San Joaquin Council of Governments on December 7, 2000, implementation of avoidance and minimization measures in the SJMSCP is expected to reduce project-related impacts to special-status bats to a less-than-significant level (SJCOG 2000b). That document is hereby incorporated by reference and is available for review during regular business hours at the San Joaquin Council of Governments

(555 E. Weber Avenue, Stockton, CA 95202) or online at: www.sjcog.org.. Therefore, the project would not have a substantial adverse effect on local or regional population viability of western red bat, and the impact would be clearly reduced to less than significant with mitigation incorporated.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the US Fish and Wildlife Service?

Less-than-significant impact. Valley oak woodland, Fremont cottonwood forest, and box elder forest and woodland are the only sensitive natural communities in the project site (Figure 3.4-1). With the exception of small areas of valley oak woodland located within the proposed pipeline alignment and along the access road, these sensitive natural communities occur within the recycled water use areas of the project. No impacts to these communities are anticipated from project operations because the application of recycled water would occur at agronomic rates and using methods that are the same as existing conditions. Although the branches of oak trees may be trimmed along the access road if required for the passage of vehicles, no tree removal or conversion of the valley oak woodland is anticipated. For these reasons the project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community; therefore, this impact would be less than significant.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No impact. No potentially jurisdictional wetlands or other waters of the United States and/or state are located within 50 feet of the access road, pipeline alignment, or within the existing WWTP. Furthermore, no indirect effects on state or federally protected wetlands would occur because the project would employ water quality BMPs to control runoff from ground disturbing activities, and the application of recycled water would occur at agronomic rates and using methods that are the same as under existing conditions. Therefore, the project would have no impact on state or federally protected wetlands.

D) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less-than-significant impact. There are no documented native wildlife nursery sites within or adjacent to the project site. The project is located within a documented wildlife corridor (CNDDB 2022b), and the project site may also be used for local movement between the Stanislaus River and adjacent uplands. The project would not construct any linear features (e.g., fences, roads) that would be a barrier to wildlife movement through the site. The improvements to the access road would not increase the width of this existing road or result in any changes that would affect wildlife movement. Construction activities would likely result in temporary impacts to wildlife movement through the site, due to construction noise, equipment use, and the presence of workers. However, construction activities would occur during daylight hours (Section 2.7.1, Construction Schedule and Sequencing), while most wildlife movement through the area would occur between dusk and dawn. For these reasons the project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites; therefore, this impact would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less-than-significant impact. Chapter 9-1505.3 of the San Joaquin County Code of Ordinances requires permits for the removal of native oak trees, heritage oak trees, or historical trees. Native oak trees are present within the project site; however, no tree removal is anticipated as part of the project. In addition, the City will comply with all of the applicable development constraints (Chapter 9-1505.5) protecting native oak trees, heritage oak trees, or historical trees, including but not limited to, no grade changes within 6 feet of the drip line, no trenching within the protected zone, and the installation of fencing to protect trees from construction activities. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources, and this impact would be less than significant.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No impact. The project is located within the plan area of the SJMSCP (Section 3.7.1), which is an HCP/NCCP, and meets the definition of a covered activity under the SJMSCP (SJCOG 2000a). The project does not occur within or adjacent to any existing SJMSCP preserves (SJCOG 2022), and therefore, would have no direct or indirect effect on any preserve. As described in section 3.4.1, "Regulatory Setting," the City of Riverbank General Plan (Policy CONS-4.3) (City of Riverbank 2009) requires compliance with the SJMSCP for covered activities within San Joaquin County as applicable. However, participation in the SJMSCP is voluntary and the project site is unmapped. Therefore, the City could either apply for and obtain approval from the San Joaquin Council of Governments Habitat Technical Advisory Committee and Board of Directors for project coverage under the SJMSCP or consult with USFWS under Section 7 of the ESA for take authorization for valley elderberry longhorn beetle. The mitigation measures proposed above for special-status species are consistent with the avoidance and minimization measures in the SJMSCP, as applicable. Therefore, no conflict with the SJMSCP would occur regardless if the project is covered by the SJMSCP; there would be no impact.

3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
V. Cultural Resources.				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Substantially disturb human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

3.5.1 Regulatory Setting

FEDERAL

National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966 establishes the National Register of Historic Places (NRHP), and defines federal criteria for determining the historical significance of archaeological sites, historic buildings, and other resources. To be eligible for inclusion in the NRHP, a resource must meet at least one of the following four historical significance criteria (delineated at 36 Code of Federal Regulations [CFR] Part 60.4) and must also possess sufficient deposition, and architectural or historic integrity to retain the ability to convey the resource's historic significance. Those resources determined to meet these criteria are eligible for listing in the NRHP and are termed "historic properties." A resource may be eligible for NRHP listing at the local, state, or national level of significance.

A resource is eligible for NRHP inclusion if it possess integrity of location, design, setting, materials, workmanship, feeling, and association, and it:

- Is associated with events that have made a significant contribution to the broad patterns of our history; or
- Is associated with the lives of persons significant in our past; or
- Embodies the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- Has yielded or may be likely to yield, information important in prehistory or history.

To retain historic integrity a property will always possess several and usually most aspects that demonstrate integrity, and generally would retain most aspects of that integrity. The retention of specific aspects of integrity is paramount for a property to convey its significance. Determining which of these aspects are most important to a particular property requires knowing why, where, and when the property is significant. A resource that lacks integrity or does not meet one of the NRHP criteria is not considered a historic property under federal law, and effects to such a resource are not considered significant under the NHPA.

STATE

California Register of Historical Resources

All properties in California that are listed in or formally determined eligible for listing in the NRHP are also listed in the California Register of Historical Resources (CRHR). The CRHR is a listing of State of California resources that are significant in the context of California's history. It is a statewide program with a scope and with criteria for inclusion similar to those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR.

A historical resource must be significant at the local, state, or national level under one or more of the criteria defined in the California Code of Regulations Title 15, Chapter 11.5, Section 4850 to be included in the CRHR. The CRHR criteria are tied to CEQA because any resource that meets the criteria below is considered a significant historical resource under CEQA. The CRHR uses four evaluation criteria:

Criterion 1. Is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.

Criterion 2. Is associated with the lives of persons important to local, California, or national history.

Criterion 3. Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values.

Criterion 4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on "historical resources," and "unique archaeological resources." Pursuant to PRC Section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." "Historical resource" is a term with a defined statutory meaning (PRC Section 21084.1; State CEQA Guidelines Sections 15064.5[a] and [b]) as a resource listed in, or determined to be eligible for listing in, the CRHR, included in a local register, identified as significant in a historical resource survey, or considered by the lead agency to be historically significant. CEQA also requires lead agencies to consider whether projects will affect unique archaeological resources. PRC Section 21083.2(g) states that "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Health and Safety Code, Sections 7050.5

Section 7050.5 of the California Health and Safety Code (HSC) requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If they are determined to be those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC).

Public Resources Code, Section 5097

PRC Section 5097 specifies the procedures to be followed if human remains are unexpectedly discovered on nonfederal land. The disposition of Native American burials falls within the jurisdiction of NAHC. Section 5097.5 of the code states:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

LOCAL

San Joaquin County 2035 General Plan

The following policies from the Natural and Cultural Resources Element of the San Joaquin County General Plan are relevant to cultural resources with respect to the project:

- Policy NCR-6.2. No Destruction of Resources: The County shall ensure that no significant architectural, historical, archeological, or cultural resources are knowingly destroyed through County action.
- Policy NCR-6.5. Protect Archeological and Historical Resources: The County shall protect significant archeological and historical resources by requiring an archeological report be prepared by a qualified cultural resource specialist prior to the issuance of any discretionary permit or approval in areas determined to contain significant historic or prehistoric archeological artifacts that could be disturbed by project construction.

City of Riverbank General Plan 2005-2025

The following policies from the Conservation and Open Space Element of the City's General Plan are relevant to cultural resources with respect to the project:

- Policy CONS-2.1: Approved projects, plans, and subdivision requests shall incorporate all available measures, with a preference for avoidance, to reduce or eliminate impacts to known and unknown archaeological and paleontological resources.
- Policy CONS-2.2: All Native American cultural and archaeological sites shall be protected permanently from urban development, wherever possible.
- Policy CONS-2.3: The City shall restrict the circulation of cultural resource locational information to prevent potential site vandalism.
- Policy CONS-2.4: The City shall not knowingly approve any public or private project that may adversely affect an archaeological site without first consulting with the Central California Information Center of the California Historical Resources Information System (CHRIS) and, if necessary, consulting with a qualified professional archaeologist regarding the significance of the site. Implementation of this policy shall be guided by Section 15064.5 of the State CEQA guidelines.
- Policy CONS-2.5: As guided by State law, in the event of the inadvertent discovery of previously unknown archaeological sites during excavation or construction, all construction affecting the site shall cease and the contractor shall contact the appropriate City agency. If Native American human remains are discovered, the City shall work with local Native American representatives to ensure that the remains and associated artifacts are treated in a respectful and dignified manner.

3.5.2 Environmental Setting

On April 19, 2022, a CHRIS records search was conducted by the Central California Information Center (CCaIC), at California State University Stanislaus (File No.: 12161LN) to determine whether prehistoric archaeological, historic-period archaeological, or built-environment historical resources have been previously recorded within the project area, the extent to which the project area has been previously surveyed, and the number and type of cultural resources within a 0.5-mile radius of the project area. When additional acreage was added to the project site, a second records search was conducted to include the additional areas and a one-quarter-mile radius on June 8, 2022 (File No.: 12204LN).

Combined, the records searches identified only one previously recorded historical resource within the project site, the Stanislaus River Bridge, and one informal resource, a verbal report of an approximate location of a Native American burial. The records search also found that 10 previous cultural resources surveys have been conducted which included portions of the project site. No new resources or investigations were identified as a result of the June 8, 2022, records search that were not already identified in the April 19, 2022, search. A pedestrian survey of the project area was conducted on April 28, 2022, which resulted in the identification of no built-environment features or archaeological sites (Ascent Environmental 2022b).

3.5.3 Discussion

a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Less than significant. The Stanislaus River Bridge (P-39-000564/P-50-001735) is a NRHP- and CRHR-eligible historical resource. Although this bridge is located within the project site, project activities (specifically Pipeline B) would be limited to the roadway beneath the bridge. No part of the project would demolish, relocate, or alter the bridge, or its immediate surroundings, such that the significance of the historical resource would be materially impaired. Because the bridge would not be altered, the project would not cause a substantial adverse change in the significance of a historical resource. Therefore, the impact to historical resources would be less than significant.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less than significant with mitigation incorporated. Although the CCaIC records searches did not reveal any previously identified archaeological resources, project-related ground-disturbing activities could result in discovery or damage of yet undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5. Therefore, this impact would be potentially significant.

Mitigation Measure 3.5-1: Protect Unanticipated Archaeological Resource Discoveries

In the event that a prehistoric archeological site (such as any unusual amounts of stone, bone, or shell) or a historic-period archaeological site (such as concentrated deposits of bottles or bricks, amethyst glass, or other historic refuse), is uncovered during grading or other construction activities, all ground-disturbing activity within 100 feet of the discovery shall be halted until a qualified archaeologist can assess the significance of the find. The City will be notified of the potential find and a qualified archeologist shall be retained to investigate its significance. If the find is a prehistoric archeological site, the geographically and culturally affiliated Native American group shall be notified and Mitigation Measure 3.5-1 shall be implemented. Any previously undiscovered resources found during construction will be recorded on appropriate California Department of Parks and Recreation 523 forms and evaluated for significance under all applicable regulatory criteria. If the archaeologist determines that the find does not meet the CRHR standards of significance for cultural resources, construction may proceed. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), the archaeologist shall work with the City to follow accepted professional standards such as further testing for evaluation or data recovery, as necessary. If artifacts are recovered from significant historic archaeological resources, they shall be housed at a qualified curation facility. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, and analyzes and interprets the results.

Significance after Mitigation

Implementation of Mitigation Measure 3.5-1 would reduce impacts to archaeological cultural resources to a less-than-significant level by requiring implementation of preservation options and proper curation if significant artifacts are recovered.

c) Substantially disturb human remains, including those interred outside of formal cemeteries?

Less-than-significant impact. There potentially was once a burial within the project site. The burial site was officially documented in 1991 based on verbal information from 1971; the burial was excavated, and all materials removed in 1971. The 1991 documentation does not include a precise location, however the general location given was partially inside the project site, but outside the area of disturbance as shown in Figure 2-3.

California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in HSC Section 7050.5 and PRC Section 5097.

These statutes require that, if human remains are discovered, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the county coroner shall be notified immediately. If the remains are determined by the coroner to be Native American, the NAHC shall be notified within 24 hours and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the NAHC-designated Most Likely Descendant and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94.

Compliance with HSC Section 7050.5 and PRC Section 5097 would provide an opportunity to avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered. Therefore, this impact would be less than significant.

3.6 ENERGY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VI. Energy.				
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

3.6.1 Regulatory Setting

Energy conservation is embodied in many federal, state, and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., EPA's EnergyStar™ program) and transportation (e.g., fuel efficiency standards). At the state level, Title 24 of the CCR sets forth energy standards for buildings. Further, the state provides rebates and tax credits for installing renewable energy systems, and its Flex Your Power program promotes conservation in multiple areas. At the local level, individual cities and counties establish policies in their general plans and climate action plans related to the energy efficiency of new development and land use planning and related to the use of renewable energy sources.

FEDERAL

Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. The EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. The EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in the EPAct. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the EPAct to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce US dependence on oil. It represents a major step forward in expanding the production of renewable fuels, reducing dependence on oil, and confronting global climate change. It also increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel by 2022, which represents a nearly fivefold increase over 2007 levels. It also reduces US demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent.

STATE

Warren-Alquist Act

The 1974 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The creation of the act occurred in response to the state legislature's review of studies projecting an increase in statewide energy demand, which would potentially encourage the development of power plants in environmentally sensitive areas. The act introduced state policy for siting power plants to reduce potential environmental impacts and sought to reduce demand for these facilities by directing CEC to develop statewide energy conservation measures to reduce the wasteful, inefficient, and unnecessary uses of energy. Conservation measures recommended establishing design standards for energy conservation in buildings, which ultimately resulted in the creation of the Title 24 Building Energy Efficiency Standards (California Energy Code). These standards are updated regularly and remain in effect today. The act additionally directed CEC to cooperate with the Governor's Office of Planning and Research (OPR), the California Natural Resources Agency, and other interested parties in ensuring that a discussion of the wasteful, inefficient, and unnecessary consumption of energy is included in all EIRs required for local projects.

State of California Energy Action Plan

CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, and conservation; public health and safety; and the maintenance of a healthy economy. The current plan is the 2008 update, which calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assisting public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs, as well as encouraging urban design that reduces vehicle miles traveled and accommodates pedestrian and bicycle access (CEC 2008).

The 2008 update has been supplemented by the *2019 California Energy Efficiency Action Plan*, which includes three goals to drive energy efficiency: doubling energy efficiency savings by 2030, removing and reducing barriers to energy efficiency in low-income and disadvantaged communities, and reducing greenhouse gas (GHG) emissions from the buildings sector (CEC 2019).

Integrated Energy Policy Report

Senate Bill (SB) 1389 (Chapter 568, Statutes of 2002) required CEC to "conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The Energy Commission shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety" (PRC Section 25301[a]). This work culminated in preparation of the first integrated energy policy report (IEPR).

CEC adopts an IEPR every 2 years and an update every other year. The most recent IEPR is the 2021 IEPR. The 2021 IEPR provides a summary of priority energy issues currently facing the state, outlining strategies and recommendations to further the state's goal of ensuring reliable, affordable, and environmentally responsible energy sources. The 2021 IEPR covers a broad range of topics, including building decarbonization, energy efficiency, challenges with decarbonizing California's gas system, quantifying the benefits of the Clean Transportation Program, and the California Energy Demand Forecast (CEC 2021b).

Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare a state plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan in partnership with CARB and in consultation with other state, federal, and local agencies. The plan presents strategies and actions California must take to increase the use of nonpetroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation to public health and environmental quality.

Legislation Associated with Electricity Generation

The state has passed legislation requiring the increasing use of renewable energy to produce electricity for consumers. California utilities are required to generate 52 percent of their electricity from renewables by 2027 (SB 100 of 2018), 60 percent by 2030 (also SB 100 of 2018), and 100 percent zero-carbon by 2045 (also SB 100 of 2018). More detail about these regulations is provided in Section 3.8, "Greenhouse Gas Emissions."

Legislation Associated with Greenhouse Gas Reduction

The state has passed legislation that aims to reduce GHG emissions. The legislation often has an added benefit of reducing energy consumption. SB 32 requires a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. Executive Order (EO) S-3-05 sets a long-term target of reducing statewide GHG emissions by 80 percent below 1990 levels by 2050, while EO B-55-18 establishes a statewide goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." While EO S-3-05 and EO B-55-18 have not yet been codified in law, the EO directs CARB to ensure future Climate Change Scoping Plans (discussed below) identify and recommend measures to achieve the carbon neutrality goal. Implementation of the state's legislation associated with GHG reduction will have the co-benefit of reducing California's dependency on fossil fuel and making land use development and transportation systems more energy efficient. More details about legislation associated with GHG reduction are provided in the regulatory setting of Section 3.8, "Greenhouse Gas Emissions."

LOCAL

The City's General Plan contains goals and policies pertaining to the City's energy demand and consumption; however, these policies do not pertain to the project because those goals and policies pertain mostly to energy efficiency and renewable energy associated with land use development.

3.6.2 Environmental Setting

ELECTRICITY AND NATURAL GAS USE

Electric and natural gas services are provided to the City through Pacific Gas and Electric Company (PG&E). California relies on a regional power system composed of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. Over one-third of energy commodities consumed in California is natural gas. In 2021, the statewide electrical power mix was approximately 38 percent natural gas, 14 percent solar, 11 percent wind, 9 percent nuclear, and 9 percent large hydroelectric, with the remaining associated with geothermal, biomass, and other sources (CEC 2022). In 2020, (the most recent power content is available by utility through CEC), 30.6 percent of the electricity PG&E provided its customers was generated by eligible (as defined by CEC) renewable energy resources (i.e., biomass combustion, geothermal, small-scale hydroelectric, solar, and wind), 10 percent by large-scale hydroelectric resources, 16 percent by natural gas, and 43 percent by renewable (CEC 2021a). The contribution of in-state and out-of-state power plants depends on the precipitation that occurred in the previous year, the corresponding amount of hydroelectric power that is available, and other factors. The proportion of PG&E-delivered electricity generated from eligible renewable energy sources is anticipated to increase over the next three decades to comply with the SB 100 goals described in Section 3.8.

ENERGY USE FOR TRANSPORTATION

In 2020, the transportation sector was the largest end-user of energy in the state, totaling 34.0 percent, followed by the industrial sector at 24.6 percent, the residential sector at 21.8 percent, and the commercial sector at 19.6 percent

(EIA 2022). On-road vehicles use about 90 percent of the petroleum consumed in California. Caltrans projected that 495 million gallons of gasoline and diesel were consumed in San Joaquin County in 2015, an increase of approximately 55 million gallons of fuel from 2010 levels (Caltrans 2008).

ENERGY USE AND CLIMATE CHANGE

Scientists and climatologists have produced substantial evidence that the burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities has led to an increase of the earth's temperature (IPCC 2014; OPR et al. 2019). For an analysis of GHG production and the project's contribution to climate change, refer to Section 3.8, "Greenhouse Gas Emissions."

3.6.3 Discussion

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less-than-significant impact. Appendix F and Appendix G of the State CEQA Guidelines require consideration of the energy implications of a project. CEQA requires implementation of mitigation measures to prevent or reduce the wasteful, inefficient, and unnecessary use of energy. Neither the law nor the State CEQA Guidelines establish thresholds that define when energy consumption is considered wasteful, inefficient, or unnecessary.

Construction-related energy consumption would be associated with off-road equipment and the transport of equipment and materials using on-road haul trucks. An estimated 7,824 gallons of gasoline and 90,044 gallons of diesel fuel would be used during construction of the project (see Appendix B for a summary of construction calculations). Consumption of diesel fuel would occur primarily from the haul truck trips to and from the project site, as well as the operation of heavy-duty equipment, such as tractors, dozers, and scrapers. The energy needs for project construction would be temporary and are not anticipated to require additional capacity or to substantially increase peak or base period demands for electricity and other forms of energy. Gasoline and diesel would be consumed during construction for heavy-duty equipment operation, trucks deliveries, material hauling, and worker commute trips. The one-time energy expenditure required to construct the project would be nonrecoverable. There is no atypical construction-related energy demand associated with the project. Nonrenewable energy would not be consumed in a wasteful, inefficient, or unnecessary manner when compared to other construction activity in the region. Moreover, this one-time energy expenditure would facilitate the project's objectives to provide efficient and cost-effective wastewater treatment capacity to serve planned population growth in the City through 2050 and to maximize production and use of recycled water to offset use of groundwater for irrigation. Therefore, construction energy consumption would not be wasteful, inefficient, or unnecessary.

The majority of operational energy would be associated with electricity consumption to power the new pumps, fuel associated testing of the emergency backup diesel generators, and for transportation associated with routine maintenance trips. Building energy would be minimal and associated only with electrical and controls building as well as shop and maintenance buildings. The pumps would consume an estimated 4,624 megawatt-hours (MWh) in the first year and 6,332 MWh at peak flows in 2050. The emergency backup diesel generators would be tested monthly and would consume an estimated 1,080 gallons of diesel per year. Additionally, the four operators (workers), 24 material delivery trips annually, and 16 biosolids haul trips annually would consume 1,1145 gallons of diesel per year. However, these sources of energy consumption would support the project's objective of providing efficient and cost-effective wastewater treatment capacity to serve planned population growth in the City through 2050 and to maximize production and use of recycled water to offset use of groundwater for irrigation. As such, the project would reduce the need for additional groundwater pumping and would provide recycled water to support City-wide growth. Fuel and energy consumption would not be considered inefficient, wasteful, or unnecessary in comparison to that associated with groundwater pumping and building additional wastewater treatment plants elsewhere. For these reasons, the project's energy consumption through construction, operation, or transportation would not be considered wasteful, inefficient, or unnecessary. This impact would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

Less-than-significant impact. As stated previously, implementing the project would result in an efficient and cost-effective use of energy to provide wastewater treatment capacity to serve planned population growth in the City through 2050 and maximize production and use of recycled water to offset use of groundwater for irrigation. Construction-related energy consumption would be associated with off-road equipment, the transport of equipment and materials using on-road haul trucks, and minor amounts associated with construction worker commute trips. Operational energy would be associated with electricity consumption to power the new pumps, fuel associated testing of the emergency backup diesel generators, and for transportation associated with routine maintenance trips.

Energy would be consumed during project construction (approximately 7,824 gallons of gasoline and 90,044 gallons of diesel); however, this one-time energy expenditure would not impede or conflict with an applicable renewable energy or energy efficiency plan. Applicable plans, such as the statewide Climate Change Scoping Plan (including the adopted 2017 Scoping Plan and the draft 2022 Scoping Plan) and the push to make the electrical grid entirely renewable and carbon-free, address renewable energy and energy efficiency from an operational perspective with the understanding that construction-related energy consumption is inherently short term. Energy consumption during operations (4,624 MWh in the first year, 6,332 MWh at peak flows, 1,080 gallons of diesel per year associated with the emergency backup generators, 1,145 gallons of diesel per year associated with routine maintenance trips) would support wastewater treatment and recycled water production, which would not impede implementation of state or local renewable energy or energy efficiency plans. This impact would be less than significant.

3.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VII. Geology and Soils.				
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

3.7.1 Regulatory Setting

FEDERAL

National Earthquake Hazards Reduction Act

In October 1977, the US Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes in the United States. To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). The mission of NEHRP includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and accelerated application of research results. The NEHRP designates the Federal Emergency Management Agency as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities.

STATE

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (Alquist-Priolo Act) (PRC Sections 2621–2630) intends to reduce the risk to life and property from surface fault rupture during earthquakes by regulating construction in active fault corridors and by prohibiting the location of most types of structures intended for human occupancy across the traces of active faults. The act defines criteria for identifying active faults, giving legal support to terms such as "active" and "inactive," and establishes a process for reviewing building proposals in earthquake fault zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across these zones is strictly regulated if they are "sufficiently active" and "well defined." A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for purposes of the act as within the last 11,000 years). A fault is considered well defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Bryant and Hart 2007). Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards.

Seismic Hazards Mapping Act

The intention of the Seismic Hazards Mapping Act of 1990 (PRC Sections 2690–2699.6) is to reduce damage resulting from earthquakes. Whereas the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including ground shaking, liquefaction, and seismically induced landslides. The act's provisions are similar in concept to those of the Alquist-Priolo Act: The state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped seismic hazard zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development.

California Building Code

The CBC (CCR Title 24) is based on the International Building Code. The CBC has been modified from the International Building Code for California conditions to include more detailed or more stringent regulations. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. The CBC identifies seismic factors that must be considered in structural design. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, whereas Chapter 18A regulates construction on unstable soils, such as expansive soils and areas subject to liquefaction. Appendix J of the CBC regulates drainage and erosion control during grading activities. The CBC contains a provision that provides for a preliminary soil report to be prepared to identify "the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects" (CBC Chapter 18 Section 1803.1.1.1).

LOCAL

San Joaquin County 2035 General Plan

The Public Health and Safety Element of the County's General Plan provides guidance for how to protect County residents, workers, visitors, and properties from unreasonable risks associated with natural and human-made hazards. The following policies from the Public Health and Safety Element are relevant to geology and soils with respect to the project (San Joaquin County 2017a):

- **Policy PHS-3.1. Consider Geologic Hazards for New Development:** The County shall consider the risk to human safety and property from seismic and geologic hazards in designating the location and intensity for new development and the conditions under which that development may occur.

- **Policy PHS-3.4. Liquefaction Studies:** The County shall require proposals for new development in areas determined by the County to have high liquefaction potential to include detailed site-specific liquefaction studies.
- **Policy PHS-3.5. Subsidence or Liquefaction:** The County shall require that all proposed structures, utilities, or public facilities within County-recognized areas of near-surface subsidence or liquefaction be located and constructed in a manner that minimizes or eliminates potential damage.
- **Policy PHS-3.7. Erosion Control:** The County shall encourage the planting of vegetation to decrease loss of soil by erosion.

City of Riverbank General Plan 2005-2025

The Safety Element of the City's General Plan identifies hazards that are to be considered in the development of future land uses, including geologic hazards. The following policies from the Safety Element are relevant to geology and soils with respect to the project (City of Riverbank 2009):

- **Policy SAFE-1.1:** The City will ensure that approved development projects and public investments are consistent with the information provided in the Stanislaus County Multi-Jurisdictional Hazard Mitigation Plan.
- **Policy SAFE-1.2**: The City will continue to enforce State of California Building Standards Commission uniform codes, such as the California Building Code and California Fire Code with adopted Fire District amendments.
- **Policy SAFE-1.11:** Proposed developments located within river bluff areas and other areas prone to geologic and soil limitations require a detailed geotechnical study prepared by an independent qualified geologist approved by the City. Approved plans, projects, and subdivision requests shall incorporate measures to reduce risks identified in the geotechnical study, to the City's satisfaction.

3.7.2 Environmental Setting

GEOLOGY AND SOILS

The project area is underlain by Pleistocene to Holocene-age alluvium, lake, playa, and terrace deposits (CGS 2015). Table 3.7-1 includes a summary of the soil types within the areas of ground disturbance and their characteristics.

Table 3.7-1 Soil Types in the Areas of Ground Disturbance

Soil Type	Description	Percent of Disturbance Area	Permeability	Surface Runoff Potential	Erosion Hazard	Shrink-Swell Potential
Columbia fine sandy loam, channeled, partially drained, 0 to 2 percent slopes, frequently flooded	Very deep, somewhat poorly drained, nearly level soil on flood plains	3%	Moderately rapid	Slow	Moderate	Low
Columbia fine sandy loam, drained, 0 to 2 percent slopes	Very deep, somewhat poorly drained, nearly level soil on flood plains	<1%	Moderately rapid	Slow	Slight	Low
Delhi loamy sand, 0 to 2 percent slopes	Very deep, somewhat excessively drained, nearly level soil on dunes	3%	Rapid	Slow	Slight (water), Severe (wind)	Low
Grangeville fine sandy loam, partially drained, 0 to 2 percent slopes	Very deep, somewhat poorly drained, nearly level soil on flood plains	2%	Moderately rapid	Slow	Slight	Low
Honcut sandy loam, 0 to 2 percent slopes	Very deep, well drained, nearly level soil on alluvial fans	2%	Moderately rapid	Slow	Slight (water), Moderate (wind)	Low

Soil Type	Description	Percent of Disturbance Area	Permeability	Surface Runoff Potential	Erosion Hazard	Shrink-Swell Potential
Merritt silty clay loam, partially drained, 0 to 2 percent slopes	Very deep, poorly drained, nearly level soil on flood plains	<1%	Moderately slow	Slow	Slight	Moderate
Pits, gravel	Open excavations from which soil and underlying material have been removed and other material that supports few or no plants have been exposed	1%	Varies	Varies	Varies	Varies
Tujunga loamy sand, 0 to 2 percent slopes	Very deep, somewhat excessively drained, nearly level soil on flood plains and elongated channel remnants	<1%	Rapid	Slow	Slight (water), Severe (wind)	Low
Water	Water	88%	Not applicable	Not applicable	Not applicable	Not applicable

Source: NRCS 1988.

GEOLOGIC HAZARDS

The potential for geologic hazards to occur in the project area are summarized as follows:

- Seismic Ground Shaking: Faults are considered to be active if there has been evidence of seismic activity within the last 11,000 years. Although there are no active faults within San Joaquin County, there are several active faults in proximity to the county that have potential to result in seismic ground shaking in the project area. The closest active fault is the Marsh Creek-Greenville fault, approximately 37 miles west of the project area. Other nearby active faults include the Concord, Calaveras, Hayward, and San Andreas Faults (CGS 2021).
- Surface Rupture: Surface rupture is the visible offset of the ground surface when an earthquake rupture along a fault affects the Earth's surface. Based on mapping by the California Geological Survey (CGS), the project area is not within an Alquist-Priolo earthquake fault zone (CGS 2021). Therefore, the potential for surface rupture at the project area is considered low.
- Liquefaction: Liquefaction is the loss of soil strength or stiffness due to a buildup of pore-water pressure during severe ground shaking. Liquefaction is associated primarily with loose (low density), saturated, fine- to medium-grained, cohesionless soils. Effects of severe liquefaction can include sand boils, excessive settlement, bearing capacity failures, and lateral spreading. The project area has not been evaluated by CGS for liquefaction hazards (CGS 2021).
- Landslides: The project area has not been evaluated by CGS for seismic landslide hazards (CGS 2021). Because there are no steep slopes within or adjacent to the project area, the potential for landslides is considered low.
- Settlement: Seismically induced settlement consists of dry dynamic settlement (above groundwater) and liquefaction-induced settlement (below groundwater). These settlements occur primarily within loose to moderately dense sandy soil due to reduction in volume during and shortly after an earthquake event. The project area has not been evaluated for the potential for settlement.
- Lateral Spreading: Lateral spreading is the finite, lateral movement of gently to steeply sloping, saturated soil deposits caused by earthquake-induced liquefaction. The project area has not been evaluated for the potential for lateral spreading.
- Subsidence: Regional ground subsidence generally occurs due to rapid and intensive removal of subterranean fluids, such as water or oil. Due to historical groundwater use and excessive pumping, considerable land subsidence has been observed throughout the San Joaquin Valley (San Joaquin County 2017a). The project area has not been evaluated for the potential for subsidence.

- Expansive Soils: Expansive soils contain large amounts of clay particles that swell considerably when wetted and shrink with the loss of water. Foundations and structures constructed on these soils can be subject to uplifting forces caused by the swelling, potentially resulting in heaving and cracking of both building foundations and slabs-on-grade. As shown in Table 3.7-1, soil types in the areas of ground disturbance have a low to moderate shrink-swell potential.

PALEONTOLOGICAL RESOURCES

According to the Environmental Impact Report for the San Joaquin County 2035 General Plan, most paleontological specimens from San Joaquin County have been found in rock formations in the foothills of the Diablo Mountain Range. However, remains of extinct animals such as mammoth, could be found anywhere in the county, especially along watercourses such as the San Joaquin River and its tributaries (San Joaquin County 2017a).

3.7.3 Discussion

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)

No Impact. As stated in Section 3.7.2, the project area is not within an Alquist-Priolo earthquake fault zone (CGS 2021). Therefore, the project would have no impact related to earthquake fault rupture.

ii) Strong seismic ground shaking?

Less-than-significant impact. As discussed in Section 3.7.2, the project area is not within an active fault zone, but is in proximity to several active faults that may cause strong seismic ground shaking in the event of an earthquake. The project would include improvements to the WWTP and construction of recycled water storage and distribution facilities. These facilities would be designed and constructed in accordance with the CBC, which includes standards intended to protect structures from earthquake-related hazards and seismic activity. The construction and operation of the project would not exacerbate existing seismic conditions. Therefore, impacts related to strong seismic ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less-than-significant impact. As discussed in Section 3.7.2, the project area is in a seismically-active region. Therefore, there is potential for seismic-related ground failure to occur within the project area. A site-specific geotechnical study meeting the requirements of the CBC would be required before project-related permits are issued. The geotechnical study would identify potential risks, including liquefaction potential, and recommendations to reduce seismic, geologic, and soils hazards. Because the project would comply with CBC requirements, impacts related to seismic-related ground failure would be less than significant.

iv) Landslides?

No Impact. As discussed in Section 3.7.2, there are no steep slopes within or adjacent to the project area and the potential for landslides to occur on-site or off-site is considered low. Therefore, the project would have no impact related to landslides.

b) Result in substantial soil erosion or the loss of topsoil?

Less-than-significant impact. As shown in Table 3.14-1, the erosion potential for soils in the areas of ground disturbance range from slight to severe. Project construction would involve ground disturbing activities, including trenching and minor grading, which have potential to cause soil erosion and contaminate nearby surface water, in particular the Stanislaus River. Because construction activities would disturb approximately 78.88 acres of land, the City would be required to file a Notice of Intent with the Central Valley RWQCB to be covered under the National Pollutant Discharge Elimination System (NPDES) General Permit (Construction General Permit) (refer to Section 3.10.2 for additional information about the NPDES Program). As a requirement of the NPDES Construction General Permit, the City would prepare a storm water pollution prevention plan (SWPPP) and implement associated BMPs that are specifically designed to reduce the amount of soil disturbance, erosion and sediment transport into receiving waters, and pollutants in site runoff during construction. Following construction, all areas of bare soil would be landscaped or paved to prevent soil erosion. Project operations would not involve ground disturbance. Therefore, project-related erosion impacts would be less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less-than-significant impact. As discussed in Section 3.7.2, there are no steep slopes within or adjacent to the project area and the potential for landslides to occur on-site or off-site is considered low. The project area has not been evaluated for the potential for other geologic hazards, including lateral spreading, subsidence, liquefaction, or collapse; however, seismic ground shaking in the region could also contribute to instability of soils and geologic units, depending on soil and groundwater conditions within the project area. Additionally, subsidence has been observed in the San Joaquin Valley due to declining groundwater levels. Because dewatering may be required during excavation activities, subsurface soil compaction and subsequent sinking or settling of the ground surface have potential to occur within the project area. A site-specific geotechnical evaluation meeting the requirements of the CBC would be required before project-related permits are issued. The geotechnical study would identify potential risks, including potential for settlement, lateral spreading, and subsidence, and recommendations to reduce seismic, geologic, and soils hazards. Because the project would comply with CBC requirements, impacts related to unstable geologic units or soils would be less than significant.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?

Less-than-significant impact. As discussed in Section 3.7.2, soil types in the disturbance area have a low to moderate shrink-swell potential. As described previously, a site-specific geotechnical study meeting the requirements of the CBC would be required before project-related permits are issued. The geotechnical study would identify potential risks and recommendations to reduce seismic, geologic, and soils hazards. Because the project would comply with CBC requirements, impacts related to expansive soils would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The project would not require the use of septic tanks or alternative wastewater disposal systems. Thus, the project would have no impact related to soil suitability for use of septic tanks or alternative wastewater disposal systems.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than significant with mitigation incorporated. The disturbance area encompasses 78.88 acres of land that has been previously disturbed by development of agricultural and public facility land uses and is predominately underlain by fill materials. Therefore, the project site is not anticipated to be underlain by unique geologic features. Additionally, the project would require excavation to a maximum depth of 12 feet for trenching and installing pipelines. Based on this excavation depth and previous disturbance, paleontological resources are not expected to be encountered. However, intact paleontological resources may be present below the original layer of fill material. In the event that intact paleontological resources are inadvertently discovered during construction, ground-disturbing activities associated with construction of the project, such as grading during site preparation and excavation to install treatment facilities, have the potential to destroy a unique paleontological resource or site. Therefore, this impact would be potentially significant.

Mitigation Measure 3.7-1: Retain Qualified Paleontologist to Conduct Project Design Review

Prior to completion of project design and the beginning of construction, the City of Riverbank shall retain a qualified paleontologist to review the project plans and all geotechnical reports to determine whether construction activities would affect native sediments containing sensitive paleontological resources. The qualified paleontologist will provide these findings in writing and provide recommendations for paleontological monitoring during construction, if necessary. If the project would not disturb native soils, no further action would be necessary.

Mitigation Measure 3.7-2: Prepare Paleontological Resources Impact Mitigation Plan

In the event that construction activities occur in native sediments identified as being sensitive for paleontological resources, the City of Riverbank shall retain a qualified paleontologist to prepare a Paleontological Mitigation Plan (PMP) consistent with the guidelines of the Society of Vertebrate Paleontology (2010). The PMP will be prepared prior to construction and will include requirements for paleontological resource monitoring to inspect exposed rock units during active excavations within geologically sensitive sediments.

Mitigation Measure 3.7-3: Conduct Paleontological Monitoring

In the event that construction activities occur in native sediments identified as being sensitive for paleontological resources, the City of Riverbank shall retain a qualified paleontologist prior to construction to monitor grading and trenching activities during construction of the project. The paleontological monitor will have authority to temporarily divert ground-disturbing activities away from exposed fossils to professionally and efficiently recover the fossil specimens and collect associated data. If potentially significant paleontological resources are discovered during ground-disturbing activities, the contractor will stop all work within 60 feet of the discovery until the paleontological monitor can remove the fossils and retrieve associated data. If fossils are collected, they will be transported to a paleontological laboratory for processing where they will be prepared to the point of identification, identified by qualified experts, and listed in a database to facilitate analysis. If discovered, significant specimens will be deposited in a designated paleontological curation facility.

Significance after Mitigation

With the implementation of Mitigation Measures 3.7-1, 3.7-2, and 3.7-3, the City would avoid and minimize the potential to destroy a unique paleontological resource or site by implementing paleontological design review, preparing a PMP, conducting paleontological monitoring, and in the event paleontological resources are discovered, by providing data retrieval, fossil collection and processing, and curation as appropriate. Therefore, the project would not have a substantial adverse effect on potentially significant paleontological resources, and the impact would be clearly reduced to less than significant with mitigation incorporated.

3.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VIII. Greenhouse Gas Emissions.				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.8.1 Regulatory Setting

FEDERAL

In *Massachusetts et al. v. Environmental Protection Agency et al.,* 549 US 497 (2007), the Supreme Court of the United States ruled that carbon dioxide (CO_2) is an air pollutant as defined under the CAA and that the EPA has the authority to regulate GHG emissions. In 2010, EPA started to address GHG emissions from stationary sources through its New Source Review permitting program, including operating permits for "major sources" issued under Title V of the CAA.

In October 2012, EPA and the National Highway Traffic Safety Administration, on behalf of the US Department of Transportation (DOT), issued final rules to further reduce GHG emissions and improve corporate average fuel economy (CAFE) standards for light-duty vehicles for model years 2017 and beyond (77 *Federal Register* [FR] 62624). These rules would increase fuel economy to the equivalent of 54.5 miles per gallon, limiting vehicle emissions to 163 grams of CO_2 per mile for the fleet of cars and light-duty trucks by model year 2025 (77 FR 62630).

However, on April 2, 2018, the EPA administrator announced a final determination that the current standards should be revised. On August 2, 2018, DOT and EPA proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule), which would amend existing CAFE standards for passenger cars and light-duty trucks by increasing the stringency of the standards by 1.5 percent per year from models 2021 through 2026 (NHTSA 2020).

The CAA grants California the ability to enact and enforce more strict fuel economy standards through the acquisition of an EPA-issued waiver. Each time California adopts a new vehicle emission standard, the state applies to EPA for a preemption waiver for those standards. However, Part One of the SAFE Rule, which became effective on November 26, 2019, revokes California's existing waiver to implement its own vehicle emission standard and also established a standard to be adopted and enforced nationwide (84 FR 51310). At the time of preparing this environmental document, the implications of the SAFE Rule on California's future emissions are contingent upon a variety of unknown factors, including legal challenges by California and other states to the revocation of California's waiver.

In June 2019, EPA, under the authority of CAA Section 111(d), issued the Affordable Clean Energy Rule, which provides guidance to states on establishing emissions performance standards for coal-fired electric generating units (EGUs). Under this rule, states are required to submit plans to EPA that demonstrate the use of specifically listed retrofit technologies and operating practices to achieve CO_2 emission reductions through heat rate improvement (HRI). HRI is a measurement of power plant efficiency that EPA determined as part of this rulemaking to be the best system of emission reductions for CO_2 generated from coal-fired EGUs (EPA 2019).

STATE

Statewide GHG Emission Targets and Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades. GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (AB 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (SB 32 of 2016). Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. Executive Order B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than 2 degrees Celsius (°C), the warming threshold at which major climate disruptions, such as super droughts and faster rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 °C (United Nations 2015).

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high GWP, and recycling and waste). The *2022 Draft Scoping Plan Update* (2022 Scoping Plan Update) assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The proposed 2022 Scoping Plan Update focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities (CARB 2022b). The Draft 2022 Scoping Plan Update and associated environmental documentation were released for public review on May 10, 2022. The comment period ended June 24, 2022.

Legislation Associated with Electricity Generation

The state has passed legislation requiring the increasing use of renewables to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011), 52 percent by 2027 (SB 100 of 2018), 60 percent by 2030 (also SB 100 of 2018), and 100 percent by 2045 (also SB 100 of 2018).

LOCAL

San Joaquin Valley Air Pollution Control District

SJVAPCD is the primary agency responsible for addressing air quality concerns in all of San Joaquin County. Its role is discussed further in Section 3.2, "Air Quality." SJVAPCD also recommends methods for analyzing project-generated GHGs in CEQA analyses and offers multiple potential GHG reduction measures for land use development projects. SJVAPCD developed thresholds of significance to provide a uniform scale to measure the significance of GHG emissions from land use and stationary source projects in compliance with CEQA and AB 32. SJVAPCD's goals in developing GHG thresholds include ease of implementation, use of standard analysis tools, and emissions mitigation consistent with AB 32. However, since the passage of SB 32, which mandates a statewide emissions target of 40 percent below 1990 levels by 2030, SJVAPCD has not developed new thresholds in compliance with this target.

San Joaquin County 2035 General Plan

The following policies from the Public Health and Safety Element of the San Joaquin County General Plan are relevant to greenhouse gas emissions with respect to the project (San Joaquin County 2017a):

- **Policy PHS-6.1 Municipal GHG Reduction Targets** The County shall reduce GHG emissions from County facilities and activities by 15 percent below 2007 levels by 2020, and shall strive to reduce GHG emissions 40 percent and 80 percent below reduced 2020 levels by 2035 and 2050, respectively.

- **Policy PHS-6.2 Community GHG Reduction Targets** The County shall reduce community greenhouse gas emissions by 15 percent below 2005 levels by 2020, and shall strive to reduce GHG emissions by 40 percent and 80 percent below reduced 2020 levels by 2035 and 2050, respectively.
- **Policy PHS-6.3 GHG Reduction Strategies** The County shall promote greenhouse gas emission reductions by encouraging efficient farming methods (e.g., no-till farming, crop rotation, cover cropping); supporting the installation of renewable energy technologies; and protecting grasslands, open space, oak woodlands, riparian forest and farmlands from conversion to urban uses.
- **Policy PHS-6.4 Methane Digesters** The County shall encourage large dairies to capture methane through use of manure digester systems to generate an alternative source of energy, reduce greenhouse gas emissions, and serve as a source of profit for agricultural operations.
- **Policy PHS-6.5 Diversion, Recycling, and Reuse** The County shall achieve a 75 percent diversion of landfilled waste based on 1990 levels by 2020, and shall achieve a diversion rate of 90 percent by 2035.
- **Policy PHS-6.6 Business-related GHG Reduction Strategies** The County shall encourage all businesses to help reduce GHG emissions by: replacing high mileage fleet vehicles with more efficient and/or alternative fuel vehicles; increasing the energy efficiency of facilities; transitioning toward the use of renewable energy instead of non-renewable energy sources; adopting purchasing practices that promote emissions reductions and reusable materials; and increasing recycling.
- **Policy PHS-6.7 New Development** The County shall require new development to incorporate all feasible mitigation measures to reduce construction and operational GHG emissions.
- **Policy PHS-6.8 Agricultural Equipment and Emissions** The County shall implement the following measures pertaining to agricultural equipment and emissions reductions:
  - Support SJVAPCD programs to fund equipment upgrades, retrofits, and replacement through the Carl Moyer heavy-duty vehicle and equipment program or other funding mechanisms (e.g., Rule 9510).
  - Work with SJVAPCD and stakeholders to identify practical and feasible options for fuel-efficient agricultural equipment.
  - Work with agricultural organizations and stakeholders to provide workshops and presentations and outreach materials focused on promoting fuel efficient farm equipment and operations and encourage participation in the Carl Moyer incentive program.
- **Policy PHS-6.9 Public Awareness** The County shall support public awareness about climate change and encourage County residents and businesses to become involved in activities and lifestyle changes that will aid in reduction of greenhouse gas emissions through alternative energy use, energy and water conservation, waste reduction and recycling, and other sustainable practices.

City of Riverbank General Plan 2005-2005

The following policies from the Air Quality Element, Conservation and Open Space, and Public Services and Facilities Elements of the City's General Plan are relevant to greenhouse gas emissions with respect to the project:

- **Policy AIR-1.11:** The City acknowledges the following facts: carbon dioxide is the most important anthropogenic greenhouse gas from future development in Riverbank; global increases in atmospheric carbon dioxide concentration are due primarily to fossil fuel combustion and land use changes; anthropogenic increases in greenhouse gas concentrations cause climate change; and, the economic, social, and environmental consequences of climate change are catastrophic. The City will monitor and comply with relevant local, regional, statewide, and federal legislation and regulation designed to address climate change.
- **Policy CONS-6.6:** The City will encourage the use of recycled water for appropriate use, including but not limited to outdoor irrigation, toilet flushing, fire hydrants, and commercial and industrial processes.

- **Policy PUBLIC-3.1:** The City will require that wastewater collection, conveyance, and treatment facilities meet or exceed local, State, and federal standards, as addressed in the City's Sewer Collection System Master Plan.
- **Policy PUBLIC-3.2** The City will identify and utilize, as feasible, best environmental practices and technologies for wastewater collection, conveyance, and treatment.

3.8.2 Environmental Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. GHGs are responsible for "trapping" solar radiation in the earth's atmosphere, a phenomenon known as the greenhouse effect. Prominent GHGs contributing to the greenhouse effect are CO_2, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (IPCC 2014: 3, 5). By adoption of AB 32, the California Global Warming Solutions Act of 2006, and SB 97, the State of California has acknowledged that the effects of GHG emissions cause adverse environmental impacts.

Emissions of GHGs have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change. Although the emissions of one single project, would not cause global climate change, GHG emissions from multiple projects throughout the world could result in a cumulative impact with respect to global climate change.

Guidance published by OPR does not include a quantitative threshold of significance to use for assessing a project's GHG emissions under CEQA. Moreover, ARB has not established such a threshold or recommended a method for setting a threshold for project-level analysis. In the absence of a consistent statewide threshold, a threshold of significance for analyzing the project's GHG emissions was developed. The issue of setting a GHG threshold is complex and dynamic, especially in light of the 2016 California Supreme Court decision in *Center for Biological Diversity v. California Department of Fish and Wildlife* (referred to as the Newhall Ranch decision hereafter). The California Supreme Court ruling also highlighted the need for the threshold to be tailored to the specific project type, its location, and the surrounding setting. Therefore, the threshold used to analyze the project is specific to the analysis herein and the SJVAPCD retains the ability to develop and/or use different thresholds of significance for other projects in its capacity as lead agency and recognizing the need for the individual threshold to be tailored and specific to individual projects.

State CEQA Guidelines Section 15064 and relevant portions of Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. SJVAPCD policy provides for a tiered approach in assessing significance of project-specific GHG emission increases, as shown below.

- Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less-than-significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA-compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement Best Performance Standards (BPS).
- Projects implementing BPS would not require quantification of project-specific GHG emissions. Consistent with CEQA Guidelines, such projects would be determined to have a less-than-significant individual and cumulative impact for GHG emissions.

- Projects not implementing BPS would require quantification of project-specific GHG emissions and demonstration that project-specific GHG emissions would be reduced or mitigated by at least 29 percent, and compared to business-as-usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period, consistent with GHG emission reduction targets established in the 2017 Scoping Plan. Projects achieving at least a 29 percent GHG emission reduction compared to BAU would be determined to have a less-than-significant individual and cumulative impact for GHGs.

3.8.3 Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-significant impact. Construction-related activities that would generate GHGs include worker commute trips, haul trucks carrying supplies and materials to and from the project site, and off-road construction equipment (e.g., dozers, graders, excavators). Project construction would include various phases over a 27-month construction timeline. Construction equipment and the number of truck trips would vary by phase, and are based on construction phasing and equipment inventory provided by the project applicant. A detailed description of construction modeling methodology is provided above in Section 3.3.3.

Total construction emissions for each year of construction are summarized in Table 3.8-1. Additional details on the modeling assumptions, inputs, and outputs are provided in Appendix B.

Table 3.8-1 Summary of Construction-Generated GHG Emissions

Construction Year	Emissions ($MTCO_2e$)
2024	309
2025	363
2026	336
Total	1,008

Notes: $MTCO_2e$ = metric tons of carbon dioxide-equivalent

Refer to Appendix B for detailed s and modeling output files.

Source: Modeling conducted by Ascent Environmental in 2022.

As shown, construction activities would result in maximum annual emissions of 363 million tons of carbon dioxide equivalent ($MTCO_2e$) per year. SJVAPCD has not adopted a GHG emission threshold for construction-related emissions. However, this level of one-time GHG emissions is considered nominal relative to the 1,100-$MTCO_2e$/year threshold recommended by many air districts in California for land use projects, including the Bay Area Air Quality Management District (BAAQMD) and the Sacramento Metropolitan Air Quality Management District (SMAQMD).

For the most part, operational emission estimates are based on the same approach as described in Section 3.3.3. However, the GHG analysis includes modeling for both the first year of operation (2027) and the future growth year (2050) to account for the anticipated increase in wastewater flows and associated increase in pump-related electricity consumption. Over time, the electric grid increasingly results in lower carbon output as the electrical utilities increase their renewable portfolio mix consistent with the state's renewable portfolio standard and SB 100. This analysis accounts for the increase in renewable energy and associated decrease in carbon intensity in electricity delivered to power the pumps. Additionally, water consumption, wastewater generation, and solid waste generation are based on model defaults for 6,000 square feet of light industrial uses (which is equal to the size of the treatment and maintenance buildings).

Total estimated operational emissions for both 2027 and 2050 are summarized in Table 3.8-2. As shown, emissions in 2027 are primarily associated with pump electricity consumption, with smaller amounts associated with mobile (delivery and biosolids hauling) and stationary (backup generator testing). As shown, emissions in 2050 are expected to drop substantially, as the electrical grid is expected to be carbon-free, and trucks associated with deliveries and hauling are expected to become even cleaner due to implementation of CARB rules related to truck fuel efficiency and electrification. As shown, emissions would be low in 2027, and would be much lower in 2045, demonstrating substantial progress toward carbon neutrality consistent with statewide planning efforts.

Table 3.8-2 Summary of Operational GHG Emissions

Emission Source	Emissions ($MTCO_2e$)	
	2027	2050
Area Sources	<1	<1
Mobile Sources	12	10
Stationary Sources	11	11
Electricity	432	0
Water and Wastewater	3	2
Solid Waste	3	3
Total Operational Emissions	460	25

Notes: $MTCO_2e$ = metric tons of carbon dioxide-equivalent

Refer to Appendix B for detailed s and modeling output files.

Source: Modeling conducted by Ascent Environmental in 2022.

Overall, operation of the project is not expected to result in a significant impact on the environment. Emissions would be below the numerical thresholds that have been adopted (1,100 $MTCO_2e$/year by BAAQMD and SMAQMD). Moreover, while not quantified herein, the project would increase the use of recycled water for irrigation, which would reduce the need for depletion of groundwater sources.

Because project-related construction and operational GHGs would be less than adopted thresholds, and long-term operational GHG emissions would demonstrate substantial progress towards carbon neutrality, the project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment. This impact would be less than significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-than-significant impact. The City has not developed a plan for the purpose of reducing the emissions of GHGs. However, both the City of Riverbank General Plan and San Joaquin County General Plan contain various policies and implementation strategies that aim to reduce emissions associated with both air quality and GHGs. For example, in the City's General Plan, Policy CONS-6.6 states that the City will encourage the use of recycled water for appropriate use, including but not limited to outdoor irrigation, toilet flushing, fire hydrants, and commercial and industrial processes. Recycled water reduces energy required to convey, treat, and distribute water, thereby reducing electricity consumption and associated GHG emissions. The Natural and Cultural Resources (NCR) Element of the San Joaquin County General Plan includes numerous goals and policies related to water conservation and groundwater, stating specifically that groundwater recharge and prevention of overdraft are increasingly important strategies. Policies NCR-3.1 and NCR-3.2 direct the County to ensure that substantial groundwater recharge areas are maintained and that the development of groundwater recharge projects of all scales to increase groundwater supplies shall be encouraged. The project is consistent with these goals and policies because the project would contribute to greater water balance by replacing some of the groundwater that would otherwise be used for irrigation. Furthermore, production of recycled water would potentially reduce the use of on-site percolation basins, leading to potentially improved groundwater conditions underlying the project area (see more details in Section 3.10, "Hydrology and Water Quality"). The project would support the City's and Country's goals of preserving water resources. Additionally, the Local Action portion of the CARB Scoping Plan states that projects should develop a plan requiring water recycling, and greywater and rainwater reuse, and provide funding for incentives and other program delivery mechanisms, where feasible. The project is consistent with these applicable policies and plans because it would produce and distribute high-quality recycled water for agricultural irrigation that helps to reduce energy consumption associated with irrigation water. Operational emission sources would be minimal, and the project would be consistent with the General Plan and statewide strategies in the Scoping Plan because the operational uses would support the City's and County's goals of incorporating water recycling and reducing groundwater depletion. Therefore, the project would not conflict with or obstruct implementation of any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be less than significant.

3.9 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
IX. Hazards and Hazardous Materials.				
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

3.9.1 Regulatory Setting

FEDERAL

EPA has primary responsibility for enforcing and implementing federal laws and regulations pertaining to hazardous materials. Applicable regulations are contained mainly in CFR Titles 29, 40, and 49. Hazardous materials, as defined in the CFR, are listed in 49 CFR 172.101. Management of hazardous materials is governed by the following laws:

- **Resource Conservation and Recovery Act of 1976:** The Resource Conservation and Recovery Act of 1976 (RCRA) (42 USC 6901 et seq.) established a federal regulatory program for the generation, transport, and disposal of hazardous substances. Under RCRA, EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous substances. RCRA was amended by the Hazardous and Solid Waste Amendments of 1984, which banned the disposal of hazardous waste on land and strengthened EPA's reporting requirements.

- **Comprehensive Environmental Response, Compensation, and Liability Act of 1980:** Also called the Superfund Act, the Comprehensive Environmental Response, Compensation, and Liability Act (42 USC 9601 et seq.) provided broad federal authority and created a trust fund for addressing releases and threatened releases of hazardous substances that could endanger public health or the environment. EPA is responsible for compiling the National Priorities List for known or threatened release sites of hazardous substances, pollutants, or contaminants (commonly referred to as "Superfund sites"). EPA provides oversight of, and supervision for, Superfund investigation/remediation projects, evaluates remediation technologies, and develops hazardous materials disposal restrictions and treatment standards.
- **Superfund Amendments and Reauthorization Act of 1986:** Also called SARA Title III or the Emergency Planning and Community Right-to-Know Act of 1986, the Superfund Amendments and Reauthorization Act (Public Law 99-499; USC Title 42, Chapter 116) imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.
- **Clean Air Act:** Regulations under the CCA (42 USC 7401 et seq., as amended) are designed to prevent accidental releases of hazardous materials. The regulations require facilities that store a threshold quantity or greater of regulated substances to develop a risk management plan that includes hazard assessments and response programs to prevent accidental releases of listed chemicals.

Transport of Hazardous Materials

DOT regulates the transport of hazardous materials between states and is responsible for protecting the public from dangers associated with such transport. The basic statute regulating transport of hazardous materials in the United States, addressed in 49 USC 5101 et seq. (formerly the Hazardous Materials Transportation Act, 49 USC 1801 et seq.), regulates intrastate and interstate transport by rail car, aircraft, motor vehicle, and vessel and includes requirements related to the appropriate packaging and labeling of the hazardous material for transit. There are registration requirements for individuals that offer and accept hazardous wastes, and hazardous materials must be properly classed, described, packaged, marked, and labeled. Hazardous materials transport regulations are enforced by the Federal Highway Administration, the US Coast Guard, the Federal Railroad Administration, and the Federal Aviation Administration (FAA).

Occupational Safety and Health Administration Worker Safety Requirements

The Occupational Safety and Health Administration (OSHA) is responsible for ensuring worker safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for handling hazardous substances and addressing other potential industrial hazards. OSHA also establishes criteria by which each state can implement its own health and safety program. The Hazard Communication Standard (CFR Title 29, Part 1910) requires that workers be informed of the hazards associated with the materials they handle. Workers must be trained in safe handling of hazardous materials, use of emergency response equipment, and building emergency response plans and procedures. Containers must be labeled appropriately, and material safety data sheets must be available in the workplace.

STATE

The Hazardous Waste Control Act

The Hazardous Waste Control Act (HSC Section 25100 et seq.) is the seminal hazardous waste control law in California. It establishes standards for regulating the generation, handling, processing, storage, transportation, and disposal of hazardous wastes. The hazardous waste control program is administered by California Department of Toxic Substances Control (DTSC) and local Certified Unified Program Agencies (CUPAs). Within the California Environmental Protection Agency (CalEPA), DTSC is primarily responsible for regulating the generation, transport, and disposal of hazardous substances under the authority of the Hazardous Waste Control Act; enforcement is delegated to local jurisdictions. Regulations implementing the Hazardous Waste Control Act list hazardous chemicals and common substances that may be hazardous; establish criteria for identifying, packaging, and labeling hazardous substances; prescribe hazardous substances management; establish permit requirements for the treatment, storage, disposal, and transportation of hazardous substances; and identify hazardous substances prohibited from landfills. These regulations apply to the protection of human health and the environment during construction.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

CalEPA has adopted regulations implementing the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The six program elements of the Unified Program are hazardous waste generation and onsite treatment, underground storage tanks (USTs), aboveground storage tanks, hazardous material release response plans and inventories, risk management and prevention programs, and Uniform Fire Code hazardous materials management plans and inventories. The program is implemented at the local level by a local agency, referred to as the CUPA, which is responsible for consolidating the administration of the six program elements within its jurisdiction. Although the project proponent and owner is the City of Riverbank, which is located in Stanislaus County, since the project site is located in San Joaquin County, the San Joaquin County Environmental Health Department is the CUPA pursuant to HSC Section 25180; San Joaquin County Board of Supervisors Resolution R-95-760 and San Joaquin County Ordinance No. 4432.

Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the California Emergency Management Agency, which coordinates the responses of other agencies, including CalEPA, the California Highway Patrol, the CDFW, and regional water quality control boards (RWQCBs).

California Government Code Section 65962.5 (Cortese List)

The provisions of California Government Code Section 65962.5 are commonly referred to as the "Cortese List" (after the legislator who authored the law). The Cortese List is a planning document used by state and local agencies to comply with CEQA requirements in providing information about the location of hazardous materials release sites. The list, or a site's presence on the list, has bearing on the local permitting process. DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies in California, such as the State Water Resources Control Board (SWRCB), also must provide additional release information.

Government Code Section 65962.5 requires CalEPA to develop an updated Cortese List at least annually. However, because this statute was enacted more than 20 years ago, some of the provisions refer to agency activities that are no longer being implemented, and in some cases, the information to be included in the Cortese List does not exist. Further, although Government Code Section 65962.5 makes reference to the preparation of a "list," many changes have occurred related to web-based information access since 1992, and this information is now largely available on the internet sites of the responsible organizations. A centralized list is no longer compiled.

California Hazardous Materials Release Response Plans and Inventory Law

The California Hazardous Materials Release Response Plans and Inventory Law requires preparation of hazardous materials Business Plans and disclosure of hazardous materials inventories. Such plans must include an inventory of hazardous materials handled, facility floor plans showing where hazardous materials are stored, and an emergency response plan, and they must establish emergency response procedures that include employee training (HSC, Division 20, Chapter 6.95, Article 1). The business plan program is administered by the California Emergency Management Agency.

California Accidental Release Prevention Program

The goal of the California Accidental Release Prevention Program (CCR Title 19, Division 2, Chapter 4.5) is to reduce the likelihood and severity of consequences of any releases of extremely hazardous materials. Any business that handles regulated substances (chemicals that pose a major threat to public health and safety or the environment because they are highly toxic, flammable, or explosive, including ammonia, chlorine gas, hydrogen, nitric acid, and propane) must prepare a risk management plan. The risk management plan is a detailed engineering analysis of the potential accident factors present at a business and the measures that can be implemented to reduce this accident potential. The plan must provide safety information, hazard data, operating procedures, and training and maintenance requirements. The list of regulated substances is found in Article 8, Section 2770.5 of the program regulations.

Porter-Cologne Water Quality Control Act

Through the Porter-Cologne Water Quality Control Act and the NPDES program, RWQCBs have the authority to require proper management of hazardous materials during project construction. For a detailed description of the Porter-Cologne Water Quality Control Act, the NPDES program, and the role of the RWQCBs, see Section 3.10, "Hydrology and Water Quality."

SWRCB adopted the statewide NPDES Construction General Permit in August 1999. The state requires that projects disturbing more than 1 acre of land during construction file a notice of intent with the appropriate RWQCB to be covered under this permit. Construction activities subject to the General Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. A SWPPP must be developed and implemented for each site covered by the permit. The plan must identify BMPs designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

Waste Discharge Requirements

Pursuant to 27 CCR, Section 2005 et seq., SWRCB has established regulations addressing the treatment, storage, processing, and/or disposal of waste. For given sites, like the existing WWTP, the RWQCB approves site-specific requirements and monitoring responsibilities related to on-site operations that are intended to insure the maintenance of acceptable water quality within the region and prevent the potential release of hazardous materials via surface waters and groundwater. As noted in Chapter 2, "Project Description," current discharge requirements for the WWTP are prescribed under WDR Order No. 94-100 and the associated Monitoring and Reporting Program (MRP), which was adopted by the Central Valley RWQCB on April 22, 1994.

California Occupational Safety and Health Administration Worker Safety Requirements

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal/OSHA regulations for the use of hazardous materials in the workplace (CCR Title 8) require safety training, available safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and preparation of emergency action and fire prevention plans. Cal/OSHA enforces regulations on hazard communication programs and mandates specific training and information requirements. These requirements include procedures for identifying and labeling hazardous substances, providing hazard information about hazardous substances and their handling, and preparing health and safety plans to protect workers and employees at hazardous waste sites. Employers must make material safety data sheets available to employees and document employee information and training programs.

California State Aeronautics Act

At the state level, Caltrans' Division of Aeronautics administers FAA regulations (Stats. 1951, Ch. 764; Public Utilities Code Section 21001 et seq.). The division issues permits for public-use airports. In addition, the Division of Aeronautics administers noise regulation and land use planning laws, which regulate the operational activities and provides for the integration of aviation planning on a regional basis. There are no airports located near the project site therefore the project is located outside of any airports' safety zones and any noise contours set forth in such airport land use compatibility plans.

California Building Code

The CBC (CCR Title 24 Part 2)) contains general building design and construction requirements relating to fire and life safety, structural safety, and access compliance. CBC provisions provide minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures and certain equipment. The CBC is based on the International Building Code, but has been amended for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local building officials for compliance with the CBC. Typical fire safety requirements of the CBC include the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Fire Code

The California Fire Code (CFC) is contained within CCR Title 24. The CFC establishes requirements for development design to safeguard public health, safety and general welfare from the hazards of fire. This includes standards on building design, materials, fire flow, and other suppression provisions. The CFC also regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the CBC use a hazard classification system to determine what protective measures are required to protect life and provide fire safety. These measures may include applying construction standards, requiring separation between structures and property lines, and using specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years.

LOCAL

San Joaquin County 2035 General Plan

The following policies from the Public Health and Safety Element of the San Joaquin County General Plan are relevant to hazards and hazardous materials with respect to the project:

- **Policy PHS-1.3. Emergency Operations Plans:** The County shall maintain and implement the following emergency and hazard mitigation plans to provide emergency planning, mitigation, response, and recovery activities to the community:
  - Emergency Operations Plan,
  - Mountain House Community Emergency Operations Plan,
  - Multi-Hazard Functional Plan,
  - Local Hazard Mitigation Plan, and
  - Flood Safety Plan and Contingency Mapping.
- **Policy PHS-1.4. Emergency Preparedness Exercises:** The County shall coordinate with local and regional agencies to conduct emergency and disaster preparedness exercises to test operational and emergency plans.
- **Policy PHS-1.8. Emergency Operations Center:** The County shall continue to maintain the Emergency Operations Center (EOC) as the single point for centralized management and coordination of emergency response and recovery operations during a disaster or emergency.
- **Policy PHS-1.10. Emergency Vehicles Access:** The County shall require all new developments to provide, and existing developments to maintain, adequate primary and alternative access for emergency vehicles.
- **Policy PHS-4.1. Community Wildfire Protection Plan:** The County shall maintain and implement the Community Wildfire Protection Plan as a mechanism for community input and identification of areas with high fire hazard risk.
- **Policy PHS-4.2. Residential Densities in High Hazard Areas:** The County shall restrict development to rural residential densities or lower and require on-site fire suppression measures in areas with high or extreme wildfire hazards.

- **Policy PHS-4.3. Fire Prevention Measures:** The County shall implement State recommendations for fire prevention in Fire Hazard Severity Zones and require new and/or existing development to provide clearance around structures, use fire-resistant ground cover, build with fire-resistant roofing materials, participate in fuel load reduction, and take other appropriate measures.
- **Policy PHS-4.4. Clear Zones:** The County shall require clear zones and regular weed abatement around residential structures in high fire hazard areas and assist property owners in identifying how clear zones should be maintained.
- **Policy PHS-4.5. Vegetation and Fuel Management:** The County shall require new development in high fire-hazard areas to have fire-resistant vegetation, cleared fire breaks separating communities or clusters of structures from native vegetation, or a long-term comprehensive vegetation and fuel management program consistent with State codes 4290 and 4291 for wildland fire interface and vegetation management.
- **Policy PHS-4.6. Fire Protection Coordination:** The County shall encourage well-organized and efficient coordination among fire agencies, CalFire, and the County.
- **Policy PHS-7.1. Minimize Hazardous Materials and Wastes:** The County shall discourage the use of hazardous materials and the creation of hazardous wastes.
- **Policy PHS-7.2. Avoid Contamination of Resources:** The County shall strive to ensure that hazardous materials and wastes do not contaminate air, water, or soil resources.
- **Policy PHS-7.3. Control Hazardous Materials:** The County shall require the use, storage, and disposal of hazardous materials and wastes to comply with local, State, and Federal safety standards.
- **Policy PHS-7.4. County Hazardous Waste Management Plan:** The County shall maintain and implement the County Hazardous Waste Management Plan.
- **Policy PHS-7.5. Locate Hazardous Materials Away from Populated Areas:** To the extent feasible, the County shall require proposed activities and land uses that use, store, or dispose of hazardous materials or wastes to be located away from existing and planned populated areas.
- **Policy PHS-7.6. Require Hazardous Materials Management Plans:** The County shall require businesses that use or store materials and wastes on-site to prepare Hazardous Materials Management Plans (Business Plans) that map and inventory all hazardous materials and contain contingency plans for accidents, designate an individual or individuals as emergency coordinator(s), and ensure that all employees understand the potential for accidents and the appropriate response. Plans must follow the requirements for Federal, State, and/or local defined special flood hazard areas.
- **Policy PHS-7.7. County Hazardous Materials Area Plan:** The County shall maintain and implement the County Hazardous Materials Area Plan for emergency response to a release or threatened release of hazardous material within the unincorporated County.
- **Policy PHS-7.8. Consistency with Hazardous Waste Management Plan:** The County shall require all new development to be consistent with the County Hazardous Waste Management Plan (CHWMP). Any proposed hazardous waste facility, or expansion of an existing hazardous waste facility, shall be consistent with the CHWMP.
- **Policy PHS-7.9. Require Disclosure of Hazardous Materials and Waste:** The County shall require public disclosure of hazardous materials and wastes for existing and proposed businesses.
- **Policy PHS-7.11. Hazardous Materials Transportation Routes:** The County shall continue to maintain route designations for hazardous materials transport within San Joaquin County.
- **Policy PHS-7.12. Hazardous Liquids Storage Tanks:** The County shall maintain and implement hazardous material regulations for the storage of hazardous liquids in underground or aboveground storage tanks.

- **Policy PHS-7.13. Hazardous Waste Disposal Facilities:** The County shall provide areas for hazardous waste disposal facilities sufficient to meet the needs of county residents and businesses.
- **Policy PHS-7.14. Legislative Support:** The County shall support legislation that would further reduce public risks associated with hazardous materials, reduce hazardous waste generation, aid in cleanup, or provide assistance for hazardous materials management.
- **Policy PHS-7.15. Site Cleanup Support:** The County shall support programs and funding for determination of sites contaminated with hazardous materials and for site cleanup.
- **Policy PHS-7.16. Hazardous Waste Property Designations:** When known, the County shall refer contaminated sites to the appropriate lead agency with established authority/jurisdiction for the required assessment and cleanup activities.
- **Policy PHS-8.1. Land Use Compatibility:** The County shall prohibit land uses within unincorporated areas that interfere with the safe operation of aircraft or that would expose people to hazards from the operation of aircraft.

San Joaquin County Emergency Operations Plan

The San Joaquin County Office of Emergency Services (OES) is the single coordinating center for major emergency activities. The San Joaquin County OES prepared the San Joaquin County Emergency Operations Plan (EOP), which establishes a systematic and synchronized process to facilitate emergency preparedness, promote hazard mitigation, and coordinate emergency response and disaster recovery activities and actions. The EOP identifies the primary responsibilities of San Joaquin County government before, during, and after emergencies and major disasters, while recognizing the significant roles of federal, tribal, state, and other local government agencies, as well as the private sector, and non-governmental organizations/private nonprofits. The primary objective of the EOP is to coordinate the personnel, facilities, and other resources of the County into an efficient organization capable of responding to any emergency, disaster, or planned event (San Joaquin County 2022).

The EOP accomplishes the following (San Joaquin County 2022):

- Establishes a County emergency management structure, which will coordinate and support on-scene responses, including maintenance of situational awareness, facilitation of effective communication between operations centers at various levels of government, maintain continuity of government, and interaction with public information sources.
- Establishes the overall operational concepts associated with the management of incidents, emergencies, crises, disasters, and catastrophes at the County and operational area levels.
- Provides a flexible platform for planning and response to all hazards, incidents, events, and emergencies believed to be important to the operational area. It is applicable to a wide variety of anticipated incident events including floods, droughts, earthquakes, and public health issues.

San Joaquin County Local Hazard Mitigation Plan – Revised 2017

The local hazard mitigation plan (LHMP) is intended to provide strategies for the County and other local jurisdictions to identify and implement mitigation actions for reducing damages from various potential natural and technological disasters. The goals, actions, and strategies contained in the San Joaquin County Local Hazard Mitigation Plan document are only for the unincorporated areas of the County (San Joaquin County 2017b).

San Joaquin County Municipal Code

Title 4 Division 8 of the San Joaquin County Municipal Code outlines the handling of and regulations of hazardous materials in the County.

City of Riverbank General Plan 2005-2025

The following policies from the Circulation Element of the City's General Plan are relevant to hazards and hazardous materials with respect to the project:

- **Policy CIRC-4.1:** The City will work with relevant public agencies and the railroad to appropriately regulate the movement of truck traffic and hazardous materials throughout the City.
- **Policy CIRC-4.4:** The City will support the development and implementation of a quick-response emergency services program for railroad corridors and continue to support the County's Hazardous Materials Team.

The following policies from the Public Services and Facilities Element of the City's General Plan are relevant to hazards and hazardous materials with respect to the project:

- **Policy PUBLIC-7.1**: The City will ensure that adequate fire flow pressure is available in relation to structure size, design, requirements for construction, and/or built-in fire protection systems. Maintenance of adequate fire flows includes factors such as adequate storage, system gridding, hydrant spacing, and spacing and sizing of water mains, as specified in the City's Water Master Plan.
- **Policy PUBLIC-7.2:** For new development, the City will require a minimum fire flow pressure of 1,500 GPM (sustainable for at least two hours) for residential use. For new development, the City will require a minimum fire flow pressure of approximately 3,600 GPM (sustainable for longer periods) for larger residences and for other building types, depending on the particular use and structure characteristics, and in coordination with the fire service provider.
- **Policy PUBLIC-7.3:** The City will require that fire stations be located to ensure the appropriate level of service (including adequate response time per Policy Public 7.5), community compatibility, and efficiency, including the location of such facilities relative existing and planned public parks, libraries, and other activity centers.
- **Policy PUBLIC-7.4:** The City will coordinate with fire protection providers, including through reciprocity arrangements, to ensure equipment, staffing, and facilities for emergency medical services, urban search and rescue, hazardous materials emergency response, and other relevant needs, as appropriate. The City will ensure consistency with National Fire Protection Association and Stanislaus Consolidated Fire Protection District response requirements.
- **Policy PUBLIC-7.5:** The City will coordinate with fire protection providers to [provide] an emergency response system capable of achieving the following standards in 95% of all cases: first fire emergency response unit within six minutes of dispatch; full alarm assignment within 10 minutes of dispatch; second alarm assignment within 15 minutes of dispatch; and an Insurance Service Office (ISO) rating of Class 2 for areas within the City.
- **Policy PUBLIC-7.6:** The City will work with property owners in existing developed portions of the City to achieve a minimum fire flow pressure of 1,500 GPM (sustainable for at least two hours) for residential use and approximately 3,600 GPM (sustainable for longer periods) for larger residences and for other building types, depending on the particular use and structure characteristics, and in coordination with the fire service provider.

The following policies from the Safety Element of the City's General Plan are relevant to hazards and hazardous materials with respect to the project:

- **Policy SAFE-1.2:** The City will continue to enforce State of California Building Standards Commission uniform codes, such as the California Building Code and California Fire Code with adopted Fire District amendments.
- **Policy SAFE-1.3:** The City will encourage the retrofitting of older buildings to current safety standards, and require compliance to recommendations of the fire and law enforcement service providers and the State Building Standards Commission uniform codes in coordination with major remodeling or additions.
- **Policy SAFE-1.4:** The City will require set backs, ignition resistant building materials, or other measures to reduce exposure to potential wildfires in areas designated for natural open space preservation, in coordination with California Department of Forestry and Fire Protection recommendations and Maintenance of Defensible Space Measures, as appropriate.
- **Policy SAFE-1.5:** Approved plans, projects, and subdivision requests will ensure adequate fire flow per City and Fire District standards. The installation of automatic fire sprinklers may, at the discretion of the City and the Fire

Chief, allow for a reduction in the required fire flow, while still complying with the California Fire Code requirements.

- Policy SAFE-1.8: The City will require that hazardous materials are used, stored, transported, and disposed in a safe manner and in compliance with local, State, and federal safety standards.
- Policy SAFE-1.10: The City will review development requests and require that any airborne, waterborne, windborne, and other hazardous materials issues are fully disclosed, analyzed, and mitigated to ensure against any risk relative to any nearby planned or existing land uses and their users.
- Policy SAFE-2.1: The City will require development and maintenance of a road system that provides adequate access for emergency equipment.
- Policy SAFE-2.2: The City will consult with fire protection service providers in reviewing development proposals. Development proposals will include City conditions that respond to concerns of fire protection service providers.
- Policy SAFE-2.3: The City will improve fire flow in existing developed areas of the City, as feasible, to meet standards presented in the Public Facilities and Services Element of the General Plan and relevant City Master Plans.
- Policy SAFE-2.4: The City will coordinate with the County Office of Emergency Services to identify evacuation routes and operational plans to be used in case of dam failure, flood disaster, and wildfire for any new growth areas in addition to any updates required to serve the existing developed City.

3.9.2 Environmental Setting

The project site consists mostly of disturbed land which currently, and historically, has been used for the existing WWTP. The WWTP treats and disposes the wastewater (sewage) collected from within the City of Riverbank. The WWTP is located north of Riverbank across the Stanislaus River and borders the north side of Jacob Myers Park.

The majority of the WWTP facilities were constructed before the 1990s, with upgrades to the aeration system in the late-2010's (KSN and BC 2022). The existing facilities at the WWTP consist of a headworks system, two aerated treatment ponds, two polishing ponds, eight evaporation/percolation ponds, 13 groundwater monitoring wells, and associated piping and mechanical components.

DOCUMENTED SITES OF CONTAMINATION

The project site is not listed as a hazardous waste and substances site maintained by CalEPA pursuant to Government Code Section 65962.5 (DTSC 2022). It is also not currently on the Cortese List of hazardous waste and substance sites or SWRCB's list of open, active leaking UST sites, based on a review of the agency databases (SWRCB 2022). However, since the project site is a wastewater treatment facility , it is identified as a site subject to WDRs, as noted on the SWRCB's GeoTracker website.

As discussed in Section 2.0, "Project Description," the WWTP is in compliance with applicable WDRs, with the following exceptions:

- Nitrate and ammonia concentrations in groundwater sampled from several interior monitoring wells dominated by effluent exceed recommended groundwater limitations.
- Dissolved oxygen in ponds T-1 and T-2 periodically fall below the 1.0 mg/L limit.
- The City is currently implementing measures consistent with the WDRs and MRP, which were adopted for the site on April 22, 1994, to reduce nitrate and ammonia concentrations, and increase oxygen concentrations at the site to within the limits established by the WDRs.

TRANSPORT OF HAZARDOUS MATERIALS

Hazardous materials, hazardous wastes, and petroleum products are a subset of the goods routinely shipped along the transportation corridors in the project area. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. DTSC maintains a list of active registered hazardous waste transporters throughout California, and the California Department of Public Health regulates the haulers of hazardous waste.

Current operations at the WWTP include the transport, storage, and use of hazardous materials related to wastewater treatment. Hazardous chemicals are stored in designated hazardous materials storage or containment areas on-site, depending on the nature of the chemical., All chemicals used for wastewater treatment are stored according to local, state, and federal regulations.

SCHOOLS

Children are particularly susceptible to long-term effects from emissions of hazardous materials. Therefore, locations where children spend extended periods, such as schools, are sensitive to hazardous air emissions and accidental release associated with the handling of extremely hazardous materials, substances, or wastes. This risk is considered substantial where the potential release is within 0.25 mile of the school. No existing or proposed schools are within 0.25 mile of the project site. The nearest school is Cardozo Middle School located approximately 0.8 mile southeast of the project site.

AIRPORTS AND AIRSTRIPS

There are no active public airports or private airstrips within 2 miles of the project site. The nearest public airport to the project site is Oakdale Airport, located approximately 8 miles east of the project site.

3.9.3 Discussion

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-significant impact. Construction of the project could temporarily increase the transport of materials generally regarded as hazardous materials that are typically used in construction activities. It is anticipated that limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluids, and other similarly related materials would be brought onto the project site, and used and stored there during the construction period. The types and quantities of materials to be used for construction of the project could pose a significant risk to the public and/or the environment if not properly handled. Operation of the WWTP would continue to involve hazardous materials. The transport, storage, and use of hazardous materials could potentially expose and adversely affect workers, the public, or the environment as a result of improper handling or use, accident, environmentally unsound disposal methods, fire, explosion, or other emergencies, resulting in adverse health or environmental effects.

State agencies regulating hazardous materials are Cal/EPA and the Office of Emergency Services. The California Highway Patrol and Caltrans enforce regulations for hazardous materials transport. Within Cal/EPA, DTSC has primary regulatory authority to enforce hazardous materials regulations. State hazardous waste regulations are contained primarily in CCR Title 22. The Cal/OSHA has developed rules and regulations regarding worker safety around hazardous and toxic substances. Because the City and its contractors would implement and comply with these regulations during construction and operation of the project, the potential for significant hazards to the public through routine transport, use, and disposal of hazardous materials would be minimal, and this impact would be less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less-than-significant impact. As discussed above, there are no existing hazardous materials sites located within or near the project site. During project construction and operation, project-related activities may involve the transport, storage, use, and disposal of hazardous materials. The City is required to comply with existing laws and regulations regarding the transportation, use, and disposal of hazardous materials in relation to construction and operation of the WWTP. These regulations are specifically designed to protect the public health and the environment, including through the prevention of accident conditions, and must be adhered to during project construction and operation.

Although the existing WWTP is currently in compliance with applicable WDRs (apart from the nitrate and ammonia concentrations in groundwater sampled from several interior monitoring wells dominated by effluent which exceed recommended groundwater limitations, and the dissolved oxygen in ponds T-1 and T-2 which periodically fall below the 1.0 mg/L limit), the continued compliance with the WDRs and MRP (discussed in Section 2.0, "Project Description") would achieve the concentration limitations outlined in the regulations. Furthermore, as part of the project, WWTP operations would be subject to amended WDRs, including monitoring responsibilities and potential corrective actions, for the discharge of treated wastewater to land, as described in Section 2.9 of the Project Description, "Required Permits and Project Approvals." Compliance with the amended WDRs and other applicable regulations would ensure that the potential for accident conditions would be minimized and addressed appropriately as part of regulatory compliance. As a result, this impact would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No impact. There are no existing schools within one-quarter mile radius of the project site. The nearest existing school to the project site is Cardozo Middle School, located approximately 0.8 miles southeast of the project site. Therefore, the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impact would occur.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less-than-significant impact. Government Code Section 65962.5 requires that DTSC compile and maintain a list of hazardous waste facilities subject to corrective action, land designated as hazardous waste property, or hazardous waste disposals on public land. This list is known as the Cortese List, which can be accessed on CalEPA's website. As described above, the project site and surrounding area are not located on a site included on a list of hazardous materials sites (DTSC 2022; SWRCB 2022). The project site is a wastewater treatment facility and is identified on the SWRCB's GeoTracker website as a WDRs site and is not identified as a hazardous materials site. Thus, the project would not create a significant hazard to the public or to the environment, and this impact would be less that significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No impact. The nearest public airport to the project site is Oakdale Airport, located approximately 8 miles east of the project site. The project site is not located within the airport land use plan for this airport, or any other airport, nor is it located in a restricted airport zone. Therefore, no impact would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less-than-significant impact. San Joaquin County has an EOP and a LHMP, which address emergencies and evacuation within the County. Access to the WWTP site (as discussed in Section 2.0, "Project Description") is limited and a temporary access point and road would be required to support the transportation of construction materials and equipment during project construction. The proposed temporary access point would be located northwest of the project site off Burwood Road. The approximately 9,000-foot-long temporary access road would be constructed between the access point and the WWTP site on a combination of private farm roads and existing WWTP roads, both currently unimproved. Improvements would include fine grading followed by placement of aggregate base rock on the existing roads. The temporary construction access road would be maintained throughout the construction timeline. Watering of this road would be required to prevent fugitive dust caused by vehicular traffic as necessary.

Encroachment permits for the temporary access point would be acquired as required by San Joaquin County. As part of this encroachment permit application, the project applicant would be required to prepare and implement a traffic control plan, which would require temporary traffic controls during construction. Although affected roadway segments may be closed temporarily during pipeline installation activities, traffic control operations would be noticed at the location of the temporary traffic restrictions a week in advance of any road work that impedes the flow of traffic (i.e. closes the road, closes a traffic lane, or closes the road shoulder). All roadways would be repaved and returned to pre-project conditions upon completion of project construction. Once operational, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, this impact would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No impact. The project site is not located within a State Responsibility Area (SRA) nor is it on land classified as a very high fire hazard severity zone (CAL FIRE 2022). The project would involve improvements to the existing WWTP which includes increasing its existing capacity in order to accommodate the planned growth and expansion of the City through 2050, as envisioned in the City's General Plan. Project development would be required by law to incorporate the CBC, the CFC with adopted Fire District amendments, and other applicable state and local fire safety requirements. In addition, the City of Riverbank and San Joaquin County General Plan policies listed in Section 3.9.1, "Regulatory Setting" would ensure people and structures would not be exposed to significant risk of loss of injury involving wildland fires. Furthermore, the project does not include any residential components. Therefore, implementation of the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact would occur. For additional information and analysis related to wildland fire hazards, refer to Section 3.20, "Wildfire."

3.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
X. Hydrology and Water Quality.				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial on- or offsite erosion or siltation;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

3.10.1 Regulatory Setting

FEDERAL

Clean Water Act

EPA is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water quality control activities by EPA as well as the states. Various elements of the CWA address water quality. These are discussed below.

<u>CWA Water Quality Criteria/Standards</u>

Pursuant to federal law, EPA has published water quality regulations under Title 40 of the CFR. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the act, water quality standards consist of designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. As described in the discussion of state regulations below, SWRCB and its nine RWQCBs have designated authority in California to identify beneficial uses and adopt applicable water quality objectives.

CWA Section 303(d) Impaired Waters List

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that do not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that the state develop a total maximum daily load (TMDL) for each of the listed pollutants. The TMDL is the amount of the pollutant that the water body can receive and still comply with water quality objectives. The TMDL is also a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. In California, implementation of TMDLs is achieved through water quality control plans, known as Basin Plans, of the RWQCBs.

National Pollutant Discharge Elimination System

The NPDES permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges including point source waste discharges and nonpoint source stormwater runoff. Each NPDES permit identifies limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits.

"Nonpoint source" pollution originates over a wide area rather than from a definable point. Nonpoint source pollution often enters receiving water in the form of surface runoff and is not conveyed by way of pipelines or discrete conveyances. Two types of nonpoint source discharges are controlled by the NPDES program: discharges caused by general construction activities and the general quality of stormwater in municipal stormwater systems. The goal of the NPDES nonpoint source regulations is to improve the quality of stormwater discharged to receiving waters to the maximum extent practicable. The RWQCBs in California are responsible for implementing the NPDES permit system.

National Flood Insurance Act

The Federal Emergency Management Agency (FEMA) is tasked with responding to, planning for, recovering from and mitigating against disasters. The Federal Insurance and Mitigation Administration within FEMA is responsible for administering the National Flood Insurance Program (NFIP) and administering programs that aid with mitigating future damages from natural hazards.

FEMA prepares Flood Insurance Rate Maps (FIRMs) that delineate the regulatory floodplain to assist local governments with the land use planning and floodplain management decisions needed to meet the requirements of NFIP. Floodplains are divided into flood hazard areas, which are areas designated per their potential for flooding, as delineated on FIRMs. Special Flood Hazard Areas are the areas identified as having a one percent chance of flooding in each year (otherwise known as the 100-year flood). In general, the NFIP mandates that development is not to proceed within the regulatory 100-year floodplain, if the development is expected to increase flood elevation by 1 foot or more.

STATE

The Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act) California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Act. The Porter-Cologne Act grants SWRCB and each of the nine RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the CWA. The applicable RWQCB for the project is the Central Valley RWQCB. Both the SWRCB and the Central Valley RWQCB have the authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substances, sewage, or oil or petroleum products.

Under the Porter-Cologne Act, each RWQCB must formulate and adopt a water quality control plan (known as a "Basin Plan") for its region. The project area is within the Central Valley RWQCB's jurisdiction and would be required to comply with the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan). The Basin Plan includes a comprehensive list of waterbodies within the region and detailed language about the components of applicable Water Quality Objectives (WQOs). The Basin Plan recognizes natural water quality, existing and potential beneficial uses, and water quality problems associated with human activities throughout the region. Through the Basin Plan, the Central Valley RWQCB executes its regulatory authority to enforce the implementation of TMDLs, and to ensure compliance with surface WQOs. The Basin Plan includes both narrative, and numerical WQOs designed to provide protection for all designated and potential beneficial uses in all its principal streams and tributaries. The Central Valley RWQCB also administers the adoption of WDRs, manages groundwater quality, and adopts projects within its boundaries under the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit).

<u>Waste Discharge Requirements Order No. 94-100</u>
Current discharge requirements for the WWTP are prescribed under WDR Order No. 94-100 and the associated MRP, which was adopted by the Central Valley RWQCB, on 22 April 1994. A summary of applicable WDRs is provided in Section 2.5, "Existing Water Pollution Control Requirements."

<u>NPDES Construction General Permit for Stormwater Discharges Associated with Construction Activity</u>
SWRCB adopted the statewide NPDES Construction General Permit in August 1999. The state requires that projects disturbing more than 1 acre of land during construction file a Notice of Intent with the applicable RWQCB to be covered under this permit. Construction activities subject to the NPDES Construction General Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. A SWPPP must be developed and implemented for each site covered by the permit. The SWPPP must include BMPs designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

<u>Title 22 of California's Code of Regulations</u>
CCR Title 22 refers to state guidelines for how treated and recycled water is discharged and used. CCR Title 22 lists the specific uses allowed with the following types of recycled water: (1) disinfected tertiary recycled water (such as irrigating parks), (2) disinfected secondary recycled water (such as irrigating animal feed and other unprocessed crops), and (3) undisinfected secondary recycled water (such as industrial uses). Other allowed uses of the disinfected recycled water include irrigation of food crops and residential landscaping, supply of recreational impoundments for unrestricted body contact, air conditioning, commercial laundry, decorative fountains, and flushing toilets in commercial buildings. SWRCB governs the permitting of recycled water projects, develops uniform water recycling criteria and reviews and approves Title 22 engineering reports for recycled water use. Wastewater treatment standards are set and enforced by the state's nine RWQCBs in consultation with the California Department of Public Health.

California Water Code

The California Water Code is enforced by the California Department of Water Resources (DWR). The mission of DWR is "to manage the water resources of California in cooperation with other agencies, to benefit the state's people, and to protect, restore, and enhance the natural and human environments." DWR is responsible for promoting California's general welfare by ensuring beneficial water use and development statewide.

Groundwater Management

Groundwater management is outlined in the California Water Code, Division 6, Part 2.75, Chapters 1-5, Sections 10750 through 10755.4. The Groundwater Management Act was first introduced in 1992 as AB 3030, and has since been modified by SB 1938 in 2002, AB 359 in 2011, and the Sustainable Groundwater Management Act (SB 1168, SB 1319, and AB 1739) in 2014. The intent of these Acts is to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions and to provide a methodology for developing a Groundwater Management Plan.

The Sustainable Groundwater Management Act of 2014 (SGMA) became law on January 1, 2015, and applies to all groundwater basins in the state (Water Code Section 10720.3). By enacting SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code Section 10720.1).

Pursuant to SGMA, any local agency that has water supply, water management, or land use responsibilities within a groundwater basin may elect to be a groundwater sustainability agency (GSA) for that basin (Water Code Section 10723). The project area is within the Eastern San Joaquin Groundwater Subbasin, which has been designated under SGMA as a high priority basin. The Eastern San Joaquin Groundwater Authority, which is the GSA for the subbasin, adopted the Eastern San Joaquin Groundwater Subbasin GSP in November 2019. The 2019 GSP was subsequently revised in June 2022 to address deficiencies identified by DWR.

Water Reclamation Requirements for Recycled Water Use

SWRCB adopted Water Reclamation Requirements for Recycled Water Use (Order WQ 2016-0068-DDW) (General Order) on June 7, 2016. The General Order establishes standard conditions for recycled water use and conditionally delegates authority to an Administrator to manage a Water Recycling Program and issue Water Recycling Permits to recycled water users. Only treated municipal wastewater for non-potable uses can be permitted, such as landscape irrigation, crop irrigation, dust control, industrial/commercial cooling, and decorative fountains. Potable reuse activities are not authorized under this General Order.

LOCAL

San Joaquin County 2035 General Plan

The Natural and Cultural Resources Element of the County's General Plan is intended to support the balanced management and conservation of the County's natural resources, including water resources. The following policies from the Natural and Cultural Resources Element are relevant to hydrology and water quality with respect to the project (San Joaquin County 2017a):

- **Policy NCR-3.1. Preserve Groundwater Recharge Areas:** The County shall strive to ensure that substantial groundwater recharge areas are maintained as open space.
- **Policy NCR-3.2. Groundwater Recharge Projects:** The County shall encourage the development of groundwater recharge projects of all scales within the County and cities to increase groundwater supplies.
- **Policy NCR-3.5. Low Impact Development:** The County shall require new development to minimize or eliminate stormwater quality and hydro-modification impacts through site design, source controls, runoff reduction measures, best management practices (BMPs), and Low Impact Development (LID).
- The Public Health and Safety Element of the County's General Plan provides guidance for how to protect County residents, workers, visitors, and properties from unreasonable risks associated with natural and manmade hazards, including flood hazards. The following policies from the Public Health and Safety Element are relevant to hydrology and water quality with respect to the project (San Joaquin County 2017a):
- **Policy PHS-2.1. Restrict Uses in Designated Floodways:** The County shall restrict uses in designated floodways except those that do not adversely affect flood elevations or velocities, and are tolerant of occasional flooding in accordance with the County's Floodplain Management Ordinance.

- **Policy PHS-2.3. Evaluation of Flood Protection for New Development:** The County shall require evaluation of potential flood hazards prior to approval of new development projects to determine whether the proposed development is reasonably safe from flooding, and shall approve such development consistent with applicable State and Federal laws.
- **Policy PHS-2.7. Preservation of Floodway and Floodplains:** The County shall preserve floodways and floodplains for non-urban uses in an effort to maintain existing flood carrying capacities, except that development may be allowed in floodplains with mitigation measures that are in conformance with the County's floodplain management ordinance.

Central Valley Salinity Alternatives for Long-Term Sustainability

To address the extensive salt and nitrate impairments in the Central Valley, the Central Valley RWQCB initiated a collaborative stakeholder initiative, known as Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS), in 2006. The CV-SALTS initiative was tasked to develop a Central Valley-wide Salt and Nitrate Management Plan (SNMP). Stakeholder membership in CV-SALTS included representatives from the Central Valley RWQCB, SWRCB, agriculture, municipalities, industry, water supply, environmental justice, state and federal regulatory agencies, and the public. The final SNMP was accepted by the Central Valley RWQCB in 2017 and provided a regulatory and programmatic approach for the management of salts and nitrate in groundwater and surface water in the Central Valley. The SNMP goals are (1) to ensure a safe drinking water supply; (2) to achieve balanced salt and nitrate loadings; and (3) to implement long-term and managed aquifer restoration programs where reasonable, feasible, and practicable. The SNMP was used to develop a Central Valley-wide Salt and Nitrate Control Program, which established a prioritized Nitrate Control Program for discharges to groundwater and a phased Salt Control Program for discharges to surface water and groundwater.

The Central Valley-wide Salt and Nitrate Control Program was incorporated into proposed amendments for the Basin Plan to address salt and nitrate impairments in the Central Valley. On May 31, 2018, the Central Valley RWQCB adopted Resolution R5-2018-0034 amending the Basin Plan to include the Central Valley-wide Salt and Nitrate Control Program. The approved amendments contained new policies, new regulatory tools (or strategies), and recommended clarification to existing policies to facilitate the Central Valley RWQCB's efforts to achieve the salt and nitrate management goals.

City of Riverbank General Plan 2005-2025

The Safety Element of the City's General Plan identifies hazards that are to be considered in the development of future land uses, including hazards related to flood zones. The following policies from the Safety Element are relevant to hydrology and water quality with respect to the project (City of Riverbank 2009):

- **Policy SAFE-1.6:** The City will not allow the development of housing in the 100-year floodplain, as determined by the Federal Emergency Management Agency. The City may permit placement of non-residential improvements within the 100-year floodplain under a very limited set of circumstances. Any development project that includes structures or disturbances of natural features within the 100-year floodplain shall prove that the proposal does not:
  - Create danger to life and property due to increased flood heights or velocities caused by excavation, fill, roads, or intended use.
  - Create difficult emergency vehicle access in times of flood.
  - Create a safety hazard due to the unexpected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site.
  - Create excessive costs in providing governmental services during and after flood conditions, including maintenance and repair of public facilities.
  - Interfere with the existing waterflow capacity of the floodway.
  - Substantially increase erosion and/or sedimentation.

- Contribute to the deterioration of any watercourse or the quality of water in any body of water.

- Policy SAFE-1.7: The City will require any public facilities in the 100-year flood zones to be flood-proofed to a point at or above the base flood level elevation from the Stanislaus River.

The Public Services and Facilities Element evaluates existing sewer, water, storm drainage, and other utility facilities. The following policies from the Public Services and Facilities Element are relevant to hydrology and water quality with respect to the project (City of Riverbank 2009):

- Policy PUBLIC-4.5: New development shall be designed to control surface runoff discharges to comply with the National Pollutant Discharge Elimination System Permit and the receiving water limitations assigned by the Regional Water Quality Control Board.
- Policy PUBLIC-4.6: The City will establish, and new development shall implement nonpoint source pollution control measures and programs designed to reduce and control the discharge of pollutants into the City's storm drains and river.
- Policy PUBLIC-4.7: The City will require minimization of the amount of new impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and, where feasible, maximize onsite infiltration of stormwater runoff.
- Policy PUBLIC-4.8: The City will encourage pollution prevention methods, supplemented by pollutant source controls and treatment. Use small collection strategies located at, or as close to possible to the source (i.e., the point where water initially meets the ground) to minimize the transport or urban runoff and pollutants off-site.

The Conservation and Open Space Element addresses the management of natural resources, including water pollution and groundwater supplies. The following policies from the Conservation and Open Space Element are relevant to hydrology and water quality with respect to the project (City of Riverbank 2009):

- Policy CONS-4.2: Approved projects, plans, and subdivisions shall provide for collection, conveyance, treatment, detention, and other stormwater management measures in a way that does not decrease water quality or alter hydrology in the Stanislaus River or associated groundwater recharge areas.
- Policy CONS-6.6: The City will encourage the use of recycled water for appropriate use, including but not limited to outdoor irrigation, toilet flushing, fire hydrants, and commercial and industrial processes.
- Policy CONS-6.7: The City will require mitigation measures, in coordination with the Regional Water Quality Control Board, as a part of approved projects, plans, and subdivisions to address the quality and quantity of urban runoff, including that attributable to soil erosion.

3.10.2 Environmental Setting

SURFACE WATERS

The project area is in the San Joaquin River Basin, which encompasses 15,880 square miles and includes the entire area drained by the San Joaquin River. The San Joaquin River Basin is bordered by the Coast Range mountains to the west, the Sierra Nevada Mountains to the east, the Sacramento River Basin to the north, and the Tulare Basin to the south. Major surface waters in this watershed are the San Joaquin River and its larger tributaries, which include Calaveras River, Mokelumne River, and Stanislaus River (Central Valley RWQCB 2019).

The project area is adjacent to the Stanislaus River. The Basin Plan does not list beneficial uses for the Stanislaus River. The Stanislaus River, Lower segment is listed as a Category 5 waterbody segment on the 2018 303(d) list for the following pollutants: group A pesticides, mercury, water temperature, toxicity, chlorpyrifos, and diazinon (SWRCB 2021: Appendix A). Category 5 refers to water segments where water quality standards are not met and a TMDL is required, but not yet completed, for at least one of the listed pollutants.

GROUNDWATER

Regional Groundwater Hydrology

The project area is in the Eastern San Joaquin Groundwater Subbasin. The Eastern San Joaquin Groundwater Subbasin is defined by the area of unconsolidated to semi consolidated sedimentary deposits that are bounded by the Mokelumne River on the north and northwest, the San Joaquin River on the west, the Stanislaus River on the south, and consolidated bedrock on the east. The Eastern San Joaquin Groundwater Subbasin is drained by the San Joaquin River and several of its major tributaries, including the Stanislaus, Calaveras, and Mokelumne rivers. The San Joaquin River flows northward into the Sacramento-San Joaquin Delta and ultimately discharges into the San Francisco Bay.

In addition to project construction occurring within the Eastern San Joaquin Groundwater Subbasin, the project would accommodate planned growth in the City of Riverbank which is located south of the Stanislaus River in the Modesto Groundwater Subbasin. Because the City's water is supplied from groundwater wells, planned growth would result in increased groundwater withdrawals in the Modesto Groundwater Subbasin. However, effects of growth on the Modesto Groundwater Subbasin are addressed in the City of Riverbank General Plan EIR. Therefore, no further discussion of impacts on the Modesto Groundwater Subbasin is included in this section.

Groundwater Elevations and Depth

Groundwater elevations in the study area are between 60 to 80 feet above mean sea level. However, the groundwater elevation in the region has been observed to be declining at a rate of 0.4 feet per year (City of Riverbank 2022). The depth to groundwater at the project site is approximately 20 to 25 feet below the ground surface (bgs).

Groundwater Supplies

According to DWR, the Eastern San Joaquin Subbasin is subject to critical conditions of overdraft (DWR 2020). Overdraft conditions occur when groundwater discharge exceeds recharge, resulting in a net reduction in groundwater stored in the aquifer. Groundwater level trends indicated a principal cone of depression in the area east of the City of Stockton, which is caused by excess water demand. This demand has led to an annual overdraft rate between 70,000 to 80,000 acre-feet per year (AFY) within the subbasin. Generally, wells located farther away from the main cone of depression near recharge sources, such as the Stanislaus River, are expected to show a less dramatic water level decline than other wells (City of Riverbank 2022).

To address declining groundwater levels and overdraft conditions in the subbasin, the Eastern San Joaquin Groundwater Authority, which is the GSA for the subbasin, adopted the Eastern San Joaquin Groundwater Subbasin GSP. The GSP identifies future projects and management actions intended to replace groundwater use (offset) or supplement groundwater supplies (recharge) to meet current and future demands. Planned projects identified in the GSA include direct and in-lieu recharge (i.e., the use of surface water or recycled water supplies for applications where groundwater is currently used), intra-basin water transfers, demand conservation, water recycling, and stormwater reuse. The Eastern San Joaquin Groundwater Authority anticipates that these projects will provide enough water to meet the estimated pumping offset and/or recharge need of 16,000 AFY (ESJGA 2022).

Groundwater Quality

The Basin Plan designated the beneficial uses of underlying groundwater as municipal and domestic supply, agricultural supply, and industrial supply. Groundwater quality in the Eastern San Joaquin Subbasin is generally sufficient to meet beneficial uses; however, several constituents of concern are either currently impacting groundwater use or have the potential to impact groundwater use in the future. The primary naturally occurring water quality constituents of concern above maximum containment levels are salinity and arsenic, while primary water quality constituents related to human activity include nitrates, salinity, and various point-source contaminants (City of Riverbank 2022).

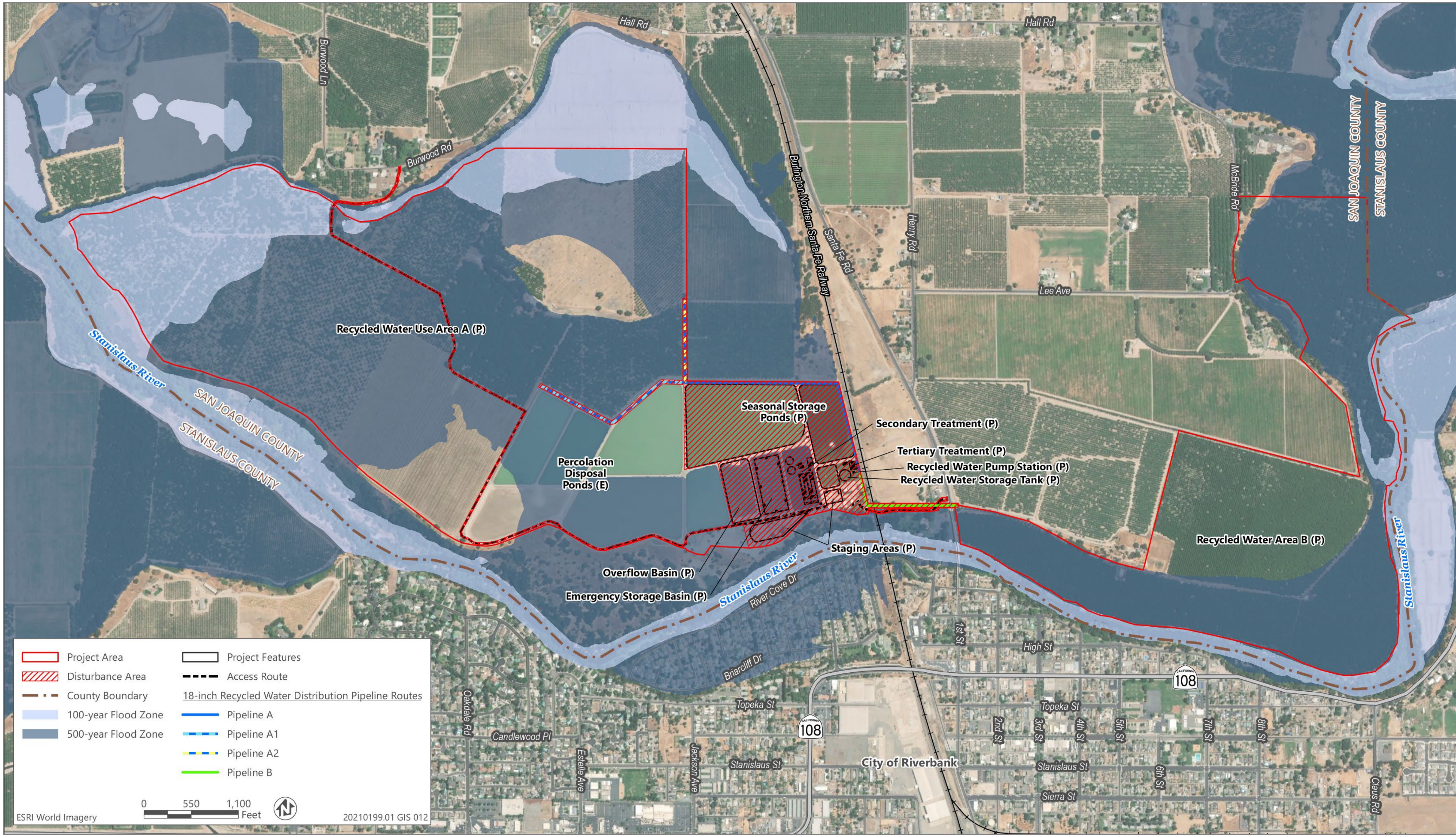
Stormwater runoff from the existing WWTP is stored for future use or discharged to on-site percolation ponds. Treated wastewater from the WWTP is not discharged to surface water, but is allowed to percolate to groundwater or evaporate to the atmosphere. Current discharge requirements for the WWTP are prescribed under WDR Order No. 94-100 and the associated MRP, which was adopted by the Central Valley RWQCB on April 22, 1994. Based on sampling of groundwater below the WWTP, the WWTP is in compliance with the WDRs, with exceptions related to groundwater and dissolved oxygen. Specifically, concentrations of nitrate and ammonia in several groundwater monitoring wells that are dominated by effluent were found to exceed recommended groundwater limitations. However, these conditions were found to be either stable or improving with time. Additionally, the dissolved oxygen concentration in ponds T-1 and T-2 have been below the 1.0 mg/L limits specified in the WDRs.

INUNDATION

The project area is included on FEMA FIRM panels 06077C0690F, 06077C0695F, 06077C0830F, and 06077C0835F (FEMA 2009). As shown in Figure 3.10-1, the project area is mapped within the following zones:

- Special Flood Hazard Areas (Zone A): areas subject to inundation by the 1 percent annual chance flood with no base flood elevation determined.
- Other Flood Areas (Zone X): areas of 0.2 percent annual chance flood; areas of 1 percent annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from the 1 percent annual chance flood.
- Other Areas (Zone X): areas determined to be outside 0.2 percent annual chance floodplain.

The project area is not within a coastal region that is subject to tsunami or adjacent to an enclosed waterbody that could generate a seiche.



Source: Data downloaded from FEMA in 2022; adapted by Ascent in 2022.

Figure 3.10-1 Flood Zones

3.10.3 Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less-than-significant impact. The potential for project construction and operation to violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality is described in the following sections.

Construction

Construction activities would require ground disturbance, which could result in potential erosion and sediment carried into receiving waters. In addition, accidental discharges of construction-related fuels, oils, hydraulic fluid, and other hazardous substances could contaminate stormwater flows, resulting in a reduction in water quality on-site or downstream of the project area. As discussed in Section 3.7.3(b), the City would be required to file a Notice of Intent with the Central Valley RWQCB to be covered under the NPDES Construction General Permit. As a requirement of the NPDES Construction General Permit, the City would prepare a SWPPP and implement associated BMPs that are specifically designed to reduce the amount of soil disturbance, erosion and sediment transport into receiving waters, and pollutants in site runoff during construction. Compliance with the NPDES Construction General Permit would ensure that project construction would not violate water quality standards or waste discharge requirements or degrade water quality.

Operation

The project would include new wastewater treatment facilities and new electrical and shop maintenance buildings, which would result in a net increase of 0.7 acre of impervious surfaces. This minor increase in impervious surfaces would not substantially increase sources of polluted runoff in the project area. On-site drainage would be designed to store and discharge stormwater runoff to on-site percolation ponds.

The project would increase wastewater treatment capacity at the existing WWTP from 1.8 million gallons per day (mgd) to approximately 2.29 mgd to accommodate future planned growth in the City. Similar to existing conditions, the project does not propose discharges to surface waters. Treated wastewater would continue to be stored and/or disposed of on-site in percolation ponds or distributed to nearby agricultural users for irrigation of nut orchards. The existing discharge requirements prescribed under WDR Order No. 94-100/MRP would continue to be required for proposed activities at the WWTP, including disposal of treated wastewater by means of percolation ponds. The proposed treatment facilities would also likely be subject to the newly adopted CV-SALTS program regulations for effluent disposal, which is a program to manage nitrogen and salinity in Central Valley groundwater. Compliance with this program is anticipated to improve water quality conditions of treated wastewater from the WWTP. Additionally, the use of recycled water for irrigation would be permitted under Order WQ 2016-00680-DDW with a revision of the existing WDRs, and the City would be required to submit a Notice of Intent with the Central Valley RWQCB for coverage under this General Order. The City would also be required to comply with Title 22 requirements, including submittal of a Title 22 Engineering Report to the Central Valley RWQCB and California Department of Public Health, to allow the use of recycled water for irrigation. Compliance with these permits, programs, and regulatory requirements would ensure that project operation would not violate water quality standards or waste discharge requirements or degrade water quality.

Summary

Compliance with applicable permits, programs, and regulations would ensure that project construction and operation would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Therefore, impacts would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less-than-significant impact. As discussed in Section 3.10.2, the Eastern San Joaquin Groundwater Subbasin has experienced declining groundwater levels and is subject to critical conditions of overdraft (DWR 2020). The Eastern San Joaquin Groundwater Authority, the GSA for the subbasin, adopted the Eastern San Joaquin Groundwater Subbasin GSP to address declining groundwater levels and overdraft conditions in the subbasin. The potential for project construction and operation to substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin is described in the following sections.

Construction

The project would require excavation to a maximum depth of 12 feet for trenching and installing pipelines. As discussed in Section 3.10.2, the depth to groundwater at the project site is approximately 20 to 25 bgs; therefore, groundwater dewatering is not anticipated to be required during pipeline installation. In the event that groundwater dewatering is required for on-site excavation, water would be disposed to nearby irrigation ditches, impoundments, or on-site percolation ponds to allow for groundwater recharge. Therefore, project construction would not interfere with groundwater recharge, exacerbate overdraft conditions, or interfere with implementation of the GSP for the Eastern San Joaquin Groundwater Subbasin.

Operation

As discussed in Section 3.10.3(a) above, the project would result in a net increase of 0.7 acre of impervious surfaces. However, on-site drainage would be designed to store and discharge stormwater runoff to on-site percolation ponds to allow for groundwater recharge.

Additionally, the project would increase the City's production of recycled water, which would create a source of high-quality irrigation water that would be used to irrigate nearby agricultural land. Therefore, the project would contribute to greater water balance in the Eastern San Joaquin Groundwater Subbasin by replacing some of the groundwater that would otherwise be used for irrigation. Furthermore, production of recycled water at the Riverbank WWTP has the potential to reduce the use of on-site percolation basins, leading to potential improved conditions for the groundwater underlying the project area. Therefore, project operation would not interfere with groundwater recharge, exacerbate overdraft conditions, or interfere with implementation of the GSP for the Eastern San Joaquin Groundwater Subbasin.

Summary

Based on the above discussion, project construction and operation would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the Eastern San Joaquin Groundwater Subbasin. Impacts would be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial on- or offsite erosion or siltation;

Less-than-significant impact. The potential for project construction and operation to result in substantial on- or off-site erosion or siltation is described in the following sections.

Construction

Project construction would involve ground disturbing activities, including trenching and minor grading, which would result in alterations to the existing drainage pattern of the project area. Ground-disturbing activities have the potential to cause soil erosion and contaminate nearby surface water, in particular the Stanislaus River. Because construction activities would disturb approximately 78.88 acres of land, the City would be required to file a Notice of Intent with the Central Valley RWQCB to be covered under the NPDES Construction General Permit. As a requirement of the NPDES Construction General Permit, the City would prepare a SWPPP and implement associated BMPs that are specifically designed to reduce the amount of soil disturbance, erosion and sediment transport into receiving waters, and pollutants in site runoff during construction. Therefore, compliance with the NPDES Construction General Permit would ensure that construction activities would not result in substantial erosion or siltation.

Operation

Project operations would not involve ground disturbance. As discussed in Section 3.10.3(a) above, the project would result in a net increase of 0.7 acre of impervious surfaces, which would change existing drainage patterns in the project area. However, on-site drainage would be designed to store and discharge stormwater runoff to on-site percolation ponds. Other areas of bare soil would be landscaped or paved to prevent substantial soil erosion. Therefore, the project design would ensure that substantial erosion or siltation would not occur during project operations.

Summary

Because the project would be designed and constructed to minimize erosion and siltation, impacts would be less than significant.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

Less-than-significant impact. The potential for project construction and operation to result in flooding on- or off-site is described in the following sections.

Construction

As discussed in Section 3.10.3(c)(i) above, project construction would involve ground-disturbing activities, which would result in alterations to the existing drainage pattern of the project area. The City would be required to file a Notice of Intent with the Central Valley RWQCB to be covered under the NPDES Construction General Permit. As a requirement of the NPDES Construction General Permit, the City would prepare a SWPPP and implement associated BMPs that are specifically designed to minimize the potential for flooding.

Operation

As discussed in Section 3.10.3(a) above, the project would result in a net increase of 0.7 acre of impervious surfaces. Therefore, the rate and amount of surface runoff from the project area is expected to marginally increase. The project area would be graded to divert water away from structures and from the tops of slopes into drainages and to prevent flooding. On-site drainage would be designed to store and discharge stormwater runoff to on-site percolation ponds.

Summary

Because project construction and operation would not increase the rate or amount of surface water in a manner that would result in on- or off-site flooding, impacts would be less than significant.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less-than-significant impact. The potential for project construction and operation to create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff is described in the following sections.

Construction

As discussed in Section 3.10.3(c)(i) above, project construction would involve ground-disturbing activities, which would result in alterations to the existing drainage pattern of the project area. The City would be required to file a

Notice of Intent with the Central Valley RWQCB to be covered under the NPDES Construction General Permit. As a requirement of the NPDES Construction General Permit, the City would prepare a SWPPP and implement associated BMPs that are specifically designed to reduce the amount of soil disturbance, erosion and sediment transport into receiving waters, and pollutants in site runoff during construction. Therefore, compliance with the NPDES Construction General Permit would ensure that construction activities would not result in excess runoff or additional sources of polluted runoff.

<u>Operation</u>

As discussed in Section 3.10.3(a) above, the project would result in a net increase of 0.7 acre of impervious surfaces. Therefore, the rate and amount of surface runoff from the project area is expected to marginally increase. Runoff from the project area would not be discharged into the stormwater drainage system; rather, it would be stored and discharged to on-site percolation ponds. Therefore, the project design would ensure that project operations would not result in excess runoff or additional sources of polluted runoff.

<u>Summary</u>

Because project construction and operation would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff impacts would be less than significant.

iv) Impede or redirect flood flows?

Less-than-significant impact. As discussed in Section 3.10.2, project features mapped within the Special Flood Hazard Area (100-year flood zone) are limited to the agricultural lands that would receive recycled water following project implementation. The headworks facility, vactor truck receiving station, electrical and controls building, shop and maintenance building, tertiary treatment facilities, and seasonal storage basins would be located in areas of minimal flood hazard. Project features that would be located within the 500-year flood zone include a temporary staging area, secondary treatment facilities, improved access routes, and underground recycled water distribution pipelines. Because all above-ground buildings and structures would be located outside of Special Flood Hazard Areas, impacts related to impeding or redirecting flood flows would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less-than-significant impact. The project area is not within a coastal region that is subject to tsunami or adjacent to an enclosed waterbody that could generate a seiche. As discussed in Section 3.10.3(c)(iv) above, the project would not place above-ground structures in a Special Flood Hazard Area (100-year flood zone); however, a temporary staging area, secondary treatment facilities, improved access routes, and underground recycled water distribution pipelines would be located within the 500-year flood zone. Construction activities would comply with the NPDES Construction General Permit and a site-specific SWPPP, which would include BMPs to prevent the release of pollutants from the construction site, including the temporary staging area. The only permanent, above-ground structures that would be located within the 500-year flood zone include the secondary treatment facilities; however, these facilities would be elevated and encircled by berms to prevent the release of wastewater in the event of a flood. Therefore, the project would not risk release of pollutants due to project inundation. For these reasons, impacts would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-than-significant impact. As discussed in Section 3.10.2, the applicable water quality control plan for the project area is the Basin Plan for the Sacramento River and San Joaquin River Basins and the applicable sustainable groundwater management plan for the project area is the Eastern San Joaquin Groundwater Subbasin GSP. The potential for project construction and operation to conflict with or obstruct implementation of the Basin Plan for the

Sacramento River and San Joaquin River Basins and the Eastern San Joaquin Groundwater Subbasin GSP is described in the following sections.

Construction

As described in Section 3.10.3(a), construction activities could result in potential erosion and sediment carried into receiving waters. In addition, accidental discharges of construction-related fuels, oils, hydraulic fluid, and other hazardous substances could impair water quality. The City would be required to file a Notice of Intent with the Central Valley RWQCB to be covered under the NPDES Construction General Permit. As a requirement of the NPDES Construction General Permit, the City would prepare a SWPPP and implement associated BMPs that are specifically designed to reduce the amount of soil disturbance, erosion and sediment transport into receiving waters, and pollutants in site runoff during construction. Compliance with the NPDES Construction General Permit would ensure that project construction would not conflict with the Basin Plan for the Sacramento River and San Joaquin River Basins.

As described in Section 3.10.3(b), groundwater dewatering is not anticipated to be required during pipeline installation. However, in the event that groundwater dewatering is required for on-site excavation; water would be disposed to nearby irrigation ditches, impoundments, or on-site percolation ponds to allow for groundwater recharge. Therefore, project construction would not conflict with or obstruct implementation of the Eastern San Joaquin Groundwater Subbasin GSP.

Operation

As described in Section 3.10.3(a), the City would obtain and comply with all applicable permits and regulations governing water quality, including WDR Order No. 94-100/MRP, CV SALTS program regulations, Order WQ 2016-00680-DDW, and Title 22 requirements. Compliance with these permits, programs, and regulatory requirements would ensure that project operation would not conflict with the Basin Plan for the Sacramento River and San Joaquin River Basins.

As described in Section 3.10.3(b), the project would increase the City's production of recycled water, which would create a source of high-quality irrigation water that could contribute to greater water balance in the Eastern San Joaquin Groundwater Subbasin by replacing some of the groundwater that would otherwise be used for irrigation. Furthermore, production of recycled water at the Riverbank WWTP has the potential to reduce the use of on-site percolation basins, leading to potential improved conditions for the groundwater underlying the project area. Therefore, project operation would not conflict with or obstruct implementation of the Eastern San Joaquin Groundwater Subbasin GSP.

Summary

Because project construction and operation would not conflict with or obstruct implementation of the Basin Plan for the Sacramento River and San Joaquin River Basins and the Eastern San Joaquin Groundwater Subbasin GSP, impacts would be less than significant.

3.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XI. Land Use and Planning.				
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.11.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to land use are applicable to the project.

STATE

No state plans, policies, regulations, or laws related to land use are applicable to the project.

LOCAL

San Joaquin County 2035 General Plan

The following policies from the Community Development Element of the San Joaquin County General Plan are relevant to land use with respect to the project:

- **Policy LU-1.1. Compact Growth and Development:** The County shall discourage urban sprawl and promote compact development patterns, mixed-use development, and higher development intensities that conserve agricultural land resources, protect habitat, support transit, reduce vehicle trips, improve air quality, make efficient use of existing infrastructure, encourage healthful, active living, conserve energy and water, and diversify San Joaquin County's housing stock.
- **Policy LU-1.3. Building Intensity and Population Density:** The County shall regulate the levels of building intensity and population density according to the standards and land use designations set out in the General Plan and the San Joaquin County Development Title. Within these designations, cumulative development from 2010 shall not exceed 35,500 new dwelling units and 31,700 new employees by 2035.
- **Policy LU-1.4. Encourage Infill Development:** The County shall encourage infill development to occur in Urban and Rural Communities and City Fringe Areas within or adjacent to existing development in order to maximize the efficient use of land and use existing infrastructure with the capacity to serve new development. The County shall balance infill development within outward expansion of communities and new development in other unincorporated areas.
- **Policy LU-1.5. Clear Boundaries:** The County shall strive to preserve agricultural and open space areas that contribute to maintaining clear boundaries among cities and unincorporated communities.

- **Policy LU-1.7. Farmland Preservation:** The County shall consider information from the State Farmland Mapping and Monitoring Program when designating future growth areas in order to preserve prime farmland and limit the premature conversion of agricultural lands.

City of Riverbank General Plan 2005-2025

The following policies from the Land Use Element of the City's General Plan are relevant to land use with respect to the project:

- **Policy LAND-5.1:** The City will maintain public services and facilities in the existing developed City and make improvements as necessary to maintain a consistent Citywide level of service.
- **Policy LAND-5.2:** Infill development will be given priority to remaining capacity for water supply and delivery, wastewater treatment and conveyance, stormwater collection and conveyance, and other services and infrastructure currently in place. Development impact fees shall reflect the existing capacity to serve infill development areas. Any urban development of new growth areas shall plan and finance necessary infrastructure and service expansion to serve those areas.
- **Policy LAND-5.6:** Large-scale community facilities are appropriate in neighborhood centers and downtown. Places for religious assembly are allowed in neighborhood centers and downtown, subject to appropriate development standards and review to ensure neighborhood compatibility. Certain civic uses are allowed in areas with other Land Use Designations, as described in the Land Use Classifications section of the Land Use Element.

3.11.2 Environmental Setting

The project site is located on the north side of the Stanislaus River in San Joaquin County at 23865 Santa Fe Road, adjacent to the City of Riverbank, California. The San Joaquin County General Plan identifies the project site as Public (P/F) and the project site is zoned P-F for Public Facility. The lands surrounding the WWTP are designated as General Agriculture (AG-40) (San Joaquin County 2019). The San Joaquin County General Plan provides the following guidance related to the P/F land use designation:

- **Public (P/F):** This designation provides for location of services and facilities that are necessary to the health and welfare of the community. The Public designation may be applicable to any area of the County where a public or quasi-public use is appropriate or where a public agency owns property. Building types vary based on use.

The City of Riverbank General Plan identifies the project site as Civic use (C) and provides the following guidance:

- **Civic (C):** This category includes civic and cultural land uses of various types. Examples include schools, places of worship, public facilities and infrastructure, community halls, and similar cultural and civic land uses. Where such land uses occur within an existing or planned neighborhood, they shall be designed to be compatible with the surrounding neighborhood. They shall be designed to be pedestrian friendly, include publicly accessible areas (where appropriate), and shall unify rather than divide neighborhoods. Certain land uses included in this category, such as day care centers, public facilities and services, places of religious worship, and other appropriate land uses will be allowed in other land use designations, as well, according to standards established in Riverbank's zoning ordinance. The FAR for civic uses is highly variable, depending on the use. One of the school districts serving the Planning Area (Sylvan), for example, has a standardized approach to school construction that involves an FAR of less than 0.1. Churches, community centers, and other civic land uses would have a higher FAR. The General Plan does not, therefore, specify a maximum FAR for land uses developed in areas with this Land Use Designation. Civic land uses developed in areas with other Land Use Designations should, however, respect the relevant maximum FAR standard. This land use category would not include solid or liquid waste facilities, as those facilities are provided elsewhere for development within the City and establishment of such uses within the Planning Area is not anticipated during this General Plan time horizon. Refer to the Public Services and Facilities Background Report and Element for more detail.

3.11.3 Discussion

a) Physically divide an established community?

No impact. Project construction and implementation would occur on the existing Riverbank WWTP property, which is separated from the nearby residential uses located to the south by over 500 feet and to the east by approximately 600 feet. As no land acquisition would occur, the project would not divide an established community. No impact would occur.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The project would include upgrades to the existing WWTP, including new secondary and tertiary treatment and disinfection facilities, construction of a recycled water storage tank, reconfiguration of existing percolation ponds to provide additional seasonal recycled water storage, and installation of a distribution system to initially serve nearby agricultural users. The proposed pipelines associated with the distribution system would be under existing private roadways, and the project would restore the roads to pre-project conditions. Thus, the project would not result in any land use changes.

As discussed in Section 2.0, "Project Description," future growth within the city is managed under the policies of the City's General Plan and under adopted zoning. Future city wastewater flows and loads to the WWTP are expected to increase as a result of infill development and new development within the City's sphere of influence. Implementation of the project is necessary in order to meet the requirements for Title 22 unrestricted recycled water use and provide wastewater treatment and recycled water storage capacity adequate to treat wastewater flows and loads projected by the year 2050 and produce and distribute recycled water to the potential use areas. Therefore, project implementation is in line with the sustainability goals in place by the City and is intended to improve water quality in the area.

As stated in Section 3.4, "Biological Resources," the project is located within the plan area of the SJMSCP (Section 3.7.1), and the City of Riverbank General Plan (Policy CONS-4.3) (City of Riverbank 2009) requires compliance with the SJMSCP for covered activities within San Joaquin County as applicable. Because the City would avoid or mitigate for potential impacts to covered species in a manner consistent with the SJMSCP and that meets the requirements of applicable regulatory and permitting agencies, the project would not conflict with the provisions of General Plan Policy CONS-4.3.

For these reasons, the project would not conflict with any adopted plans, policies, or regulations adopted for avoiding or mitigating an environmental effect, and there would be no impact.

3.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XII. Mineral Resources.				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

3.12.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to mineral resources are applicable to the project.

STATE

California Surface Mining and Reclamation Act of 1975

The California Surface Mining and Reclamation Act of 1975 (SMARA) requires the State Geologist to classify land into Mineral Resource Zones (MRZs), according to the known or inferred mineral potential of that land. In compliance with SMARA, the California Geological Survey established the following MRZ classification system to denote the location and significance of key extractive resources:

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence
- MRZ-2: Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood exists for their presence
- MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data
- MRZ-4: Areas where available information is inadequate for assignment to any other MRZ

LOCAL

San Joaquin County 2035 General Plan

The Natural and Cultural Resources Element of the County's General Plan is intended to support the balanced management and conservation of the County's open space, wildlife, water, minerals, energy, scenic amenities, recreational resources, and cultural and historic heritage. The following policies from the Natural and Cultural Resources Element are relevant to mineral resources with respect to the project (San Joaquin County 2017a):

- **Policy NCR-4.1. Mineral Resource Protection:** The County shall require mineral deposits of significant quantity, value, or quality, as identified and updated by the State Division of Mines and Geology [now the California Geological Survey] reports as MRZ-2 Mineral Resource Zones, to remain in agricultural or open space uses until the extraction of the resources, unless the immediate area has been committed to other uses.

- **Policy NCR-4.2. Discretionary Permit to Protect Mineral Resources:** The County shall require all new development in areas of significant sand and gravel deposits, as identified by the State Division of Mines and Geology [now the California Geological Survey], to obtain a discretionary permit, conditioned to protect the resources.

City of Riverbank General Plan 2005-2025

The Conservation and Open Space Element of the City's General Plan addresses the management of natural resources, including mineral deposits. The following policy from the Conservation and Open Space Element is relevant to mineral resources with respect to the project (City of Riverbank 2009):

- **Policy CONS-9.1:** The City will coordinate with the California Geologic Survey to incorporate, as necessary, on policies for conservation and possible future extraction of mineral resources of regional or statewide significance.

3.12.2 Environmental Setting

Peat, gold, and silver have been historically mined in San Joaquin County, but existing mining activities consist primarily of sand and gravel aggregate operations (San Joaquin County 2017a: 3.4-8). The State Mining and Geology Board classifies the project area as MRZ-3, which indicates the potential for mineral deposits (San Joaquin County 1992: Figure IV.B-2). However, the project area is designated for public and agricultural land uses and is currently developed with the City WWTP and walnut orchards. There are no active mining operations within the project area (DOC 2016).

3.12.3 Discussion

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. As discussed in Section 3.12.2, the project area is classified by the State Mining and Geology Board as MRZ-3, which indicates the potential for mineral deposits. However, the project area is developed with the City WWTP and walnut orchards, which are incompatible with and preclude mining operations. Because the area with potential mineral deposits that would be affected by the project comprises an existing developed WWTP site and private roads within active walnut orchards that preclude mining operations, and the site is not currently sued for mineral resource extraction, the project would not result in the loss of availability of a known mineral resource of value to the region and residents of the state. The project would have no impact related to mineral resources.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. As discussed in Section 3.12.2, the project area is designated for public and agricultural land uses in the County General Plan. The project area is developed with the City WWTP and walnut orchards; it is not currently used for mineral resource extraction and the County does not have plans to use the site for mineral resource extraction in the future. Therefore, the project would not result in the loss of availability of a locally important mineral resource recovery site, and no impact would occur.

3.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIII. Noise.				
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan, specific plan, or other land use plan, or a substantial temporary or permanent increase in noise levels above existing ambient levels that could result in an adverse effect on humans?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.13.1 Regulatory Setting

FEDERAL

Federal Interagency Committee on Noise

There are no state or federal regulations related to assessment of the project’s noise impacts, although federal guidelines provide direction regarding what constitutes a significant change in noise conditions. The Federal Interagency Committee on Noise (FICON) determined what increase in noise level (measured in terms of community noise equivalent level [CNEL]) is noticeable; and a noticeable change may indicate a significant impact. These findings, as shown in Table 3.13-1, Significance of Changes in Cumulative Noise Exposure, indicate that, at lower existing noise levels, a greater increase is needed to create a significant impact. The FICON findings were developed as part of an assessment related to aircraft operations, but these findings have commonly been applied to all types of community noises.

Table 3.13-1 FICON Significance of Change in Noise Exposure

Ambient Noise Level Without Project	Significant Impact Occurs if the Project Increases Ambient Noise Levels by:
< 60 dB	+5 dB or more
<60-65	+3 dB or more
>65	+1.5 dB or more

Source: Table based on FICON 1992: ES-3.

Federal Transit Administration

To address the human response to ground-borne vibration, the Federal Transit Administration (FTA) has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines are presented in Table 3.13-2. In addition, FTA has also established construction vibration damage criteria, shown below in Table 3.13-3.

Table 3.13-2 FTA Indoor Ground-Borne Vibration Impact Criteria for General Vibration Assessment

Land Use Category	GBV Impact Levels (VdB re 1 micro-inch/sec)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB[4]	65 VdB[4]	65 VdB[4]
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

Notes: GBV = ground-borne vibration; VdB re 1 micro-inch/sec= "smoothed" root mean square vibration velocity level in decibels, with a reference quantity of one micro-inch per second

[1]Frequent events: More than 70 events per day

[2]Occasional events: 30-70 events per day

[3]Infrequent events: Fewer than 30 events per day

[4]This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. For equipment that is more sensitive, a Detailed Vibration Analysis must be performed.

Source: Table based on Volpe 2018: 126.

Table 3.13-3 FTA Construction Damage Vibration Criteria

Land Use Category	PPV, in/sec
Reinforced-concrete, steel or timber (no plaster)	0.5
Engineered concrete and masonry (no plaster)	0.3
Non-engineered timber and masonry buildings	0.2
Buildings extremely susceptible to vibration damage	0.12

Notes: PPV= peak particle velocity; in/sec = inches per second

Source: Table based on FTA 2018: 126.

STATE

California General Plan Guidelines

The State of California General Plan Guidelines 2017, published by OPR (OPR 2017), provides guidance for the compatibility of projects within areas of specific noise exposure. Acceptable and unacceptable community noise exposure limits for various land use categories have been determined to help guide new land use decisions in California communities. In many local jurisdictions, these guidelines are used to derive local noise standards and guidance. Citing EPA materials and the state Sound Transmissions Control Standards, the state's general plan guidelines recommend interior and exterior CNEL of 45 and 60 A-weighted decibels (dBA; adjusted for the range perceptible by the human ear in which decibel values of sounds at low frequencies are reduced) for residential units, respectively (OPR 2017:378).

LOCAL

San Joaquin County General Plan

The *San Joaquin County General Plan* Noise Element (San Joaquin County 2017a) contains noise goals and policies (e.g., exterior noise-level performance standards for new projects affected by using the Noise Levels by Land Use [Table 3.13-4]). The following policies from the Noise Element are relevant to the project:

- **Policy N-1.1.1:** The City shall not permit development of noise sensitive uses within an unacceptable noise range of a major noise generator.
- **Policy N-1.1.2:** Conduct an acoustical analysis to determine existing noise levels at the site of proposed development and use projected noise levels to determine impact on surrounding uses.
- **Policy N-1.1.3:** The City shall not permit development of major noise generators within an unacceptable range of noise sensitive uses.
- **Policy N-1.2.1:** The City shall require that proposed development incorporate design elements to minimize adverse noise impacts on surrounding land uses.
- **Policy N-1.2.2:** The City shall ensure multi-family residences and hotels comply with state interior noise insulation standards in cases where they fall within the 60 dBA (CNEL or Ldn) noise exposure contours.
- **Policy N-1.3.1:** The City shall enforce statewide vehicle noise regulations of illegal or faulty exhaust systems.
- **Policy N-1.3.2:** The City shall determine the significance of noise impacts due to new roadway improvements in the City.

Table 3.13-4 County of San Joaquin Acceptable Noise Levels by Land Use

Land Use	Community Noise Exposure (Ldn or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential- Low Density Single Family, Duplex, Mobile Homes	50-60	55-70	70-75	Above 75
Residential – Multi Family	50-65	60-70	70-75	Above 75
Transient Lodging Motels, Hotels	50-65	60-70	70-80	Above 80
Schools, Libraries, Churches, Hospitals, Nursing Homes	50-70	60-70	70-80	Above 80
Auditoriums, Concert Halls, Amphitheaters	—	50-70	—	Above 65
Sports Arena, Outdoor Spectator Sports	—	50-75	—	Above 70
Playgrounds, Neighborhood Parks	50-70	—	67.5-75	Above 72.5
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50-75	—	—	Above 70
Office Buildings, Business Commercial and Professional	50-70	67.5-77.5	Above 75	—
Industrial, Manufacturing, Utilities, Agriculture	50-75	70-80	Above 75	—

Notes: CNEL = community noise equivalent level; dBA = A-weighted decibel; L_{dn} = day-night average sound level

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable: New construction or development shall be undertaken only after a detailed noise analysis is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable: New construction or development is discouraged. If new construction does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: San Joaquin County 2017a.

San Joaquin County Municipal Code

Chapter 9-1025.9 of the San Joaquin County Municipal Code establishes guidelines citywide to regulate noise. The following sections from Chapter 9-1025.9 are relevant to the project.

Stationary Noise Sources. Excluding proposed noise sensitive land uses on infill lots, proposed noise sensitive land uses that will be impacted by stationary noise sources shall be required to mitigate the noise levels from these stationary noise sources so that the resulting noise levels on said proposed noise sensitive land uses do not exceed the standards specified in Table 9-1025.9, Part II (Table 3.13-5).

Proposed projects that will create new stationary noise sources or expand existing stationary noise sources shall be required to mitigate the noise levels from these stationary noise sources so as not to exceed the noise level standards specified in Table 9-1025.9, Part II (Table 3.13-5).

Exemptions. The following will be exempt from the provisions of this chapter:

- Noise sources associated with construction, provided such activities do not take place before 6:00 a.m. or after 9:00 p.m. on any day;

Acoustical Study. The Review Authority shall require the preparation of an acoustical study in instances where it has determined that a project may expose existing or proposed noise sensitive land uses to noise levels exceeding the noise standards specified in Table 9-1025.9. This determination shall be based on the existing or future sixty-five (65) dBA L_{dn} noise contour in the General Plan, the proximity of new noise sensitive land uses to known noise sources, or the knowledge that a potential for adverse noise impacts exists. The study shall be paid for by the applicant and shall be prepared by a person or persons selected by the Director. The Director shall select the consultant from the County's consultant list. The acoustical study shall include the following information:

- A general description of the project, with appropriate maps, and the noise sources of concern;
- A description of the methodology that will be used to assess noise impacts, including a listing of all assumptions and data used in any computer models.
- Computer models that will be used for noise predictions shall be standard versions approved by the FHWA, FAA, Caltrans, or other government agencies.
- For traffic noise studies, the computer models, SOUND32 or other proprietary models based on the 1978 "FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108)" shall be used. The FHWA's new "Traffic Noise Model" (TNM) shall be used after its phase in date. For aircraft noise studies, the latest version of the FAA's "Integrated Noise Model" (INM) shall be used.
- If standard government approved models do not exist (e.g., railroad and industrial noise sources), a description of the model shall be provided.
- A description of existing and future noise levels together with a comparison of these noise levels to the noise level standards specified in Table 9-1025.9 [Table 3.13-5].
- A description of existing and future noise levels together with a comparison of these noise levels to the noise level standards specified in Table 9-1025.9 [Table 3.13-5].

Table 3.13-5 San Joaquin County Maximum Allowable Noise Exposure – Stationary Noise Source (Part II)

Noise Sensitive Land Use (Use Types)	Outdoor Activity Areas[1] Daytime[2] (7 a.m. to 10 p.m.)	Outdoor Activity Areas[1] Daytime[2] (10 p.m. to 7 a.m.)
Hourly Equivalent Sound Level (L_{eq}), dBA	50	45
Maximum Sound Level (L_{max}), dBA	70	65

Notes: dBA = A-weighted decibel; L_{eq} = equivalent continuous sound level; L_{max} = maximum sound level.

[1] Where the location of outdoor activity areas is unknown or is not applicable, the noise standard shall be applied at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards shall be applied on the receiving side of noise barriers or other property line noise mitigation measures.

[2] Each of the noise level standards specified shall be reduced by 5 dB for impulsive noise, single tone noise, or noise consisting primarily of speech or music.

Source: San Joaquin County Noise Ordinance 9-1025.9

City of Riverbank General Plan

The *City of Riverbank General Plan* Noise Element (City of Riverbank 2016) contains noise goals and policies (e.g., exterior and interior noise-level performance standards for new projects affected by transportation sources [Table 3.13-6] and non-transportation sources [Table 3.13-7]). The following policies from the Noise Element are relevant to the project:

- Policy NOISE-1.1: Large-scale commercial land uses requiring frequent large truck deliveries shall not be developed within new or existing neighborhoods.
- Policy NOISE-1.2: New growth areas shall avoid the use of large-volume, high-speed roadways within neighborhoods and instead disperse vehicular traffic onto a network of fully connected smaller roadways.
- Policy NOISE-1.3: Industrial and other noise-generating land uses shall be located away from noise-sensitive land uses or shall enclose any substantial noise sources completely within buildings or structures.
- Policy NOISE-1.4: Development of noise-sensitive land uses in areas exposed to existing or projected levels of noise from transportation, stationary sources, or agricultural operations exceeding, or estimated to exceed, levels specified in Table N-1 shall require transportation planning, traffic calming, site planning, buffering, sound insulation, or other methods to reduce noise exposure in outdoor activity areas and interior spaces to the levels specified in Table N-1 [Table 3.13-6 in this Initial Study].

Table 3.13-6 [City of Riverbank] Maximum Allowable Noise Exposure from Transportation Noise Sources at Noise-Sensitive Land Uses

Land Use	Outdoor Activity Areas (dBA L_{dn})	Interior Spaces	
		dBA L_{dn}	dBA L_{eq}
Residential	60	45	—
Transient Lodging	60	45	—
Hospitals, Nursing Homes	60	45	—
Theaters, Auditoriums, Music Halls	—	—	35
Churches, Meeting Halls	60	—	40
Office Buildings	—	—	45
Schools, Libraries, Museums	60	—	45
Playgrounds, Neighborhood Parks	70	—	—

Notes: [dBA = A-weighted decibel; L_{dn} = day-night average noise level, L_{eq} = equivalent continuous sound level.]

Noise-sensitive land uses include schools, hospitals, rest homes, long-term care, mental care facilities, residences, and other similar land uses. Outdoor activity areas are considered to be the portion of a noise-sensitive property where outdoor activities would normally be expected (i.e., patios of residences and outdoor instructional areas of schools). Outdoor activity areas for the purposes of this element do not include gathering spaces alongside transportation corridors or associated public rights-of-way. Where development projects or roadway improvement projects could potentially create noise impacts, an acoustical analysis shall be required as part of the environmental review process so that noise mitigation may be included in the project design. Such analysis shall be the financial responsibility of the applicant and be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics. Mitigation strategies shall include site planning and design over other types of mitigation.

[Source: City of Riverbank 2009.]

- Policy NOISE-1.5: Soundwalls are prohibited as a method for reducing noise exposure that could be addressed through other means
- Policy NOISE-2.1: Development projects and roadway improvement projects that increase traffic noise levels shall be mitigated to achieve acceptable levels specified in Table N-1 [Table 3.13-6] as measured at outdoor activity areas and interior spaces of existing and planned noise sensitive land uses. If existing noise levels exceed allowable levels in Table N-1 [Table 3.13-6] at noise sensitive land uses, then:

- Where existing exterior noise levels are between 60 and 65 dBA L_{dn} at outdoor activity areas of noise-sensitive uses, an increase of 3 dBA L_{dn} or greater is considered significant and requires mitigation to achieve allowable levels.
- Where existing exterior noise levels are greater than 65 dBA L_{dn} at outdoor activity areas of noise-sensitive uses, an increase of 1.5 dBA L_{dn} or greater is considered significant and requires mitigation to achieve allowable levels.
- Where it is not possible to reduce noise in outdoor activity areas to 60 dBA Ldn or less using practical application of the best available noise reduction measures, an exterior noise level of up to 65 dBA L_{dn} may be allowed, provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with Table N-1 [Table 3.13-6].

▸ Policy NOISE-2.2: Development projects that produce, or are affected by, non-transportation related noise shall be mitigated to achieve acceptable levels specified in Table N-2 [Table 3.13-7 in this Initial Study], as measured at outdoor activity areas of existing and planned noise-sensitive land uses. If existing noise levels exceed acceptable levels in Table N-2 [Table 3.13-7] as measured at outdoor activity areas of noise sensitive land uses:

- Where existing exterior noise levels are between 60 and 65 dBA at outdoor activity areas of noise-sensitive uses, an increase of 3 dBA or greater is considered significant and requires mitigation to achieve acceptable levels.
- Where existing exterior noise levels are greater than 65 dBA at outdoor activity areas of noise-sensitive uses, an increase of 1.5 dBA or greater is considered significant and requires mitigation to achieve acceptable levels.
- Where it is not possible to reduce noise in outdoor activity areas to 60 dBA or less using practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dBA may be allowed, provided that available exterior noise level reduction measures have been implemented.

Table 3.13-7 [City of Riverbank] Performance Standards for New Projects Affected By, or Including, Non-Transportation Noise Sources

Noise Level Descriptor	Outdoor Activity Areas (7 am – 10 pm)	Interior Spaces (10 pm – 7 am)
Hourly L_{eq}	60 dB	45 dB
L_{max}	75 dB	65 dB

Notes: [L_{eq} = equivalent continuous sound level; L_{max} = maximum sound level.]

Each of the noise levels specified shall be lowered by five dB for simple tone noises, noises consisting primarily of speech, or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

[Source: City of Riverbank 2009.]

▸ Policy NOISE-2.3: The City shall require all feasible noise mitigation to reduce construction and other short-term noise and vibration impacts as a condition of approval for development projects by applying the performance standards outlined in Table N-3 [Table 3.13-8 in this Initial Study]. The total noise level resulting from new sources and ambient noise shall not exceed the standards in Table N-3 [Table 3.13-8], as measured at outdoor activity areas of any affected noise sensitive land use except:

- If the ambient noise level exceeds the standard in Table N-3 [Table 3.13-8], the standard becomes the ambient level plus 5 dB(A).
- Reduce the applicable standards in Table N-3 [Table 3.13-8] by 5 decibels if they exceed the ambient level by 10 or more decibels.

Table 3.13-8 [City of Riverbank] Noise Level Performance Standards for Non-Transportation Noise Sources

Cumulative Duration of a Noise Event[1] (Minutes)	Maximum Exterior Noise Level Standards[2]	
	Daytime[3,5]	Nighttime[4,5]
30-60	60	45
15-30	75	65
5-15	60	55
1-5	65	60
0-1	70	65

Notes:

1 Cumulative duration refers to time within any one-hour period.

2 Noise level standards measured in dB [A-weighted decibels (dBA)].

3 Daytime = Hours between 7:00 a.m. and 10:00 p.m.

4 Nighttime = Hours between 10:00 p.m. and 7:00 a.m.

5 Each of the noise level standards specified may be reduced by 5 dBA for tonal noise (i.e., a signal which has a particular and unusual pitch) or for noises consisting primarily of speech of for recurring impulsive noises (i.e., sounds of short duration, usually less than one second, with an abrupt onset and rapid decay such as the discharge of firearms).

[Source: City of Riverbank 2009.]

City of Riverbank Municipal Code

Chapter 93 of the Riverbank Municipal Code establishes guidelines citywide to regulate noise. The following sections from Chapter 93 are relevant to the project.

§ 93.07 Noise Source Exemptions. Noise sources associated with construction provided such activities do not take place between 6:30 p.m. and 6:00 a.m. on weekdays or 5:00 p.m. and 8:00 a.m. on weekends and legal holidays.

3.13.2 Environmental Setting

EXISTING NOISE SETTING

The project plan proposes the expansion of the existing City of Riverbank WWTP located in San Joaquin County at 23865 Santa Fe Road. Land use surrounding the project site is mostly undeveloped except for the existing residential land uses located east and west of the project site boundary. The closest residential land use east of the project site is 23665 Santa Fe Road located in San Joaquin County, which is approximately 615 feet east of the WWTP. The other nearest residential land use is located at 2806 River Cove Drive which is approximately 615 feet south of the WWTP on the other side of the Stanislaus River in the City of Riverbank. Existing loud noise source emitters for both the project site and nearby sensitive receptors include the railroad track located 45 feet east of the project site, however, according to the DOT Federal Railroad Administration, the track has been closed from operation since 2020 and has not been opened since. Therefore, no noise would be emitted as the track is not in operation anymore. Additional loud noise sources that exist near the project site include County Highway J7 (Santa Fe Road) located approximately 900 feet east of the project site as well as State Route (SR) 108 (Atchison Street) located approximately 1,780 feet south of the project site. Using average daily traffic data from Caltrans (2020) which provides the average daily traffic (ADT) for major roads such as state highways, freeways, and interstates. The existing ambient noise/traffic noise levels near the sensitive receivers closest to the project site identified above were modeled using calculation methods consistent with the Federal Highway Administration (FHWA) Traffic Noise Model, Version 2.5 (FHWA 2004) and using ADT volumes provided in the Caltrans data for SR 108. Noise from the traffic volume on SR 108 was attenuated to the nearest project's sensitive receptors to provide an estimated calculation of existing ambient noise levels as shown on Table 3.13-9. Calculations for existing ambient noise levels can be found in Appendix D

Table 3.13-9 Existing Noise Levels at Nearby Sensitive Receptors

Location	dBA L_{eq}	dBA CNEL	dBA L_{dn}
23665 Santa Fe Road	50.9 dBA	50.7 dBA	50.3 dBA
2806 River Cove Drive	52.7 dBA	52.5 dBA	52.1 dBA

Source: Calculations done by Ascent Environmental in 2022 and presented in Appendix D.

3.13.3 Discussion

a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan, specific plan, or other land use plan, or a substantial temporary or permanent increase in noise levels above existing ambient levels that could result in an adverse effect on humans?

Construction

Less-than-significant impact. Construction noise is generally considered a temporary source. Construction noise levels vary from hour to hour and day to day, depending on the equipment in use, the operations being performed, and the distance between the source and receptor. As shown in Figures 2-3 in Section 2.1 (Project Background and Overview) and Figure 2-4 in Section 2.6.5 (Project Features), construction would occur mostly on the eastern side of the WWTP site. Construction would begin on October 1, 2024, and is anticipated to be complete by November 30, 2026. Development would occur in multiple phases with each requiring its own set of equipment. The list of equipment that would be used for construction in each corresponding phase can be found in Appendix A "Construction Assumptions". While construction of some phases of the project would occur independently, other phases would be constructed concurrently as summarized in Table 2-5 of Chapter 2, "Project Description.:" To analyze construction impacts, construction phases that would require the highest number and loudest pieces of construction equipment and would be located closest to existing sensitive receptors were evaluated; thus, the construction noise analysis evaluates the potential worst-case noise levels and associated exposure to sensitive receptors.

Construction noise is difficult to quantify precisely because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time each piece is in operation, condition of each piece of equipment, and number of pieces that would operate on the project site. The typical maximum noise levels for various pieces of construction equipment at a distance of 50 feet are presented in Table 3.13-10 (Construction Equipment Maximum Noise Levels). Note that the equipment noise levels presented in Table 3.13-10 are maximum noise levels. Typically, construction equipment operates in alternating cycles of full power and low power, producing average noise levels less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time.

The maximum noise levels at 50 feet for typical construction equipment would range up to 85 dBA for the type of equipment normally used for this type of project based on the anticipated construction equipment as shown in Table 3.13-10. Construction noise in a well-defined area typically attenuates at approximately 6 dBA per doubling of distance.

To assess potential short-term (construction-related) noise impacts, sensitive receptors and their relative exposure were identified. Project-generated construction source noise levels were determined based on methodologies, reference emission levels, and usage factors from FTA's *Guide on Transit Noise and Vibration Impact Assessment* methodology (FTA 2018) and FHWA's *Roadway Construction Noise Model User's Guide* (FHWA 2006). Reference levels for noise for specific equipment or activity types are well documented and the usage thereof includes common practices that are used in the field of acoustics.

Table 3.13-10 Noise Emission Levels from Construction Equipment

Equipment Type	Typical Noise Level (L_{max} dBA) @ 50 feet
Backhoe	80
Concrete Mixer	85
Compactor	80
Crane/Lift	85
Compressor (Air)	80
Dozer	85
Dump Truck	84
Excavator	85
Flat Bed Truck	84
Front End Loader	80
Generator	70
Grader	85
Scraper	85
Roller	85
Pickup Trucks	54

Notes: Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.

Source: FTA 2018: 176.

Using the FTA construction noise model and project-specific construction information details e.g., types and number of construction equipment by phase), estimated noise levels were calculated for the construction activity that would occur closest to each of the two nearest sensitive receptors and for the loudest and most intensive construction activity that would occur closest to each of the two nearest sensitive receptors. Construction activities that generate the loudest noise levels are generally associated with mass excavation. This type of activity would occur at the WWTP. Construction at the WWTP would be the nearest construction activity to the residence located at 2806 River Cove Drive, which is approximately 615 feet to the south of the WWTP. However, construction of Pipeline B would occur within 65 feet of the residence at 23665 Santa Fe Road, and therefore would be the closest construction activity to this receptor. Therefore, project-related noise levels generated by construction activity associated with Pipeline B construction and WWTP mass excavation were modeled at 23665 Santa Fe Road. However, only the project-related noise level that would be generated by mass excavation activity at the WWTP site was modeled at 2806 River Cove Drive, because this activity would both be the loudest and the nearest to this receptor. Construction equipment used during the mass excavation phase would include two pickup trucks, two dump trucks, four 657 scrapers, two LGP D6 dozers, one water truck, and one 140 motor grader. For the 1B pipeline installation, construction equipment would include two pickup trucks, two 320 excavators, one water truck, one 950 wheel loader, one dump truck, and one all-terrain forklift. The modeled noise levels re summarized below in Table 3.13-11 and model inputs/outputs are included in Appendix D.

Table 3.13-11 Estimated Temporary Noise Levels During Selected Construction Phase

Noise-Sensitive Receptor	Construction Phase and Distance from Receptor	Estimated L_{eq} at 50 feet, dBA	Estimated L_{eq} at Sensitive Location dBA	Estimated L_{max} at 50 feet, dBA	Estimated L_{max} at Sensitive Location dBA
2806 River Cove Drive	Mass Excavation (615')	86.6	57.9	90.6	61.8
23665 Santa Fe Road	Mass Excavation (645') Pipeline 1B Installation (65')	86.6 84.0	54.8 81.0	90.6 88.0	58.8 85.0

Notes: dB= A-weighted decibels; L_{eq}=hourly-average levels; L_{max}=maximum instantaneous levels

Source: Appendix D.

As shown on Table 3.13-11, and based on modeling conducted, noise generated from mass excavation activities at the WWTP would generate the highest noise levels (86.6 dBA hourly equivalent sound level [L_{eq}], 90.6 dBA maximum instantaneous levels [L_{max}]). Considering noise from mass excavation activities at nearby receptors, L_{eq} levels would attenuate from distance alone to 54.8 dBA L_{eq} at 23665 Santa Fe Road and 57.9 dBA L_{eq} at 2806 River Cove Drive, which would result in audible increases (i.e., approximately 3-dBA above existing levels). Regarding noise from pipeline construction affecting the residence at 23665 Santa Fe Road, noise would result in L_{eq} noise levels of 81.0 dBA, which would be perceived as a doubling in existing noise levels at this location (i.e., over 10 dBA increase over existing modeled levels).

However, construction would only occur during the hours of Monday through Friday from 7:00 a.m. to 3:30 p.m. in the fall, winter, and spring months and 6:00 a.m. to 2:30 p.m. during the summer months. Thus, construction activities would occur during the noise exempt hours for both the City and County, and therefore, would not result in an exceedance of adopted noise standards. Further, based on anticipated project phasing and construction schedule, all daily activity would be shorter than other more standard construction projects, resulting in only temporary increases in noise. In addition, anticipated phasing for each construction activity would be very short-term. For example, pipeline construction is anticipated to take 13 days to complete; thus, noise generated by this activity would be minimal at any one location, as equipment moves along the alignment, therefore, exposing receptors to even shorter periods of increased noise levels. Given that all construction activity would occur during the daytime hours when people are less sensitive to disruption and less likely to be adversely affected (e.g., sleep awakening leading to tiredness, stress) and the very limited exposure period (i.e., 13-day phase, but likely less than 13 days of noise exposure at any one location) even daytime disturbance leading to adverse effects (e.g., repeated interruptions leading to increased anxiety/stress during work or other daily activities) would be highly unlikely. Noise levels associated with mass excavation would be only just perceptible and would also only occur during daytime noise exempt hours. Therefore, construction from this activity would also not exceed City or County standards or result in substantial temporary increases in noise leading to adverse effects to sensitive receptors.

<u>Operational</u>

Less-than-significant impact. The project is expected to develop 20 new pumps serving different tasks in the treatment process. Three new diesel fuel generators which would provide backup power to the main treatment facilities are also proposed. With the development of such stationary noise sources, the possibility of noise levels exceeding above acceptable levels may occur. Pumps and generators are expected to generate noise levels of approximately 77 dBA and 82 dBA (L_{max}) at approximately 50 feet according to (FTA 2018: 176). For this analysis, since exact locations of the pumps and generators are unknown the distance from the equipment was calculated from the WWTP property boundary to the nearest sensitive receptors to assess the potential for a stationary noise impact to occur. All pumps and generators were combined and attenuated to determine the L_{eq} and L_{max} at the nearest receptors. The results are summarized in Table 3.13-12 and the calculations are included in Appendix D.

Table 3.13-12 Stationary Equipment Operational Noise

Noise-Sensitive Receptor	Stationary Equipment	L_{eq} Exterior threshold Allowed by City of Riverbank	Estimated L_{eq} at 50 feet, dBA	Estimated Combined L_{eq} at Sensitive Location	L_{max} Exterior Threshold Allowed by City of Riverbank	Estimated L_{max} at 50 feet, dBA	Estimated Combined L_{max} at Sensitive Location
2806 River Cove Dr.	Pump Electric Generator	60 dBA from 7 am to 10 pm	87.7	59.0	75 dBA from 7 am to 10 pm	91.7	63.0
23665 Santa Fe Rd.				58.5			62.4

Notes: dB= A-weighted decibels; L_{eq}=hourly-average levels; L_{max}=maximum instantaneous levels

Source: Appendix D.

When comparing the results in Table 3.13-13 to non-transportation related noise standards for the City of Riverbank (Table 3.13-7) it shows that the new stationary equipment would not exceed City standards (60 dBA L_{eq} and 75 dBA L_{max}) at the nearest sensitive receptors. The highest value from the 20 new pumps and three electric generators would produce up to 59.0 dBA L_{eq} and 63.0 dBA L_{max} at the nearest sensitive receptor. Therefore, operational noise from project-related new stationary sources would not exceed City or County standards or result in substantial increases in noise leading to adverse effects to sensitive receptors.

Summary

Because construction-generated noise would be temporary and would occur in the day time during hours exempted from noise requirements by the City and the County, and project-related operational noise would not exceed City or County standards at any noise sensitive receptors, adverse noise-related impacts to humans would be less than significant.

b) Result in generation of excessive groundborne vibration or groundborne noise levels?

Less-than-significant impact. Construction activities generate varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and, at high levels, cause annoyance, sleep disturbance, or damage to nearby structures.

Pile driving and blasting are the types of construction activities that typically generate the highest vibration levels and are, therefore, of greatest concern when evaluating construction-related vibration impacts. However, pile driving and blasting would not be conducted as part of the project.

Based on reference vibration levels for typical construction equipment that would be used, the piece of equipment that could generate the greatest levels of ground vibration for this project would be a large bulldozer which generates ground vibration levels of 0.089 inches per second (in/sec) peak particle velocity (PPV) and 87 vibration decibels (VdB) at 25 feet (FTA 2018: 184). Other typical equipment that was also evaluated includes delivery trucks. Reference vibration levels for this equipment are included in Table 3.13-13 below. Using reference vibration levels and the distance to nearby receptors, potential vibration levels were modeled and are summarized below in Table 3.13-13.

Table 3.13-13 Vibration Emission Levels from Construction Equipment

Noise-Sensitive Receptor	Construction Equipment	Estimated VdB at 25 feet	Estimated VdB at Sensitive Location	Estimated PPV at 25 feet	Estimated PPV at Sensitive Location
2806 River Cove Dr.	Large Bulldozer Loaded Trucks	87 86	45.3 44.3	.089 .076	.001 .001
23665 Santa Fe Rd.			44.7 43.7		.001 .001

Source: Appendix D.

When evaluating impacts from vibration-inducing activities, annoyance/disturbance to sensitive land uses and the potential for structural damage to occur are both considered. FTA's criteria of 80 VdB was applied to evaluate disturbance to sensitive receptors and 0.2 PPV in/sec was applied to evaluate the potential for structural damage.

Considering the nearest sensitive receptor to construction activity is the single-family home at 23665 Santa Fe Road located approximately 615 feet east of the project site, at 615 feet the assumed equipment to be used as shown in Table 3.13-13 shows that the peak VdB reaches at most 45.3 VdB and 0.001 PPV in/sec. These levels are below both the 80 VdB criteria for assessing disturbance to sensitive receptors (i.e., human annoyance) and the 0.2 PPV in/sec criteria for evaluating potential for structural damage. Thus, the impact would be less than significant, and no mitigation will be required.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project is not located within an airport land use plan (Stanislaus County 2016). The nearest airport is the Oakdale Airport, located approximately 7.55 miles east of the project site. Based upon the Stanislaus County Airport Land Use Compatibility Plan, the project site is not located within the Oakdale Airport's Influence Area (Stanislaus County 18). Therefore, the project would not expose people residing or working in the project area to excessive noise levels from the airport. Noise impacts would not be of concern. No mitigation is required.

3.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIV. Population and Housing. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to population and housing are applicable to the project.

STATE

No state plans, policies, regulations, or laws related to population and housing are applicable to the project.

LOCAL

San Joaquin County 2035 General Plan

San Joaquin County's 2035 General Plan supports focused growth within incorporated cities and calls for annexation to the City prior to development of lands outside city limits. The following policies from the Community Development Element are relevant to population and housing with respect to the project:

- **Policy C-1.9. Available Infrastructure:** The County shall only approve new development in Urban Communities and City Fringe Areas where adequate infrastructure is available or can be made available from an existing City, agency, or special district for the development and there are adequate provisions for long term infrastructure maintenance and operations.
- **Policy C-3.4. Public Services in Rural Communities:** To use financial resources efficiently, reduce growth pressure, and maintain the character of rural communities, the County shall not develop new urban-level infrastructure in Rural Communities (e.g., curbs, gutters, sidewalks, and public water and sewer systems), unless those changes respond specifically to stated local needs (e.g., Safer Routes to School). The County shall discourage other public agencies from developing urban-level infrastructure within Rural Communities, unless it is part of a project or process to convert the community into an Urban Community.
- **Policy C-3.5. Service Maintenance in Rural Communities:** The County may fund, as necessary, the maintenance and upgrading of existing facilities and services within Rural Communities to protect public health and safety. The County shall not fund the upgrading of facilities and services within Rural Communities that would result in additional capacity for new growth.

City of Riverbank General Plan 2005-2025

The City of Riverbank's General Plan provides a guide for land use development within the City of Riverbank. The following policies from the Public Services and Facilities Element of the City's General Plan are relevant to population and housing with respect to the project:

- **Policy PUBLIC-1.1:** The City will coordinate the planning and construction of capital improvements with the timing of urban development within the Planning Area.
- **Policy PUBLIC-1.5:** The City will upgrade facilities and services that experience deterioration or obsolescence in existing developed areas of the City, as funding permits, to maintain levels of public service established by the City.
- **Policy PUBLIC-3.3:** The City will not induce urban growth by providing wastewater facilities to areas outside the Planning Area or areas not planned for urban development, such as areas designated for agriculture or open space.

3.14.2 Environmental Setting

According to the California Department of Finance, the City of Riverbank had a total population of 24,583 in 2022, an approximately 8.4 percent increase from 2010. In 2022, the City had 7,493 housing units, of which 7,312 (97.5%) are occupied (DOF 2022). No houses are located within the project site, which is an existing wastewater treatment plant and agricultural land. The nearest residences are located approximately 615 feet to the south of the project site, across the Stanislaus River.

3.14.3 Discussion

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less-than-significant impact. The project would not include the construction of new housing. It would also not require additional/new full-time employees to operate the expanded WWTP and recycled water distribution facilities, beyond current staffing levels (i.e., seven City employees). Construction activities would require anywhere between 10 and 53 workers per day, depending on the activity. Although the project would generate temporary demand for construction employees, it is anticipated that because the number of construction employees would be low and the project would be completed in less than 2.25 years, this temporary demand for construction employees would be met by existing residents in Riverbank or nearby areas (e.g., Modesto, Ripon, Manteca, Turlock, Oakdale). Because the project would not involve constructing new housing, would not provide short-term employment opportunities that would indirectly stimulate the need for additional housing and services, and would not provide substantial new permanent employment opportunities, it would not be directly growth inducing.

The project would increase the capacity of the existing WWTP. By so doing, the project would accommodate planned growth in the City through 2050, as envisioned in the City's General Plan. As noted in Chapter 2, "Project Description," the city's population is estimated to reach approximately 36,766 by 2050 (KSN and BC 2022: Table 12). New wastewater collection infrastructure (e.g., piping and lift stations) would likely be required for new development within the City, and construction of such collection system improvements would be subject to additional CEQA review conducted for each development application. Nevertheless, the projected growth that could be served by the project was planned for and anticipated to occur within the WWTP's service area as part of the City's General Plan. Goals and policies are outlined in the City's General Plan to accommodate this new growth and its impacts were addressed in the General Plan EIR. As a result, the project would not indirectly induce unplanned growth.

An impact is only deemed to occur when it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be shown that the growth would significantly affect the environment in some other way.

While the project in question would accommodate some level of growth (i.e., development), the growth in population accommodated by the project was already identified and its effects disclosed and mitigated within the City's General Plan and associated EIRs, as well as subsequent CEQA analyses that have been prepared for existing and proposed development within the wastewater service area. Therefore, the project would not induce unplanned population growth either directly or indirectly and the impact would be less than significant.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No impact. The project would be constructed within the existing WWTP boundary and adjacent agricultural properties. No existing homes would be removed or displaced by either construction or operation of the project, nor would replacement housing be constructed elsewhere. Therefore, no impact related to construction or displacement of people or housing would occur.

3.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XV. Public Services.				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

3.15.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to public services are applicable to the project.

STATE

California Fire Code

The CFC (CCR Title 24, Part 9), which is based on the International Fire Code, contains regulations consistent with nationally recognized and accepted practices for safeguarding life and property from the hazards of fire and explosion; dangerous conditions arising from the storage, handling, and use of hazardous materials and devices; and hazardous conditions in the use or occupancy of buildings or premises. The CFC also contains provisions to assist emergency response personnel. Specific topics addressed in the CFC include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises.

California Health and Safety Code

State fire regulations are set forth in HSC Sections 13000 et seq.. This includes regulations for building standards (as also set forth in the CBC), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Occupational Safety and Health Administration

In accordance with CCR Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment," Cal/OSHA has established minimum standards for fire suppression and emergency medical services. The standards include guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all firefighting and emergency medical equipment.

California Building Code

The CBC (CCR Title 24 Part 2) contains general building design and construction requirements relating to fire and life safety, structural safety, and access compliance. CBC provisions provide minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures and certain equipment. The CBC is based on the International Building Code, but has been amended for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local building officials for compliance with the CBC. Typical fire safety requirements of the CBC include the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

LOCAL

San Joaquin County 2035 General Plan

The following policy from the Community Development Element is relevant to public services with respect to the project:

- **Policy C-3.5. Service Maintenance in Rural Communities:** The County may fund, as necessary, the maintenance and upgrading of existing facilities and services within Rural Communities to protect public health and safety. The County shall not fund the upgrading of facilities and services within Rural Communities that would result in additional capacity for new growth.

City of Riverbank General Plan 2005-2025

The City of Riverbank's General Plan provides a guide for land use development within the City of Riverbank. The following policies from the Public Services and Facilities and Land Use Elements of the City's General Plan are relevant to public services with respect to the project:

- **Policy PUBLIC-1.5:** The City will upgrade facilities and services that experience deterioration or obsolescence in existing developed areas of the City, as funding permits, to maintain levels of public service established by the City.
- **Policy PUBLIC-7.3:** The City will require that fire stations be located to ensure the appropriate level of service (including adequate response time per Policy Public 7.5), community compatibility, and efficiency, including the location of such facilities relative existing and planned public parks, libraries, and other activity centers.
- **Policy PUBLIC-7.4:** The City will coordinate with fire protection providers, including through reciprocity arrangements, to ensure equipment, staffing, and facilities for emergency medical services, urban search and rescue, hazardous materials emergency response, and other relevant needs, as appropriate. The City will ensure consistency with National Fire Protection Association and Stanislaus Consolidated Fire Protection District response requirements, to ensure adequate fire protection is available.
- **Policy PUBLIC-7.5:** The City will coordinate with fire protection providers to an emergency response system capable of achieving the following standards in 95% of all cases: first fire emergency response unit within six minutes of dispatch; full alarm assignment within 10 minutes of dispatch; second alarm assignment within 15 minutes of dispatch; and an ISO rating of Class 2 for areas within the City.

- **Policy LAND-5.1:** The City will maintain public services and facilities in the existing developed City and make improvements as necessary to maintain a consistent Citywide level of service.
- **Policy LAND-5.5:** Approved projects, plans, and subdivisions in new growth areas will set aside adequate land for, and shall otherwise accommodate public infrastructure and service needs consistent with General Plan policy.

3.15.2 Environmental Setting

Fire protection, emergency medical services, and hazardous materials management within the City are provided by Stanislaus Consolidated Fire Protection District (SCFPD). However, as the project site is located across the Stanislaus River and within San Joaquin County, fire protection services at the project site are provided by Escalon Fire Protection District, which operates a fire station located at 1749 Coley Avenue in Escalon (approximately 5 miles northwest of the project site.)

Law enforcement within the City is provided by Riverbank Police Services (RPS), which are under contract to the Stanislaus County Sheriff's Department. The project site, which is located in San Joaquin County, is located within the jurisdiction of and is served by the San Joaquin County Sheriff's Department (SJCSD). The SJCSD consists of seven divisions: Civil and Custody Division, Coroner's Office, Internal Affairs Division, Public Information and Records Division, Administration Division, Investigations Division, and Operations Services Division. SJCSD headquarters is located at 7000 Michael Canlis Blvd, French Camp, approximately 24 miles northwest of the project site.

The nearest school to the project site is the Cardozo Middle School located approximately 0.7 mile southeast of the site, which serves grades six through eight. With respect to park facilities, Jacob Myers Park is located immediately south and southeast of the project site and provides 8 acres of developed recreational amenities and 47 acres of undeveloped open space and passive recreational opportunities.

3.15.3 Discussion

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services?

Less-than-significant impact. The project would involve the expansion of the existing WWTP and construction/operation of recycled water distribution facilities. However, the project would not increase the boundaries of the existing WWTP property or incorporate the WWTP within the City of Riverbank. Off-site improvements (i.e., recycled water distribution facilities) would consist of subterranean distribution lines that would offset potable water demands at nearby agricultural properties and would not result in the need for additional public services to or for the project site. As a result, changes in how and to what degree public services would need to be provided to the project site due to project implementation are anticipated to be minimal. No increase in on-site population or City population would occur as a result of project implementation that could result in the need for new or physically altered governmental facilities (e.g., parks, schools, and other governmental facilities). However, the proposed additional on-site structures would represent new/improved on-site facilities that may require service in the event of an emergency (police and/or fire). These facilities would be constructed in accordance with applicable code requirements, including the CFC (see above), and the site would be appropriately secured, similar to existing conditions, which would minimize the potential need for additional police and fire service as a result of project implementation. Therefore, impacts would be less than significant.

3.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVI. Recreation.				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Regulatory Setting

FEDERAL

There are no federal plans or policies addressing recreation that pertain to the project.

STATE

Quimby Act

The Quimby Act (California Government Code Section 66477) preserves open space and parkland in urbanizing areas of the state by authorizing local governments to establish ordinances requiring developers of new subdivisions to dedicate land for parks, pay an in-lieu fee, or perform a combination of the two. The Quimby Act provides two standards for the dedication of land for use as parkland. If the existing area of parkland in a community is 3 acres or more per 1,000 persons, then the community may require dedication based on a standard of 5 acres per 1,000 persons residing in the subdivision. If the existing amount of parkland in a community is less than 3 acres per 1,000 persons, then the community may require dedication based on a standard of only 3 acres per 1,000 persons residing in the subdivision. The Quimby Act requires a city or county to adopt standards for recreational facilities in its general plan recreation element if it is to adopt a parkland dedication/fee ordinance.

The amount of land dedicated or fees paid shall be based upon the residential density, which shall be determined on the basis of the approved or conditionally approved tentative map or parcel map and the average number of persons per household. There shall be a rebuttable presumption that the average number of persons per household by units in a structure is the same as that disclosed by the most recent available federal census or a census taken pursuant to Chapter 17 (commencing with Section 40200) of Part 2 of Division 3 of Title 4.

LOCAL

San Joaquin County 2035 General Plan

In 2016, San Joaquin County adopted an update to its General Plan, which guides land use development for the unincorporated lands of the County. The 2035 General Plan supports focused growth within incorporated cities and calls for annexation to the City prior to development of lands outside city limits. The following policies from the Community Development Element are relevant to recreation with respect to the project:

- **Policy LU-4.6. Residential Support Services:** The County shall encourage the development and siting of residential support services (e.g., convenience commercial uses, parks, schools) in Urban Communities that are accessible by all residents.
- **Policy LU-8.3. Waterway Conservation and Restoration:** The County shall encourage the conservation and restoration of rivers, creeks, and sloughs as multi-functional open space corridors that complement adjoining development and connect city and County recreation facilities (e.g., parks).
- **Policy LU-8.4: New Parks and Open Spaces.** The County shall ensure that sufficient parks, open space, waterways, and trails are planned throughout the County, to ensure adequate facilities are available to existing and future residents, including underserved areas and low-income neighborhoods.

City of Riverbank General Plan 2005-2025

The City of Riverbank's General Plan provides a guide for land use development within the City of Riverbank. The following policies from the Public Services and Facilities Element of the City's General Plan are relevant to recreation with respect to the project:

- **Policy PUBLIC-11.3:** The City will maintain and improve existing parks and develop new parks to serve existing developed portions of the City, as feasible.
- **Policy PUBLIC-11.4:** The City will encourage the use of greenways and natural open space areas for certain compatible recreational opportunities, such as pedestrian pathways, while preserving important ecological habitats.

3.16.2 Environmental Setting

The City of Riverbank Parks and Recreation Department operates public parks and recreational facilities within its jurisdictional boundaries (i.e., incorporated City limits). San Joaquin County Parks and Recreation Department operates regional parks and recreational facilities within unincorporated San Joaquin County. The project site is located within the unincorporated county, but is bordered to the south by Jacob Myers Park, a City owned and operated facility. Jacob Myers Park provides 8 acres of developed recreational amenities and 47 acres of undeveloped open space and passive recreational opportunities. The existing WWTP and the park share access to both facilities via Henry Road from South Santa Fe Road.

3.16.3 Discussion

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No impact. The project does not include development of new residences or involve any employment population change. Furthermore, the temporary demand for construction employees would be met by existing residents in Riverbank or construction workers that would commute from nearby areas (e.g., Modesto, Ripon, Manteca, Turlock, Oakdale) during the workday. Therefore, the project would not affect the population in the project area such that it would increase the demand for use of existing neighborhood or regional parts or other recreational facilities and there would be no impact.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No impact. The project would not involve the construction of recreational facilities and as stated in item a) above, the project would not include development of new residences or involve any employment population change that would increase the demand for public facilities, such that the construction of new or physical alteration of existing parks or other recreational facilities would be required. In addition, the project would not reduce the City of Riverbank's or San Joaquin County's recreational inventory, as the project would not alter existing facilities or otherwise develop any such facilities. Therefore, would be no impact.

3.17 TRANSPORTATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVII. Transportation.				
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
d) Result in inadequate emergency access?	☐	☒	☐	☐

3.17.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to transportation are applicable to the project.

STATE

Senate Bill 743

SB 743, passed in 2013, required OPR to develop new CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation (and Section 21099[b][2] of CEQA), upon adoption of the new guidelines, "automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

In November 2017, OPR published its proposal for the comprehensive updates to the State CEQA Guidelines, which included proposed updates related to analyzing transportation impacts pursuant to SB 743. The Office of Administrative Law approved the updated CEQA Guidelines on December 28, 2018, and according to the new CEQA Guidelines (Section 15064.3), vehicle miles traveled (VMT) replaced congestion as the metric for determining transportation impacts. The provisions of this section became applicable statewide on July 1, 2020.

PRC Section 21099 directs that automobile delay and congestion "shall not" be considered a significant impact on the environment upon certification of the guidelines. The guidance provided relative to VMT significance criteria is focused on residential, office, and retail uses. However, as noted in the updated guidelines, agencies are directed to choose metrics that are appropriate for their jurisdiction to evaluate the potential impacts of a project in terms of VMT.

OPR Technical Advisory on Evaluating Transportation Impacts in CEQA

In December 2018, OPR published the most recent version of the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory), which provides guidance for VMT analysis. The Office of Administrative Law approved the updated State CEQA Guidelines, and as of July 1, 2020, implementation of Section 15064.3 of the updated CEQA Guidelines applies statewide.

The OPR Technical Advisory states that lead agencies may screen out VMT using project size, maps, transit availability, and provision of affordable housing. Many agencies use these screening thresholds to identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. The Technical Advisory identifies the following screening thresholds:

- **Small Project:** Projects that generate or attract fewer than 110 trips per day generally may be assumed to result in a less-than-significant transportation impact.
- **Map-Based Screening for Residential and Office Projects:** Residential and office projects that are located in areas with low VMT and that incorporate similar features (i.e., density, mix of uses, transit accessibility) tend to exhibit similarly low VMT. Maps created with VMT data, for example from a travel survey or a travel demand model, can illustrate areas that are currently below threshold VMT. Because new development in such locations would likely result in a similar level of VMT, such maps can be used to screen out the need to prepare a detailed VMT analysis for some residential and office projects.
- **Presumption of Less-Than-Significant Impact Near Transit Stations:** Lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within one-half mile of an existing major transit stop or an existing stop along a high-quality transit corridor will have a less-than-significant impact on VMT.
- **Presumption of Less-Than-Significant Impact for Affordable Residential Development:** Adding affordable housing to infill locations generally improves the jobs-housing match, in turn shortening commutes and reducing VMT. Further, low-wage workers in particular would be more likely to choose a residential location close to their workplace if one is available. In areas where the existing jobs-housing match is closer to optimal, low-income housing nevertheless generates less VMT than market-rate housing. Therefore, a project consisting of a high percentage of affordable housing may be a basis for the lead agency to find a less-than-significant impact on VMT.

LOCAL

San Joaquin County Encroachment Permit

As part of an encroachment permit, the San Joaquin County Department of Public Works requires the preparation of a traffic control plan. The Encroachment Permit General Provisions and Encroachment Permit Application Requirements provide guidance to applicants, including the following items related to potential transportation hazards:

- The application must include the work schedule, including dates and all pertinent information.
- Four sets of traffic control plans must be prepared in accordance with the latest edition of the California Manual on Uniform Traffic Control Devices.
- Four sets of improvement plans (11 x 17 inches if clearly legible; otherwise, 24 x 36 inches) must be prepared.
- All work shall be done subject to the supervision of and the satisfaction of the grantor. The permittee shall at all times during the progress of the work keep the county highway as neat and clean as is possible and, upon completion of the work authorized herein, shall leave the county highway in a thoroughly neat, clean, and usable condition.
- All work shall be planned and carried out with as little inconvenience as possible to the traveling public. No material shall be stacked within 8 feet of the edge of the pavement or traveled way unless otherwise provided herein. Adequate provision shall be made for the protection of the traveling public. Traffic control standards, including barricades, approved signs and lights, and flagmen, shall be used as required by the particular work in progress.
- Whenever it becomes necessary to secure permission from abutting and/or underlying property owners for the proposed work, such authority must be secured by the permittee before starting work.
- The current and future safety and convenience of the traveling public shall be given every consideration in the location and methods of construction used.

3.17.2 Environmental Setting

ROADWAY NETWORK

Access to the project site is served by the surrounding roadway network, which includes Santa Fe Road, Henry Road, and Burwood Lane.

- Santa Fe Road is a two-lane bidirectional roadway that is generally fronted by rural farmland in the vicinity of the project site. The posted speed limit near the project site is 45 miles per hour. No sidewalks or bicycle facilities are present on either side of the roadway in the vicinity of the project site.
- Henry Road is a two-lane bidirectional roadway that provides direct access to the existing WWTP, as well as Jacob Myers Park. The portion of Henry Road that provides access to the WWTP is approximately 15 feet wide with limited dirt shoulders on either site. No sidewalks or bicycle facilities are present on either side of the roadway in the vicinity of the project site.
- Burwood Lane is a two-lane bidirectional roadway north of the project site. The approximate right-of-way of Burwood Lane is 20 feet with limited dirt shoulders on either side.

3.17.3 Discussion

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less-than-significant impact. The project would involve construction activities, including construction of a temporary access point and road to support the transportation of construction labor, materials, and equipment, and pipeline construction along existing roadways and within private lands. that would affect the circulation system. These activities could occur within portions of public and private roadway rights-of-way. However, no transit, bicycle, or pedestrian facilities currently exist or are planned in the areas where this construction work would take place. Additionally, implementation of the project would not require the construction, redesign, or alteration of any public roadways. Therefore, implementing the project would not adversely affect any existing or planned transit, bicycle, or pedestrian facilities. Furthermore, because of the temporary nature of construction activities at individual locations and the rural character of much of the transportation network in and around the areas where construction activities could occur, the project would not generate substantial transit, roadway, bicycle, or pedestrian demand. Thus, the project would not conflict with a program, plan, ordinance, or policy addressing transit, roadway, bicycle, or pedestrian facilities, and this impact would be less than significant.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3(b), which pertains to vehicle miles traveled?

Less-than-significant impact. State CEQA Guidelines Section 15064.3, which was added on December 28, 2018, to address the determination of significance for transportation impacts, requires that VMT be used as the basis of transportation analysis instead of congestion (such as LOS). The change in the focus of transportation analysis is intended to shift the focus from congestion to, among other things, reducing GHG emissions, encouraging mixed-use development, and other factors. State CEQA Guidelines Section 15064.3(b) identifies criteria for analyzing the transportation impacts of a project.

Section 15064.3(b)(3), "Qualitative Analysis," states that if existing models or methods are not available to estimate the VMT for the particular project being considered, a lead agency may analyze the project's VMT qualitatively. Additionally, this section notes that for many projects, a qualitative analysis of construction traffic may be appropriate. Given the nature of the project, for which almost all trip generation would be construction related, this section is applicable to the project.

Section 15064.3(b)(4), "Methodology," explains that lead agencies, such as the City of Riverbank, have discretion to choose the most appropriate methodology to evaluate VMT subject to other applicable standards, such as State CEQA Guidelines Section 15151 (standards of adequacy for EIR analyses).

The stated intent of SB 743, as described above, is to promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses. The GHG emissions of trips associated with heavy vehicles serving the project site are addressed in Section 3.8, "Greenhouse Gas Emissions." Moreover, heavy-vehicle trips associated with construction would occur regardless of the available modes of transportation (e.g., walking, bicycling, public transit) or the mix of land uses in the project vicinity. Further, CEQA Guidelines Section 15064.3(a) states that VMT refers to the amount and distance of *automobile* travel attributable to a project (emphasis added). The OPR Technical Advisory describes that the term "automobile," as used in Section 15064.3(a), refers to on-road passenger vehicles, specifically cars and light trucks; heavy vehicles are not included in the definition.

Therefore, limiting the VMT analysis to automobile travel would be consistent with the intent of SB 743 and CEQA Guidelines Section 15064.3(a) and the intent to reduce GHG emissions through land use decisions and the availability of alternatives to automobile travel. For this reason, heavy-vehicle (i.e., larger on-road construction vehicles) VMT associated with construction is not a consideration for determining a significant transportation impact under CEQA in the impact analysis presented below.

The OPR Technical Advisory (OPR 2018) notes that projects generating or attracting fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact, absent substantial evidence indicating otherwise. Therefore, using OPR guidance, if implementation of the project would generate fewer than 110 trips per day, then it would result in a less-than-significant VMT impact.

<u>Construction</u>

Construction of the project is anticipated to begin in October 2024 and last approximately 27 months, ending in December 2026. Trips associated with construction activities would include heavy-vehicle trips to haul equipment and materials and trips associated with the workers commuting to and from the construction sites. As stated above, heavy-vehicle VMT associated with construction is not a consideration in this impact analysis. The average number of daily workers expected onsite over the 566 total working days of project construction is approximately 28.

The VMT of construction workers is not newly generated; instead, it is redistributed throughout the regional roadway network based on the different work sites that workers travel to each day. Therefore, construction workers would not generate new trips each day; they would only redistribute them. The location from which construction workers are traveling is not known, and it would be speculative to try to quantify the change in VMT associated with these redistributed construction worker trips. However, assuming two trips per day for each construction worker (28*2=56), total trip generation would not exceed 110 trips per day. As described in the OPR Technical Advisory (OPR 2018), if a project generates fewer than 110 trips per day, it is generally assumed to cause a less-than-significant VMT impact. Additionally, as described above, construction activities would be temporary and intermittent and thus would not result in long-term increases in vehicular trips or VMT. Therefore, construction activities are not expected to result in a significant increase to VMT, and the impact related to construction would be less than significant.

<u>Operations</u>

The existing WWTP is currently served by three employees (i.e., one supervisor and two maintenance workers), and implementation of the project would not result in an increase in the number of employees or employee trips. The project could result in an increase in the number of maintenance-related trips because the size and number of facilities associated with implementation of the project would be increased. However, the trips would be temporary and intermittent and thus would not result in long-term increases in vehicular trips or VMT. Therefore, the number of new daily trips generated by the project would be fewer than 110 trips per day, thus satisfying the screening threshold for small projects as detailed in the OPR Technical Advisory on Evaluating Transportation Impacts. Therefore, operational activities are not expected to significantly increase VMT in the region. The impact would be less than significant.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than significant with mitigation incorporated. As detailed above, the project would involve construction of a temporary access point and road to support the transportation of construction materials and equipment and recycled water distribution pipeline construction along existing roadways and within private lands. The proposed temporary access road would be outside public rights-of-way in the secured construction area, and there would be no public access to this new construction access road. Therefore, constructing a temporary access point and road would not result in a substantial increase in transportation hazards.

Pipeline construction would occur within portions of public and private roadway rights-of-way, and the affected roadway segments may be closed temporarily during the installation activities. The roadway facilities that would be affected by pipeline construction would include private unpaved farm roads, Henry Road (i.e., the entrance to Jacob Myers Park and the Riverbank WWTP), and the location where the pipeline would cross Santa Fe Road. As detailed in Chapter 2, "Project Description," if any such temporary roadway disruptions were to occur, the changes to traffic control operations would be noticed at the location of the temporary traffic restrictions a week in advance of any roadwork that would impede the flow of traffic (i.e., closes the road, closes a traffic lane, or closes the road shoulder). Additionally, encroachment permits for the temporary access point would be acquired as required by San Joaquin County, and temporary easements would be obtained from individual property owners as required for the temporary construction access point and road on private property. However, construction associated with covered activities may include disruptions to the transportation network, including the possibility of temporary lane closures and road closures. Additionally, the hauling of heavy machinery (e.g., bulldozers, excavators) and operation of large trucks associated with construction activities along the surrounding roadway network could necessitate travel along roadways with limited lane width and little or no roadway shoulders. Therefore, construction associated with the project could potentially result in a substantial increase in transportation hazards. This impact would be potentially significant.

Mitigation Measure 3.17-1: Prepare and Implement a Temporary Traffic Control Plan

Before project construction is begun in any existing public roadway rights-of-way, the City of Riverbank shall coordinate with the agency with jurisdictional control of the affected roadway (e.g., County of San Joaquin) to determine the required process, permits, and approvals. Additionally, the construction coordinator shall prepare a temporary traffic control (TTC) plan in accordance with the latest edition of the California Manual on Uniform Traffic Control Devices and to the satisfaction of the appropriate agency. The TTC plan shall be subject to review by all affected agencies and, at a minimum, shall:

- describe the proposed work zone (e.g., include a site plan and vicinity map showing right-of-way lines, the centerline, the edge of pavements, the curb, the gutter, the sidewalk, and all existing utilities);
- describe the type of work and location clearly (e.g., dimensions relative to the right-of-way, centerline, edge of pavement);
- describe detours and/or lane closures if applicable;
- identify the need for flag-persons where warranted;
- describe appropriate tapers and lengths, signs, and spacing;
- describe appropriate channelization devices and spacing;
- identify work hours/work days;
- identify proposed speed limit changes if applicable;
- describe roadways affected by the work;
- describe trucks, including the number and size of trucks per day, expected arrival/departure times, and truck circulation patterns;
- identify all staging areas; and
- ensure that adequate emergency vehicle access to all surrounding parcels and properties is maintained at all times.

<u>Significance after Mitigation</u>

The implementation of Mitigation Measure 3.17-1 would reduce temporary traffic hazards associated with project construction by requiring coordination between the City and San Joaquin County, which has jurisdiction over an affected roadway, and requiring that the construction contractor prepare and implement a TTC plan that meets with the approval of that agency. Therefore, with implementation of Mitigation Measure 3.17-1, the project would not substantially increase traffic hazards and the impact would be clearly reduced to less than significant with mitigation incorporated.

d) Result in inadequate emergency access?

Less than significant with mitigation incorporated. Construction associated with the project could occur within portions of public roadway rights-of-way, as well as nonpublic rights-of-way used to access various residences and facilities. As described above, construction associated with proposed activities may include disruptions to the transportation network, including the possibility of temporary lane closures and street closures related to construction of the recycled water distribution pipeline along existing roadways. Additionally, the hauling of heavy machinery (e.g., bulldozers, excavators) and operation of large trucks along the roadway network near where construction could occur would necessitate travel along roadways with limited lane width and little or no roadway shoulders. Therefore, emergency access could potentially be impeded or delayed during such construction activities. Thus, construction associated with the project could potentially result in inadequate emergency access, and this impact would be potentially significant.

Mitigation Measure 3.17-1: Prepare and Implement a Temporary Traffic Control Plan

Mitigation Measure 3.17-1 shall be implemented, as described above.

<u>Significance after Mitigation</u>

The implementation of Mitigation Measure 3.17-1 would reduce temporary impacts associated with emergency access by requiring the construction contractor to prepare and implement a TTC plan that meets with the approval of San Joaquin County, the agency with jurisdiction over the affected roadways, and ensures that adequate emergency vehicle access to all surrounding parcels and properties is maintained at all times. Therefore, the potentially significant impact on emergency access would be less than significant with mitigation incorporated.

3.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVIII. Tribal Cultural Resources.				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?	☐ Yes		☒ No	
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

3.18.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to tribal cultural resources are applicable to the project.

STATE

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on tribal cultural resources. PRC Section 21084.2 establishes that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." PRC Section 21074 states:

a) "Tribal cultural resources" are either of the following:

   1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

      A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

      B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

   2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in

subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a Tribal cultural resource if it conforms with the criteria of subdivision (a).

AB 52, signed by the California governor in September 2014, established a new class of resources under CEQA: "tribal cultural resources," defined in PRC Section 21074. Pursuant to CEQA requirements, lead agencies undertaking CEQA review must, upon written request of a California Native American tribe, begin consultation before the release of an EIR, negative declaration, or mitigated negative declaration.

Under PRC Sections 21080.3.1 and 21082.3, the City must consult with tribes traditionally and culturally affiliated with the project area that have requested formal notification and responded with a request for consultation. The parties must consult in good faith. Consultation is deemed concluded when the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource when one is present or when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed on during the consultation process must be recommended for inclusion in the environmental document.

LOCAL

San Joaquin County 2035 General Plan

The following policy from the Natural and Cultural Resources Element of the San Joaquin County General Plan is relevant to tribal cultural resources with respect to the project:

- **Policy NCR-6.6. Tribal Consultation:** The County shall consult with Native American tribes regarding proposed development projects and land use policy changes consistent with the State's Local and Tribal Intergovernmental Consultation requirements.

City of Riverbank General Plan 2005-2025

The following policies from the Conservation and Open Space Element of the City's General Plan are relevant to tribal cultural resources with respect to the project:

- **Policy CONS-2.2:** All Native American cultural and archaeological sites shall be protected permanently from urban development, wherever possible.
- **Policy CONS-2.3:** The City shall restrict the circulation of cultural resource locational information to prevent potential site vandalism.
- **Policy CONS-2.5:** As guided by State law, in the event of the inadvertent discovery of previously unknown archaeological sites during excavation or construction, all construction affecting the site shall cease and the contractor shall contact the appropriate City agency. If Native American human remains are discovered, the City shall work with local Native American representatives to ensure that the remains and associated artifacts are treated in a respectful and dignified manner.

3.18.2 Environmental Setting

On July 12, 2022, the City of Riverbank sent notification letters that the project was being addressed under CEQA, as required by PRC 21080.3.1, to the Native American tribes on NAHC's contact list for Stanislaus County; because the lead agency, the City of Riverbank, is located in Stanislaus County, the list obtained from NAHC is appropriate to use. Notifications were sent to the Calaveras Band of Mi-Wuk Indians, Gloria Grimes, chairperson; Calaveras Band of Mi-Wuk Indians-Grimes, Debra Grimes, cultural resources specialist; North Valley Yokuts Tribe, Timothy Perez; North

Valley Yokuts Tribe, Katherine Perez, chairperson; California Valley Miwok Tribe; Southern Sierra Miwuk Nation, Sandra Chapman, chairperson; California Valley Miwok Tribe (also known as Sheep Ranch Rancheria of Me-Wuk Indians of California); Wilton Rancheria, Jesus Tarango, chairperson; Wilton Rancheria, Dahlton Brown, director of administration; Wilton Rancheria, Steven Hutchason, tribal historic preservation officer; Tule River Indian Tribe, Kerri Vera, Environmental Department; Tule River Indian Tribe, Joey Garfield, tribal archaeologist; Tule River Indian Tribe, Neil Peyron, chairperson; and Wuksache Indian Tribe/Eshom Valley Band, Kenneth Woodrow, chairperson. Wilton Rancheria replied on July 25, 2022, stating that the project lies within the tribe's ancestral territory. Wilton Rancheria requested to be notified if any archaeological or tribal cultural resources are encountered during ground-disturbing activities. No known resources within the project area have been identified as tribal cultural resources as defined in PRC Section 21074.

A records search of the NAHC Sacred Lands File (SLF) was completed on April 26, 2022. The NAHC search indicated that the SLF was negative for the presence of Native American resources within the project site (Ascent Environmental 2022b).

3.18.3 Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

No impact. The project area contains no tribal cultural resources that are listed or eligible for listing in the CRHR or in a local register of historical resources. There would be no impact.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than significant with mitigation incorporated. Wilton Rancheria requested to be notified if any archaeological or tribal cultural resources are encountered during ground-disturbing activities; however, no tribal cultural resources were identified in the project area based on this tribal consultation. Nevertheless, the possibility remains that tribal cultural resources could be encountered during construction-related ground-disturbing activities. Therefore, this impact would be potentially significant.

Mitigation Measure 3.18-1: Protect Unanticipated Discoveries of Potential Tribal Cultural Resources

If any suspected tribal cultural resources, including midden soil, artifacts, chipped stone, exotic rock (nonnative), or unusual amounts of baked clay, shell, or bone, are discovered during ground-disturbing construction activities, all work shall cease within 100 feet of the find. Appropriate tribal representative(s) shall be immediately notified and shall determine whether the find is a tribal cultural resource (pursuant to PRC Section 21074). If the find is determined to be a tribal cultural resource, the appropriate tribal representative(s) will make recommendations for further evaluation and treatment, as necessary. If the find is determined not to be a tribal cultural resource as defined in PRC Section 21074, construction may proceed.

Preservation in place is the preferred alternative under CEQA and the tribes' protocols, and every effort must be made to preserve the resources in place, including through project redesign. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, or returning objects to a location within the project vicinity where they will not be subject to future impacts. Tribes do not consider curation of tribal cultural resources to be appropriate or respectful and request that materials not be permanently curated unless approved by the tribal representative. Treatment that preserves or restores the cultural character and integrity of a tribal cultural resource may include tribal monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil (soils containing and surrounding the discovery).

Significance after Mitigation

Implementation of Mitigation Measure 3.18-1 would reduce impacts on tribal cultural resources by requiring appropriate treatment and proper care of significant tribal cultural resources, in the case of a discovery. This impact would be less than significant with mitigation incorporated.

3.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIX. Utilities and Service Systems.				
Would the project:				
a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.19.1 Regulatory Setting

WATER SUPPLIES

Federal

No federal plans, policies, regulations, or laws related to water supplies are applicable to the project.

State

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (UWMPA) (California Water Code Sections 10610–10656). The UWMPA states that every urban water supplier that provides water to 3,000 or more customers, or that provides more than 3,000 acre-feet (af) of water annually, should make every effort to ensure a level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. This effort includes the adoption of an urban water management plan (UWMP) by every urban-water supplier and an update of the plan every 5 years on or before December 31, of every year ending in a 5 or 0. The project area is within the service area of the South San Joaquin Irrigation District, which adopted its most recent UWMP in June 2021.

Sustainable Groundwater Management Act of 2014

SGMA, which became law on January 1, 2015, applies to all groundwater basins in the state (Water Code Section 10720.3). By enacting SGMA, the legislature intended to provide "GSAs with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdictions (Water Code Section 10720.1). SGMA is a follow-up to SB X7-6, adopted in November 2009, which mandated a statewide groundwater elevation monitoring program to track seasonal and long-term trends in groundwater elevations in California's groundwater basins. In accordance with this amendment to the Water Code, DWR developed the California Statewide Groundwater Elevation Monitoring program.

Pursuant to SGMA, any local agency or combination of local agencies overlying a groundwater basin may decide to become a GSA for that basin, with the exception of a list of existing public agencies that the legislature designated as GSAs for their basins (Water Code Section 10723). The project area is within the Eastern San Joaquin Groundwater Subbasin, which is a critically overdrafted basin. The Eastern San Joaquin Groundwater Authority, which is the GSA for the subbasin, adopted the Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan (GSP) in November 2019.

SGMA also requires DWR to categorize each groundwater basin in the state as high, medium, low, or very low priority (Water Code Sections 10720.7, 10722.4). All basins designated as high- or medium-priority basins must be managed by a GSA under a GSP that complies with Water Code Section 10727 et seq. If required to be prepared, GSPs must be prepared by January 31, 2020, for all high- and medium-priority basins that are subject to critical conditions of overdraft, as determined by DWR, or by January 31, 2022, for all other high- and medium-priority basins. In lieu of preparation of a GSP, a local agency was permitted to submit an alternative that complies with SGMA no later than January 1, 2017 (Water Code Section 10733.6).

Following DWR's approval of adopted GSPs, the affected high- and medium-priority basins are to be managed under the GSPs. The basins should reach sustainability within 20 years of adoption of their GSPs. SGMA defines "sustainable groundwater management" as the "management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results." The legislation defines "undesirable results" to be any of the following effects caused by groundwater conditions occurring throughout the basin:

- chronic lowering of groundwater levels, indicating a significant and unreasonable depletion of supply,
- significant and unreasonable reduction of groundwater storage,
- significant and unreasonable seawater intrusion,
- significant and unreasonable land subsidence,
- significant and unreasonable degraded water quality, and
- surface water depletions that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

Water Conservation Act of 2009 (SB X7-7)

The Water Conservation Act of 2009 (SB X7-7) requires that urban and agricultural water suppliers increase their water use efficiency through implementing water conservation strategies, monitoring water use, and reporting data to DWR. SB X7-7 includes 18 actions, or "projects," that DWR is responsible for carrying out. It requires that urban water retail suppliers determine baseline water use and set reduction targets according to specified requirements, and it requires agricultural water suppliers to prepare plans and implement efficient water management practices.

Water Conservation Legislation (AB 1668 and SB 606)

Enacted on May 31, 2018, SB 606 and AB 1668 establish guidelines for efficient water use and a framework for the implementation and oversight of the new standards, which must be in place by 2022. The two bills strengthen the state's water resiliency in the face of future droughts with provisions that include:

- establishing water use objectives and long-term standards for efficient water use that apply to urban retail water suppliers (composed of indoor and outdoor residential water use; commercial, industrial, and institutional irrigation with dedicated meters; water loss; and other unique local uses);
- providing incentives for water suppliers to recycle water;
- identifying small water suppliers and rural communities that may be at risk of drought and water shortage vulnerability and providing recommendations for drought planning; and
- requiring both urban and agricultural water suppliers to set annual water budgets and prepare for drought.

Local

San Joaquin County 2035 General Plan

The guiding principles of the Public Services and Facilities Element of the San Joaquin County 2035 General Plan include (1) enhancing and maintaining existing infrastructure and services to meet the unique circumstances of each unincorporated community and the needs of residents and businesses and (2) ensuring that development does not outpace the provision of services and infrastructure. The following policies from the Public Services and Facilities Element are relevant to water supplies with respect to the project (San Joaquin County 2017a):

- **Policy IS-4.1. Water Agency Support:** The County shall support efforts of local water agencies, special districts, and water conservation districts to ensure that adequate high-quality water supplies are available to support existing and future residents and businesses.
- **Policy IS-4.6. Coordinate Efforts for Adequate Water Supply:** The County shall support coordinated efforts to obtain adequate water supplies and develop water storage facilities to meet expected water demand.
- **Policy IS-4.9. Groundwater Management:** The County shall continue to support cooperative, regional groundwater management planning by local water agencies, water users, and other affected parties to ensure a sustainable, adequate, safe, and economically viable groundwater supply for existing and future uses within the County.
- **Policy IS-4.19. Water Efficient Landscaping:** The County shall encourage water efficient landscaping and use of native, drought-tolerant plants consistent with the Model Landscape Ordinance.
- **Policy IS-4.20. Water Efficient Agricultural Practices:** The County shall encourage farmers to implement irrigation practices, where feasible and practical, to conserve water.

2020 Urban Watershed Management Plan for the City of Riverbank

The City of Riverbank is the water service provider to all residential, commercial, and institutional/governmental water users within the city limits, including the WWTP. As required under the UWMPA, the City prepared a 2020 UWMP to assess availability and reliability of water supplies and projected water use over the next 20–25 years. As part of the UWMP, the City also prepared a water shortage contingency plan to outline steps to follow in the event of a water shortage that may result from years of consecutive dry-year conditions, contamination, or natural or human-caused disasters (City of Riverbank 2021).

Agricultural Water Management Plan

The South San Joaquin Irrigation District (SSJID or District) is a wholesale water agency that supplies water to the agricultural lands in the project area. Because SSJID supplies agricultural water to more than 50,000 acres, the District is required to adopt and implement an agricultural water management plan (AWMP), prepared in accordance with the Water Conservation Act of 2009 (SB x7-7) and the 2018 Water Conservation Legislation (AB 1668 and SB 606). The SSJID AWMP was adopted on March 23, 2021. The AWMP includes a detailed description of the District's physical setting operations and facilities; an inventory of water supplies and uses; a discussion of the District water budget, water management objectives, and water use efficiency; a discussion of climate change adaptation strategies; and the District's drought management plan (SSJID 2021).

City of Riverbank General Plan 2005-2025

The Public Services and Facilities Element of the City of Riverbank General Plan 2005-2025 evaluates existing sewer, water, storm drainage, and other utility facilities, as well as solid waste collection. The following policies from the Public Services and Facilities Element are relevant to water supplies with respect to the project (City of Riverbank 2009):

- **Policy PUBLIC-1.2:** New development must pay for the public facilities, services, and infrastructure required to serve the needs of such development based on service standards applied by the City. The mechanisms for such funding will be part of the development approval, or as set forth in any applicable development agreement or specific plan, which, with the approval of the City Council, may provide for alternative financing mechanisms in-lieu of City development fee programs and ordinances. The use of in-lieu fees or in-lieu financing will be reserved for communitywide facilities that serve areas beyond the proposed project or plan. Construction and dedication of facilities will be the method for providing facilities that serve the proposed project or plan area. The City may make exceptions on the basis of financial hardship or small projects or plans, allowing payment of an in-lieu fee.
- **Policy PUBLIC-2.1:** The City will require that water supply, treatment, and delivery meet or exceed local, State, and federal standards.
- **Policy PUBLIC-2.3:** New developments shall incorporate water conservation techniques to reduce water demand in new growth areas, including the use of reclaimed water for landscaping and irrigation.

WASTEWATER AND STORMWATER

Federal

Refer to the discussion of the CWA and NPDES in the "Regulatory Setting" section of Section 3.10, "Hydrology and Water Quality."

State

Refer to the discussion of the Porter-Cologne Act and California Water Code in the "Regulatory Setting" section of Section 3.10, "Hydrology and Water Quality."

Local

San Joaquin County 2035 General Plan

The following policies from the Public Services and Facilities Element of the San Joaquin County General Plan are relevant to wastewater treatment with respect to the project (San Joaquin County 2017a):

- **Policy IS-6.1. Wastewater System Maintenance and Expansion:** The County shall encourage public wastewater system operators to maintain and expand their systems to meet the development needs of the County.
- **Policy IS-6.2. Reclaimed Water:** The County shall encourage public wastewater system operations to upgrade existing wastewater treatment systems to produce reclaimed water suitable for reuse.
- **Policy IS-6.3. Adequate Wastewater Facilities:** The County shall ensure through the development review process that wastewater collection, treatment, and disposal facilities are sufficient to serve existing and new development, and are scalable to meet capacity demands when needed.
- **Policy IS-6.6. Wastewater Treatment System Standards:** The County shall require that the development, operation and maintenance of wastewater treatment systems meet the requirements and standards of the wastewater treatment agency and the County, including the requirements and standards of the County Environmental Health Department.

The following policy from the Public Services and Facilities Element of the County's General Plan is relevant to stormwater with respect to the project (San Joaquin County 2017a):

- **Policy IS-7.1. Adequate Stormwater Facilities:** The County shall require that stormwater drainage facilities are properly designed, sited, constructed, and maintained to efficiently capture and dispose of runoff and minimize impacts to water quality.

<u>City of Riverbank General Plan 2005-2025</u>

The following policies from the Public Services and Facilities Element of the City's General Plan are relevant to wastewater treatment with respect to the project (City of Riverbank 2009):

- **Policy PUBLIC-1.1:** The City will coordinate the planning and construction of capital improvements with the timing of urban development within the Planning Area.
- **Policy PUBLIC-1.5:** The City will upgrade facilities and services that experience deterioration or obsolescence in existing developed areas of the City, as funding permits, to maintain levels of public service established by the City.
- **Policy PUBLIC-1.6:** The City will require that the methods, materials, and design of infrastructure and utilities achieve the City's environmental, public health and safety, and community character goals and policies, in addition to the City's level of service standards for public services, facilities, and infrastructure.
- **Policy PUBLIC-2.1:** The City will require that water supply, treatment, and delivery meet or exceed local, State, and federal standards.
- **Policy PUBLIC-2.3:** New developments shall incorporate water conservation techniques to reduce water demand in new growth areas, including the use of reclaimed water for landscaping and irrigation.
- **Policy PUBLIC-3.1:** The City will require that wastewater collection, conveyance, and treatment facilities meet or exceed local, State, and federal standards, as addressed in the City's Sewer Collection System Master Plan.
- **Policy PUBLIC-3.2:** The City will identify and utilize, as feasible, best environmental practices and technologies for wastewater collection, conveyance, and treatment.
- **Policy PUBLIC-3.3:** The City will not induce urban growth by providing wastewater facilities to areas outside the Planning Area or areas not planned for urban development, such as areas designated for agriculture or open space.

The following policies from the Public Services and Facilities Element of the City's General Plan are relevant to stormwater with respect to the project (City of Riverbank 2009):

- **Policy PUBLIC-4.3:** The City will consider a variety of means for floodplain management, depending on the context, which may include development, improvement, and maintenance of structural flood control facilities; land use policy and zoning to prohibit incompatible urban development within the floodplain; erosion control techniques; set backs from flood-prone areas; and other measures, as circumstances dictate.
- **Policy PUBLIC-4.4:** The City will identify areas, such as wetlands, low-lying natural runoff areas, and pervious surfaces and percolation ponds, for natural storm water collection and filtration, in concert with the City's existing and future drainage infrastructure, to help reduce the amount of runoff and encourage groundwater recharge.
- **Policy PUBLIC-4.5:** New development shall be designed to control surface runoff discharges to comply with the National Pollutant Discharge Elimination System Permit and the receiving water limitations assigned by the Regional Water Quality Control Board.
- **Policy PUBLIC-4.6:** The City will establish and new development shall implement nonpoint source pollution control measures and programs designed to reduce and control the discharge of pollutants into the City's storm drains and river.
- **Policy PUBLIC-4.7:** The City will require minimization of the amount of new impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and, where feasible, maximize onsite infiltration of stormwater runoff.

- **Policy PUBLIC-4.8:** The City will encourage pollution prevention methods, supplemented by pollutant source controls and treatment. Use small collection strategies located at, or as close to possible to the source (i.e., the point where water initially meets the ground) to minimize the transport or urban runoff and pollutants off-site.
- **Policy PUBLIC-4.10:** The City will limit disturbances of natural water bodies and natural drainage systems cause by development, including roads, highways, and bridges.
- **Policy PUBLIC-4.11:** The City will require that new development avoid development in areas that are particularly susceptible to erosion and sediment loss; or, will require that these areas are identified and protected from erosion and sediment loss.
- **Policy PUBLIC-4.12:** The City will encourage and/or require the use of open, vegetated swales, stormwater cascades, and small wetland ponds instead of pipes and vaults, as a part of urban development proposed outside current City limits to mitigate stormwater impacts.
- **Policy PUBLIC-4.13:** The City will enforce a no-net-runoff policy for areas proposed for development outside the current City limits

ENERGY

Federal

No federal plans, policies, regulations, or laws related to energy are applicable to the project.

State

California Environmental Quality Act

Appendix F of the State CEQA Guidelines sets forth goals for energy conservation, including decreasing per capita energy consumption and reliance on fossil fuels and increasing reliance on renewable energy sources. CEQA requires environmental documents to describe potential energy impacts of projects, with an emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (PRC Section 21100[b][3]).

The California Energy Commission (CEC) prepares an integrated policy report every 2 years that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (CEC 2021b). Energy efficiency is one of the key components of the state's strategy to reduce GHG emissions and to achieve reduction targets set forth by AB 32, SB 32, and Governor Brown's Executive Order B-30-15. Efficiency achieved through building codes, appliance standards, and ratepayer-funded programs has had a positive impact on GHG emissions in recent years (CEC 2021b). The policy report discusses efforts to decarbonize California's energy system and recognizes transitioning to zero- and near-zero-emission vehicles will be a fundamental part of meeting the state's climate goals.

The California Public Utilities Commission (CPUC) 2008 Energy Efficiency Strategic Plan established goals of having all new residential construction in California be zero net energy (ZNE) by 2020 and all new commercial construction ZNE by 2030 (CPUC 2008).

Clean Energy and Pollution Reduction Act

On October 7, 2015, the Clean Energy and Pollution Reduction Act (SB 350) was signed into law, establishing new clean energy, clean air, and GHG reduction goals for 2030 and beyond. SB 350 codifies Governor Brown's clean energy goals to increase California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030 and is part of California's overall strategy to address climate change (CEC 2017). SB 350 enhances the state's ability to meet its long-term climate goal of reducing GHG emissions to 40 percent of 1990 levels by 2030 and 80 percent below 1990 levels by 2050 (CEC 2017).

California Code of Regulations, Energy Efficiency Standards

Energy consumption of new buildings in California is regulated by state Building Energy Efficiency Standards contained in CCR Title 24, Part 2, Chapter 2-53. Title 24 applies to all new construction of both residential and nonresidential buildings, and regulates energy consumed for heating, cooling, ventilation, water heating, and lighting. The 2016 Building Energy Efficiency Standards have improved efficiency requirements from previous codes, and the updated standards are expected to result in a statewide energy consumption reduction. Effective January 1, 2011, CALGreen became California's first green building standards code. It is formally known as the California Green Building Standards Code (CCR Title 24, Part 11).

Green Building Initiative

In 2012, Governor Brown's Executive Order B-18-12 and its related Green Building Action Plan stated the following energy and water efficiency improvement goals for facilities owned, funded, and leased by the state:

- All new state buildings beginning design after 2025 shall be constructed as ZNE facilities with an interim target for 50 percent of new facilities beginning design after 2020 to be ZNE. State agencies shall also take measures toward achieving ZNE for 50 percent of the square footage of existing state-owned building area by 2025.
- The state shall identify at least three buildings by January 1, 2013, to pursue ZNE as pilot projects.
- New and major renovated state buildings shall be designed and constructed to exceed the applicable version of CCR Title 24, Part 6, by 15 percent or more, and include building commissioning, for buildings authorized to begin design after July 1, 2012.
- Any proposed new or major renovation of state buildings larger than 10,000 square feet shall use clean, on-site power generation, such as solar photovoltaic, solar thermal, and wind power generation, and clean backup power supplies, if economically feasible.
- New and major renovated state buildings larger than 10,000 square feet shall obtain Leadership in Energy and Environmental Design (LEED) "Silver" certification or higher.
- State agencies shall reduce water use at the facilities they operate by 10 percent by 2015 and by 20 percent by 2020, as measured against a 2010 baseline.
- All new and renovated state buildings and landscapes shall utilize alternative sources of water wherever cost-effective. Sources may include, but are not limited to, recycled water, graywater, rainwater capture, stormwater retention, and other water conservation measures.
- Landscape plants shall be selected based on their suitability to local climate and site conditions and reduced water needs and maintenance requirements.
- State agencies shall identify and pursue opportunities to provide electric vehicle charging stations and accommodate future charging infrastructure demand, at employee parking facilities in new and existing buildings.

Local

San Joaquin County 2035 General Plan

The following policies from the Land Use, Community Development, Public Facilities and Services, Public Health and Safety, and Natural and Cultural Resources Elements of the San Joaquin County General Plan are relevant to energy with respect to the project (San Joaquin County 2017a):

- **Policy LU-2.2. Sustainable Building Practices:** The County shall promote and, where appropriate, require sustainable building practices that incorporate a "whole system" approach to designing and constructing buildings that consume less energy, water and other resources, facilitate natural ventilation, use daylight effectively, and are healthy, safe, comfortable, and durable.
- **Policy LU-6.8. Sustainable Technologies:** The County shall encourage all employment and industrial projects to incorporate sustainable technologies including energy and water efficient practices.

- **Policy ED-2.4. Green Economy:** The County shall encourage the development and expansion of industries and businesses that rely on environmentally-sustainable products and services, such as renewable energy, green building, clean transportation, water conservation, waste management and recycling, and sustainable land management.
- **Policy IS-1.6. Efficient Infrastructure and Facilities:** When performing maintenance, upgrading, or expanding infrastructure and facilities, the County shall use technologies that improve energy efficiency and conserve water, when feasible.
- **Policy IS-3.6. Clean Energy and Fuel Sources:** The County shall use available clean energy and fuel sources where feasible to operate its buildings, vehicles, and maintenance/construction equipment.
- **Policy PHS-5.14. Energy Consumption Reduction:** The County shall encourage new development to incorporate green building practices and reduce air quality impacts from energy consumption.
- **Policy NCR-5.11. Green Building Practices:** The County shall encourage green building practices in new construction.
- **Policy NCR-5.12. Energy Efficient Industry:** The County shall support energy efficiency of industrial processes.

<u>City of Riverbank General Plan 2005-2025</u>
The following policy from the Public Services and Facilities Element of the City's General Plan is relevant to energy with respect to the project (City of Riverbank 2009):

- **Policy PUBLIC-6.3:** The City will require the demonstration of adequate energy supply through a will-serve letter from the appropriate energy service provider prior to approval of new or expanded structures that have the potential for significant energy use.

SOLID WASTE

Federal

<u>Standards for the Use or Disposal of Sewage Sludge (40 CFR 503)</u>
Title 40, Part 503 of the CFR establishes standards, which consist of general requirements, pollutant limits, management practices, and operational standards, for the final use or disposal of sewage sludge generated during the treatment of domestic sewage in a treatment works. Standards are included in this part for sewage sludge applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. Also included in this part are pathogen and alternative vector attraction reduction requirements for sewage sludge applied to the land or placed on a surface disposal site.

State

<u>California Green Building Standards Code (CCR Title 24 Part 11)</u>
The California Green Building Standards Code (CCR Title 24 Part 11), known as CALGreen, establishes mandatory minimum green building standards and requirements for construction and demolition (C&D) material diversion. Under Section 5.408 of CALGreen, projects involving C&D activities are required to recycle and/or salvage for reuse a minimum of 65 percent of their nonhazardous C&D material. Applicable projects are required to prepare and implement a construction waste management plan.

<u>California Integrated Waste Management Act</u>
To minimize the amount of solid waste that must be disposed of in landfills, the California Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of their generated waste from landfill facilities by January 1, 1995 and 50 percent by January 1, 2000. Solid waste plans are required to explain how each city's AB 939 plan will be

integrated with the county plan. In order of priority, the plans must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal.

In 1999, Governor Davis signed AB 75 (Chapter 764, Statutes of 1999), which mandated that state agencies comply with AB 939 diversion requirements.

In addition to the requirements of AB 75, the following policies and statutes address state agency recycling:

- Executive Order W-7-91 requires California state agencies to buy recycled products and set up recycling programs.
- Public Contract Code (PCC) Sections 12164.5–12167.1 require the California Department of Resources Recycling and Recovery (CalRecycle) to develop a recycling plan and implement recycling programs for the legislature and all state-owned and -leased buildings.
- PCC Section 12167.1 requires state agencies and institutions to report materials collected for recycling to CalRecycle.
- PRC Sections 42560–42562 require CalRecycle to recycle high-grade white office paper in California state offices.
- California State Administration Manual Chapter 1990 encourages employees at state facilities to prevent waste, reuse, and recycle.

Discharges of Hazardous Waste to Land (CCR Chapter 15, Division 3, Title 23)

CCR Chapter 15, Division 3, Title 23 establishes waste and site classifications and waste management requirements for waste treatment, storage, or disposal in landfills; surface impoundments; waste piles; and land treatment facilities. Requirements in this chapter are minimum standards for proper management of each waste category. Individual RWQCBs may impose more stringent requirements to accommodate regional and site-specific conditions. In addition, the requirements of this chapter apply to cleanup and abatement actions for unregulated discharges of hazardous waste to land (e.g., spills).

Local

San Joaquin County 2035 General Plan

The following program from the Public Services and Facilities Element of the San Joaquin County General Plan is relevant to solid waste with respect to the project (San Joaquin County 2017a):

- **Program IS-J. Mandatory Collection Ordinance:** The County shall develop and adopt an ordinance requiring solid waste collection, including recycling, from all Urban and Rural communities.

San Joaquin County Construction, Demolition, and Landscaping Debris Recycling and Diversion Ordinance

In 2009, the San Joaquin County Board of Supervisors adopted Ordinance #4370, also known as the Construction, Demolition and Landscaping Debris Recycling and Diversion Ordinance. This ordinance requires that all applicable projects must divert 50 percent of all construction and demolition debris, excluding inert and organic material, and 90 percent of inert and organic materials from the landfill through reuse and recycling. All waste materials and materials that cannot be recycled or reused must be delivered to a facility designated by San Joaquin County's director of Public Works. The ordinance is intended to help the local construction and demolition projects achieve the state-mandated requirement under CALGreen that 65 percent of construction and demolition materials be diverted from the landfill.

City of Riverbank General Plan 2005-2025

The following policies from the Public Services and Facilities Element of the City's General Plan are relevant to solid waste collection with respect to the project (City of Riverbank 2009):

- **Policy PUBLIC-5.1:** The City will approve new development projects only if adequate capacity exists to accommodate solid waste demand, including processing, recycling, transportation, and disposal.

- **Policy PUBLIC-5.2:** The City will encourage provision of recycling and conservation service and public education to reduce the amount of solid waste at the landfill.

3.19.2 Environmental Setting

WATER

Water service is provided to the WWTP by the City of Riverbank. The City produces and supplies all its water from groundwater wells located within the service district. In 2020, the City supplied 3,932 af of water to 6,853 municipal connections. As a result of population growth, water demand is projected to increase to 4,867 af by 2030. As demonstrated in the City's UWMP, future demand is projected to be sufficiently met by the Modesto groundwater subbasin with water supplies estimated to be 5,309 af in 2040. Additionally, the City anticipates that water supplies from the subbasin are reliable to withstand the effects of a 5-year drought. Furthermore, the City has identified water conservation measures to be implemented in the event of water shortages, including water waste prevention ordinances, metering, conservation pricing, public education and outreach, programs to assess and manage distribution system loss, and water conservation program coordination and staffing support (City of Riverbank 2021).

Existing water supplies in the potential recycled water use areas are a mix of surface water supplied by SSJID and groundwater supplies from privately owned groundwater wells in the Eastern San Joaquin Subbasin. The SSJID canal is the main distribution system for agricultural water.

WASTEWATER

The project area includes the City WWTP, which treats and disposes of the wastewater collected from residential, commercial, and industrial sources in the city. The WWTP treats effluent to a secondary level and discharges the treated effluent to land on the WWTP site through percolation and evaporation. An average of 1.6 million gallons of wastewater is treated per day, and the WWTP has a treatment capacity of 1.8 mgd. Existing facilities at the 150-acre WWTP consist of a headworks system, two aerated treatment ponds, two polishing ponds, eight evaporation/percolation ponds, 13 groundwater monitoring wells, and associated piping and mechanical components.

STORMWATER DRAINAGE

Stormwater runoff from the WWTP does not drain to the municipal storm drain system; rather, stormwater runoff is captured and stored for future use or discharged to on-site percolation ponds.

ENERGY

PG&E provides electricity to the main office at the WWTP, and the Modesto Irrigation District (MID) provides electricity to the equipment. The WWTP does not use natural gas.

SOLID WASTE

The project would be served by the Forward Landfill in Manteca, California, and other permitted land application sites within approximately 70 miles of the WWTP. The Forward Landfill is classified as a Class I, II, and III facility. Class I landfills accept hazardous and nonhazardous wastes, Class II landfills accept "designated" and nonhazardous wastes, and Class III landfills accept nonhazardous municipal wastes. The Forward Landfill is permitted to receive 8,668 tons per day of solid waste, and the maximum permitted capacity of the landfill is 59,160,000 acres. As of January 31, 2020, the Forward Landfill had a remaining capacity of 24,720,669 cubic yards. The landfill is anticipated to cease operations on January 1, 2036. Additionally, the Forward Landfill is permitted to receive 300 tons per day of domestic septage with approximately 60 acres of the landfill dedicated for land application (CalRecycle 2019).

3.19.3 Discussion

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

Less-than-significant impact. The project's effects on water, wastewater treatment, stormwater drainage, electric power, natural gas, and telecommunication facilities are described in the following sections.

Water

Construction activities would require the consumption of water for suppressing dust, preparing and placing concrete, and other general uses. Construction-related water use would represent a small and temporary demand on local and regional water supplies that could be accommodated by the City.

Following construction, potable water use at the WWTP is anticipated to increase by 10–20 percent over existing use to accommodate the expanded operations at the WWTP. The projected growth that could be served by the project was planned for and anticipated to occur in the WWTP's service area as part of the City's General Plan. Goals and policies are outlined in the City's General Plan to accommodate this new growth, and its impacts on water supply were addressed in the General Plan EIR. Therefore, the City's existing and future water source and supply would be adequate to meet the project's increase in water demand. The project would not require construction of new or expanded water facilities with the potential to result in significant environmental effects beyond those evaluated in the City's General Plan EIR.

Wastewater

During construction, wastewater requiring treatment would be limited to wastewater generated from on-site construction personnel and activities. These activities would not generate a substantial amount of new wastewater.

The project would involve upgrades to the City's existing WWTP, including construction of new secondary and tertiary treatment and disinfection facilities, construction of a recycled water storage tank, reconfiguration of existing percolation ponds to provide additional seasonal recycled water storage, and installation of a distribution system to initially serve nearby agricultural users. The environmental effects of constructing and operating these facilities are evaluated in Sections 3.1 through 3.21 of this Initial Study. As described throughout this Initial Study, the environmental impacts associated with construction and operation of the project would be less than significant through compliance with applicable permits, programs, and regulations and with implementation of required mitigation measures. Therefore, the project would not result in significant environmental effects associated with the construction of expanded wastewater facilities.

Stormwater Drainage

Stormwater runoff from the existing WWTP is stored for future use or discharged to on-site percolation ponds. On-site drainage would be designed such that runoff would continue to be stored or discharged to on-site percolation ponds. No connections to the City's municipal storm drain system would be required for the project. Therefore, the project would not require construction of new or expanded municipal stormwater drainage facilities with the potential to result in significant environmental effects.

Electric Power and Natural Gas

Construction activities would require the consumption of diesel fuel associated with the operation of heavy-duty construction equipment, material deliveries, and debris hauling; gasoline associated with worker commute trips; and minor amounts of electricity associated with operation of electric-powered construction equipment. Construction-related energy use would represent a small demand on local and regional fuel and electricity supplies that could be accommodated by existing facilities and infrastructure.

Project operations would not require the consumption of natural gas, but electricity consumption would increase to accommodate the expanded operations at the WWTP. As discussed in Section 3.6, "Energy," electricity consumption during project operations is estimated to be 4,624 MWh in the first year and 6,332 MWh at peak flow. The project would not require modifications to off-site MID infrastructure or upsizing of off-site power systems or supplies to meet the project's energy demands. However, the City would initiate review with MID to determine whether the project would require on-site modifications to electric power infrastructure to meet the expanded WWTP power needs, such as relocating power poles, upsizing an existing transformer, or constructing a new transformer within the project site. The environmental effects of on-site modifications to electrical infrastructure would be within the scale of what was evaluated in Sections 3.1 through 3.21 of this IS/MND. As described throughout this IS/MND, the environmental impacts associated with construction and operation of the project would be less than significant through compliance with applicable permits, programs, and regulations and with implementation of required mitigation measures. Therefore, the project would not require construction of new or expanded electric power or natural gas facilities with the potential to result in significant environmental effects.

Telecommunication

Construction and operation of the project would not contribute to an increase in telecommunication demand. Therefore, the project would not require construction of new or expanded telecommunication facilities with the potential to result in significant environmental effects.

Summary

The project would not require or result in the construction of new water, stormwater drainage, natural gas, or telecommunication facilities. The project would include upgrades to the City's existing WWTP, and the environmental effects of the expanded wastewater treatment facilities, and potential modifications to electric power infrastructure are evaluated in Sections 3.1 through 3.21 of this IS/MND. As described throughout this IS/MND, the environmental impacts associated with construction and operation of these facilities would be less than significant through compliance with applicable permits, programs, and regulations and with implementation of required mitigation measures. Therefore, the project would not result in significant environmental effects associated with the construction of expanded wastewater facilities.

b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less-than-significant impact. The existing potable water supply would continue to be used for the expanded facility, with nonpotable water provided by the treatment process as recycled water or process water. It is anticipated that the project would increase potable water use by approximately 10–20 percent over existing use. As discussed in Section 3.19.2, the City's 2020 UWMP demonstrates that water supplies from the Modesto Groundwater Subbasin are sufficient to meet the City's current and future water demands, including during multiple consecutive dry years. As discussed in Section 3.19.3(a), the projected growth that could be served by the project was planned for and anticipated to occur within the WWTP's service area as part of the City's General Plan. Goals and policies are outlined in the City's General Plan to accommodate this new growth and its impacts on water supply were addressed in the General Plan EIR. Therefore, the City's existing and future water source and supply would be adequate to meet the project's increase in water demand.

Following completion of project construction, WWTP operations have the potential to produce approximately 1.6 mgd, or 2,500 af, of Title 22 recycled water at a peak irrigation flow rate of 2,610 gpm. This amount would be sufficient to irrigate a 30-acre block of agricultural land in the proposed use area once every 7 days, or a total of 210 acres (KSN and BC 2022). At the future projected recycled water production rate of 2.29 mgd anticipated by 2050, the WWTP could produce and deliver up to 2,500 af of Title 22 recycled water at a peak irrigation flow rate of 4,350 gpm, enough to irrigate a 50-acre block once every 7 days, or a total of 350 acres (KSN 2022). Thus, the project would create a source of high-quality irrigation water that could contribute to greater water balance in the San Joaquin Groundwater Subbasin by replacing some of the groundwater that would otherwise be used for irrigation. Furthermore, production of recycled water at the Riverbank WWTP has the potential to reduce the use of on-site percolation basins, leading to potential improved conditions for the groundwater underlying the project area.

Therefore, the project is anticipated to have beneficial impacts with respect to water supplies. Impacts would be less than significant.

c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?

No Impact. The project would not contribute to an increase in population growth or the demand for wastewater treatment. Rather, the project would increase wastewater treatment capacity at the existing WWTP from 1.8 mgd to approximately 2.29 mgd to accommodate planned growth in the City through 2050. Because the project would be designed to accommodate planned growth, projected demand for wastewater treatment services would be adequately served. No impact would occur.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-than-significant impact. The potential for project construction and operation to generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals is described in the following sections.

<u>Construction</u>

Project construction would not require the demolition of any structures. Construction activities would generate small amounts of solid waste, such as trash and debris. General construction debris would be diverted from landfills through reuse and recycling in accordance with the San Joaquin County Construction, Demolition, and Landscaping Debris Recycling and Diversion Ordinance (Ordinance #4370). Cut and fill would largely be balanced on site, except approximately 24,000 cubic yards of sludge from pond T-4 and 800 cubic yards of liner from pond T-2 would be exported to the Forward Landfill in Manteca, California. As discussed in Section 3.19.2, the Manteca Landfill has a remaining capacity of 24,720,669 cubic yards. Construction-generated waste from the project would represent approximately 0.1 percent of the landfill's remaining capacity. Therefore, the Manteca Landfill would have adequate capacity to accommodate the solid waste generated during project construction.

<u>Operation</u>

The project would not contribute to an increase in population growth. The project would increase wastewater treatment capacity at the existing WWTP from 1.8 mgd to approximately 2.29 mgd to accommodate planned growth in the City through 2050. Therefore, the amount of biosolids generated as part of the wastewater treatment process would increase with implementation of the project by up to 27 percent through 2050. Biosolids would be disposed of at a permitted land application site within approximately 70 miles of the WWTP.

The projected growth that could be served by the project was planned for and anticipated to occur within the WWTP's service area as part of the City's General Plan. Goals and policies are outlined in the City's General Plan to accommodate this new growth, and its impacts on solid waste were addressed in the General Plan EIR. Therefore, existing and planned land application sites serving the City would have adequate capacity to accommodate the project's increase in biosolids associated with planned growth within the City. Thus, the project would not generate solid waste in excess of the capacity of local infrastructure.

<u>Summary</u>

Based on the above discussion, project construction and operation would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts would be less than significant.

e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less-than-significant impact. As discussed in Section 3.19.3(d), construction activities would comply with the San Joaquin County Construction, Demolition, and Landscaping Debris Recycling and Diversion Ordinance (Ordinance #4370). Additionally, sludge disposal required during construction and operational activities would continue to meet the requirements specified in WDR Order No. 94-100, as follows: (1) collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner that is consistent with CCR Chapter 15, Division 3, Title 23 and approved by the executive officer, and (2) use and disposal of sewage shall comply with existing federal and state law and regulations, including permitting requirements and technical standards included in 40 CFR 503. The project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, impacts would be less than significant.

3.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XX. Wildfire.				
Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones? If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	☐ Yes		☒ No	
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

3.20.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to wildfire are applicable to the project.

STATE

California Department of Forestry and Fire Protection Regulations

The State of California has determined that some nonfederal lands in unincorporated areas with watershed value are of statewide interest and have classified those lands as State Responsibility Areas (SRAs). SRAs are managed by the California Department of Forestry and Fire Protection (CAL FIRE), the state agency established for fire protection and stewardship of more than 31 million acres of the state's privately owned wildlands and to provide emergency services in 36 of California's 58 counties through contracts with local governments.

CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors (PRC Sections 4201-4204 and Government Code Section 51175-89). Factors that increase an area's susceptibility to fire hazards include slope, vegetation type and condition, and atmospheric conditions. CAL FIRE has identified two types of wildland fire risk areas: (1) wildland areas that may contain substantial forest fire risks and hazards and (2) very high fire hazard risk zones.

California Fire Code

The CFC is contained within CCR Title 24. The CFC establishes requirements for development design to safeguard public health, safety and general welfare from the hazards of fire. This includes standards on building design, materials, fire flow, and other suppression provisions. The CFC also regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the CBC use a hazard classification system to determine what protective measures are required to protect life and provide fire safety. These measures may include applying construction standards, requiring separation between structures and property lines, and using specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years.

2019 Strategic Plan for California

The *2019 Strategic Plan* prepared by CAL FIRE and the California Natural Resources Agency lays out central goals for reducing and preventing the impacts of fire in the state (CAL FIRE 2019). The goals are meant to establish, through local, state, federal, and private partnerships, a natural environment that is more resilient and human-made assets that are more resistant to the occurrence and effects of wildland fire. The goals of the *2019 Strategic Plan* include improving core capabilities; enhancing internal operations; ensuring health and safety; and building an engaged, motivated, and innovative workforce.

In addition to the *2019 Strategic Plan,* individual CAL FIRE units develop fire plans, which are major strategic documents that establish a set of tools for each CAL FIRE unit for its local area. Updated annually, unit fire plans identify wildfire protection areas, initial attack success, assets and infrastructure at risk, strategic areas for prefire planning and fuel treatment and prefire management strategies, and accountability within the unit's geographical boundaries. The plans include contributions from local collaborators and stakeholders and are aligned with other plans for the area.

Unit Strategic Fire Plan – Tuolumne-Calaveras Unit of CAL FIRE

The *2021 Unit Strategic Fire Plan* seeks to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health. The Tuolumne-Calaveras Unit of CAL FIRE encompasses approximately 2.9 million acres (more than 1 million acres are located in an SRA) and includes San Joaquin County.

The Tuolumne-Calaveras Unit, with the cooperation of key stakeholders, has designed this plan with the intention of meeting the goals set by both the stakeholders and the California Strategic Fire Plan. The *2021 Unit Strategic Fire Plan* is designed to provide a comprehensive framework of how the Tuolumne-Calaveras Unit will assess the current and anticipated hazards/risks, develop objectives to mitigate those hazards/risks, establish benchmarks for success, develop strategies to meet its objectives, implement those strategies, and facilitate a monitoring system to ensure that the plan remains connected to the needs of the Unit and stakeholders.

The Tuolumne-Calaveras Unit is committed to the following goals:

- Continually assess values at risk, including life, property, and our natural resources.
- Actively partner in the promotion and support of fire wise land use planning.
- Seek opportunities for contribution and collaboration with local, county, and regional leaders in developing of fire protection plans.
- Maintain an active Public Information team committed to the promotion of current and future projects/actions which reduce or have reduced our identified hazards and risks.
- Continue integration with all stakeholders to develop a seamless implementation of our plan across the unit.
- Continually evaluate and mitigate strategy for all our resources (personnel, equipment, and facilities) to provide for the best possible level of service related to the hazards and risks identified. Adopt site-specific plans to address post-fire recovery.

State of California Emergency Plan

The State of California Emergency Plan, adopted on October 1, 2017, describes how state government mobilizes and responds to emergencies and disasters in coordination with partners in all levels of government, the private sector, nonprofits, and community-based organizations. The plan also works in conjunction with the California Emergency Services Act and outlines a robust program of emergency preparedness, response, recovery, and mitigation for all hazards, both natural and human-caused. All local governments with a certified disaster council are required to develop their own emergency operations plan (EOP) for their jurisdiction that meet state and federal requirements. Local EOPs contain specific emergency planning considerations, such as evacuation and transportation, sheltering, hazard specific planning, regional planning, public-private partnerships, and recovery planning.

LOCAL

San Joaquin County 2035 General Plan

The following policies from the Public Health and Safety Element of the San Joaquin County General Plan are relevant to wildland and urban fire hazards with respect to the project:

- **Policy PHS-1.13. Public Awareness of Climate Change:** The County shall support public awareness of water conservation measures, agricultural changes, storm and flood preparedness, wildfire fire protection, air quality effects, extreme weather events, heat and human health, and disease prevention to help prepare for the potential impacts of climate change.
- **Policy PHS-4.1. Community Wildfire Protection Plan:** The County shall maintain and implement the Community Wildfire Protection Plan as a mechanism for community input and identification of areas with high fire hazard risk.
- **Policy PHS-4.2. Residential Densities in High Hazard Areas:** The County shall restrict development to rural residential densities or lower and require on-site fire suppression measures in areas with high or extreme wildfire hazards.
- **Policy PHS-4.3. Fire Prevention Measures:** The County shall implement State recommendations for fire prevention in Fire Hazard Severity Zones and require new and/or existing development to provide clearance around structures, use fire-resistant ground cover, build with fire-resistant roofing materials, participate in fuel load reduction, and take other appropriate measures.
- **Policy PHS-4.4. Clear Zones:** The County shall require clear zones and regular weed abatement around residential structures in high fire hazard areas and assist property owners in identifying how clear zones should be maintained.
- **Policy PHS-4.5. Vegetation and Fuel Management:** The County shall require new development in high fire-hazard areas to have fire-resistant vegetation, cleared fire breaks separating communities or clusters of structures from native vegetation, or a long-term comprehensive vegetation and fuel management program consistent with State codes 4290 and 4291 for wildland fire interface and vegetation management.
- **Policy PHS-4.6. Fire Protection Coordination:** The County shall encourage well-organized and efficient coordination among fire agencies, CalFire, and the County.

City of Riverbank General Plan 2005-2025

The following policies from the Public Services and Facilities and Safety Elements of the City's General Plan are relevant to wildland and urban fires with respect to the project:

- **Policy PUBLIC-7.1**: The City will ensure that adequate fire flow pressure is available in relation to structure size, design, requirements for construction, and/or built-in fire protection systems. Maintenance of adequate fire flows includes factors such as adequate storage, system gridding, hydrant spacing, and spacing and sizing of water mains, as specified in the City's Water Master Plan.

- **Policy PUBLIC-7.2:** For new development, the City will require a minimum fire flow pressure of 1,500 GPM (sustainable for at least two hours) for residential use. For new development, the City will require a minimum fire flow pressure of approximately 3,600 GPM (sustainable for longer periods) for larger residences and for other building types, depending on the particular use and structure characteristics, and in coordination with the fire service provider.
- **Policy PUBLIC-7.3:** The City will require that fire stations be located to ensure the appropriate level of service (including adequate response time per Policy Public 7.5), community compatibility, and efficiency, including the location of such facilities relative existing and planned public parks, libraries, and other activity centers.
- **Policy PUBLIC-7.4:** The City will coordinate with fire protection providers, including through reciprocity arrangements, to ensure equipment, staffing, and facilities for emergency medical services, urban search and rescue, hazardous materials emergency response, and other relevant needs, as appropriate. The City will ensure consistency with National Fire Protection Association and Stanislaus Consolidated Fire Protection District response requirements.
- **Policy PUBLIC-7.5:** The City will coordinate with fire protection providers to an emergency response system capable of achieving the following standards in 95% of all cases: first fire emergency response unit within six minutes of dispatch; full alarm assignment within 10 minutes of dispatch; second alarm assignment within 15 minutes of dispatch; and an Insurance Service Office (ISO) rating of Class 2 for areas within the City.
- **Policy PUBLIC-7.6:** The City will work with property owners in existing developed portions of the City to achieve a minimum fire flow pressure of 1,500 GPM (sustainable for at least two hours) for residential use and approximately 3,600 GPM (sustainable for longer periods) for larger residences and for other building types, depending on the particular use and structure characteristics, and in coordination with the fire service provider.
- **Policy SAFE-1.2:** The City will continue to enforce State of California Building Standards Commission uniform codes, such as the California Building Code and California Fire Code with adopted Fire District amendments.
- **Policy SAFE-1.3:** The City will encourage the retrofitting of older buildings to current safety standards, and require compliance to recommendations of the fire and law enforcement service providers and the State Building Standards Commission uniform codes in coordination with major remodeling or additions.
- **Policy SAFE-1.4:** The City will require set backs, ignition resistant building materials, or other measures to reduce exposure to potential wildfires in areas designated for natural open space preservation, in coordination with California Department of Forestry and Fire Protection recommendations and Maintenance of Defensible Space Measures, as appropriate.
- **Policy SAFE-1.5:** Approved plans, projects, and subdivision requests will ensure adequate fire flow per City and Fire District standards. The installation of automatic fire sprinklers may, at the discretion of the City and the Fire Chief, allow for a reduction in the required fire flow, while still complying with the California Fire Code requirements.
- **Policy SAFE-2.1:** The City will require development and maintenance of a road system that provides adequate access for emergency equipment.
- **Policy SAFE-2.2:** The City will consult with fire protection service providers in reviewing development proposals. Development proposals will include City conditions that respond to concerns of fire protection service providers.
- **Policy SAFE-2.3:** The City will improve fire flow in existing developed areas of the City, as feasible, to meet standards presented in the Public Facilities and Services Element of the General Plan and relevant City Master Plans.
- **Policy SAFE-2.4:** The City will coordinate with the County Office of Emergency Services to identify evacuation routes and operational plans to be used in case of dam failure, flood disaster, and wildfire for any new growth areas in addition to any updates required to serve the existing developed City.

3.20.2 Environmental Setting

Wildland fires occur in areas with extensive vegetation, such as forests and grasslands. Most vegetated areas in the vicinity of the Riverbank WWTP are irrigated agricultural lands, including pastures, field crops, orchards, and vineyards with a low potential for wildfire. The most significant area of vegetation potentially subject to wildfire is the riparian area along the Stanislaus River. The bottom of the river, when dry, also poses a great fire hazard, especially to sections of Riverbank where houses are built along the top of the bluff alongside the river.

As discussed in Section 3.9, "Hazards and Hazardous Materials," the project site, as well as the surrounding area is within a Local Responsibility Area (CAL FIRE 2022a). No portion of the project site is located within or near an SRA, or within lands classified as very-high fire hazard severity zones (CAL FIRE 2022b).

EVACUATION ROUTES

Evacuation routes to be used by a city depend on the nature and location of the disaster that prompts an evacuation. Nevertheless, some general routes can be determined, based upon capacity. The main evacuation route through Riverbank is SR 108. This roadway is capable of handling heavy truck traffic, as well as traffic from passenger vehicles, and would be a primary route for evacuations. Other roadways that may be used as evacuation routes include the following (Riverbank General Plan 2005-2025):

- Patterson Road,
- Claribel Road,
- Sylvan Avenue,
- Coffee Road,
- Oakdale Road,
- Roselle Avenue,
- Claus Road, and
- Terminal Avenue/Santa Fe Avenue.

WILDFIRE BEHAVIOR AND CONTROLLING FACTORS

Wildfire behavior is a product of several variables, primarily weather, vegetation, topography, and human influences, which intermix to produce local and regional fire regimes that affect how, when, and where fires burn. The fire regime in any area is defined by several factors, including fire frequency, intensity, severity, and area burned. Each of these is important for an understanding of how the variables that affect fire behavior produce fire risks. "Fire frequency" refers to the number of fires that occur in a given area over a given period; "fire intensity" refers to the speed at which fire travels and the heat that it produces; "fire severity" refers to the extent to which ecosystems and existing conditions are affected or changed by a fire; and "area burned" is the size of the area burned by wildfire.

3.20.3 Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less-than-significant impact. As discussed above in Section 3.20.2 "Environmental Setting," no portion of the project site is located within or near a State Responsibility Area (SRA) or within lands classified as very-high fire hazard severity zones. Access to the WWTP site (as discussed in Section 2.0, "Project Description") is limited, and a temporary access point and road would be required to support the transportation of construction materials and equipment during project construction. The proposed temporary access point would be located northwest of the project site, off

Burwood Road. The approximately 9,000-foot-long temporary access road would be constructed between the access point and the WWTP site on a combination of private farm roads and existing WWTP roads, both currently unimproved. Improvements would include fine grading followed by placement of aggregate base rock on the existing roads. The temporary construction access road would be maintained throughout the construction timeline. Watering of this road would be required to prevent fugitive dust caused by vehicular traffic as necessary.

Encroachment permits for the temporary access point would be acquired as required by San Joaquin County. As part of this encroachment permit application, the project applicant would be required to prepare and implement a traffic control plan, which would require temporary traffic controls during construction to ensure that adequate emergency access is provided.

Furthermore, affected roadway segments may be closed temporarily during pipeline installation activities. However, traffic control operations would be noticed at the location of the temporary traffic restrictions a week in advance of any roadwork that would impede the flow of traffic (i.e., closes the road, closes a traffic lane, or closes the road shoulder). All roadways would be repaved and returned to preproject conditions upon completion of project construction. After it becomes operational, the project would not conflict with emergency response or evacuation plans. Therefore, the project would not substantially impair an adopted emergency response plan or emergency evacuation plan. This impact would be less than significant.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No impact. As discussed above in Section 3.20.2 “Environmental Setting,” no portion of the project site is located within or near an SRA or within lands classified as very-high fire hazard severity zones. Furthermore, the project site is in an area that does not have a steep incline. Implementation of the project would not result in any alterations to slope, wind, or other factors that could potentially exacerbate wildfire risks on-site or within the project vicinity. No impact would occur.

c) Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No impact. As discussed above in Section 3.20.2 “Environmental Setting,” no portion of the project site is located within or near an SRA or within lands classified as very-high fire hazard severity zones. The post-project continued operation of the WWTP would not exacerbate fire risk in the project area because it would be similar to existing operations at the WWTP and would not introduce associated infrastructure, such as roads, fuel breaks, emergency water sources, power lines, or other utilities. Because the project would not require the installation of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment, no impact would occur.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No impact. As discussed above in Section 3.20.2, “Environmental Setting,” no portion of the project site is located within or near an SRA or within lands classified as very-high fire hazard severity zones. The project does not include any residential components, and all aboveground buildings and structures would be located outside of Special Flood Hazard Areas (see Section 3.10, “Hydrology and Water Quality”). Therefore, people and structures would not be subject to postfire runoff or debris flow related to flooding. The project would be subject to the local building permit approval process, including the requirement to comply with CFC requirements applicable to the facilities being constructed. Therefore, the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, postfire slope instability, or drainage changes. No impact would occur.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XXI. Mandatory Findings of Significance.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

3.21.1 Regulatory Setting

CEQA Guidelines Section 15065 provides that a lead agency shall prepare an Environmental Impact Report (EIR) for a project that may have a significant effect on the environment where there is substantial evidence that any of the following conditions may occur:

> The project has the potential to: substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or prehistory.
>
> The project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.
>
> The project has possible environmental effects that are individually limited but cumulatively considerable. ”Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.
>
> The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.

An EIR need not be prepared when a project proponent agrees to mitigation measures or project modifications that would avoid any significant effect on the environment or would mitigate the significant effect to a point where clearly no significant effect on the environment would occur.

3.21.2 Environmental Setting

Refer to the "Environmental Setting" discussion in Sections 3.1 through 3.20 of this Initial Study for a summary of the existing environmental conditions in the project area.

3.21.3 Discussion

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less than significant with mitigation incorporated. As discussed in Section 3.1, "Aesthetics"; Section 3.3, "Air Quality"; Section 3.9, "Hazards and Hazardous Materials"; Section 3.10, "Hydrology and Water Quality"; and Section 3.13, "Noise," project construction would result in short-term and temporary changes to the visual environment, increases in air pollutants and noise levels, erosion and degradation of water quality, and potential releases of hazardous materials into the environment. However, with implementation of required BMPs and compliance with applicable permits, programs, and regulations during construction, the project would not substantially degrade the quality of the environment.

As discussed in Section 3.4, "Biological Resources," project construction has potential to result in direct and indirect effects on biological resources, including damage to or removal of special-status plant species and disturbance to or injury or death of special-status wildlife. With implementation of Mitigation Measures 3.4-1 through 3.4-7, impacts on biological resources would be less than significant. Therefore, the project would not substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species.

As described in Section 3.5, "Cultural Resources," and Section 3.18, "Tribal Cultural Resources," no built-environment historical resources, previously identified archaeological resources, known cemeteries or burials, or tribal cultural resources have been identified within the project site. However, ground-disturbing activities during project construction could result in discovery or damage of yet undiscovered buried resources. Implementation of Mitigation Measures 3.5-1 and 3.18-1 and compliance with HSC Section 7050.5 and PRC Section 5097 would ensure that these resources are properly identified, evaluated, and recovered. Additionally, as described in Section 3.7, "Geology and Soils," paleontological resources may be present below the original layer of fill material and may be encountered during construction-related excavations. With implementation of Mitigation Measures 3.7-1 through 3.7-3, the project would not result in the destruction of paleontological resources. Therefore, the project would not eliminate important examples of the major periods of California history or prehistory.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less than significant with mitigation incorporated. Cumulative environmental effects are multiple individual effects that, when considered together, would be considerable or compound or increase other environmental impacts.

Individual effects may result from a single project or a number of separate projects and may occur at the same place and point in time or at different locations and over extended periods of time.

As described in Sections 3.1 through 3.21 of this Initial Study, construction activities would result in short-term and temporary effects on the environment, including the following: changes to the visual setting; increases in air pollutants and noise levels; erosion and degradation of water quality; potential releases of hazardous materials into the environment; damage to or removal of special-status plant species; disturbance to or injury or death of special-status wildlife; destruction of cultural, tribal cultural, and paleontological resources; and increases in demand for utilities and services. These effects would cease following the approximately 27-month construction period. Additionally, compliance with applicable permits, programs, regulations, and Mitigation Measures 3.4-1 through 3.4-7, 3.5-1, 3.7-1 through 3.7-3, and 3.18-1 would ensure that the project's construction-related impacts would not be cumulatively considerable.

As described in Sections 3.1 through 3.21 of this Initial Study, ongoing operation and maintenance of the expanded WWTP would not result in significant environmental effects. Additionally, the project would increase the City's production of recycled water, which would create a source of high-quality irrigation water that could contribute to greater water balance in the San Joaquin Groundwater Subbasin by replacing some of the groundwater that would otherwise be used for irrigation. Production of recycled water at the Riverbank WWTP has the potential to reduce the use of on-site percolation basins, leading to potential improved conditions for the groundwater underlying the project area. As such, project operation is anticipated to have beneficial effects on water supplies.

Furthermore, the purpose of the project is to increase wastewater treatment capacity at the City's existing WWTP to accommodate planned growth in the City. The projected growth that could be served by the project was planned for and anticipated to occur within the WWTP's service area as part of the City's General Plan. Goals and policies are outlined in the City's General Plan to accommodate this new growth and its impacts were addressed in the General Plan EIR. Based on the above discussion, the project's contribution to environmental impacts would be less than cumulatively considerable.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Less-than-significant impact. As discussed in Section 3.3, "Air Quality"; Section 3.9, "Hazards and Hazardous Materials"; Section 3.10, "Hydrology and Water Quality"; Section 3.13, "Noise"; and Section 3.17, "Transportation"; project construction would result in the short-term and temporary increases in air pollutants and noise levels, degradation of water quality, potential releases of hazardous materials into the environment, and disruptions to the transportation network. However, with implementation of required BMPs; Mitigation Measure 3.17-1; and compliance with applicable permits, programs, and regulations during construction, these environmental effects would not cause substantial adverse effects on human beings.

3.21.4 Mitigation Measures

With implementation of Mitigation Measures 3.4-1 through 3.4-7, 3.5-1, 3.7-1 through 3.7-3, 3.17-1, and 3.18-1, the project would not result in significant impacts.

4 COMPLIANCE WITH FEDERAL REGULATIONS

This chapter summarizes the federal environmental laws and regulations that apply to the project and describes the project's compliance with those laws and regulations. The federal regulations addressed in this chapter are based on guidance from the State Water Resources Control Board (SWRCB) for CEQA-Plus environmental documentation related to State Revolving Fund loans and in accordance with EPA guidance for environmental information documents related to Special Appropriation Fund Grants (EPA 2008).

4.1 ARCHAEOLOGICAL AND HISTORIC PRESERVATION ACT

Passed and signed into law in 1974, the Archaeological and Historic Preservation Act (AHPA) amended and expanded the Reservoir Salvage Act of 1960. The AHPA provides for the preservation of historical and archaeological data that might otherwise be irreparably lost or destroyed as the result of (1) flooding, the building of access roads, the erection of workmen's communities, the relocation of railroads and highways, and other alterations of the terrain caused by the construction of a dam by any agency of the United States, or by any private person or corporation holding a license issued by any such agency, or (2) any alteration of the terrain caused as a result of any federal construction project or federally licensed activity or program. According to the Advisory Council on Historic Preservation, if a project would affect historic properties that have archaeological value, the AHPA may impose additional requirements on an agency.

As discussed in Section 3.5, "Cultural Resources," the Central California Information Center records search did not identify any historic properties that have archaeological value in the area of potential effects. One potential burial was identified; however, the burial was excavated, and all materials removed in 1971. Documentation of the burial did not include a precise location. Although the general location given was partially inside the project site, ground disturbance associated with the project would not occur in this general location. The pedestrian survey conducted on April 28, 2022, identified no archaeological sites (Ascent Environmental 2022). Therefore, no historic properties on the project site have archaeological value, and the AHPA does not apply.

4.2 CLEAN AIR ACT

4.2.1 Regulatory Background

The project site is in San Joaquin County, which is within the San Joaquin Valley Air Basin (SJVAB) and is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD. Air quality in the county is regulated by such agencies as the US Environmental Protection Agency (EPA) and California Air Resources Board (CARB) at the federal and state levels, respectively, and SJVAPCD at the local level.

At the federal level, EPA implements the national air quality programs. EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA), enacted in 1970. The most recent major amendments were made by Congress in 1990, known as the federal CAA Amendments. The CAA requires EPA to establish National Ambient Air Quality Standards (NAAQS). EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, respirable particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}), and fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), and lead. The primary standards protect public health and the secondary standards protect public welfare. The CAA also requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The objective of each SIP is to attain and maintain the NAAQS for all criteria air pollutants in the state. Areas that are not in attainment of NAAQS for any criteria air pollutant are referred to as nonattainment or maintenance areas. The federal CAA Amendments added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution.

Specifically, Section 176(c) of the CAA (42 USC 7506[c]) requires any entity of the federal government that engages in, supports, or in any way provides financial support for, licenses or permits, or approves any activity to demonstrate that the action conforms to the applicable SIP required under Section 110(a) of the CAA (42 USC 7401[a]) before the action is approved. In this context, conformity involves ensuring that such federal actions are consistent with the SIP's objective to attain and maintain the NAAQS. Each federal agency must determine that any action it proposes conforms with the applicable SIP before the action is taken. This requirement is commonly known as the General Conformity Rule.

On November 30, 1993, EPA promulgated the final general conformity rule at 40 CFR 93 Subpart B for all federal activities except those covered under the transportation conformity rule. The general conformity rule applies to a proposed federal action in a nonattainment or maintenance area of a particular criteria air pollutant if the total of direct and indirect emissions of the relevant criteria pollutant, or its precursors, caused by the proposed action equals or exceeds applicable *de minimis* levels. This step is often referred to as the general conformity applicability analysis. If an applicable *de minimis* level is exceeded, then a full general conformity analysis is needed to make a general conformity determination. A general conformity applicability analysis for the project is provided below.

4.2.2 Affected Environment

EPA designates each county (or portions of counties) in California as attainment, maintenance, or nonattainment based on the area's ability to comply with NAAQS. Areas are designated as attainment for a particular criteria air pollutant if ambient air concentrations of the pollutant (or its precursors) are less than the NAAQS. Areas are designated as nonattainment for a particular criteria air pollutant if ambient air concentrations of the pollutant exceed the NAAQS. Areas previously designated as nonattainment that subsequently demonstrated compliance with the NAAQS are designated as maintenance areas. Table 4-1 shows the designation status of the project area within the SJVAB for each air pollutant.

Table 4-1 San Joaquin Valley Air Basin Attainment Status

Pollutant	Federal Attainment Designation
Ozone (O_3)	Nonattainment (Extreme)
Respirable particulate matter (PM_{10})	Attainment
Fine particulate matter ($PM_{2.5}$)	Nonattainment (Serious)
Carbon monoxide (CO)	Attainment
Nitrogen dioxide (NO_2)	Attainment
Sulfur dioxide (SO_2)	Attainment
Lead (Pb)	No designation

Source: EPA 2022a.

As mentioned above, a general conformity determination is required if a federal action would result in the generation of air pollutants for which the total of direct and indirect emissions equals or exceeds *de minimis* thresholds, shown in Table 4-2. These emission rates are expressed in tons per year and are compared to the total of direct and indirect emissions caused by the project for each calendar year when construction activities would take place.

Table 4-2 De Minimis Thresholds for Determining Applicability of General Conformity Requirements for Federal Actions in the San Joaquin Valley Air Basin

Pollutant	Federal Attainment Designation	General Conformity *De Minimis* Levels (tons per year)[1]
Ozone	Nonattainment (extreme)	10
VOC (as an ozone precursor)	Nonattainment (extreme)	10
NO_X (as an ozone precursor)	Nonattainment (extreme)	10
PM_{10}	Attainment	NA
$PM_{2.5}$	Nonattainment (2012 standard) Nonattainment (moderate) (2006 24-hour standard) Attainment (1997 annual standard)	100
CO	Attainment	NA
NO_2	Attainment	NA
SO_2	Attainment	NA
Pb	No designation	NA

Notes: CO = carbon monoxide; NA = not applicable; NO_x = oxides of nitrogen; NO_2 = nitrogen dioxide; Pb = lead; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less; SO_2 = sulfur dioxide; VOC = volatile organic compound.

1 General conformity *de minimis* levels apply to pollutants for which the San Joaquin Valley Air Basin is in nonattainment.

Source: EPA 2022b.

It should be noted that because ozone is a secondary pollutant (i.e., it is not emitted directly into the atmosphere but is formed in the atmosphere from the photochemical reactions in the presence of sunlight), the applicable *de minimis* level is emissions of ozone precursor pollutants: oxides of nitrogen (NO_X) and volatile organic compounds (VOCs). If the net emissions levels for either NO_X or VOCs would exceed the applicable *de minimis* levels, then the federal action is subject to a general conformity evaluation for ozone.

4.2.3 Environmental Consequences

Construction emissions were estimated based on assumptions outlined in the project description and default model settings using emission factors and methodologies from the CalEEMod emissions model (version 2020.4.0) and emission factors from CARB's EMFAC emissions model (CARB 2021). Construction emissions are summarized in Table 4-3. See attached modeling results for further detail (Appendix B).

Table 4-3 Summary of Construction-Generated Emissions of Criteria Air Pollutants and Precursors

	Emissions (tons/year)			
	ROG[1]	NO_X[1]	PM_{10}	$PM_{2.5}$
2024	0.1	1.0	0.3	0.1
2025	0.2	1.6	0.3	0.1
2026	0.1	1.4	0.4	0.1
De minimis thresholds	*10*	*10*	*NA*	*100*

Notes: tons/year = tons per year; NO_X = oxides of nitrogen; ROG = reactive organic gases; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less.

Refer to Appendix B for detailed assumptions and modeling output files.

1 Emissions reported as ROG from CalEEMod and EMFAC based on CARB's list of ROG emissions. However, EPA has a *de minimis* threshold for VOCs. Most pollutants between CARB's definition of ROG and EPA's definition of VOC overlap. Generally, most ROG emissions are included as a subset of VOCs. Thus, ROG is assumed to be a suitable substitute for VOC for the purposes of this analysis.

Source: Data modeled by Ascent Environmental in 2022.

As shown in Table 4-3, estimated emissions of ozone precursors (i.e., VOCs and NO_X), PM_{10}, and $PM_{2.5}$ are less than the applicable *de minimis* thresholds; therefore, the General Conformity Rule would not apply to the project.

4.3 COASTAL BARRIER RESOURCES ACT

The Coastal Barrier Resources Act (Public Law [PL] 97-348) designated various undeveloped coastal barrier islands, depicted by specific maps, for inclusion in the Coastal Barrier Resources System. Areas so designated were made ineligible for direct or indirect federal financial assistance that might support development, including flood insurance, except for emergency life-saving activities. Exceptions for certain activities, such as fish and wildlife research, are provided, and national wildlife refuges and other otherwise protected areas are excluded from the system. The system includes relatively undeveloped coastal barriers along the Atlantic and Gulf coasts, as well as the Great Lakes and Puerto Rico and the Virgin Islands.

The project and surrounding lands are not located in the system; therefore, compliance with this act is not required.

4.4 COASTAL ZONE MANAGEMENT ACT

The Coastal Zone Management Act (PL 92-583), administered by the National Oceanic and Atmospheric Administration Fisheries Service's (NOAA Fisheries') Office of Ocean and Coastal Resource Management, provides for management of the nation's coastal resources, including the Great Lakes, and balances economic development with environmental conservation.

The act outlines three national programs: the National Coastal Zone Management Program, the National Estuarine Research Reserve System, and the Coastal and Estuarine Land Conservation Program (CELCP). The National Coastal Zone Management Program aims to balance competing land and water issues through state and territorial coastal management programs, the reserves serve as field laboratories that provide a greater understanding of estuaries and how humans impact them, and CELCP provides matching funds to state and local governments to purchase threatened coastal and estuarine lands or obtain conservation easements.

The project and surrounding lands are not located in California's coastal zone, which generally extends 1,000 yards inland from the mean high tide line; therefore, compliance with this act is not required.

4.5 ENDANGERED SPECIES ACT

Pursuant to the federal Endangered Species Act (ESA) (PL 93-205), the US Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration Fisheries Service (NOAA Fisheries) have regulatory authority over federally listed species. Under the ESA, a permit to "take" a listed species is required for any federal action that may harm an individual of that species. "Take" is defined under ESA Section 9 as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Under the ESA, "take" is further defined to include habitat modification or degradation where it would be expected to result in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. ESA Section 7 outlines procedures for federal interagency cooperation to conserve federally listed species and designated critical habitat. Section 7(a)(2) requires federal agencies to consult with USFWS and/or NOAA Fisheries to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species.

As discussed in Section 3.4, "Biological Resources," of this IS/MND, implementing the project would not affect the Central Valley Distinct Population Segment of steelhead, or the southern Distinct Population Segment of green sturgeon; however, the project may affect valley elderberry longhorn beetle. Implementation of Mitigation Measures 3.4-1 and 3.4-2 would reduce any potential project impacts on these species to a less-than-significant level, and take of the species would be avoided. It is anticipated that SWRCB will issue a "not likely to adversely affect" determination based on the intended implementation of these mitigation measures and SWRCB will request and receive a letter of concurrence from USFWS, or the project may participate in the *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan*.

4.6 ENVIRONMENTAL JUSTICE

EO 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" (59 *Federal Register* 7629 [1994]), directs federal agencies to identify and address the disproportionately high and adverse health or environmental effects of their actions on minority and low-income populations to the greatest extent practicable and permitted by law. The EO also directs each federal agency to develop a strategy for implementing environmental justice. EO 12898 is also intended to promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities access to public information and public participation.

The Council on Environmental Quality (CEQ) has oversight of the federal government's compliance with EO 12898. To facilitate compliance, CEQ prepared and issued, in consultation with EPA, Environmental Justice Guidance Under the National Environmental Policy Act (CEQ 1997). According to CEQ's environmental justice guidance, the first step in conducting an environmental justice analysis is to define "minority and low-income populations." According to these guidelines, a minority population is present in a project area if either (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population. By the same rule, a low-income population exists if the project area consists of 50 percent or more people living below the poverty threshold, as defined by the US Census Bureau, or the low-income population percentage of the affected area is meaningfully greater than the poverty percentage of the general population. A definition of "meaningfully greater" is not given by CEQ or EPA, although the Federal Interagency Working Group on Environmental Justice and NEPA Committee (2016) use "10 or 20 percent greater than the reference community" as an example of a reasonable, subjective threshold for comparison. For the purposes of this analysis, "meaningfully greater" was conservatively defined to mean that the affected area has a minority or low-income population percentage that is at least 5 percent greater than that found in the general population.

The second step of an environmental justice analysis requires a finding of whether the project would result in a high or adverse effect. The CEQ guidance indicates that when determining whether the effects are high and adverse, agencies are to consider whether the risks or rates of impact "are significant (as employed by NEPA) or above generally accepted norms" (CEQ 1997) The final step requires a finding as to whether the effect on the minority or low-income population is disproportionately high and adverse. CEQ offers a nonquantitative definition, stating that an effect is disproportionate if it appreciably exceeds the risk or rate experienced by the general population.

The following population characteristics are considered in this analysis:

- race and ethnicity data from the US Census Bureau and
- per capita income as it relates to the federal poverty threshold.

To make a finding that disproportionately high and adverse effects would likely fall on a minority or low-income population, three conditions must be met simultaneously: (1) there must be a minority or low-income population in the affected area, (2) a high and adverse effect must exist, and (3) the effect on the minority or low-income population must be disproportionately high and adverse.

The demographic and economic information presented in this analysis is based on the most recent data from the US Census Bureau 2016–2020 American Community Survey (ACS) 5-Year Estimates and 2020 Decennial Census. Minority and low-income populations are identified by analyzing the demographic and economic characteristics of the affected area and comparing those to the characteristics of the larger community. For the purposes of this analysis, the "affected area," herein referred to as the "environmental justice study area," encompasses the census block groups that make up the project area or that may experience indirect effects from the project (e.g., elevated noise, traffic, and air pollutant levels during project construction). Census block groups are subdivisions of census tracts and are the smallest geographic units for which the US Census Bureau collects data. Census block groups generally have a population size of 600–3,000 people. According to EPA, either the county or the state can be used when considering the characteristics of the "larger community."

Table 4-4 summarizes census tract block groups that make up the environmental justice study area and the larger communities that the census tract block groups are compared against. The project site is entirely within Block Group 1, Census Tract 49.05, which is in San Joaquin County. The block groups that may experience indirect effects from the project are located south of the Stanislaus River, in Stanislaus County: Block Group 1, Census Tract 4.07; Block Groups 1, 2, and 3, Census Tract 3.02; and Block Groups 1 and 2, Census Tract 3.01.

Table 4-4 Environmental Justice Study Area

Environmental Justice Study Area (Affected Area)	County (Larger Community)
Block Group 1, Census Tract 49.05	San Joaquin County
Block Group 1, Census Tract 4.07	Stanislaus County
Block Group 1, Census Tract 3.02	Stanislaus County
Block Group 2, Census Tract 3.02	Stanislaus County
Block Group 3, Census Tract 3.02	Stanislaus County
Block Group 1, Census Tract 3.01	Stanislaus County
Block Group 2, Census Tract 3.01	Stanislaus County

Source: US Census Bureau 2020a.

4.6.1 Demographics

Table 4-4 presents the demographics of the environmental justice study area, San Joaquin County, and Stanislaus County from the US Census 2020 Decennial Census (US Census Bureau 2020b). As shown in Table 4-5, the overall minority population makes up 72 percent of the total population in San Joaquin County and 62 percent of the total population in Stanislaus County. The overall minority population ranged from 41 to 84 percent of the total population in the census block groups that make up the environmental justice study area. The total minority population exceeded 50 percent of the total population in the following five block groups:

- Block Group 1, Census Tract 49.05, San Joaquin County;
- Block Group 1, Census Tract 3.02, Stanislaus County;
- Block Group 2, Census Tract 3.02, Stanislaus County;
- Block Group 1, Census Tract 3.01, Stanislaus County; and
- Block Group 2, Census Tract 3.01, Stanislaus County.

In Block Group 1, Census Tract 49.05 in San Joaquin County, the proportion of people with two or more races exceeded that of the county by 5 percent. In Block Group 1, Census Tract 3.02; Block Group 1, Census Tract 3.01; and Block Group 2, Census Tract 3.01 in Stanislaus County, the proportion of the Hispanic and Latino population exceeded that of the county by 5 percent or greater. In Block Group 1, Census Tract 3.02 and Block Group 1, Census Tract 3.01, the proportion of the overall minority population exceeded that of the county by greater than 5 percent.

4.6.2 Income and Poverty Status

Table 4-6 presents household income, per capita income, and poverty status for the environmental justice study area, San Joaquin County, and Stanislaus County based on the 2016–2020 ACS 5-Year Estimates (US Census Bureau 2020c, US Census Bureau 2020d). The median household income was $68,628 in San Joaquin County and $62,873 in Stanislaus County. The median household income ranged from $33,287 to $201,250 in the census block groups that make up the environmental justice study area. In 2020, the weighted average federal poverty threshold was $13,171 for a household of one person and $26,496 for a household of four people (US Census Bureau 2022).

Table 4-5 Demographics of the Environmental Justice Study Area, San Joaquin County, and Stanislaus County

Race/Ethnicity	Number (Percent of Population)								
	San Joaquin County	Stanislaus County	Block Group 1, Census Tract 49.05, San Joaquin County	Block Group 1, Census Tract 4.07, Stanislaus County	Block Group 1, Census Tract 3.02, Stanislaus County	Block Group 2, Census Tract 3.02, Stanislaus County	Block Group 3, Census Tract 3.02, Stanislaus County	Block Group 1, Census Tract 3.01, Stanislaus County	Block Group 2, Census Tract 3.01, Stanislaus County
White	215,530 (28%)	207,908 (38%)	728 (55%)	434 (59%)	143 (16%)	339 (41%)	562 (52%)	370 (27%)	262 (39%)
Black or African American	56,898 (7%)	14,302 (3%)	2 (<1%)	6 (1%)	7 (1%)	13 (2%)	33 (3%)	11 (1%)	10 (1%)
American Indian and Alaska Native	3,135 (<1%)	2,621 (<1%)	10 (1%)	0 (0%)	0 (0%)	3 (<1%)	1 (<1%)	12 (1%)	6 (1%)
Asian	134,684 (17%)	33,169 (6%)	24 (2%)	35 (5%)	8 (1%)	15 (2%)	19 (2%)	7 (1%)	9 (1%)
Native Hawaiian and Other Pacific Islander	4,977 (1%)	3,713 (1%)	0 (0%)	5 (1%)	3 (<1%)	3 (<1%)	8 (1%)	0 (0%)	0 (<1%)
Some Other Race	4,192 (1%)	2,734 (<1%)	7 (1%)	3 (<1%)	1 (<1%)	7 (1%)	15 (1%)	3 (<1%)	2 (<1%)
Two or More Races	34,092 (4%)	22,453 (4%)	117 (9%)	37 (5%)	11 (1%)	30 (4%)	47 (4%)	41 (3%)	28 (4%)
Hispanic or Latino	325,725 (42%)	265,978 (48%)	426 (32%)	217 (29%)	694 (80%)	417 (50%)	403 (37%)	925 (68%)	352 (53%)
Total minority population	**563,703 (72%)**	**344,970 (62%)**	**586 (65%)**	**303 (41%)**	**724 (84%)**	**488 (59%)**	**526 (48%)**	**999 (73%)**	**407 (61%)**
Total population	**779,233 (100%)**	**552,878 (100%)**	**1,314 (100%)**	**737 (100%)**	**867 (100%)**	**827 (100%)**	**1,088 (100%)**	**1,369 (100%)**	**669 (100%)**

Notes: Cells highlighted in gray indicate census block groups where the proportion of the minority population exceeds that of the county by 5 percent or more.

Sources: US Census Bureau 2020b.

Table 4-6 Income and Poverty Status in the Environmental Justice Study Area, San Joaquin County, and Stanislaus County

Household Income	Number (Percent of Population)								
	San Joaquin County	Stanislaus County	Block Group 1, Census Tract 49.05, San Joaquin County	Block Group 1, Census Tract 4.07, Stanislaus County	Block Group 1, Census Tract 3.02, Stanislaus County	Block Group 2, Census Tract 3.02, Stanislaus County	Block Group 3, Census Tract 3.02, Stanislaus County	Block Group 1, Census Tract 3.01, Stanislaus County	Block Group 2, Census Tract 3.01, Stanislaus County
Less than $10,000	11,555 (5%)	7,518 (4%)	0 (0%)	0 (0%)	4 (2%)	20 (9%)	66 (18%)	47 (10%)	18 (9%)
$10,000 to $14,999	8,550 (4%)	8,042 (5%)	0 (0%)	7 (5%)	22 (9%)	0 (0%)	35 (10%)	11 (2%)	34 (18%)
$15,000 to $24,999	18,487 (8%)	15,035 (9%)	61 (17.2%)	18 (12%)	6 (2%)	34 (15%)	8 (2%)	47 (10%)	17 (9%)
$25,000 to $34,999	19,412 (8%)	15,909 (9%)	53 (14.9%)	7 (5%)	26 (10%)	5 (2%)	0 (0%)	39 (8%)	46 (24%)
$35,000 to $49,999	25,420 (11%)	23,077 (13%)	23 (6.5%)	0 (0%0	62 (25%)	41 (18%)	39 (11%)	115 (25%)	21 (11%)
$50,000 to $74,999	41,134 (18%)	32,518 (19%)	47 (13.2%)	7 (5%)	50 (20%)	35 (15%)	84 (23%)	74 (16%)	21 (11%)
$75,000 to $99,999	30,042 (13%)	23,252 (13%)	48 (13.5%)	0 (0%)	54 (22%)	15 (7%)	37 (10%)	60 (13%)	24 (12%)
$100,000 to $149,999	39,286 (17%)	27,972 (16%)	73 (20.6%)	21 (14%)	0 (0%)	35 (15%)	36 (10%)	42 (9%)	7 (4%)
$150,000 to $199,999	19,412 (8%)	11,539 (7%)	28 (7.9%)	17 (11%)	24 (10%)	16 (7%)	8 (2%)	25 (5%)	0 (0%)
$200,000 or more	17,794 (8%)	10,140 (6%)	22 (6.2%)	77 (50%)	0 (0%)	25 (11%)	50 (14%)	6 (1%)	5 (3%)
Total households	231,092 (100%)	174,826 (100%)	355 (100%)	154 (100%)	248 (100%)	226 (100%)	363 (100%)	466 (100%)	193 (100%)
Median household income	$68,628	$62,873	$62,094	$201,250	$53,167	$65,227	$56,295	$44,414	$33,287
Per capita income	$28,928	$27,225	$35,025	$84,297	$21,911	$44,076	$31,410	$21,067	$17,743
Poverty status – percent of households	13%	13%	13%	5%	11%	16%	36%	14%	34%
Poverty status – percent of individuals	14%	14%	18%	4%	11%	12%	24%	8%	35%

Notes: Cells highlighted in gray indicate census block groups where the proportion of the households and individuals below the poverty level exceeds that of the county by 5 percent or more.

Sources: US Census Bureau 2020c, US Census Bureau 2020d.

None of the census block groups in the environmental justice study area had a median household income below the federal poverty threshold. Approximately 13.7 percent of individuals in San Joaquin County and 13.5 percent of individuals in Stanislaus County were below the poverty level. The proportion of individuals in the census block groups that make up the environmental justice study area that were below the poverty level ranged from 4 to 35 percent.

4.6.3 Impact Evaluation

As described above in Section 4.6.1, the minority population exceeds 50 percent of the total population in five of the census block groups that make up the environmental justice study area. In addition, four of the census block groups that make up the environmental justice study area have minority populations that are meaningfully greater (i.e., 5 percent or more) than that of the respective county. Therefore, for purposes of this analysis, minority populations are present in the project area and in the adjacent areas that may experience indirect effects from the project.

As described above in Section 4.6.2, between 4 and 35 percent of individuals in the census block groups that make up the environmental justice study area were below the poverty level. Therefore, each census block group in the environmental justice study area has fewer than 50 percent of individuals living below the poverty threshold, as defined by the US Census Bureau. However, two of the census block groups in Stanislaus County have percentages of households and individuals that are meaningfully greater (i.e., 5 percent or more) than that of the county. Therefore, for purposes of this analysis, low-income populations are present in areas that may experience indirect effects from the project.

Based on the above discussion, minority and low-income populations have been identified in the environmental justice study area. Temporary construction impacts associated with the project would occur primarily on the WWTP property and private farm roads and existing WWTP roads. Nearby residences could be subject to construction-related impacts described in Sections 3.1 through 3.21 of this IS/MND, including increased noise and traffic. However, these impacts would be short term, and construction would take place when most residents are not expected to be home (i.e., during working hours). In addition, these temporary impacts would be distributed throughout the project area and would affect all communities in the environmental justice study area, regardless of demographic or socioeconomic characteristics. Therefore, project construction would not have a disproportionately high and adverse effect on minority and low-income populations.

The purpose of the project is to upgrade and expand the Riverbank WWTP to accommodate planned growth in the city through 2050 and produce recycled water, which would create a source of high-quality irrigation water that could contribute to greater water balance in the San Joaquin Groundwater Subbasin by replacing some of the groundwater that would otherwise be used for irrigation. After it is operational, the project would improve service for all customers equally by increasing wastewater treatment capacity and efficiency and offsetting the existing use of groundwater on adjacent agricultural lands with the use of recycled water. The project would benefit all communities in the environmental justice study area, regardless of demographic or socioeconomic characteristics. Furthermore, as described in Sections 3.1 through 3.21 of this IS/MND, project operations would not result in substantial adverse effects on humans or on the physical environment. Therefore, project operation would not have a disproportionately high and adverse effect on minority and low-income populations.

4.7 FARMLAND PROTECTION POLICY ACT

The purpose of the federal Farmland Protection Policy Act (FPPA) of 1981 (PL 97-98) is to minimize federal contributions to the conversion of farmland to nonagricultural uses by ensuring that federal programs are administered in a manner compatible with state government, local government, and private programs designed to protect farmland. The Natural Resources Conservation Service (NRCS) is the agency primarily responsible for implementing the FPPA.

US Department of Agriculture (USDA) regulations (7 CFR Part 658) implementing the FPPA require federal agencies to conduct a farmland conversion impact rating (using USDA Form AD-1006) when a project may convert farmlands to nonagricultural uses. This impact rating should be done when the impacts of a project would affect farmlands in the following categories:

- prime farmland: the highest-quality land for food and fiber production having the best chemical and physical characteristics for producing;
- unique farmland: land capable of yielding high value crops, such as citrus fruits and olives; and
- farmlands designated as important by state and local governments, with the approval of the Secretary of Agriculture.

Neither the FPPA nor the regulations apply if:

- the project area does not contain farmland in the categories identified above;
- the project is on prime farmland that is already "committed" to urban development or water storage (applies to prime farmland only; refer to 7 CFR 658.2[a]);
- projects were beyond the planning stage before August 6, 1984; or
- projects involve grants, loans, or mortgage insurance for purchase or rehabilitation of existing structures.

As discussed in Section 3.2, "Agriculture and Forestry Resources," of this IS/MND, the project site is designated as Urban and Built-Up Land (DOC 2018). Project construction and operation would occur within existing developed uses, including under existing private roadways and at the existing WWTP facility. Therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use.

Consultation with NRCS (including submittal of the Farmland Conservation Impact Rating form) does not apply to project sites that do not contain farmland in categories identified above and therefore is not required for the project.

4.8 FISH AND WILDLIFE COORDINATION ACT

Pursuant to 16 USC Section 662(a) of the Fish and Wildlife Coordination Act (FWCA), whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or the stream or other body of water otherwise controlled or modified for any purpose whatever, including navigation and drainage, by any department or agency of the United States, or by any public or private agency under federal permit or license, such department or agency first shall consult with USFWS, and with the head of the agency exercising administration over the wildlife resources of the particular state wherein the impoundment, diversion, or other control facility is to be constructed, with a view to the conservation of wildlife resources by preventing loss of and damage to such resources, as well as providing for the development and improvement thereof in connection with such water resource development. The provisions of Section 662(a) do not apply to those projects involving the impoundment of water where the maximum surface area of such impoundments would be less than 10 acres, nor to activities for or in connection with programs primarily for land management and use carried out by federal agencies with respect to federal lands under their jurisdiction.

As discussed in Section 3.4, "Biological Resources," of this IS/MND, there are no jurisdictional waters on the project site; therefore, implementing the project would not result in the impoundment, diversion, deepening, or modification of any waters.

4.9 FLOODPLAIN MANAGEMENT

EO 13690, "The Federal Flood Risk Management Standard" (January 30, 2015), revises EO 11988, "Floodplain Management" (May 24, 1977), and directs federal agencies to take the appropriate actions to reduce risk to federal investments, specifically to "update their flood-risk reduction standards." The goal of this directive is to improve the resilience of communities and federal assets against the impacts of flooding and recognizes the risks and losses related to climate change and other threats.

The Federal Emergency Management Agency's (FEMA's) Flood Insurance Rate Maps (FIRMs) are used to determine whether properties are located in Special Flood Hazard Areas. The project site is included on FEMA FIRM panels 06077C0690F, 06077C0695F, 06077C0830F, and 06077C0835F (FEMA 2019). As discussed in Section 3.10, "Hydrology and Water Quality," and shown in Figure 3.10-1 in Section 3.10.2 of this IS/MND, portions of the project site are mapped in a Special Flood Hazard Area (100-year flood zone), areas of 0.2 percent annual chance flood (500-year flood zone), and areas of minimal flood hazard (Zone X). However, project features in the Special Flood Hazard Area are limited to the agricultural lands that would receive recycled water following project implementation.

The headworks facility, vactor truck receiving station, electrical and controls building, shop and maintenance building, tertiary treatment facilities, and seasonal storage basins would be located in areas of minimal flood hazard. Project features that would be located within the 500-year flood zone include a temporary staging area, secondary treatment facilities, improved access routes, and underground recycled water distribution pipelines. Because all aboveground buildings and structures would be located outside Special Flood Hazard Areas, implementing the project would not result in additional exposure of people or structures to risk of flooding. The project would have no impact related to a 100-year flood hazard area or risk of flooding.

4.10 MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

In response to growing concern about the status of US fisheries, Congress passed the Sustainable Fisheries Act of 1996 (PL 104-297) to amend the Magnuson-Stevens Fishery Conservation and Management Act (PL 94-265), the primary law governing marine fisheries management in the federal waters of the United States. The Magnuson-Stevens Conservation and Management Act, as amended (USC 180 et seq.), requires that Essential Fish Habitat (EFH) be identified and described in federal fishery management plans. Federal action agencies must consult with NOAA Fisheries on any activity that they fund, permit, or carry out that may adversely affect EFH. NOAA Fisheries is required to provide EFH conservation and enhancement recommendations to the federal action agencies. EFH is defined as those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity.

The project site is in the Upper Stanislaus–Below Goodwin watershed, which is identified as EFH for Chinook salmon. As discussed in Section 3.4, "Biological Resources," of this IS/MND, there are no aquatic features in the project area that would serve as suitable fish habitat. Therefore, the project would have no direct effects on Chinook salmon EFH. The project area is adjacent to the Stanislaus River, which provides suitable habitat for Chinook salmon; however, because of the distance from suitable habitat, construction activities are not likely to result in indirect effects on Chinook salmon EFH, such as increased vibration or polluted runoff. Implementation of the project would not affect fisheries or waters or the substrates necessary for fisheries.

4.11 MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA) (16 USC Section 703 et seq.), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. Under the MBTA, it is unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. The current list of species protected by the MBTA can be found in Title 50 of the CFR, Section 10.13 (50 CFR 10.13). The list includes nearly all birds native to the United States.

As discussed in Section 3.4, "Biological Resources," of this IS/MND, the project site provides potential nesting and foraging habitat for burrowing owl, Swainson's hawk, and white-tailed kite. Suitable nesting habitat for Cooper's hawk, osprey, sharp-shinned hawk, tricolored blackbird, great egret, snowy egret, great blue heron, black-crowned night heron, yellow warbler, and yellow-breasted chat may occur in the riparian habitat adjacent to the project site. In addition, California horned lark may nest in adjacent grasslands, loggerhead shrike in adjacent shrub savannah, and the project site also provides suitable nesting habitat for common bird species. Project activities that occur during the nesting season (February 1–August 31) could result in nest abandonment and the mortality of eggs and chicks. However, implementation of Mitigation Measures 3.4-5 and 3.4-6 would reduce impacts on burrowing owl, Swainson's hawk, white-tailed kite, Cooper's hawk, osprey, sharp-shinned hawk, California horned lark, loggerhead shrike, great egret, snowy egret, great blue heron, black-crowned night heron, tricolored blackbird, yellow warbler, yellow-breasted chat, and common nesting birds to a less-than-significant level because these measures would prevent project-related disturbance during the breeding season and would reduce the likelihood of nest abandonment and loss of eggs or young.

4.12 NATIONAL HISTORIC PRESERVATION ACT

Federal protection of resources is legislated by the National Historic Preservation Act (NHPA) of 1966 as amended by 16 US Code 470, the Archaeological Resource Protection Act of 1979, and the Advisory Council on Historical Preservation. These laws and organizations maintain processes for determining the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP). Federal and federally sponsored programs and projects are reviewed pursuant to Section 106 of the NHPA. Section 106 requires federal agencies to consider the effects of proposed federal undertakings on historic properties. The NHPA requires federal agencies to initiate consultation with the State Historic Preservation Officer (SHPO) as part of the Section 106 review process.

4.12.1 Determination of Effects

The Stanislaus River Bridge (P-39-000564/P-50-001735) is an NRHP-eligible historic property. Although this bridge is located on the project site, project activities (specifically construction of Pipeline B) would be limited to the roadway beneath the bridge. No part of the project would demolish, relocate, or alter the bridge, or its immediate surroundings, such that the significance of the historic property would be materially impaired. Because the bridge would not be altered, the project would have no adverse effect on the historic property (Ascent Environmental 2022).

SWRCB will initiate consultation with the SHPO with a finding of no adverse effect on historic properties—a finding that the project would have no significant impact on properties listed, or eligible for listing, on the NRHP. It is anticipated that the SHPO will concur with this finding. However, pursuant to the regulations at 36 CFR Section 800.5(c), the SHPO has 30 days from receipt to review an agency finding. Therefore, the project would not be implemented until the Section 106 process is complete. Upon completion of the Section 106 process and implementation of the project in the event of a post-review discovery, SWRCB would follow the procedures outlined at 36 CFR Section 800.13.

4.13 PROTECTION OF WETLANDS

The purpose of EO 11990 (May 24, 1977) is to "minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands." To meet these objectives, EO 11990 requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. EO 11990 applies to the acquisition, management, and disposition of federal lands and facilities construction and improvement projects that are undertaken, financed, or assisted by federal agencies, as well as federal activities and programs affecting land use, including water and related land resources planning, regulation, and licensing activities.

As discussed in Section 3.4, "Biological Resources," of this IS/MND, no potentially jurisdictional wetlands or other waters of the United States and/or state are located within 50 feet of the access road or pipeline alignment or within the existing WWTP. Furthermore, no indirect effects on state- or federally protected wetlands are anticipated, because the project would employ water quality BMPs to control runoff from ground-disturbing activities, and the application of recycled water would occur at agronomic rates and using methods that are the same as existing conditions. Therefore, the project would have no impact on state- or federally protected wetlands.

4.14 RIVERS AND HARBORS ACT

If a project requires the construction of any structure in or over a navigable water of the United States, action under Section 10 of the Rivers and Harbors Act (Section 10, 33 USC Section 403) is triggered, regardless of whether the applicant is pursuing federal funding. In addition, structures or work outside the defined area for a navigable water of the United States could trigger the need for a Section 10 permit if the structure or work would affect the course, location, or condition of the water body. A Section 10 permit is issued by the Secretary of the Army through the US Army Corps of Engineers. The applicant will initiate the process of obtaining a Section 10 permit itself and will supply a copy to SWRCB.

The project would not require construction of any structure in or over a navigable water of the United States; therefore, compliance with the Rivers and Harbors Act would not be applicable.

4.15 SAFE DRINKING WATER ACT AND SOLE SOURCE AQUIFER PROTECTION

The Safe Drinking Water Act (42 USC Section 300f et seq.) was established to protect the quality of drinking water in the United States. This law focuses on all waters actually or potentially designed for drinking use, whether from aboveground or underground sources.

The act authorizes EPA to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary (health-related) standards. The 1996 amendments to the act require that EPA consider a detailed risk and cost assessment and best available peer-reviewed science when developing these standards. State governments, which can be approved to implement these rules for EPA, also encourage attainment of secondary (nuisance-related) standards. Under the act, EPA also establishes minimum standards for state programs to protect underground sources of drinking water from endangerment by underground injection of fluids.

The project site is not within a sole source aquifer (SSA). The nearest SSAs are the Santa Margarita, Scotts Valley SSA, approximately 72 miles southwest of the project site, and the Fresno County Aquifer SSA, approximately 77 miles southeast of the project site (EPA 2020). In addition, the recycled water from the project would not be designated for drinking use, and the project would have no adverse effect on any public water systems or other drinking water sources.

4.16 WILD AND SCENIC RIVERS ACT

The Wild and Scenic Rivers Act (16 USC Section 1271 et seq.) established a National Wild and Scenic Rivers System for the protection of rivers with important scenic, recreational, fish and wildlife, and other values. Rivers are classified as wild, scenic, or recreational. The act designates specific rivers for inclusion in the system and prescribes the methods and standards by which additional rivers may be added.

No designated wild and scenic rivers are located in the project area. The nearest designated wild and scenic river is a section of the Tuolumne River located approximately 35 miles northeast of the project site (US Forest Service 2016). This section of the Tuolumne River is located upstream of the project site and is in a watershed separate from watershed in which the project site is located. Therefore, the project would not affect a wild and scenic river, river segments, or the adjacent land.

This page intentionally left blank.

5 REFERENCES

1 Introduction

State Water Resources Control Board. 2017 (April). *State Environmental Review Process for the State Water Resources Control Board Clean Water State Revolving Fund Program*. Sacramento, CA.

SWRCB. *See* State Water Resources Control Board.

2 Project Description

California Regional Water Quality Control Board – Central Valley Region. 2019 (February). *The Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin River Basin*. Fifth edition. Revised February 2019 (with approved amendments). Sacramento, CA.

———. 2020. Resolution R5-2020-0057: Revisions to the Amendments of the Water Quality Control Plans for the Sacramento River and San Joaquin River Basins and the Tulare Lake Basin Plan to Incorporate a Central Valley-Wide Salt and Nitrate Control Program. Sacramento, CA.

City of Riverbank. 2022. Statistics | Riverbank, CA. Available: https://www.riverbank.org/256/Statistics. Accessed April 20, 2022.

CVRWQCB. *See* California Regional Water Quality Control Board – Central Valley Region.

Kjeldsen, Sinnock, & Neudeck, Inc. 2022a (June 11). *Existing and Future Land Use and Flows and Loads*. West Sacramento, CA. Technical memorandum to Michael Riddell, Public Works Director, City of Riverbank, Riverbank, CA.

———. 2022b (January). *City of Riverbank Recycled Water Use Study*. West Sacramento, CA. Prepared for City of Riverbank.

Kjeldsen, Sinnock, & Neudeck, Inc., and Brown and Caldwell. 2022 (January). *City of Riverbank Recycled Water Production Study*. West Sacramento, CA. Prepared for City of Riverbank.

KSN. *See* Kjeldsen, Sinnock, & Neudeck, Inc.

KSN and BC. *See* Kjeldsen, Sinnock, & Neudeck, Inc. and Brown and Caldwell.

Whittlesey, Steven. Civil Engineer. Kjeldsen, Sinnock, Neudeck, West Sacramento, CA. June 15, 2022—email to Andrea Shephard of Ascent Environmental regarding project-related construction and operations assumptions.

3 Environmental Checklist

Ascent Environmental. 2022a. *Aquatic Resources Delineation Report for the City of Riverbank Regional Recycled Water Project*. City of Riverbank, San Joaquin County. Sacramento, CA. Prepared for the City of Riverbank.

———. 2022b. *Cultural Resources Inventory and Assessment Report for the Riverbank Regional Recycled Water Project, City of Riverbank, San Joaquin County*. Sacramento, CA. Prepared for City of Riverbank.

Bryant, W. A., and E. W. Hart. 2007. *Fault Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps*. Interim revision. California Geological Survey Special Publications 42.

CalEPA. *See* California Environmental Protection Agency.

CAL FIRE. *See* California Department of Forestry and Fire Protection.

California Air Resources Board. 2016. Ambient Air Quality Standards. Available: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf. Accessed July 2022.

———. 2017 (November). California's 2017 Climate Change Scoping Plan. Available: https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed July 2022.

———. 2020. 2020 State Area Designations - Appendix C: Maps and Tables of Area Designations for State and National Ambient Air Quality Standards. Available: https://ww2.arb.ca.gov/rulemaking/2021/sad2020. Accessed July 2022.

———. 2022a. Diesel Exhaust and Health. Available: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed August 2022.

———. 2022b. Draft 2022 Scoping Plan Update. Available: https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf. Accessed August 2022.

California Department of Conservation. 2016. *Mines Online*. Available: https://maps.conservation.ca.gov/mol/index.html. Accessed June 14, 2022.

———. 2018. Rural Land Mapping Edition San Joaquin County Important Farmland 2018. Available: https://www.conservation.ca.gov/dlrp/fmmp/Pages/SanJoaquin.aspx. Accessed July 5, 2022.

California Department of Finance. 2022. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2022. Available: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/. Accessed July 5, 2022.

California Department of Fish and Game. 2012 (March 7). *Staff Report on Burrowing Owl Mitigation*.

California Department of Forestry and Fire Protection. 2019. (January) *Strategic Plan 2019.* Available: https://www.fire.ca.gov/media/bo2fdzfs/strategicplan2019-final.pdf. Accessed July 6, 2022.

———. 2022a. State Responsibility Area Viewer. Available: https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=468717e399fa4238ad86861638765ce1. Retrieved July 6, 2022.

———. 2022b. Fire Hazard Severity Zone Viewer. Available: https://egis.fire.ca.gov/FHSZ/. Retrieved July 6, 2022.

California Department of Resources Recycling and Recovery. 2019. *SWIS Facility/Site Activity Details, Forward Landfill, Inc. (39-AA-0015).* Available: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1434?siteID=3106. Accessed July 11, 2022.

California Department of Toxic Substances Control. 2022. (July). EnviroStor – Hazardous Waste and Substances Site List. Available: https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=riverbank+. Retrieved July 7, 2022.

California Department of Transportation. 2008. 2008 California Motor Vehicle Stock, Travel and Fuel Forecast. Available: rosap.ntl.bts.gov. Accessed July 2022.

———. 2018. State Scenic Highway System Map. Available: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed July 5, 2022.

———. 2022. *Scenic Highways - Frequently Asked Questions.* Available: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways/lap-liv-i-scenic-highways-faq2. Accessed July 5, 2022.

California Department of Water Resources. 2020 (January). *California's Critically Overdrafted Groundwater Basins.* Available: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Basin-Prioritization/Files/CODBasins_websitemapPAO_a_20y.pdf. Accessed June 15, 2022.

California Energy Commission. 2008 (February). *2008 Update Energy Action Plan*. Available: https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-_Electricity_and_Natural_Gas/2008%20Energy%20Action%20Plan%20Update.pdf. Accessed July 2022.

———. 2017. Clean Energy and Pollution Reduction Act - SB 350. Available: https://www.energy.ca.gov/rules-and-regulations/energy-suppliers-reporting/clean-energy-and-pollution-reduction-act-sb-350. Accessed August 2022.

———. 2019. 2019 California Energy Efficiency Action Plan Final Staff Report. Available: https://ww2.energy.ca.gov/business_meetings/2019_packets/2019-12-11/Item_06_2019%20California%20Energy%20Efficiency%20Action%20Plan%20(19-IEPR-06).pdf. Accessed July 2022.

———. 2021a. 2020 Power Content Label. Available: https://www.energy.ca.gov/filebrowser/download/3882. Accessed July 28.

———. 2021b. 2021 Integrated Energy Policy Report. Available: https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report. Accessed July 8, 2022.

———. 2022. 2021 Total System Electric Generation. Available: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation#:~:text=Total%20generation%20for%20California%20was,from%2090%2C208%20GWh%20in%202020). Accessed July 28, 2022.

California Geological Survey. 2015. *Geologic Map of California.* Available: https://maps.conservation.ca.gov/cgs/gmc/. Accessed June 28, 2022.

———. 2021 (September). *Earthquake Zones of Required Investigations.* Available: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed June 15, 2022.

California Native Plant Society. 2022. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Available: http://www.rareplants.cnps.org. Accessed May 5, 2022.

California Natural Diversity Database. 2022a. Results of electronic records search. California Department of Fish and Wildlife, Biogeographic Data Branch. Sacramento. Accessed April 29, 2022.

———. 2022b. Wildlife Corridors – San Joaquin Valley [ds 423]. Available: htts:// www.dfg.ca.gov/biogeodata/bios/.www.dfg.ca.gov/biogeodata/bios/. Accessed June 30, 2022.

California Public Utilities Commission. 2008 (September). *California Long Term Energy Efficiency Strategic Plan.* Available: https://www.cpuc.ca.gov/-/media/cpuc-website/files/legacyfiles/e/5305-eestrategicplan.pdf. Accessed July 28, 2022.

CalRecycle. *See* California Department of Resources Recycling and Recovery.

Caltrans. *See* California Department of Transportation.

CARB. *See* California Air Resources Board.

CDFG. *See* California Department of Fish and Game.

CEC. *See* California Energy Commission.

Central Valley Regional Water Quality Control Board. 2019 (February). *The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region*. Fifth edition. The Sacramento River Basin and the San Joaquin River Basin. Available: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201902.pdf. Accessed June 16, 2022.

Central Valley RWQCB. *See* Central Valley Regional Water Quality Control Board.

CGS. *See* California Geological Survey.

City of Riverbank. 2009. *City of Riverbank General Plan 2005-2025*. Available: https://www.riverbank.org/DocumentCenter/View/236/2005-2025-Riverbank-General-Plan-Adopted-April-2009-. Accessed August 4, 2022.

———. 2021 (October). *2020 Urban Water Management Plan.* Prepared by Kjeldsen, Sinnock & Neudeck, Inc., West Sacramento, CA. Available: https://www.riverbank.org/DocumentCenter/View/2817/Final-CoR-UWMP-2020?bidId=. Accessed July 19, 2022.

———. 2022 (January). *City of Riverbank Recycled Water Use Study.* Prepared by Kjeldsen, Sinnock & Neudeck, Inc., West Sacramento, CA.

CNDDB. *See* California Natural Diversity Database.

CNPS. *See* California Native Plant Society.

CPUC. *See* California Public Utilities Commission.

DOC. *See* California Department of Conservation.

DOF. *See* California Department of Finance.

DTSC. *See* California Department of Toxic Substances Control.

DWR. *See* California Department of Water Resources.

Eastern San Joaquin Groundwater Authority. 2022 (June). *Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan.* Adopted November 2019; revised June 2022. Available: https://www.sjgov.org/docs/default-source/public-works-documents/water-resources/final-esj-revised-gsp_june2022_clean.pdf?sfvrsn=675b059b_5. Accessed July 8, 2022.

EIA. *See* US Energy Information Administration.

EPA. *See* US Environmental Protection Agency.

ESJGA. *See* Eastern San Joaquin Groundwater Authority.

Federal Emergency Management Agency. 2009 (October). *FEMA's National Flood Hazard Layer (NFHL) Viewer.* Available: https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=-120.98145532577335,37.72935248247626,-120.89837121932813,37.763286884202145. Accessed June 15, 2022.

Federal Highway Administration. 2004. Traffic Noise Model Version 2.5. Available: https://www.fhwa.dot.gov/environment/noise/traffic_noise_model/tnm_v25/. Accessed June 2022.

———. 2006 (January). Roadway Construction Noise Model User's Guide. Available: https://www.placer.ca.gov/DocumentCenter/View/8271/FHWA-2006-Roadway-Construction-Noise-Model-User-Guide-PDF. Accessed June 2022.

Federal Interagency Committee on Noise. 1992 (August). *Federal Agency Review of Selected Airport Noise Analysis Issues*. Available: https://nwtteis.com/portals/nwtteis/files/references/FICON_1992_Federal_Agency_Review.pdf. Accessed June 2022.

FEMA. *See* Federal Emergency Management Agency.

FHWA. *See* Federal Highway Administration.

FICON. *See* Federal Interagency Committee on Noise.

FTA. *See* Federal Transit Administration.

Governor's Office of Planning and Research. 2017. "General Plan Guidelines - Appendix D - California." Available: https://www.opr.ca.gov/docs/OPR_Appendix_D_final.pdf. Accessed August 2022.

———. 2018 (December). *Technical Advisory on Evaluating Transportation Impacts in CEQA*. Available: http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf. Accessed August 5, 2022.

Governor's Office of Planning and Research, California Energy Commission, and California Natural Resources Agency. 2019. California's Fourth Climate Change Assessment Statewide Summary Report. Available:https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf. Accessed August 5, 2022.

Intergovernmental Panel on Climate Change. 2014. Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Available: https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf. Accessed August 5, 2022.

IPCC. *See* Intergovernmental Panel on Climate Change.

Kjeldsen, Sinnock, & Neudeck, Inc. 2022 (January). *City of Riverbank Recycled Water Use Study*. West Sacramento, CA. Prepared for City of Riverbank.

Kjeldsen, Sinnock, & Neudeck, Inc., and Brown and Caldwell. 2022 (January). *City of Riverbank Recycled Water Production Study*. West Sacramento, CA. Prepared for City of Riverbank.

KSN. *See* Kjeldsen, Sinnock, & Neudeck, Inc.

KSN and BC. *See* Kjeldsen, Sinnock, & Neudeck, Inc. and Brown and Caldwell.

National Highway Traffic and Safety Administration. 2020 (March 31). NHTSA and EPA Finalize CAFE and Carbon Dioxide Standards for Model Years 2021 – 2026. Available: https://www.nhtsa.gov/corporate-average-fuel-economy/safe. Accessed July 2022.

National Oceanic and Atmospheric Administration. 2002. "Endangered and Threatened Species; Designation of Critical Habitat for Seven Evolutionary Significant Units of Pacific Salmon and Steelhead in California." Final Rule. *Federal Register* 70: 52488 – 52627.

———. 2022. Protected Resources APP. Critical Habitat Steelhead (California Central Valley DPS). Available: https://www.webapps.nwfsc.noaa.gov/portal/apps/webappviewer/index.html?id=7514c715b8594944a6e468dd25aaacc9. Accessed: May 12, 2022.

NHTSA. *See* National Highway Traffic Safety Administration.

NOAA. *See* National Oceanic and Atmospheric Administration.

NRCS. *See* US Natural Resources Conservation Service.

OEHHA. *See* Office of Environmental Health Hazard Assessment.

Office of Environmental Health Hazard Assessment. 2003 (August). *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments.* Available: https://www.cityofdavis.org/home/showpublisheddocument/4231/635803240370600000. Accessed August 8, 2022.

OPR. *See* Governor's Office of Planning and Research.

OPR *et al*. *See* Governor's Office of Planning and Research, California Energy Commission, and California Natural Resources Agency .

River Partners. 2007 (May 10). *VELB Habitat and Colonization of Remnant and Planted Elderberry along the Stanislaus and San Joaquin Rivers*. Prepared for US Bureau of Reclamation.

San Joaquin Council of Governments. 2000 (November 14). *San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP)*.

———. 2022. Online Map of Habitat Preserves - San Joaquin County. Available: https://www.google.com/maps/d/viewer?mid=1zrnfC_ORv1A-mzOREHQcDjPWtPiJQr2T&hl=en&ll=37.79088061332161%2C-120.99689174174806&z=12 Accessed June 30, 2022.

San Joaquin County. 1992 (July). *IV.B Extractive Resources.* Available: https://www.sjgov.org/commdev/cgi-bin/cdyn.exe/handouts-planning_GP-V3-IV-B?grp=handouts-planning&obj=GP-V3-IV-B#:~:text=The%20primary%20extractive%20resources%20in,County%20to%20a%20lesser%20extent. Accessed June 14, 2022.

———. 2017a. (December). *San Joaquin County General Plan Policy Document.* Available: https://www.sjgov.org/commdev/cgi-bin/cdyn.exe/file/Planning/General%20Plan%202035/GENERAL%20PLAN%202035.pdf. Accessed June 14, 2022.

———. 2017b. *San Joaquin County Local Hazard Mitigation Plan – Revised 2017.* Available: https://www.sjgov.org/docs/default-source/office-of-emergency-services-documents/lhmp/local-hazard-migration-plan.pdf?sfvrsn=b92c072_11. Accessed July 15, 2022.

———. 2019. San Joaquin County Zoning. Available: https://gisweb.ci.manteca.ca.us/portal/home/item.html?id=4c108f9a82db4f239bc12e652a0291f5. Accessed July 5, 2022.

———. 2022 (February). *San Joaquin County Emergency Operations Plan.* Office of Emergency Services. Available: https://www.sjgov.org/docs/default-source/office-of-emergency-services-documents/emergency-plans/2022-sjc-emergency-operations-plan.pdf. Accessed July 15, 2022.

San Joaquin Valley Air Pollution Control District. 2015. *Guide for Assessing and Mitigating Air Quality Impacts*. Available: http://www.sjvapcd.dst.ca.us/transportation/GAMAQI.pdf. Accessed July 23, 2022.

———. 2022 (April 29). *Best Available Control Technology (BACT) Requirements for Diesel-Fired Emergency IC Engines > 50 bhp Powering Electrical Generators*. Available: https://www.valleyair.org/busind/pto/bact/BACT-Guideline-3.1.1.pdf. Accessed July 2022.

San Joaquin Valley Gateway. 2015. San Joaquin County Williamson Act Parcels. Available: https://sjvp.databasin.org/maps/new/#datasets=a32f8f44b4524b07b1861e779a0857c0. Accessed July 5, 2022.

SJCOG. *See* San Joaquin Council of Governments.

SJVAPCD. *See* San Joaquin Valley Air Pollution Control District.

SJV Gateway. *See* San Joaquin Valley Gateway.

Society of Vertebrate Paleontology. 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources.* Available: https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdf. Accessed July 8, 2022.

South San Joaquin Irrigation District. 2021 (March). *2020 Agricultural Water Management Plan.* Available: https://www.ssjid.com/wp-content/uploads/2020-Ag-Water-Management-Plan.pdf. Accessed July 11, 2022.

SSJID. *See* South San Joaquin Irrigation District.

Stanislaus County. 2018 (November 15). Modesto City-County Airport, Oakdale Municipal Airport, Crows Landing Airport – Airport Land Use Compatibility Plan. Prepared by Stanislaus County Planning and Community Development Department, Angela Freitas, Director for the Stanislaus County Airport Land Use Commission. Available: https://www.stancounty.com/planning/agenda-aluc/Revised06_04_2020.pdf. Accessed August, 2022.

State Water Resources Control Board. 2021 (January). *2018 Integrated Report for Clean Water Act Sections 305(b) and 303(d)*. Adopted on October 20, 2020. Available: https://www.waterboards.ca.gov/water_issues/programs/tmdl/2018state_ir_reports_final/102020_6_final_stffrpt.pdf. Accessed June 16, 2022.

———. 2022. GeoTracker. Available: https://geotracker.waterboards.ca.gov/map/?global_id=WDR100035552. Retrieved July 7, 2022.

SWRCB. *See* State Water Resources Control Board.

United Nations. 2015. Paris Agreement. Available: https://unfccc.int/sites/default/files/english_paris_agreement.pdf. Accessed July 2022

USDA. *See* US Department of Agriculture.

US Energy Information Administration. 2022. California Energy Consumption by End-Use Sector, 2020. Last updated March 17, 2022. Available: https://www.eia.gov/state/?sid=CA#tabs-2. Accessed July 28, 2022.

US Environmental Protection Agency. 2018. Criteria Air Pollutants homepage. Available: https://www.epa.gov/criteria-air-pollutants. Accessed July 2022

———. 2019. *EPA Finalizes Affordable Clean Energy Rule, Ensuring Reliable, Diversified Energy Sources while Protecting our Environment*. Available: https://www.epa.gov/newsreleases/epa-finalizes-affordable-clean-energy-rule-ensuring-reliable-diversifiedenergy. Accessed August 5, 2022.

———. 2022. Greenbook - Criteria Pollutant Nonattainment Summary Report. Available: https://www3.epa.gov/airquality/greenbook/ancl3.html. Accessed July 27, 2022.

US Fish and Wildlife Service. 2017a. *Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle* (Desmocerus californicus dimorphus). Sacramento, CA.

———. 2017b. *Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander* (Ambystoma californiense). Pacific Southwest Region. Sacramento, CA.

USFWS. *See* US Fish and Wildlife Service.

US Natural Resources Conservation Service. 1988. *Soil Survey of San Joaquin County, California.* Available: https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA077/0/san%20joaquin.pdf. Accessed: June 15, 2022.

Volpe, J. A. 2018 (September). *Transit Noise and Vibration Impact Assessment Manual*. Federal Transportation Administration. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed June 2022.

Whittlesey, Steven. Civil engineer. Kjeldsen, Sinnock, Neudeck, West Sacramento, CA. June 15, 2022—email to Andrea Shephard of Ascent Environmental regarding project-related construction and operations assumptions.

4 Compliance with Federal Regulations

Ascent Environmental. 2022. *Cultural Resources Inventory and Assessment Report for the Riverbank Regional Recycled Water Project, City of Riverbank, San Joaquin County*. Sacramento, CA. Prepared for City of Riverbank.

California Air Resources Board. 2021. EMission FACtor Model (EMFAC 2021). Available: https://arb.ca.gov/emfac/. Accessed August 2022.

California Department of Conservation. 2018. Rural Land Mapping Edition San Joaquin County Important Farmland 2018. Available: https://www.conservation.ca.gov/dlrp/fmmp/Pages/SanJoaquin.aspx. Accessed July 5, 2022.

CARB. *See* California Air Resources Board.

CEQ. *See* Council on Environmental Quality.

Council on Environmental Quality. 1997 (December 10). *Environmental Justice Guidance Under the National Environmental Policy Act*. Executive Office of the President, Washington, D.C.

DOC. *See* California Department of Conservation.

EPA. *See* US Environmental Protection Agency.

Federal Emergency Management Agency. 2009 (October). FEMA's National Flood Hazard Layer (NFHL) Viewer. Available: https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=-120.98145532577335,37.72935248247626,-120.89837121932813,37.763286884202145. Accessed June 15, 2022.

Federal Interagency Working Group on Environmental Justice and NEPA Committee. 2016 (March). Promising Practices for EJ Methodologies in NEPA Reviews. Available: https://www.epa.gov/sites/default/files/2016-05/documents/iwg_promising_practices_final_5-16-2016.pdf. Accessed June 17, 2022.

FEMA. *See* Federal Emergency Management Agency.

US Census Bureau. 2020a. Explore Census Data. Available: https://data.census.gov/cedsci/. Accessed June 17, 2022.

———. 2020b. Hispanic or Latino, and not Hispanic or Latino by race, 2020 Decennial Redistricting Data. Retrieved from: https://data.census.gov/cedsci/. Accessed June 17, 2022.

———. 2020c. Household income in the past 12 months (in 2020 inflation-adjusted dollars), 2016-2020 American Community Survey 5-year estimates. Retrieved from: https://api.census.gov/data/2020/acs/acs5/subject. Accessed June 17, 2022.

———. 2020d. Poverty Status in the past 12 months, 2016-2020 American Community Survey 5-year estimates. Retrieved from: https://api.census.gov/data/2020/acs/acs5/subject. Accessed June 17, 2022.

———. 2022. Poverty Thresholds for 2020 by Size of Family and Number of Related Children under 18 Years. Available: https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html. Accessed June 17, 2022.

US Environmental Protection Agency. 2008 (April). *Environmental Review Guide for Special Appropriation Grants*. Available: https://www.epa.gov/sites/default/files/2014-08/documents/environmental-review-guide-grants-pg.pdf. Accessed August 2, 2022.

———. 2020. Sole Source Aquifers. Available: https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b. Accessed June 16, 2022.

———. 2022a (July 31). Details of Criteria Pollutant Nonattainment Area Summary Report. Available: https://www3.epa.gov/airquality/greenbook/ancl2.html. Accessed August 2022.

———. 2022b (July 20). General Conformity De Minimis Tables. Available: https://www.epa.gov/general-conformity/de-minimis-tables. Accessed: August 2022.

US Forest Service. 2016 (November). National Wild and Scenic Rivers System. Available: https://www.rivers.gov/documents/nwsrs-map.pdf. Accessed June 16, 2022.

6 REPORT PREPARERS

City of Riverbank (Lead Agency and Applicant)

Marisela Garcia .... City Manager
Michael Riddell .... Director of Public Works

KSN (Civil Engineer)

Neal Colwell, PE .... Principal Engineer
Steven Whittlesey, PE .... Project Engineer
David Carr .... Construction Manager

Ascent Environmental (CEQA Compliance)

Sydney Coatsworth, AICP .... Principal-in-Charge
Andreas Shephard, PhD .... Project Manager, Introduction, Project Description
Reida Khan .... Aesthetics, Agriculture and Forestry Resources, Hazards and Hazardous Materials, Land Use and Planning, Wildfire
Nicole Greenfield .... Geology, Hydrology and Water Quality, Minerals, Utilities and Service Systems, Mandatory Findings, Compliance with Federal Laws and Regulations
Chris Mundhenk .... Population and Housing, Public Services, Recreation
Matt Brehmer .... Air Quality, Energy, Greenhouse Gas Emissions
Matt McFalls .... Air Quality, Energy, and Greenhouse Gas Emissions Technical Reviewer
Ted Thayer .... Biological Resources
Hannah Weinberger .... Biological Resources
Josh Boldt .... Biological Resources Technical Reviewer
Alta Cunningham .... Cultural Resources, Tribal Cultural Resources
Emilie Zelazo, RPA .... Cultural Resources, Tribal Cultural Resources
Abdul Khan .... Noise
Dimitri Antoniou, AICP .... Noise Technical Reviewer
Jazmin Amini .... Transportation
Zach Miller, AICP .... Transportation Technical Reviewer
Jim Merk .... Technical Editor
Lisa Merry .... GIS Specialist
Brian Perry .... Graphic Specialist
Corey Alling .... Graphic Specialist
Gayiety Lane .... Publishing Specialist
Michele Mattei .... Publishing Specialist

This page intentionally left blank.

Appendix A

Project Construction Assumptions

TABLE 1							
Construction Phase	**Estimated Start Date**	**Estimated End Date**	**Duration in Weeks**	**Duration Calendar Days**	**Duration Working Days**	**Number of Workers per day (8 hrs/day)**	**Equipment List: Total # of equipment for phase and hours per equipment per day – Tier 4?**
General Summary: Overall Construction Construction Management Staff	10/1/2024	12/1/2026	113	791	566	10	Assumed 8 Hours / Day Tier 4 Off Road - Yes On Road - No
Mobilization	10/1/2024	10/7/2024	1	6	4	6	2 Pickup Trucks 2 Utility Trucks 1 All Terrain Fork Lift
Construct Haul Road	10/7/2024	10/22/2024	2	15	11	6	2 Pickup Trucks 1 Water Truck 1 140 Motor Grader 1 950 Wheel Loader
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	4	30	21	5	1 Pickup Truck 1 Utility Truck 3 Pumps - T4 No 1 All Terrain Fork Lift
Utility Locating / Potholing	10/7/2024	10/21/2024	2	14	10	5	1 Pickup Truck 1 Utility Truck 1 Vacuum Truck 1 Back Hoe
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	3	20	14	6	1 Pickup Truck 1 Utility Truck 1 Dump truck 1 Back Hoe 1 Water Truck
Sludge Handling T4 to P3	12/1/2024	12/21/2024	3	20	14	12	2 Pickup Truck 4 657 Scrapers 2 Dump Trucks 2 LGP D6 Dozers 1 Water Truck 1 140 Motor Grader
Mass Excavation	12/21/2024	1/20/2025	4	30	21	12	2 Pickup Trucks 2 Dump Trucks 4 657 Scrapers 2 LGP D6 Dozers 1 Water Truck 1 140 Motor Grader
Rough Grading	1/20/2025	2/4/2025	2	15	11	8	2 Pickup Trucks 2 623 Scrapers 2 LGP D6 Dozers 1 815 Compactor 1 Water Truck 1 140 Motor Grader
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	4	30	21	12	2 Pickup Trucks 1 Service Truck 1 Water Truck 1 Dump Truck 2 320 Excavator 1 950 Wheel Loader 1 All Terrain Fork Lift
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	38	265	189	10	2 Pickup Trucks 1 All Terrain Crane 1 All Terrain Fork Lift
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2	14	10	8	2 Pickup Trucks 2 623 Scrapers 1 LGP D6 Dozer 1 815 Compactor 1 320 Excavator
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	2	14	10	5	2 Pickup Trucks 1 Backhoe 1 Dump Truck
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	29	200	143	8	2 Pickup Trucks 1 All Terrain Crane 1 All Terrain Fork Lift
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	1	10	7	8	2 Pickup Trucks 1 623 Scraper 1 LGP D6 Dozer 1 815 Compactor 1 320 Excavator 1 Water Truck
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	11	75	54	5	2 Pickup Trucks 1 Utility Truck 1 All Terrain Fork Lift
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	11	75	54	6	2 Pick Up Trucks 1 Boom Truck 1 All Terrain Fork Lift
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2	14	10	5	2 Pickup Trucks 1 950 Wheel Loader 1 320 Excavator 1 Water Truck

TABLE 1							
Construction Phase	**Estimated Start Date**	**Estimated End Date**	**Duration in Weeks**	**Duration Calendar Days**	**Duration Working Days**	**Number of Workers per day (8 hrs/day)**	**Equipment List: Total # of equipment for phase and hours per equipment per day – Tier 4?**
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	11	75	54	8	2 Pickup Trucks 1 All Terrain Fork Lift 1 315 Excavator 1 Dump Truck 1 Water Truck
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	9	60	43	5	1 Pickup Truck 1 Backhoe 1 Dump Truck
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	36	250	179	5	1 Pickup Truck 1 Boom Truck 1 All Terrain Fork Lift
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	9	60	43	4	1 Pickup Truck 1 All Terrain Fork Lift
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	31	220	157	6	2 Pickup Trucks 1 All Terrain Crane
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	1	10	7	4	1 Pickup Truck 1 315 Excavator 1 Water Truck
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	4	30	21	8	2 Pickup Trucks 1 All Terrain Fork Lift 1 315 Excavator 1 Dump Truck 1 Water Truck
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	3	18	13	8	2 Pickup Trucks 2 320 Excavator 1 Water Truck 1 950 Wheel Loader 1 Dump Truck 1 All Terrain Fork Lift
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	3	18	13	8	2 Pickup Trucks 2 320 Excavator 1 Water Truck 1 950 Wheel Loader 1 Dump Truck 1 All Terrain Fork Lift
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	26	180	129	6	2 Pick Up Trucks 1 Boom Truck 1 All Terrain Fork Lift
Construct UV Disinfection Facility	7/18/2026	10/16/2026	13	90	64	6	2 Pick Up Trucks 1 Boom Truck 1 All Terrain Fork Lift
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	11	80	57	6	2 Pick Up Trucks 1 Boom Truck 1 All Terrain Fork Lift
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	6	40	29	5	1 Pickup Truck 1 Backhoe 1 Dump Truck
Fine Grading and paving site.	9/1/2026	11/15/2026	11	75	54	9	2 Pickup Trucks 1 623 Scraper 1 LGP D6 Dozer 1 815 Compactor 1 320 Excavator 1 Water Truck 1 140 Motor Grader
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	4	30	21	4	1 Pickup Truck 1 352 Excavator 1 Water Truck 1 140 Motor Grader
Demobilization	11/15/2026	11/30/2026	2	15	11	6	2 Pickup Trucks 2 Utility Trucks 1 All Terrain Fork Lift

TABLE 2

Import for Improved Surfaces and Pavement Repair Calculations and Quantities

Surface Improvement Work Item	Footprint Area (ft^2)	Length (ft)	Width (ft)	Depth (ft)	Volume (ft^3)	Volume (CY)	Truck Sizing (CY)	Estimated Weight (Tons)	Estimated Truck Loads Delivered
Temp Construction Access Road - AB or Crushed Rock	109,500	9,125	12	0.5	54,750	2,028	14	3,549	148
Secondary Treatment Area - 4" AC Paving	22,400	1,400	16	0.33	7,392	274	14	479	20
Secondary Treatment Area - 12" AB/Rock Subgrade	22,400	1,400	16	1	22,400	830	14	1,452	60
Tertiary Treatment Area - 4" AC Paving	11,200	700	16	0.33	3,696	137	14	240	10
Tertiary Treatment Area - 12" AB/Rock Subgrade	11,200	700	16	1	11,200	415	14	726	30
Re-Pave AC Existing Plant Site	22,500	150	150	0.33	7,425	275	14	481	20
Restoration of Distribution Pipeline - AB or Crushed Rock	67,616	4,226	16	0.33	67,616	2,504	14	4,383	183
Subgrade for Treatment Facilities & Buildings					182,436	6,757	14	11,825	493
Concrete for Treatment Facilities & Buildings					345,127	12,782	9	22,369	1,420

Calculated Earthwork Quantities for Excavation

Earthwork Item	Cut/Borrow Location	Fill Location	Percent Solids	Earthwork Cut Volume (CY)	Earthwork Cut Weight (Tons)	High Side Semi Truck Size (CY)	Total Truckloads Transported	Transport Distance (Miles)
Mass Excavation	T-4 Earth Cut	T-2 & T-3	100%	128,200	224,400	27	4,748	0.5
Sludge Excavation	T-4 Sludge - 91% Solids	Off Site Export to Landfill	91%	24,000	42,000	27	889	20
Pond T-2 Liner	T-2 Liner Scraping	Off Site Export to Landfill	--	800	1,400	27	30	20

Worker/Equipment Excavation and Site Earthwork

Earthwork Item	Equipment Used for Earthwork	Equipment Number	Loads Exc. per Scraper per Hour	Total Loads Excavated per Hour	Workday Duration (hr/day)	Loads Excavated per Day	High Side Semi Truck Size (CY)	Daily Volume Excavated (CY/d)	Days of Mass Excavation
Mass Excavation	657 Scrapers	4	7	28	8	224	27	6,048	21
Sludge Excavation	657 Scrapers	4	4	16	8	128	27	3,456	7
Pond T-2 Liner	657 Scrapers	2	2	4	8	32	27	864	1

Appendix B

Air Quality, Greenhouse Gas Emissions, and Energy Modeling Assumptions and Results

Construction Schedule	*10/1/2024*	*11/30/2026*	*565*	*12/31/2024*	*12/31/2025*	*12/31/2026*
Construction Phase	**Start Date**	**End Date**	**Working Days**	**2024**	**2025**	**2026**
Mobilization	10/1/2024	10/7/2024	4	4		
Construct Haul Road	10/7/2024	10/22/2024	11	11		
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	21		
Utility Locating / Potholing	10/7/2024	10/21/2024	10	10		
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	14		
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	14		
Mass Excavation	12/21/2024	1/17/2025	21	7	14	
Rough Grading	1/20/2025	2/4/2025	11	11		
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	21		
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	189		
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	10		
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	10		10	
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143		143	
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7		7	
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	54		54	
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	54		54	
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	10		10	
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	54		8	46
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	43		8	35
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	179			179
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	43			43
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157		109	48
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7			7
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	21			21
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13			13
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13			13
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129			129
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64			64
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	57			57
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	29			29
Fine Grading and paving site.	9/1/2026	11/15/2026	54			54
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21			21
Demobilization	11/15/2026	11/30/2026	11			11

MAX DAY SHEET

1 = PHASE ACTIVE ON THAT DAY

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	10/1/2024	10/2/2024	10/3/2024	10/4/2024	10/5/2024	10/6/2024	10/7/2024	10/8/2024	10/9/2024	10/10/2024	10/11/2024	10/12/2024	10/13/2024	10/14/2024	10/15/2024
				2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
				3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
Phase Name	Start Date	End Date	# of Workdays	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
Mobilization	10/1/2024	10/7/2024	4	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter sti	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**	**Daily Emissions**														
ROG	ROG	6.71	12/23/2024	0.15	0.15	0.15	0.15	0.00	0.00	1.88	1.73	1.73	1.73	1.73	0.00	0.00	1.73	1.73
NOX	NOX	50.48	12/2/2024	2.40	2.40	2.40	2.40	0.00	0.00	15.33	12.93	12.93	12.93	12.93	0.00	0.00	12.93	12.93
CO	CO	71.45	12/23/2024	1.86	1.86	1.86	1.86	0.00	0.00	18.95	17.09	17.09	17.09	17.09	0.00	0.00	17.09	17.09
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.04	0.04	0.04	0.04	0.00	0.00	0.60	0.56	0.56	0.56	0.56	0.00	0.00	0.56	0.56
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.09	0.09	0.09	0.09	0.00	0.00	0.39	0.30	0.30	0.30	0.30	0.00	0.00	0.30	0.30
PM10 Total	PM10 total	20.11	2/4/2025	0.14	0.14	0.14	0.14	0.00	0.00	0.99	0.85	0.85	0.85	0.85	0.00	0.00	0.85	0.85
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.04	0.04	0.04	0.04	0.00	0.00	0.56	0.52	0.52	0.52	0.52	0.00	0.00	0.52	0.52
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.02	0.02	0.02	0.02	0.00	0.00	0.10	0.08	0.08	0.08	0.08	0.00	0.00	0.08	0.08
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.06	0.06	0.06	0.06	0.00	0.00	0.66	0.60	0.60	0.60	0.60	0.00	0.00	0.60	0.60

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	10/16/2024	10/17/2024	10/18/2024	10/19/2024	10/20/2024	10/21/2024	10/22/2024	10/23/2024	10/24/2024	10/25/2024	10/26/2024	10/27/2024	10/28/2024	10/29/2024	10/30/2024
				2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
				4	5	6	7	1	2	3	4	5	6	7	1	2	3	4
Phase Name	Start Date	End Date	# of Workdays	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Utility Locating / Potholing	10/7/2024	10/21/2024	10	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	1.73	1.73	1.73	0.00	0.00	1.73	1.55	0.44	0.44	0.44	0.00	0.00	0.44	0.44	0.44
NOX	NOX	50.48	12/2/2024	12.93	12.93	12.93	0.00	0.00	12.93	10.61	3.87	3.87	3.87	0.00	0.00	3.87	3.87	3.87
CO	CO	71.45	12/23/2024	17.09	17.09	17.09	0.00	0.00	17.09	15.25	3.61	3.61	3.61	0.00	0.00	3.61	3.61	3.61
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.56	0.56	0.56	0.00	0.00	0.56	0.49	0.12	0.12	0.12	0.00	0.00	0.12	0.12	0.12
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.30	0.30	0.30	0.00	0.00	0.30	0.22	0.08	0.08	0.08	0.00	0.00	0.08	0.08	0.08
PM10 Total	PM10 total	20.11	2/4/2025	0.85	0.85	0.85	0.00	0.00	0.85	0.71	0.20	0.20	0.20	0.00	0.00	0.20	0.20	0.20
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.52	0.52	0.52	0.00	0.00	0.52	0.46	0.12	0.12	0.12	0.00	0.00	0.12	0.12	0.12
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.08	0.08	0.08	0.00	0.00	0.08	0.06	0.02	0.02	0.02	0.00	0.00	0.02	0.02	0.02
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.60	0.60	0.60	0.00	0.00	0.60	0.51	0.14	0.14	0.14	0.00	0.00	0.14	0.14	0.14

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	10/31/2024	11/1/2024	11/2/2024	11/3/2024	11/4/2024	11/5/2024	11/6/2024	11/7/2024	11/8/2024	11/9/2024	11/10/2024	11/11/2024	11/12/2024	11/13/2024	11/14/2024
				2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
				5	6	7	1	2	3	4	5	6	7	1	2	3	4	5
Phase Name	Start Date	End Date	# of Workdays	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	1	1	1	0	0	1	1	1	1
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter str	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfection	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.44	0.44	0.00	0.00	0.44	0.44	0.63	0.19	0.19	0.00	0.00	0.19	0.19	0.19	0.19
NOX	NOX	50.48	12/2/2024	3.87	3.87	0.00	0.00	3.87	3.87	6.23	2.36	2.36	0.00	0.00	2.36	2.36	2.36	2.36
CO	CO	71.45	12/23/2024	3.61	3.61	0.00	0.00	3.61	3.61	5.53	1.92	1.92	0.00	0.00	1.92	1.92	1.92	1.92
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.12	0.12	0.00	0.00	0.12	0.12	0.19	0.07	0.07	0.00	0.00	0.07	0.07	0.07	0.07
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.08	0.08	0.00	0.00	0.08	0.08	0.17	0.10	0.10	0.00	0.00	0.10	0.10	0.10	0.10
PM10 Total	PM10 total	20.11	2/4/2025	0.20	0.20	0.00	0.00	0.20	0.20	0.37	0.17	0.17	0.00	0.00	0.17	0.17	0.17	0.17
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.12	0.12	0.00	0.00	0.12	0.12	0.18	0.06	0.06	0.00	0.00	0.06	0.06	0.06	0.06
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.02	0.02	0.00	0.00	0.02	0.02	0.04	0.02	0.02	0.00	0.00	0.02	0.02	0.02	0.02
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.14	0.14	0.00	0.00	0.14	0.14	0.23	0.09	0.09	0.00	0.00	0.09	0.09	0.09	0.09

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	11/15/2024	11/16/2024	11/17/2024	11/18/2024	11/19/2024	11/20/2024	11/21/2024	11/22/2024	11/23/2024	11/24/2024	11/25/2024	11/26/2024	11/27/2024	11/28/2024	11/29/2024
				2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
				6	7	1	2	3	4	5	6	7	1	2	3	4	5	6
Phase Name	Start Date	End Date	# of Workdays	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	1	0	0	1	1	1	1	1	0	0	1	1	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.19	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.00	0.00	0.19	0.19	0.00	0.00	0.00
NOX	NOX	50.48	12/2/2024	2.36	0.00	0.00	2.36	2.36	2.36	2.36	2.36	0.00	0.00	2.36	2.36	0.00	0.00	0.00
CO	CO	71.45	12/23/2024	1.92	0.00	0.00	1.92	1.92	1.92	1.92	1.92	0.00	0.00	1.92	1.92	0.00	0.00	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.07	0.00	0.00	0.07	0.07	0.07	0.07	0.07	0.00	0.00	0.07	0.07	0.00	0.00	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.10	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.10	0.10	0.00	0.00	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.17	0.00	0.00	0.17	0.17	0.17	0.17	0.17	0.00	0.00	0.17	0.17	0.00	0.00	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.06	0.00	0.00	0.06	0.06	0.06	0.06	0.06	0.00	0.00	0.06	0.06	0.00	0.00	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.02	0.00	0.00	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.02	0.02	0.00	0.00	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.09	0.00	0.00	0.09	0.09	0.09	0.09	0.09	0.00	0.00	0.09	0.09	0.00	0.00	0.00

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	11/30/2024	12/1/2024	12/2/2024	12/3/2024	12/4/2024	12/5/2024	12/6/2024	12/7/2024	12/8/2024	12/9/2024	12/10/2024	12/11/2024	12/12/2024	12/13/2024	12/14/2024
				2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
				7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Phase Name	Start Date	End Date	# of Workdays	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	0.00	6.51	6.51	6.51	6.51	6.51	0.00	0.00	6.51	6.51	6.51	6.51	6.51	0.00
NOX	NOX	50.48	12/2/2024	0.00	0.00	50.48	50.48	50.48	50.48	50.48	0.00	0.00	50.48	50.48	50.48	50.48	50.48	0.00
CO	CO	71.45	12/23/2024	0.00	0.00	68.18	68.18	68.18	68.18	68.18	0.00	0.00	68.18	68.18	68.18	68.18	68.18	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	0.00	2.63	2.63	2.63	2.63	2.63	0.00	0.00	2.63	2.63	2.63	2.63	2.63	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	0.00	14.64	14.64	14.64	14.64	14.64	0.00	0.00	14.64	14.64	14.64	14.64	14.64	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	0.00	17.27	17.27	17.27	17.27	17.27	0.00	0.00	17.27	17.27	17.27	17.27	17.27	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	0.00	2.42	2.42	2.42	2.42	2.42	0.00	0.00	2.42	2.42	2.42	2.42	2.42	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	0.00	2.20	2.20	2.20	2.20	2.20	0.00	0.00	2.20	2.20	2.20	2.20	2.20	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	0.00	4.62	4.62	4.62	4.62	4.62	0.00	0.00	4.62	4.62	4.62	4.62	4.62	0.00

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	12/15/2024	12/16/2024	12/17/2024	12/18/2024	12/19/2024	12/20/2024	12/21/2024	12/22/2024	12/23/2024	12/24/2024	12/25/2024	12/26/2024	12/27/2024	12/28/2024	12/29/2024
				2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024	2024
				1	2	3	4	5	6	7	1	2	3	4	5	6	7	1
Phase Name	Start Date	End Date	# of Workdays	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	6.51	6.51	6.51	6.51	6.51	0.00	0.00	6.71	6.71	6.71	6.71	6.71	0.00	0.00
NOX	NOX	50.48	12/2/2024	0.00	50.48	50.48	50.48	50.48	50.48	0.00	0.00	47.32	47.32	47.32	47.32	47.32	0.00	0.00
CO	CO	71.45	12/23/2024	0.00	68.18	68.18	68.18	68.18	68.18	0.00	0.00	71.45	71.45	71.45	71.45	71.45	0.00	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	2.63	2.63	2.63	2.63	2.63	0.00	0.00	2.48	2.48	2.48	2.48	2.48	0.00	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	14.64	14.64	14.64	14.64	14.64	0.00	0.00	15.46	15.46	15.46	15.46	15.46	0.00	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	17.27	17.27	17.27	17.27	17.27	0.00	0.00	17.94	17.94	17.94	17.94	17.94	0.00	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	2.42	2.42	2.42	2.42	2.42	0.00	0.00	2.28	2.28	2.28	2.28	2.28	0.00	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	2.20	2.20	2.20	2.20	2.20	0.00	0.00	2.23	2.23	2.23	2.23	2.23	0.00	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	4.62	4.62	4.62	4.62	4.62	0.00	0.00	4.51	4.51	4.51	4.51	4.51	0.00	0.00

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	12/30/2024	12/31/2024	1/1/2025	1/2/2025	1/3/2025	1/4/2025	1/5/2025	1/6/2025	1/7/2025	1/8/2025	1/9/2025	1/10/2025	1/11/2025	1/12/2025	1/13/2025
				2024	2024	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				2	3	4	5	6	7	1	2	3	4	5	6	7	1	2
Phase Name	Start Date	End Date	# of Workdays	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter str	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	6.71	6.71	6.71	6.71	6.71	0.00	0.00	6.71	6.71	6.71	6.71	6.71	0.00	0.00	6.71
NOX	NOX	50.48	12/2/2024	47.32	47.32	47.32	47.32	47.32	0.00	0.00	47.32	47.32	47.32	47.32	47.32	0.00	0.00	47.32
CO	CO	71.45	12/23/2024	71.45	71.45	71.45	71.45	71.45	0.00	0.00	71.45	71.45	71.45	71.45	71.45	0.00	0.00	71.45
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	2.48	2.48	2.48	2.48	2.48	0.00	0.00	2.48	2.48	2.48	2.48	2.48	0.00	0.00	2.48
PM10 Fugitive	PM10 d	18.38	2/4/2025	15.46	15.46	15.46	15.46	15.46	0.00	0.00	15.46	15.46	15.46	15.46	15.46	0.00	0.00	15.46
PM10 Total	PM10 total	20.11	2/4/2025	17.94	17.94	17.94	17.94	17.94	0.00	0.00	17.94	17.94	17.94	17.94	17.94	0.00	0.00	17.94
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	2.28	2.28	2.28	2.28	2.28	0.00	0.00	2.28	2.28	2.28	2.28	2.28	0.00	0.00	2.28
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	2.23	2.23	2.23	2.23	2.23	0.00	0.00	2.23	2.23	2.23	2.23	2.23	0.00	0.00	2.23
PM2.5 Total	PM2.5 total	4.62	12/2/2024	4.51	4.51	4.51	4.51	4.51	0.00	0.00	4.51	4.51	4.51	4.51	4.51	0.00	0.00	4.51

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	1/14/2025	1/15/2025	1/16/2025	1/17/2025	1/18/2025	1/19/2025	1/20/2025	1/21/2025	1/22/2025	1/23/2025	1/24/2025	1/25/2025	1/26/2025	1/27/2025	1/28/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
Phase Name	Start Date	End Date	# of Workdays	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter str	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	6.71	6.71	6.71	6.71	0.00	0.00	3.73	3.73	3.73	3.73	3.73	0.00	0.00	3.73	3.73
NOX	NOX	50.48	12/2/2024	47.32	47.32	47.32	47.32	0.00	0.00	22.34	22.34	22.34	22.34	22.34	0.00	0.00	22.34	22.34
CO	CO	71.45	12/23/2024	71.45	71.45	71.45	71.45	0.00	0.00	37.42	37.42	37.42	37.42	37.42	0.00	0.00	37.42	37.42
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	2.48	2.48	2.48	2.48	0.00	0.00	1.50	1.50	1.50	1.50	1.50	0.00	0.00	1.50	1.50
PM10 Fugitive	PM10 d	18.38	2/4/2025	15.46	15.46	15.46	15.46	0.00	0.00	18.19	18.19	18.19	18.19	18.19	0.00	0.00	18.19	18.19
PM10 Total	PM10 total	20.11	2/4/2025	17.94	17.94	17.94	17.94	0.00	0.00	19.69	19.69	19.69	19.69	19.69	0.00	0.00	19.69	19.69
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	2.28	2.28	2.28	2.28	0.00	0.00	1.38	1.38	1.38	1.38	1.38	0.00	0.00	1.38	1.38
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	2.23	2.23	2.23	2.23	0.00	0.00	2.56	2.56	2.56	2.56	2.56	0.00	0.00	2.56	2.56
PM2.5 Total	PM2.5 total	4.62	12/2/2024	4.51	4.51	4.51	4.51	0.00	0.00	3.94	3.94	3.94	3.94	3.94	0.00	0.00	3.94	3.94

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	1/29/2025	1/30/2025	1/31/2025	2/1/2025	2/2/2025	2/3/2025	2/4/2025	2/5/2025	2/6/2025	2/7/2025	2/8/2025	2/9/2025	2/10/2025	2/11/2025	2/12/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				4	5	6	7	1	2	3	4	5	6	7	1	2	3	4
Phase Name	Start Date	End Date	# of Workdays	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	1	1	1	1	0	0	1	1	1
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	3.73	3.73	3.73	0.00	0.00	3.73	4.53	0.80	0.80	0.80	0.00	0.00	0.80	0.80	0.80
NOX	NOX	50.48	12/2/2024	22.34	22.34	22.34	0.00	0.00	22.34	33.56	11.23	11.23	11.23	0.00	0.00	11.23	11.23	11.23
CO	CO	71.45	12/23/2024	37.42	37.42	37.42	0.00	0.00	37.42	44.32	6.90	6.90	6.90	0.00	0.00	6.90	6.90	6.90
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	1.50	1.50	1.50	0.00	0.00	1.50	1.74	0.24	0.24	0.24	0.00	0.00	0.24	0.24	0.24
PM10 Fugitive	PM10 d	18.38	2/4/2025	18.19	18.19	18.19	0.00	0.00	18.19	18.38	0.19	0.19	0.19	0.00	0.00	0.19	0.19	0.19
PM10 Total	PM10 total	20.11	2/4/2025	19.69	19.69	19.69	0.00	0.00	19.69	20.11	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	1.38	1.38	1.38	0.00	0.00	1.38	1.60	0.22	0.22	0.22	0.00	0.00	0.22	0.22	0.22
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	2.56	2.56	2.56	0.00	0.00	2.56	2.61	0.05	0.05	0.05	0.00	0.00	0.05	0.05	0.05
PM2.5 Total	PM2.5 total	4.62	12/2/2024	3.94	3.94	3.94	0.00	0.00	3.94	4.20	0.27	0.27	0.27	0.00	0.00	0.27	0.27	0.27

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	2/13/2025	2/14/2025	2/15/2025	2/16/2025	2/17/2025	2/18/2025	2/19/2025	2/20/2025	2/21/2025	2/22/2025	2/23/2025	2/24/2025	2/25/2025	2/26/2025	2/27/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				5	6	7	1	2	3	4	5	6	7	1	2	3	4	5
Phase Name	Start Date	End Date	# of Workdays	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.80	0.80	0.00	0.00	0.80	0.80	0.80	0.80	0.80	0.00	0.00	0.80	0.80	0.80	0.80
NOX	NOX	50.48	12/2/2024	11.23	11.23	0.00	0.00	11.23	11.23	11.23	11.23	11.23	0.00	0.00	11.23	11.23	11.23	11.23
CO	CO	71.45	12/23/2024	6.90	6.90	0.00	0.00	6.90	6.90	6.90	6.90	6.90	0.00	0.00	6.90	6.90	6.90	6.90
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.24	0.24	0.00	0.00	0.24	0.24	0.24	0.24	0.24	0.00	0.00	0.24	0.24	0.24	0.24
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.19	0.19	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.00	0.00	0.19	0.19	0.19	0.19
PM10 Total	PM10 total	20.11	2/4/2025	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.22	0.22	0.00	0.00	0.22	0.22	0.22	0.22	0.22	0.00	0.00	0.22	0.22	0.22	0.22
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.05	0.05	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.00	0.00	0.05	0.05	0.05	0.05
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.27	0.27	0.00	0.00	0.27	0.27	0.27	0.27	0.27	0.00	0.00	0.27	0.27	0.27	0.27

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	2/28/2025	3/1/2025	3/2/2025	3/3/2025	3/4/2025	3/5/2025	3/6/2025	3/7/2025	3/8/2025	3/9/2025	3/10/2025	3/11/2025	3/12/2025	3/13/2025	3/14/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				6	7	1	2	3	4	5	6	7	1	2	3	4	5	6
Phase Name	Start Date	End Date	# of Workdays	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.80	0.00	0.00	0.80	0.80	0.80	1.74	0.94	0.00	0.00	0.94	0.94	0.94	0.94	0.94
NOX	NOX	50.48	12/2/2024	11.23	0.00	0.00	11.23	11.23	11.23	19.41	8.18	0.00	0.00	8.18	8.18	8.18	8.18	8.18
CO	CO	71.45	12/23/2024	6.90	0.00	0.00	6.90	6.90	6.90	17.09	10.19	0.00	0.00	10.19	10.19	10.19	10.19	10.19
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.24	0.00	0.00	0.24	0.24	0.24	0.58	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.19	0.00	0.00	0.19	0.19	0.19	0.88	0.69	0.00	0.00	0.69	0.69	0.69	0.69	0.69
PM10 Total	PM10 total	20.11	2/4/2025	0.43	0.00	0.00	0.43	0.43	0.43	1.46	1.03	0.00	0.00	1.03	1.03	1.03	1.03	1.03
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.22	0.00	0.00	0.22	0.22	0.22	0.54	0.31	0.00	0.00	0.31	0.31	0.31	0.31	0.31
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.05	0.00	0.00	0.05	0.05	0.05	0.18	0.13	0.00	0.00	0.13	0.13	0.13	0.13	0.13
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.27	0.00	0.00	0.27	0.27	0.27	0.71	0.45	0.00	0.00	0.45	0.45	0.45	0.45	0.45

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	3/15/2025	3/16/2025	3/17/2025	3/18/2025	3/19/2025	3/20/2025	3/21/2025	3/22/2025	3/23/2025	3/24/2025	3/25/2025	3/26/2025	3/27/2025	3/28/2025	3/29/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Phase Name	Start Date	End Date	# of Workdays	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter sti	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	0.00	0.94	0.94	0.94	0.94	0.94	0.00	0.00	0.94	0.94	0.94	0.94	0.94	0.00
NOX	NOX	50.48	12/2/2024	0.00	0.00	8.18	8.18	8.18	8.18	8.18	0.00	0.00	8.18	8.18	8.18	8.18	8.18	0.00
CO	CO	71.45	12/23/2024	0.00	0.00	10.19	10.19	10.19	10.19	10.19	0.00	0.00	10.19	10.19	10.19	10.19	10.19	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	0.00	0.69	0.69	0.69	0.69	0.69	0.00	0.00	0.69	0.69	0.69	0.69	0.69	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	0.00	1.03	1.03	1.03	1.03	1.03	0.00	0.00	1.03	1.03	1.03	1.03	1.03	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	0.00	0.31	0.31	0.31	0.31	0.31	0.00	0.00	0.31	0.31	0.31	0.31	0.31	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	0.00	0.45	0.45	0.45	0.45	0.45	0.00	0.00	0.45	0.45	0.45	0.45	0.45	0.00

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	3/30/2025	3/31/2025	4/1/2025	4/2/2025	4/3/2025	4/4/2025	4/5/2025	4/6/2025	4/7/2025	4/8/2025	4/9/2025	4/10/2025	4/11/2025	4/12/2025	4/13/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				1	2	3	4	5	6	7	1	2	3	4	5	6	7	1
Phase Name	Start Date	End Date	# of Workdays	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	0.94	0.94	0.94	0.94	0.94	0.00	0.00	0.94	0.94	0.94	0.94	0.94	0.00	0.00
NOX	NOX	50.48	12/2/2024	0.00	8.18	8.18	8.18	8.18	8.18	0.00	0.00	8.18	8.18	8.18	8.18	8.18	0.00	0.00
CO	CO	71.45	12/23/2024	0.00	10.19	10.19	10.19	10.19	10.19	0.00	0.00	10.19	10.19	10.19	10.19	10.19	0.00	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	0.69	0.69	0.69	0.69	0.69	0.00	0.00	0.69	0.69	0.69	0.69	0.69	0.00	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	1.03	1.03	1.03	1.03	1.03	0.00	0.00	1.03	1.03	1.03	1.03	1.03	0.00	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	0.31	0.31	0.31	0.31	0.31	0.00	0.00	0.31	0.31	0.31	0.31	0.31	0.00	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	0.13	0.13	0.13	0.13	0.13	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.00	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	0.45	0.45	0.45	0.45	0.45	0.00	0.00	0.45	0.45	0.45	0.45	0.45	0.00	0.00

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	4/14/2025	4/15/2025	4/16/2025	4/17/2025	4/18/2025	4/19/2025	4/20/2025	4/21/2025	4/22/2025	4/23/2025	4/24/2025	4/25/2025	4/26/2025	4/27/2025	4/28/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				2	3	4	5	6	7	1	2	3	4	5	6	7	1	2
Phase Name	Start Date	End Date	# of Workdays	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter sti	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.94	0.94	0.94	0.94	0.94	0.00	0.00	0.94	0.94	0.94	0.94	0.94	0.00	0.00	0.94
NOX	NOX	50.48	12/2/2024	8.18	8.18	8.18	8.18	8.18	0.00	0.00	8.18	8.18	8.18	8.18	8.18	0.00	0.00	8.18
CO	CO	71.45	12/23/2024	10.19	10.19	10.19	10.19	10.19	0.00	0.00	10.19	10.19	10.19	10.19	10.19	0.00	0.00	10.19
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.34	0.34	0.34	0.34	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00	0.34
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.69	0.69	0.69	0.69	0.69	0.00	0.00	0.69	0.69	0.69	0.69	0.69	0.00	0.00	0.69
PM10 Total	PM10 total	20.11	2/4/2025	1.03	1.03	1.03	1.03	1.03	0.00	0.00	1.03	1.03	1.03	1.03	1.03	0.00	0.00	1.03
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.31	0.31	0.31	0.31	0.31	0.00	0.00	0.31	0.31	0.31	0.31	0.31	0.00	0.00	0.31
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.13	0.13	0.13	0.13	0.13	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.00	0.00	0.13
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.45	0.45	0.45	0.45	0.45	0.00	0.00	0.45	0.45	0.45	0.45	0.45	0.00	0.00	0.45

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	4/29/2025	4/30/2025	5/1/2025	5/2/2025	5/3/2025	5/4/2025	5/5/2025	5/6/2025	5/7/2025	5/8/2025	5/9/2025	5/10/2025	5/11/2025	5/12/2025	5/13/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
Phase Name	Start Date	End Date	# of Workdays	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.94	0.94	0.94	0.94	0.00	0.00	0.94	0.94	0.94	0.94	0.94	0.00	0.00	0.94	0.94
NOX	NOX	50.48	12/2/2024	8.18	8.18	8.18	8.18	0.00	0.00	8.18	8.18	8.18	8.18	8.18	0.00	0.00	8.18	8.18
CO	CO	71.45	12/23/2024	10.19	10.19	10.19	10.19	0.00	0.00	10.19	10.19	10.19	10.19	10.19	0.00	0.00	10.19	10.19
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.34	0.34	0.34	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00	0.34	0.34
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.69	0.69	0.69	0.69	0.00	0.00	0.69	0.69	0.69	0.69	0.69	0.00	0.00	0.69	0.69
PM10 Total	PM10 total	20.11	2/4/2025	1.03	1.03	1.03	1.03	0.00	0.00	1.03	1.03	1.03	1.03	1.03	0.00	0.00	1.03	1.03
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.31	0.31	0.31	0.31	0.00	0.00	0.31	0.31	0.31	0.31	0.31	0.00	0.00	0.31	0.31
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.13	0.13	0.13	0.13	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.00	0.00	0.13	0.13
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.45	0.45	0.45	0.45	0.00	0.00	0.45	0.45	0.45	0.45	0.45	0.00	0.00	0.45	0.45

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	5/14/2025	5/15/2025	5/16/2025	5/17/2025	5/18/2025	5/19/2025	5/20/2025	5/21/2025	5/22/2025	5/23/2025	5/24/2025	5/25/2025	5/26/2025	5/27/2025	5/28/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				4	5	6	7	1	2	3	4	5	6	7	1	2	3	4
Phase Name	Start Date	End Date	# of Workdays	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.94	0.94	0.94	0.00	0.00	0.94	0.94	0.94	0.94	0.94	0.00	0.00	0.94	0.94	0.94
NOX	NOX	50.48	12/2/2024	8.18	8.18	8.18	0.00	0.00	8.18	8.18	8.18	8.18	8.18	0.00	0.00	8.18	8.18	8.18
CO	CO	71.45	12/23/2024	10.19	10.19	10.19	0.00	0.00	10.19	10.19	10.19	10.19	10.19	0.00	0.00	10.19	10.19	10.19
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.34	0.34	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00	0.34	0.34	0.34
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.69	0.69	0.69	0.00	0.00	0.69	0.69	0.69	0.69	0.69	0.00	0.00	0.69	0.69	0.69
PM10 Total	PM10 total	20.11	2/4/2025	1.03	1.03	1.03	0.00	0.00	1.03	1.03	1.03	1.03	1.03	0.00	0.00	1.03	1.03	1.03
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.31	0.31	0.31	0.00	0.00	0.31	0.31	0.31	0.31	0.31	0.00	0.00	0.31	0.31	0.31
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.13	0.13	0.13	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.00	0.00	0.13	0.13	0.13
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.45	0.45	0.45	0.00	0.00	0.45	0.45	0.45	0.45	0.45	0.00	0.00	0.45	0.45	0.45

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	5/29/2025	5/30/2025	5/31/2025	6/1/2025	6/2/2025	6/3/2025	6/4/2025	6/5/2025	6/6/2025	6/7/2025	6/8/2025	6/9/2025	6/10/2025	6/11/2025	6/12/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				5	6	7	1	2	3	4	5	6	7	1	2	3	4	5
Phase Name	Start Date	End Date	# of Workdays	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter sti	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.94	0.94	0.00	0.00	0.94	0.94	0.94	0.94	0.94	0.00	0.00	0.94	0.94	0.94	0.94
NOX	NOX	50.48	12/2/2024	8.18	8.18	0.00	0.00	8.18	8.18	8.18	8.18	8.18	0.00	0.00	8.18	8.18	8.18	8.18
CO	CO	71.45	12/23/2024	10.19	10.19	0.00	0.00	10.19	10.19	10.19	10.19	10.19	0.00	0.00	10.19	10.19	10.19	10.19
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.34	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00	0.34	0.34	0.34	0.34
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.69	0.69	0.00	0.00	0.69	0.69	0.69	0.69	0.69	0.00	0.00	0.69	0.69	0.69	0.69
PM10 Total	PM10 total	20.11	2/4/2025	1.03	1.03	0.00	0.00	1.03	1.03	1.03	1.03	1.03	0.00	0.00	1.03	1.03	1.03	1.03
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.31	0.31	0.00	0.00	0.31	0.31	0.31	0.31	0.31	0.00	0.00	0.31	0.31	0.31	0.31
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.13	0.13	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.00	0.00	0.13	0.13	0.13	0.13
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.45	0.45	0.00	0.00	0.45	0.45	0.45	0.45	0.45	0.00	0.00	0.45	0.45	0.45	0.45

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	6/13/2025	6/14/2025	6/15/2025	6/16/2025	6/17/2025	6/18/2025	6/19/2025	6/20/2025	6/21/2025	6/22/2025	6/23/2025	6/24/2025	6/25/2025	6/26/2025	6/27/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				6	7	1	2	3	4	5	6	7	1	2	3	4	5	6
Phase Name	Start Date	End Date	# of Workdays	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter str	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.94	0.00	0.00	0.94	0.94	0.94	0.94	0.94	0.00	0.00	0.94	0.94	0.94	0.94	0.94
NOX	NOX	50.48	12/2/2024	8.18	0.00	0.00	8.18	8.18	8.18	8.18	8.18	0.00	0.00	8.18	8.18	8.18	8.18	8.18
CO	CO	71.45	12/23/2024	10.19	0.00	0.00	10.19	10.19	10.19	10.19	10.19	0.00	0.00	10.19	10.19	10.19	10.19	10.19
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.69	0.00	0.00	0.69	0.69	0.69	0.69	0.69	0.00	0.00	0.69	0.69	0.69	0.69	0.69
PM10 Total	PM10 total	20.11	2/4/2025	1.03	0.00	0.00	1.03	1.03	1.03	1.03	1.03	0.00	0.00	1.03	1.03	1.03	1.03	1.03
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.31	0.00	0.00	0.31	0.31	0.31	0.31	0.31	0.00	0.00	0.31	0.31	0.31	0.31	0.31
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.13	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.00	0.00	0.13	0.13	0.13	0.13	0.13
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.45	0.00	0.00	0.45	0.45	0.45	0.45	0.45	0.00	0.00	0.45	0.45	0.45	0.45	0.45

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	6/28/2025	6/29/2025	6/30/2025	7/1/2025	7/2/2025	7/3/2025	7/4/2025	7/5/2025	7/6/2025	7/7/2025	7/8/2025	7/9/2025	7/10/2025	7/11/2025	7/12/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Phase Name	Start Date	End Date	# of Workdays	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	0.00	0.94	0.94	0.94	0.94	0.94	0.00	0.00	0.94	0.94	0.94	0.94	0.94	0.00
NOX	NOX	50.48	12/2/2024	0.00	0.00	8.18	8.18	8.18	8.18	8.18	0.00	0.00	8.18	8.18	8.18	8.18	8.18	0.00
CO	CO	71.45	12/23/2024	0.00	0.00	10.19	10.19	10.19	10.19	10.19	0.00	0.00	10.19	10.19	10.19	10.19	10.19	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	0.00	0.69	0.69	0.69	0.69	0.69	0.00	0.00	0.69	0.69	0.69	0.69	0.69	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	0.00	1.03	1.03	1.03	1.03	1.03	0.00	0.00	1.03	1.03	1.03	1.03	1.03	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	0.00	0.31	0.31	0.31	0.31	0.31	0.00	0.00	0.31	0.31	0.31	0.31	0.31	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	0.00	0.45	0.45	0.45	0.45	0.45	0.00	0.00	0.45	0.45	0.45	0.45	0.45	0.00

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	7/13/2025	7/14/2025	7/15/2025	7/16/2025	7/17/2025	7/18/2025	7/19/2025	7/20/2025	7/21/2025	7/22/2025	7/23/2025	7/24/2025	7/25/2025	7/26/2025	7/27/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				1	2	3	4	5	6	7	1	2	3	4	5	6	7	1
Phase Name	Start Date	End Date	# of Workdays	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter sti	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	0.94	0.94	0.94	0.94	0.94	0.00	0.00	0.94	0.94	0.94	0.94	0.94	0.00	0.00
NOX	NOX	50.48	12/2/2024	0.00	8.18	8.18	8.18	8.18	8.18	0.00	0.00	8.18	8.18	8.18	8.18	8.18	0.00	0.00
CO	CO	71.45	12/23/2024	0.00	10.19	10.19	10.19	10.19	10.19	0.00	0.00	10.19	10.19	10.19	10.19	10.19	0.00	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	0.69	0.69	0.69	0.69	0.69	0.00	0.00	0.69	0.69	0.69	0.69	0.69	0.00	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	1.03	1.03	1.03	1.03	1.03	0.00	0.00	1.03	1.03	1.03	1.03	1.03	0.00	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	0.31	0.31	0.31	0.31	0.31	0.00	0.00	0.31	0.31	0.31	0.31	0.31	0.00	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	0.13	0.13	0.13	0.13	0.13	0.00	0.00	0.13	0.13	0.13	0.13	0.13	0.00	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	0.45	0.45	0.45	0.45	0.45	0.00	0.00	0.45	0.45	0.45	0.45	0.45	0.00	0.00

MAX DAY SHEET

Project Start Date:	10/1/2024	Workdays/Week 5	
Project End Date:	11/30/2026		

Phase Name	**Start Date**	**End Date**	**# of Workdays**	7/28/2025	7/29/2025	7/30/2025	7/31/2025	8/1/2025	8/2/2025	8/3/2025	8/4/2025	8/5/2025	8/6/2025	8/7/2025	8/8/2025	8/9/2025	8/10/2025	8/11/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				2	3	4	5	6	7	1	2	3	4	5	6	7	1	2
Phase Name	Start Date	End Date	# of Workdays	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	1	0	0	1	1	1	1	1	0	0	1
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter sti	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.94	0.94	0.94	0.94	1.29	0.00	0.00	1.29	1.29	1.29	1.29	1.29	0.00	0.00	1.29
NOX	NOX	50.48	12/2/2024	8.18	8.18	8.18	8.18	9.94	0.00	0.00	9.94	9.94	9.94	9.94	9.94	0.00	0.00	9.94
CO	CO	71.45	12/23/2024	10.19	10.19	10.19	10.19	13.80	0.00	0.00	13.80	13.80	13.80	13.80	13.80	0.00	0.00	13.80
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.34	0.34	0.34	0.34	0.48	0.00	0.00	0.48	0.48	0.48	0.48	0.48	0.00	0.00	0.48
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.69	0.69	0.69	0.69	0.78	0.00	0.00	0.78	0.78	0.78	0.78	0.78	0.00	0.00	0.78
PM10 Total	PM10 total	20.11	2/4/2025	1.03	1.03	1.03	1.03	1.26	0.00	0.00	1.26	1.26	1.26	1.26	1.26	0.00	0.00	1.26
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.31	0.31	0.31	0.31	0.44	0.00	0.00	0.44	0.44	0.44	0.44	0.44	0.00	0.00	0.44
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.13	0.13	0.13	0.13	0.15	0.00	0.00	0.15	0.15	0.15	0.15	0.15	0.00	0.00	0.15
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.45	0.45	0.45	0.45	0.59	0.00	0.00	0.59	0.59	0.59	0.59	0.59	0.00	0.00	0.59

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	8/12/2025	8/13/2025	8/14/2025	8/15/2025	8/16/2025	8/17/2025	8/18/2025	8/19/2025	8/20/2025	8/21/2025	8/22/2025	8/23/2025	8/24/2025	8/25/2025	8/26/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
Phase Name	Start Date	End Date	# of Workdays	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	1.29	1.29	1.29	1.29	0.00	0.00	1.29	1.29	1.29	1.29	1.29	0.00	0.00	1.29	1.29
NOX	NOX	50.48	12/2/2024	9.94	9.94	9.94	9.94	0.00	0.00	9.94	9.94	9.94	9.94	9.94	0.00	0.00	9.94	9.94
CO	CO	71.45	12/23/2024	13.80	13.80	13.80	13.80	0.00	0.00	13.80	13.80	13.80	13.80	13.80	0.00	0.00	13.80	13.80
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.48	0.48	0.48	0.48	0.00	0.00	0.48	0.48	0.48	0.48	0.48	0.00	0.00	0.48	0.48
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.78	0.78	0.78	0.78	0.00	0.00	0.78	0.78	0.78	0.78	0.78	0.00	0.00	0.78	0.78
PM10 Total	PM10 total	20.11	2/4/2025	1.26	1.26	1.26	1.26	0.00	0.00	1.26	1.26	1.26	1.26	1.26	0.00	0.00	1.26	1.26
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.44	0.44	0.44	0.44	0.00	0.00	0.44	0.44	0.44	0.44	0.44	0.00	0.00	0.44	0.44
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.15	0.15	0.15	0.15	0.00	0.00	0.15	0.15	0.15	0.15	0.15	0.00	0.00	0.15	0.15
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.59	0.59	0.59	0.59	0.00	0.00	0.59	0.59	0.59	0.59	0.59	0.00	0.00	0.59	0.59

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	8/27/2025	8/28/2025	8/29/2025	8/30/2025	8/31/2025	9/1/2025	9/2/2025	9/3/2025	9/4/2025	9/5/2025	9/6/2025	9/7/2025	9/8/2025	9/9/2025	9/10/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				4	5	6	7	1	2	3	4	5	6	7	1	2	3	4
Phase Name	Start Date	End Date	# of Workdays	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter sti	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	1.29	1.29	1.29	0.00	0.00	1.29	1.29	1.29	1.29	1.29	0.00	0.00	1.29	1.29	1.29
NOX	NOX	50.48	12/2/2024	9.94	9.94	9.94	0.00	0.00	9.94	9.94	9.94	9.94	9.94	0.00	0.00	9.94	9.94	9.94
CO	CO	71.45	12/23/2024	13.80	13.80	13.80	0.00	0.00	13.80	13.80	13.80	13.80	13.80	0.00	0.00	13.80	13.80	13.80
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.48	0.48	0.48	0.00	0.00	0.48	0.48	0.48	0.48	0.48	0.00	0.00	0.48	0.48	0.48
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.78	0.78	0.78	0.00	0.00	0.78	0.78	0.78	0.78	0.78	0.00	0.00	0.78	0.78	0.78
PM10 Total	PM10 total	20.11	2/4/2025	1.26	1.26	1.26	0.00	0.00	1.26	1.26	1.26	1.26	1.26	0.00	0.00	1.26	1.26	1.26
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.44	0.44	0.44	0.00	0.00	0.44	0.44	0.44	0.44	0.44	0.00	0.00	0.44	0.44	0.44
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.15	0.15	0.15	0.00	0.00	0.15	0.15	0.15	0.15	0.15	0.00	0.00	0.15	0.15	0.15
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.59	0.59	0.59	0.00	0.00	0.59	0.59	0.59	0.59	0.59	0.00	0.00	0.59	0.59	0.59

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	9/11/2025	9/12/2025	9/13/2025	9/14/2025	9/15/2025	9/16/2025	9/17/2025	9/18/2025	9/19/2025	9/20/2025	9/21/2025	9/22/2025	9/23/2025	9/24/2025	9/25/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				5	6	7	1	2	3	4	5	6	7	1	2	3	4	5
Phase Name	Start Date	End Date	# of Workdays	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	1	1	0	0	1	1	1	1	1	0	0	1	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	1.29	1.29	0.00	0.00	1.29	1.29	1.29	1.29	1.29	0.00	0.00	3.76	3.29	3.29	3.29
NOX	NOX	50.48	12/2/2024	9.94	9.94	0.00	0.00	9.94	9.94	9.94	9.94	9.94	0.00	0.00	29.99	25.88	25.88	25.88
CO	CO	71.45	12/23/2024	13.80	13.80	0.00	0.00	13.80	13.80	13.80	13.80	13.80	0.00	0.00	38.63	33.59	33.59	33.59
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.48	0.48	0.00	0.00	0.48	0.48	0.48	0.48	0.48	0.00	0.00	1.44	1.27	1.27	1.27
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.78	0.78	0.00	0.00	0.78	0.78	0.78	0.78	0.78	0.00	0.00	13.12	12.59	12.59	12.59
PM10 Total	PM10 total	20.11	2/4/2025	1.26	1.26	0.00	0.00	1.26	1.26	1.26	1.26	1.26	0.00	0.00	14.56	13.85	13.85	13.85
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.44	0.44	0.00	0.00	0.44	0.44	0.44	0.44	0.44	0.00	0.00	1.32	1.16	1.16	1.16
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.15	0.15	0.00	0.00	0.15	0.15	0.15	0.15	0.15	0.00	0.00	1.91	1.82	1.82	1.82
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.59	0.59	0.00	0.00	0.59	0.59	0.59	0.59	0.59	0.00	0.00	3.24	2.99	2.99	2.99

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	Start Date	End Date	# of Workdays	9/26/2025 2025 6 Fri	9/27/2025 2025 7 Sat	9/28/2025 2025 1 Sun	9/29/2025 2025 2 Monday	9/30/2025 2025 3 Tuesday	10/1/2025 2025 4 Wed	10/2/2025 2025 5 Thurs	10/3/2025 2025 6 Fri	10/4/2025 2025 7 Sat	10/5/2025 2025 1 Sun	10/6/2025 2025 2 Monday	10/7/2025 2025 3 Tuesday	10/8/2025 2025 4 Wed	10/9/2025 2025 5 Thurs	10/10/2025 2025 6 Fri
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	Pollutant	Daily Max Emissions (lb/day)	Max Day Date	9/26/2025	9/27/2025	9/28/2025	9/29/2025	9/30/2025	10/1/2025	10/2/2025	10/3/2025	10/4/2025	10/5/2025	10/6/2025	10/7/2025	10/8/2025	10/9/2025	10/10/2025
ROG	ROG	6.71	12/23/2024	3.29	0.00	0.00	3.29	3.29	3.29	3.29	1.10	0.00	0.00	1.10	1.10	1.10	1.10	1.10
NOX	NOX	50.48	12/2/2024	25.88	0.00	0.00	25.88	25.88	25.88	25.88	10.68	0.00	0.00	10.68	10.68	10.68	10.68	10.68
CO	CO	71.45	12/23/2024	33.59	0.00	0.00	33.59	33.59	33.59	33.59	12.25	0.00	0.00	12.25	12.25	12.25	12.25	12.25
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	1.27	0.00	0.00	1.27	1.27	1.27	1.27	0.38	0.00	0.00	0.38	0.38	0.38	0.38	0.38
PM10 Fugitive	PM10 d	18.38	2/4/2025	12.59	0.00	0.00	12.59	12.59	12.59	12.59	0.42	0.00	0.00	0.42	0.42	0.42	0.42	0.42
PM10 Total	PM10 total	20.11	2/4/2025	13.85	0.00	0.00	13.85	13.85	13.85	13.85	0.80	0.00	0.00	0.80	0.80	0.80	0.80	0.80
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	1.16	0.00	0.00	1.16	1.16	1.16	1.16	0.35	0.00	0.00	0.35	0.35	0.35	0.35	0.35
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	1.82	0.00	0.00	1.82	1.82	1.82	1.82	0.10	0.00	0.00	0.10	0.10	0.10	0.10	0.10
PM2.5 Total	PM2.5 total	4.62	12/2/2024	2.99	0.00	0.00	2.99	2.99	2.99	2.99	0.46	0.00	0.00	0.46	0.46	0.46	0.46	0.46

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	10/11/2025	10/12/2025	10/13/2025	10/14/2025	10/15/2025	10/16/2025	10/17/2025	10/18/2025	10/19/2025	10/20/2025	10/21/2025	10/22/2025	10/23/2025	10/24/2025	10/25/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Phase Name	Start Date	End Date	# of Workdays	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	0.00	1.10	1.10	1.10	1.10	1.10	0.00	0.00	1.10	1.10	1.10	1.10	1.10	0.00
NOX	NOX	50.48	12/2/2024	0.00	0.00	10.68	10.68	10.68	10.68	10.68	0.00	0.00	10.68	10.68	10.68	10.68	10.68	0.00
CO	CO	71.45	12/23/2024	0.00	0.00	12.25	12.25	12.25	12.25	12.25	0.00	0.00	12.25	12.25	12.25	12.25	12.25	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	0.00	0.38	0.38	0.38	0.38	0.38	0.00	0.00	0.38	0.38	0.38	0.38	0.38	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	0.00	0.42	0.42	0.42	0.42	0.42	0.00	0.00	0.42	0.42	0.42	0.42	0.42	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	0.00	0.80	0.80	0.80	0.80	0.80	0.00	0.00	0.80	0.80	0.80	0.80	0.80	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	0.00	0.35	0.35	0.35	0.35	0.35	0.00	0.00	0.35	0.35	0.35	0.35	0.35	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	0.00	0.46	0.46	0.46	0.46	0.46	0.00	0.00	0.46	0.46	0.46	0.46	0.46	0.00

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	10/26/2025	10/27/2025	10/28/2025	10/29/2025	10/30/2025	10/31/2025	11/1/2025	11/2/2025	11/3/2025	11/4/2025	11/5/2025	11/6/2025	11/7/2025	11/8/2025	11/9/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				1	2	3	4	5	6	7	1	2	3	4	5	6	7	1
Phase Name	Start Date	End Date	# of Workdays	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	1.10	1.10	1.10	1.10	1.10	0.00	0.00	1.10	1.10	1.10	1.10	1.10	0.00	0.00
NOX	NOX	50.48	12/2/2024	0.00	10.68	10.68	10.68	10.68	10.68	0.00	0.00	10.68	10.68	10.68	10.68	10.68	0.00	0.00
CO	CO	71.45	12/23/2024	0.00	12.25	12.25	12.25	12.25	12.25	0.00	0.00	12.25	12.25	12.25	12.25	12.25	0.00	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	0.38	0.38	0.38	0.38	0.38	0.00	0.00	0.38	0.38	0.38	0.38	0.38	0.00	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	0.42	0.42	0.42	0.42	0.42	0.00	0.00	0.42	0.42	0.42	0.42	0.42	0.00	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	0.80	0.80	0.80	0.80	0.80	0.00	0.00	0.80	0.80	0.80	0.80	0.80	0.00	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	0.35	0.35	0.35	0.35	0.35	0.00	0.00	0.35	0.35	0.35	0.35	0.35	0.00	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.00	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	0.46	0.46	0.46	0.46	0.46	0.00	0.00	0.46	0.46	0.46	0.46	0.46	0.00	0.00

MAX DAY SHEET

			Workdays/Week
Project Start Date:	10/1/2024		5
Project End Date:	11/30/2026		

Phase Name	**Start Date**	**End Date**	**# of Workdays**	11/10/2025	11/11/2025	11/12/2025	11/13/2025	11/14/2025	11/15/2025	11/16/2025	11/17/2025	11/18/2025	11/19/2025	11/20/2025	11/21/2025	11/22/2025	11/23/2025	11/24/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				2	3	4	5	6	7	1	2	3	4	5	6	7	1	2
Phase Name	Start Date	End Date	# of Workdays	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	1.10	1.10	1.10	1.10	1.10	0.00	0.00	1.10	1.10	1.10	1.10	1.10	0.00	0.00	1.10
NOX	NOX	50.48	12/2/2024	10.68	10.68	10.68	10.68	10.68	0.00	0.00	10.68	10.68	10.68	10.68	10.68	0.00	0.00	10.68
CO	CO	71.45	12/23/2024	12.25	12.25	12.25	12.25	12.25	0.00	0.00	12.25	12.25	12.25	12.25	12.25	0.00	0.00	12.25
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.38	0.38	0.38	0.38	0.38	0.00	0.00	0.38	0.38	0.38	0.38	0.38	0.00	0.00	0.38
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.42	0.42	0.42	0.42	0.42	0.00	0.00	0.42	0.42	0.42	0.42	0.42	0.00	0.00	0.42
PM10 Total	PM10 total	20.11	2/4/2025	0.80	0.80	0.80	0.80	0.80	0.00	0.00	0.80	0.80	0.80	0.80	0.80	0.00	0.00	0.80
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.35	0.35	0.35	0.35	0.35	0.00	0.00	0.35	0.35	0.35	0.35	0.35	0.00	0.00	0.35
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.10	0.10	0.10	0.10	0.10	0.00	0.00	0.10
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.46	0.46	0.46	0.46	0.46	0.00	0.00	0.46	0.46	0.46	0.46	0.46	0.00	0.00	0.46

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	11/25/2025	11/26/2025	11/27/2025	11/28/2025	11/29/2025	11/30/2025	12/1/2025	12/2/2025	12/3/2025	12/4/2025	12/5/2025	12/6/2025	12/7/2025	12/8/2025	12/9/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
Phase Name	Start Date	End Date	# of Workdays	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	1	1	1	1	0	0	1	1	1	1	1	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	1	1	1	1	0	0	1	1	1	1	1	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	1.10	4.04	3.56	3.56	0.00	0.00	3.56	3.56	3.56	3.56	3.56	0.00	0.00	3.76	3.76
NOX	NOX	50.48	12/2/2024	10.68	31.85	27.77	27.77	0.00	0.00	27.77	27.77	27.77	27.77	27.77	0.00	0.00	28.20	28.20
CO	CO	71.45	12/23/2024	12.25	40.69	35.53	35.53	0.00	0.00	35.53	35.53	35.53	35.53	35.53	0.00	0.00	35.85	35.85
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.38	1.54	1.37	1.37	0.00	0.00	1.37	1.37	1.37	1.37	1.37	0.00	0.00	1.43	1.43
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.42	12.58	12.43	12.43	0.00	0.00	12.43	12.43	12.43	12.43	12.43	0.00	0.00	12.33	12.33
PM10 Total	PM10 total	20.11	2/4/2025	0.80	14.13	13.81	13.81	0.00	0.00	13.81	13.81	13.81	13.81	13.81	0.00	0.00	13.77	13.77
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.35	1.42	1.26	1.26	0.00	0.00	1.26	1.26	1.26	1.26	1.26	0.00	0.00	1.32	1.32
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.10	1.82	1.78	1.78	0.00	0.00	1.78	1.78	1.78	1.78	1.78	0.00	0.00	1.76	1.76
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.46	3.24	3.05	3.05	0.00	0.00	3.05	3.05	3.05	3.05	3.05	0.00	0.00	3.08	3.08

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	12/10/2025	12/11/2025	12/12/2025	12/13/2025	12/14/2025	12/15/2025	12/16/2025	12/17/2025	12/18/2025	12/19/2025	12/20/2025	12/21/2025	12/22/2025	12/23/2025	12/24/2025
				2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
				4	5	6	7	1	2	3	4	5	6	7	1	2	3	4
Phase Name	Start Date	End Date	# of Workdays	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	1	1	1	0	0	1	1	1	1	1	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter str	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	3.93	0.99	0.99	0.00	0.00	0.99	0.99	0.99	0.99	0.99	0.00	0.00	0.98	0.98	0.98
NOX	NOX	50.48	12/2/2024	30.48	9.31	9.31	0.00	0.00	9.31	9.31	9.31	9.31	9.31	0.00	0.00	11.24	11.24	11.24
CO	CO	71.45	12/23/2024	37.57	9.14	9.14	0.00	0.00	9.14	9.14	9.14	9.14	9.14	0.00	0.00	10.43	10.43	10.43
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	1.49	0.33	0.33	0.00	0.00	0.33	0.33	0.33	0.33	0.33	0.00	0.00	0.34	0.34	0.34
PM10 Fugitive	PM10 d	18.38	2/4/2025	12.41	0.25	0.25	0.00	0.00	0.25	0.25	0.25	0.25	0.25	0.00	0.00	0.37	0.37	0.37
PM10 Total	PM10 total	20.11	2/4/2025	13.90	0.57	0.57	0.00	0.00	0.57	0.57	0.57	0.57	0.57	0.00	0.00	0.72	0.72	0.72
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	1.37	0.30	0.30	0.00	0.00	0.30	0.30	0.30	0.30	0.30	0.00	0.00	0.32	0.32	0.32
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	1.78	0.06	0.06	0.00	0.00	0.06	0.06	0.06	0.06	0.06	0.00	0.00	0.09	0.09	0.09
PM2.5 Total	PM2.5 total	4.62	12/2/2024	3.15	0.36	0.36	0.00	0.00	0.36	0.36	0.36	0.36	0.36	0.00	0.00	0.41	0.41	0.41

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	Start Date	End Date	# of Workdays	12/25/2025	12/26/2025	12/27/2025	12/28/2025	12/29/2025	12/30/2025	12/31/2025	1/1/2026	1/2/2026	1/3/2026	1/4/2026	1/5/2026	1/6/2026	1/7/2026	1/8/2026
				2025	2025	2025	2025	2025	2025	2025	2026	2026	2026	2026	2026	2026	2026	2026
				5	6	7	1	2	3	4	5	6	7	1	2	3	4	5
Phase Name	Start Date	End Date	# of Workdays	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter str	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	Pollutant	Daily Max Emissions (lb/day)	Max Day Date															
ROG	ROG	6.71	12/23/2024	0.82	0.82	0.00	0.00	0.82	0.82	0.82	0.82	0.82	0.00	0.00	0.82	0.82	0.82	0.82
NOX	NOX	50.48	12/2/2024	8.95	8.95	0.00	0.00	8.95	8.95	8.95	8.95	8.95	0.00	0.00	8.95	8.95	8.95	8.95
CO	CO	71.45	12/23/2024	8.70	8.70	0.00	0.00	8.70	8.70	8.70	8.70	8.70	0.00	0.00	8.70	8.70	8.70	8.70
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.29	0.29	0.00	0.00	0.29	0.29	0.29	0.29	0.29	0.00	0.00	0.29	0.29	0.29	0.29
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.29	0.29	0.00	0.00	0.29	0.29	0.29	0.29	0.29	0.00	0.00	0.29	0.29	0.29	0.29
PM10 Total	PM10 total	20.11	2/4/2025	0.58	0.58	0.00	0.00	0.58	0.58	0.58	0.58	0.58	0.00	0.00	0.58	0.58	0.58	0.58
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.27	0.27	0.00	0.00	0.27	0.27	0.27	0.27	0.27	0.00	0.00	0.27	0.27	0.27	0.27
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.07	0.07	0.00	0.00	0.07	0.07	0.07	0.07	0.07	0.00	0.00	0.07	0.07	0.07	0.07
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.34	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00	0.34	0.34	0.34	0.34

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	1/9/2026	1/10/2026	1/11/2026	1/12/2026	1/13/2026	1/14/2026	1/15/2026	1/16/2026	1/17/2026	1/18/2026	1/19/2026	1/20/2026	1/21/2026	1/22/2026	1/23/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				6	7	1	2	3	4	5	6	7	1	2	3	4	5	6
Phase Name	Start Date	End Date	# of Workdays	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.82	0.00	0.00	0.82	0.82	0.82	0.82	0.82	0.00	0.00	0.82	0.82	0.82	0.82	0.82
NOX	NOX	50.48	12/2/2024	8.95	0.00	0.00	8.95	8.95	8.95	8.95	8.95	0.00	0.00	8.95	8.95	8.95	8.95	8.95
CO	CO	71.45	12/23/2024	8.70	0.00	0.00	8.70	8.70	8.70	8.70	8.70	0.00	0.00	8.70	8.70	8.70	8.70	8.70
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.29	0.00	0.00	0.29	0.29	0.29	0.29	0.29	0.00	0.00	0.29	0.29	0.29	0.29	0.29
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.29	0.00	0.00	0.29	0.29	0.29	0.29	0.29	0.00	0.00	0.29	0.29	0.29	0.29	0.29
PM10 Total	PM10 total	20.11	2/4/2025	0.58	0.00	0.00	0.58	0.58	0.58	0.58	0.58	0.00	0.00	0.58	0.58	0.58	0.58	0.58
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.27	0.00	0.00	0.27	0.27	0.27	0.27	0.27	0.00	0.00	0.27	0.27	0.27	0.27	0.27
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.07	0.00	0.00	0.07	0.07	0.07	0.07	0.07	0.00	0.00	0.07	0.07	0.07	0.07	0.07
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00	0.34	0.34	0.34	0.34	0.34

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	1/24/2026	1/25/2026	1/26/2026	1/27/2026	1/28/2026	1/29/2026	1/30/2026	1/31/2026	2/1/2026	2/2/2026	2/3/2026	2/4/2026	2/5/2026	2/6/2026	2/7/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Phase Name	Start Date	End Date	# of Workdays	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfection	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	0.00	0.82	0.82	0.82	0.82	0.82	0.00	0.00	0.95	0.95	0.95	0.95	0.95	0.00
NOX	NOX	50.48	12/2/2024	0.00	0.00	8.95	8.95	8.95	8.95	8.95	0.00	0.00	11.30	11.30	11.30	11.30	11.30	0.00
CO	CO	71.45	12/23/2024	0.00	0.00	8.70	8.70	8.70	8.70	8.70	0.00	0.00	10.33	10.33	10.33	10.33	10.33	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	0.00	0.29	0.29	0.29	0.29	0.29	0.00	0.00	0.33	0.33	0.33	0.33	0.33	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	0.00	0.29	0.29	0.29	0.29	0.29	0.00	0.00	0.37	0.37	0.37	0.37	0.37	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	0.00	0.58	0.58	0.58	0.58	0.58	0.00	0.00	0.70	0.70	0.70	0.70	0.70	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	0.00	0.27	0.27	0.27	0.27	0.27	0.00	0.00	0.30	0.30	0.30	0.30	0.30	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	0.00	0.07	0.07	0.07	0.07	0.07	0.00	0.00	0.09	0.09	0.09	0.09	0.09	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	0.00	0.34	0.34	0.34	0.34	0.34	0.00	0.00	0.39	0.39	0.39	0.39	0.39	0.00

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	2/8/2026	2/9/2026	2/10/2026	2/11/2026	2/12/2026	2/13/2026	2/14/2026	2/15/2026	2/16/2026	2/17/2026	2/18/2026	2/19/2026	2/20/2026	2/21/2026	2/22/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				1	2	3	4	5	6	7	1	2	3	4	5	6	7	1
Phase Name	Start Date	End Date	# of Workdays	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	1	1	1	1	1	0	0	1	1	1	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	0.95	0.95	0.95	0.95	0.95	0.00	0.00	0.95	0.95	0.95	0.78	0.78	0.00	0.00
NOX	NOX	50.48	12/2/2024	0.00	11.30	11.30	11.30	11.30	11.30	0.00	0.00	11.30	11.30	11.30	9.02	9.02	0.00	0.00
CO	CO	71.45	12/23/2024	0.00	10.33	10.33	10.33	10.33	10.33	0.00	0.00	10.33	10.33	10.33	8.64	8.64	0.00	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	0.33	0.33	0.33	0.33	0.33	0.00	0.00	0.33	0.33	0.33	0.27	0.27	0.00	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	0.37	0.37	0.37	0.37	0.37	0.00	0.00	0.37	0.37	0.37	0.29	0.29	0.00	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	0.70	0.70	0.70	0.70	0.70	0.00	0.00	0.70	0.70	0.70	0.57	0.57	0.00	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	0.30	0.30	0.30	0.30	0.30	0.00	0.00	0.30	0.30	0.30	0.25	0.25	0.00	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	0.09	0.09	0.09	0.09	0.09	0.00	0.00	0.09	0.09	0.09	0.07	0.07	0.00	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	0.39	0.39	0.39	0.39	0.39	0.00	0.00	0.39	0.39	0.39	0.32	0.32	0.00	0.00

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	2/23/2026	2/24/2026	2/25/2026	2/26/2026	2/27/2026	2/28/2026	3/1/2026	3/2/2026	3/3/2026	3/4/2026	3/5/2026	3/6/2026	3/7/2026	3/8/2026	3/9/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				2	3	4	5	6	7	1	2	3	4	5	6	7	1	2
Phase Name	Start Date	End Date	# of Workdays	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	1	1	1	1	1	0	0	1	1	1	1	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	1	1	1	1	1	0	0	1
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.78	0.78	0.78	0.78	0.78	0.00	0.00	0.93	0.93	0.93	0.93	0.63	0.00	0.00	0.80
NOX	NOX	50.48	12/2/2024	9.02	9.02	9.02	9.02	9.02	0.00	0.00	12.28	12.28	12.28	12.28	7.37	0.00	0.00	9.92
CO	CO	71.45	12/23/2024	8.64	8.64	8.64	8.64	8.64	0.00	0.00	10.56	10.56	10.56	10.56	7.16	0.00	0.00	8.95
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.27	0.27	0.27	0.27	0.27	0.00	0.00	0.32	0.32	0.32	0.32	0.22	0.00	0.00	0.28
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.29	0.29	0.29	0.29	0.29	0.00	0.00	0.40	0.40	0.40	0.40	0.27	0.00	0.00	0.33
PM10 Total	PM10 total	20.11	2/4/2025	0.57	0.57	0.57	0.57	0.57	0.00	0.00	0.71	0.71	0.71	0.71	0.49	0.00	0.00	0.61
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.25	0.25	0.25	0.25	0.25	0.00	0.00	0.29	0.29	0.29	0.29	0.20	0.00	0.00	0.26
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.07	0.07	0.07	0.07	0.07	0.00	0.00	0.10	0.10	0.10	0.10	0.07	0.00	0.00	0.09
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.32	0.32	0.32	0.32	0.32	0.00	0.00	0.40	0.40	0.40	0.40	0.27	0.00	0.00	0.35

MAX DAY SHEET

			Workdays/Week
Project Start Date:	10/1/2024		5
Project End Date:	11/30/2026		

Phase Name	**Start Date**	**End Date**	**# of Workdays**	3/10/2026	3/11/2026	3/12/2026	3/13/2026	3/14/2026	3/15/2026	3/16/2026	3/17/2026	3/18/2026	3/19/2026	3/20/2026	3/21/2026	3/22/2026	3/23/2026	3/24/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
Phase Name	Start Date	End Date	# of Workdays	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	1	1	1	1	0	0	1	1	1	1	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter str	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfection	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.45	0.45	0.45	0.45	0.00	0.00	0.45	0.45	0.45	0.74	0.57	0.00	0.00	0.57	0.57
NOX	NOX	50.48	12/2/2024	8.16	8.16	8.16	8.16	0.00	0.00	8.16	8.16	8.16	13.06	10.51	0.00	0.00	10.51	10.51
CO	CO	71.45	12/23/2024	5.35	5.35	5.35	5.35	0.00	0.00	5.35	5.35	5.35	8.71	6.92	0.00	0.00	6.92	6.92
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.15	0.15	0.15	0.15	0.00	0.00	0.15	0.15	0.15	0.25	0.18	0.00	0.00	0.18	0.18
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.24	0.24	0.24	0.24	0.00	0.00	0.24	0.24	0.24	0.37	0.31	0.00	0.00	0.31	0.31
PM10 Total	PM10 total	20.11	2/4/2025	0.39	0.39	0.39	0.39	0.00	0.00	0.39	0.39	0.39	0.61	0.49	0.00	0.00	0.49	0.49
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.14	0.14	0.14	0.14	0.00	0.00	0.14	0.14	0.14	0.23	0.17	0.00	0.00	0.17	0.17
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.06	0.06	0.06	0.06	0.00	0.00	0.06	0.06	0.06	0.09	0.08	0.00	0.00	0.08	0.08
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.20	0.20	0.20	0.20	0.00	0.00	0.20	0.20	0.20	0.32	0.25	0.00	0.00	0.25	0.25

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	3/25/2026 2026 4 Wed	3/26/2026 2026 5 Thurs	3/27/2026 2026 6 Fri	3/28/2026 2026 7 Sat	3/29/2026 2026 1 Sun	3/30/2026 2026 2 Monday	3/31/2026 2026 3 Tuesday	4/1/2026 2026 4 Wed	4/2/2026 2026 5 Thurs	4/3/2026 2026 6 Fri	4/4/2026 2026 7 Sat	4/5/2026 2026 1 Sun	4/6/2026 2026 2 Monday	4/7/2026 2026 3 Tuesday	4/8/2026 2026 4 Wed
Phase Name	Start Date	End Date	# of Workdays															
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.57	0.57	0.57	0.00	0.00	0.57	0.57	0.57	0.57	0.57	0.00	0.00	0.57	0.57	0.57
NOX	NOX	50.48	12/2/2024	10.51	10.51	10.51	0.00	0.00	10.51	10.51	10.51	10.51	10.51	0.00	0.00	10.51	10.51	10.51
CO	CO	71.45	12/23/2024	6.92	6.92	6.92	0.00	0.00	6.92	6.92	6.92	6.92	6.92	0.00	0.00	6.92	6.92	6.92
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.18	0.18	0.18	0.00	0.00	0.18	0.18	0.18	0.18	0.18	0.00	0.00	0.18	0.18	0.18
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.31	0.31	0.31	0.00	0.00	0.31	0.31	0.31	0.31	0.31	0.00	0.00	0.31	0.31	0.31
PM10 Total	PM10 total	20.11	2/4/2025	0.49	0.49	0.49	0.00	0.00	0.49	0.49	0.49	0.49	0.49	0.00	0.00	0.49	0.49	0.49
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.17	0.17	0.17	0.00	0.00	0.17	0.17	0.17	0.17	0.17	0.00	0.00	0.17	0.17	0.17
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.08	0.08	0.08	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.08	0.08	0.08
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.25	0.25	0.25	0.00	0.00	0.25	0.25	0.25	0.25	0.25	0.00	0.00	0.25	0.25	0.25

MAX DAY SHEET

			Workdays/Week
Project Start Date:	10/1/2024		5
Project End Date:	11/30/2026		

Phase Name	**Start Date**	**End Date**	**# of Workdays**	4/9/2026	4/10/2026	4/11/2026	4/12/2026	4/13/2026	4/14/2026	4/15/2026	4/16/2026	4/17/2026	4/18/2026	4/19/2026	4/20/2026	4/21/2026	4/22/2026	4/23/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				5	6	7	1	2	3	4	5	6	7	1	2	3	4	5
Phase Name	Start Date	End Date	# of Workdays	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter sti	3/19/2026	4/18/2026	21	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.57	0.57	0.00	0.00	0.57	0.57	0.57	0.57	0.57	0.00	0.00	1.98	1.98	1.98	1.98
NOX	NOX	50.48	12/2/2024	10.51	10.51	0.00	0.00	10.51	10.51	10.51	10.51	10.51	0.00	0.00	31.24	31.24	31.24	31.24
CO	CO	71.45	12/23/2024	6.92	6.92	0.00	0.00	6.92	6.92	6.92	6.92	6.92	0.00	0.00	18.81	18.81	18.81	18.81
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.18	0.18	0.00	0.00	0.18	0.18	0.18	0.18	0.18	0.00	0.00	0.61	0.61	0.61	0.61
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.31	0.31	0.00	0.00	0.31	0.31	0.31	0.31	0.31	0.00	0.00	0.56	0.56	0.56	0.56
PM10 Total	PM10 total	20.11	2/4/2025	0.49	0.49	0.00	0.00	0.49	0.49	0.49	0.49	0.49	0.00	0.00	1.17	1.17	1.17	1.17
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.17	0.17	0.00	0.00	0.17	0.17	0.17	0.17	0.17	0.00	0.00	0.56	0.56	0.56	0.56
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.08	0.08	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.15	0.15	0.15	0.15
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.25	0.25	0.00	0.00	0.25	0.25	0.25	0.25	0.25	0.00	0.00	0.71	0.71	0.71	0.71

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	4/24/2026	4/25/2026	4/26/2026	4/27/2026	4/28/2026	4/29/2026	4/30/2026	5/1/2026	5/2/2026	5/3/2026	5/4/2026	5/5/2026	5/6/2026	5/7/2026	5/8/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				6	7	1	2	3	4	5	6	7	1	2	3	4	5	6
Phase Name	Start Date	End Date	# of Workdays	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	1	0	0	1	1	1	1	1	0	0	1	1	1	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	1	0	0	1	1	1	1	1	0	0	1	1	1	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	1.98	0.00	0.00	1.98	1.98	1.98	1.98	1.97	0.00	0.00	1.97	1.97	1.97	0.43	0.43
NOX	NOX	50.48	12/2/2024	31.24	0.00	0.00	31.24	31.24	31.24	31.24	30.34	0.00	0.00	30.34	30.34	30.34	7.99	7.99
CO	CO	71.45	12/23/2024	18.81	0.00	0.00	18.81	18.81	18.81	18.81	18.62	0.00	0.00	18.62	18.62	18.62	5.43	5.43
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.61	0.00	0.00	0.61	0.61	0.61	0.61	0.60	0.00	0.00	0.60	0.60	0.60	0.12	0.12
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.56	0.00	0.00	0.56	0.56	0.56	0.56	0.56	0.00	0.00	0.56	0.56	0.56	0.30	0.30
PM10 Total	PM10 total	20.11	2/4/2025	1.17	0.00	0.00	1.17	1.17	1.17	1.17	1.15	0.00	0.00	1.15	1.15	1.15	0.43	0.43
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.56	0.00	0.00	0.56	0.56	0.56	0.56	0.55	0.00	0.00	0.55	0.55	0.55	0.11	0.11
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.15	0.00	0.00	0.15	0.15	0.15	0.15	0.14	0.00	0.00	0.14	0.14	0.14	0.08	0.08
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.71	0.00	0.00	0.71	0.71	0.71	0.71	0.69	0.00	0.00	0.69	0.69	0.69	0.19	0.19

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	5/9/2026	5/10/2026	5/11/2026	5/12/2026	5/13/2026	5/14/2026	5/15/2026	5/16/2026	5/17/2026	5/18/2026	5/19/2026	5/20/2026	5/21/2026	5/22/2026	5/23/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Phase Name	Start Date	End Date	# of Workdays	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter str	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00
NOX	NOX	50.48	12/2/2024	0.00	0.00	7.99	7.99	7.99	7.99	7.99	0.00	0.00	7.99	7.99	7.99	7.99	7.99	0.00
CO	CO	71.45	12/23/2024	0.00	0.00	5.43	5.43	5.43	5.43	5.43	0.00	0.00	5.43	5.43	5.43	5.43	5.43	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	0.00	0.12	0.12	0.12	0.12	0.12	0.00	0.00	0.12	0.12	0.12	0.12	0.12	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	0.00	0.30	0.30	0.30	0.30	0.30	0.00	0.00	0.30	0.30	0.30	0.30	0.30	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.00

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	5/24/2026	5/25/2026	5/26/2026	5/27/2026	5/28/2026	5/29/2026	5/30/2026	5/31/2026	6/1/2026	6/2/2026	6/3/2026	6/4/2026	6/5/2026	6/6/2026	6/7/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				1	2	3	4	5	6	7	1	2	3	4	5	6	7	1
Phase Name	Start Date	End Date	# of Workdays	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter sti	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00
NOX	NOX	50.48	12/2/2024	0.00	7.99	7.99	7.99	7.99	7.99	0.00	0.00	7.99	7.99	7.99	7.99	7.99	0.00	0.00
CO	CO	71.45	12/23/2024	0.00	5.43	5.43	5.43	5.43	5.43	0.00	0.00	5.43	5.43	5.43	5.43	5.43	0.00	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	0.12	0.12	0.12	0.12	0.12	0.00	0.00	0.12	0.12	0.12	0.12	0.12	0.00	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	0.30	0.30	0.30	0.30	0.30	0.00	0.00	0.30	0.30	0.30	0.30	0.30	0.00	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	0.11	0.11	0.11	0.11	0.11	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.00	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.00	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	0.19	0.19	0.19	0.19	0.19	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.00	0.00

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	6/8/2026	6/9/2026	6/10/2026	6/11/2026	6/12/2026	6/13/2026	6/14/2026	6/15/2026	6/16/2026	6/17/2026	6/18/2026	6/19/2026	6/20/2026	6/21/2026	6/22/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				2	3	4	5	6	7	1	2	3	4	5	6	7	1	2
Phase Name	Start Date	End Date	# of Workdays	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43
NOX	NOX	50.48	12/2/2024	7.99	7.99	7.99	7.99	7.99	0.00	0.00	7.99	7.99	7.99	7.99	7.99	0.00	0.00	7.99
CO	CO	71.45	12/23/2024	5.43	5.43	5.43	5.43	5.43	0.00	0.00	5.43	5.43	5.43	5.43	5.43	0.00	0.00	5.43
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.12	0.12	0.12	0.12	0.12	0.00	0.00	0.12	0.12	0.12	0.12	0.12	0.00	0.00	0.12
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.30	0.30	0.30	0.30	0.30	0.00	0.00	0.30	0.30	0.30	0.30	0.30	0.00	0.00	0.30
PM10 Total	PM10 total	20.11	2/4/2025	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.11	0.11	0.11	0.11	0.11	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.00	0.00	0.11
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.08
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.19	0.19	0.19	0.19	0.19	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.00	0.00	0.19

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	6/23/2026	6/24/2026	6/25/2026	6/26/2026	6/27/2026	6/28/2026	6/29/2026	6/30/2026	7/1/2026	7/2/2026	7/3/2026	7/4/2026	7/5/2026	7/6/2026	7/7/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
Phase Name	Start Date	End Date	# of Workdays	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter sti	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43
NOX	NOX	50.48	12/2/2024	7.99	7.99	7.99	7.99	0.00	0.00	7.99	7.99	7.99	7.99	7.99	0.00	0.00	7.99	7.99
CO	CO	71.45	12/23/2024	5.43	5.43	5.43	5.43	0.00	0.00	5.43	5.43	5.43	5.43	5.43	0.00	0.00	5.43	5.43
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.12	0.12	0.12	0.12	0.00	0.00	0.12	0.12	0.12	0.12	0.12	0.00	0.00	0.12	0.12
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.30	0.30	0.30	0.30	0.00	0.00	0.30	0.30	0.30	0.30	0.30	0.00	0.00	0.30	0.30
PM10 Total	PM10 total	20.11	2/4/2025	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.11	0.11	0.11	0.11	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.00	0.00	0.11	0.11
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.08	0.08	0.08	0.08	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.08	0.08
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.19	0.19	0.19	0.19	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.00	0.00	0.19	0.19

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	7/8/2026	7/9/2026	7/10/2026	7/11/2026	7/12/2026	7/13/2026	7/14/2026	7/15/2026	7/16/2026	7/17/2026	7/18/2026	7/19/2026	7/20/2026	7/21/2026	7/22/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				4	5	6	7	1	2	3	4	5	6	7	1	2	3	4
Phase Name	Start Date	End Date	# of Workdays	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter sti	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	1	1	1	0	0	1	1	1	1	1	0	0	1	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.56	0.43	0.43
NOX	NOX	50.48	12/2/2024	7.99	7.99	7.99	0.00	0.00	7.99	7.99	7.99	7.99	7.99	0.00	0.00	10.35	7.99	7.99
CO	CO	71.45	12/23/2024	5.43	5.43	5.43	0.00	0.00	5.43	5.43	5.43	5.43	5.43	0.00	0.00	7.15	5.43	5.43
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.12	0.12	0.12	0.00	0.00	0.12	0.12	0.12	0.12	0.12	0.00	0.00	0.16	0.12	0.12
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.30	0.30	0.30	0.00	0.00	0.30	0.30	0.30	0.30	0.30	0.00	0.00	0.40	0.30	0.30
PM10 Total	PM10 total	20.11	2/4/2025	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.56	0.43	0.43
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.11	0.11	0.11	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.00	0.00	0.15	0.11	0.11
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.08	0.08	0.08	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.10	0.08	0.08
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.19	0.19	0.19	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.00	0.00	0.25	0.19	0.19

MAX DAY SHEET

			Workdays/Week
Project Start Date:	10/1/2024		5
Project End Date:	11/30/2026		

Phase Name	**Start Date**	**End Date**	**# of Workdays**	7/23/2026	7/24/2026	7/25/2026	7/26/2026	7/27/2026	7/28/2026	7/29/2026	7/30/2026	7/31/2026	8/1/2026	8/2/2026	8/3/2026	8/4/2026	8/5/2026	8/6/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				5	6	7	1	2	3	4	5	6	7	1	2	3	4	5
Phase Name	Start Date	End Date	# of Workdays	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter str	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43
NOX	NOX	50.48	12/2/2024	7.99	7.99	0.00	0.00	7.99	7.99	7.99	7.99	7.99	0.00	0.00	7.99	7.99	7.99	7.99
CO	CO	71.45	12/23/2024	5.43	5.43	0.00	0.00	5.43	5.43	5.43	5.43	5.43	0.00	0.00	5.43	5.43	5.43	5.43
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.12	0.12	0.00	0.00	0.12	0.12	0.12	0.12	0.12	0.00	0.00	0.12	0.12	0.12	0.12
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.30	0.30	0.00	0.00	0.30	0.30	0.30	0.30	0.30	0.00	0.00	0.30	0.30	0.30	0.30
PM10 Total	PM10 total	20.11	2/4/2025	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.11	0.11	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.00	0.00	0.11	0.11	0.11	0.11
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.08	0.08	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.08	0.08	0.08	0.08
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.19	0.19	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.00	0.00	0.19	0.19	0.19	0.19

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	8/7/2026	8/8/2026	8/9/2026	8/10/2026	8/11/2026	8/12/2026	8/13/2026	8/14/2026	8/15/2026	8/16/2026	8/17/2026	8/18/2026	8/19/2026	8/20/2026	8/21/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				6	7	1	2	3	4	5	6	7	1	2	3	4	5	6
Phase Name	Start Date	End Date	# of Workdays	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	1	0	0	1	1	1	1	1	0	0	1	1	1	1	1
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43
NOX	NOX	50.48	12/2/2024	7.99	0.00	0.00	7.99	7.99	7.99	7.99	7.99	0.00	0.00	7.99	7.99	7.99	7.99	7.99
CO	CO	71.45	12/23/2024	5.43	0.00	0.00	5.43	5.43	5.43	5.43	5.43	0.00	0.00	5.43	5.43	5.43	5.43	5.43
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.12	0.00	0.00	0.12	0.12	0.12	0.12	0.12	0.00	0.00	0.12	0.12	0.12	0.12	0.12
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.30	0.00	0.00	0.30	0.30	0.30	0.30	0.30	0.00	0.00	0.30	0.30	0.30	0.30	0.30
PM10 Total	PM10 total	20.11	2/4/2025	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	0.43	0.43	0.43	0.43
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.11	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.00	0.00	0.11	0.11	0.11	0.11	0.11
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.08	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.08	0.08	0.08	0.08	0.08
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.19	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.00	0.00	0.19	0.19	0.19	0.19	0.19

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	8/22/2026	8/23/2026	8/24/2026	8/25/2026	8/26/2026	8/27/2026	8/28/2026	8/29/2026	8/30/2026	8/31/2026	9/1/2026	9/2/2026	9/3/2026	9/4/2026	9/5/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
Phase Name	Start Date	End Date	# of Workdays	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	1	1	1	1	1	0	0	1	1	1	1	1	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	3.04	3.04	3.04	3.04	0.00
NOX	NOX	50.48	12/2/2024	0.00	0.00	7.99	7.99	7.99	7.99	7.99	0.00	0.00	7.99	25.63	25.63	25.63	25.63	0.00
CO	CO	71.45	12/23/2024	0.00	0.00	5.43	5.43	5.43	5.43	5.43	0.00	0.00	5.43	31.52	31.52	31.52	31.52	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	0.00	0.12	0.12	0.12	0.12	0.12	0.00	0.00	0.12	1.16	1.16	1.16	1.16	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	0.00	0.30	0.30	0.30	0.30	0.30	0.00	0.00	0.30	12.50	12.50	12.50	12.50	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	0.00	0.43	0.43	0.43	0.43	0.43	0.00	0.00	0.43	13.66	13.66	13.66	13.66	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	0.00	0.11	0.11	0.11	0.11	0.11	0.00	0.00	0.11	1.07	1.07	1.07	1.07	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	0.00	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.08	1.80	1.80	1.80	1.80	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	0.00	0.19	0.19	0.19	0.19	0.19	0.00	0.00	0.19	2.87	2.87	2.87	2.87	0.00

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	9/6/2026	9/7/2026	9/8/2026	9/9/2026	9/10/2026	9/11/2026	9/12/2026	9/13/2026	9/14/2026	9/15/2026	9/16/2026	9/17/2026	9/18/2026	9/19/2026	9/20/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				1	2	3	4	5	6	7	1	2	3	4	5	6	7	1
Phase Name	Start Date	End Date	# of Workdays	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	1	1	1	1	1	0	0	1	1	1	1	1	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	0.00	3.04	3.04	3.04	3.04	3.04	0.00	0.00	3.04	3.04	3.04	3.04	3.04	0.00	0.00
NOX	NOX	50.48	12/2/2024	0.00	25.63	25.63	25.63	25.63	25.63	0.00	0.00	25.63	25.63	25.63	25.63	25.63	0.00	0.00
CO	CO	71.45	12/23/2024	0.00	31.52	31.52	31.52	31.52	31.52	0.00	0.00	31.52	31.52	31.52	31.52	31.52	0.00	0.00
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.00	1.16	1.16	1.16	1.16	1.16	0.00	0.00	1.16	1.16	1.16	1.16	1.16	0.00	0.00
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.00	12.50	12.50	12.50	12.50	12.50	0.00	0.00	12.50	12.50	12.50	12.50	12.50	0.00	0.00
PM10 Total	PM10 total	20.11	2/4/2025	0.00	13.66	13.66	13.66	13.66	13.66	0.00	0.00	13.66	13.66	13.66	13.66	13.66	0.00	0.00
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.00	1.07	1.07	1.07	1.07	1.07	0.00	0.00	1.07	1.07	1.07	1.07	1.07	0.00	0.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.00	1.80	1.80	1.80	1.80	1.80	0.00	0.00	1.80	1.80	1.80	1.80	1.80	0.00	0.00
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.00	2.87	2.87	2.87	2.87	2.87	0.00	0.00	2.87	2.87	2.87	2.87	2.87	0.00	0.00

MAX DAY SHEET

		Workdays/Week	
Project Start Date:	10/1/2024	5	
Project End Date:	11/30/2026		

Phase Name	**Start Date**	**End Date**	**# of Workdays**	9/21/2026	9/22/2026	9/23/2026	9/24/2026	9/25/2026	9/26/2026	9/27/2026	9/28/2026	9/29/2026	9/30/2026	10/1/2026	10/2/2026	10/3/2026	10/4/2026	10/5/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				2	3	4	5	6	7	1	2	3	4	5	6	7	1	2
Phase Name	Start Date	End Date	# of Workdays	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	3.04	3.04	3.04	3.04	3.04	0.00	0.00	3.04	3.04	3.04	3.81	3.81	0.00	0.00	3.81
NOX	NOX	50.48	12/2/2024	25.63	25.63	25.63	25.63	25.63	0.00	0.00	25.63	25.63	25.63	30.80	30.80	0.00	0.00	30.80
CO	CO	71.45	12/23/2024	31.52	31.52	31.52	31.52	31.52	0.00	0.00	31.52	31.52	31.52	38.48	38.48	0.00	0.00	38.48
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	1.16	1.16	1.16	1.16	1.16	0.00	0.00	1.16	1.16	1.16	1.38	1.38	0.00	0.00	1.38
PM10 Fugitive	PM10 d	18.38	2/4/2025	12.50	12.50	12.50	12.50	12.50	0.00	0.00	12.50	12.50	12.50	12.56	12.56	0.00	0.00	12.56
PM10 Total	PM10 total	20.11	2/4/2025	13.66	13.66	13.66	13.66	13.66	0.00	0.00	13.66	13.66	13.66	13.94	13.94	0.00	0.00	13.94
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	1.07	1.07	1.07	1.07	1.07	0.00	0.00	1.07	1.07	1.07	1.27	1.27	0.00	0.00	1.27
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	1.80	1.80	1.80	1.80	1.80	0.00	0.00	1.80	1.80	1.80	1.82	1.82	0.00	0.00	1.82
PM2.5 Total	PM2.5 total	4.62	12/2/2024	2.87	2.87	2.87	2.87	2.87	0.00	0.00	2.87	2.87	2.87	3.09	3.09	0.00	0.00	3.09

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	10/6/2026	10/7/2026	10/8/2026	10/9/2026	10/10/2026	10/11/2026	10/12/2026	10/13/2026	10/14/2026	10/15/2026	10/16/2026	10/17/2026	10/18/2026	10/19/2026	10/20/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				3	4	5	6	7	1	2	3	4	5	6	7	1	2	3
Phase Name	Start Date	End Date	# of Workdays	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	1	1	1	1	0	0	1	1	1	1	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	1	1	1	1	0	0	1	1	1	1	1	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Fine Grading and paving site.	9/1/2026	11/15/2026	54	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	1	1	1	1	0	0	1	1	1	1	1	0	0	1	1
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	3.81	3.81	3.81	3.81	0.00	0.00	3.68	3.68	3.68	3.68	3.68	0.00	0.00	3.55	3.55
NOX	NOX	50.48	12/2/2024	30.80	30.80	30.80	30.80	0.00	0.00	28.45	28.45	28.45	28.45	27.45	0.00	0.00	25.09	25.09
CO	CO	71.45	12/23/2024	38.48	38.48	38.48	38.48	0.00	0.00	36.85	36.85	36.85	36.85	36.44	0.00	0.00	34.72	34.72
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	1.38	1.38	1.38	1.38	0.00	0.00	1.34	1.34	1.34	1.34	1.35	0.00	0.00	1.31	1.31
PM10 Fugitive	PM10 d	18.38	2/4/2025	12.56	12.56	12.56	12.56	0.00	0.00	12.49	12.49	12.49	12.49	12.43	0.00	0.00	12.34	12.34
PM10 Total	PM10 total	20.11	2/4/2025	13.94	13.94	13.94	13.94	0.00	0.00	13.83	13.83	13.83	13.83	13.78	0.00	0.00	13.65	13.65
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	1.27	1.27	1.27	1.27	0.00	0.00	1.24	1.24	1.24	1.24	1.24	0.00	0.00	1.21	1.21
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	1.82	1.82	1.82	1.82	0.00	0.00	1.80	1.80	1.80	1.80	1.78	0.00	0.00	1.76	1.76
PM2.5 Total	PM2.5 total	4.62	12/2/2024	3.09	3.09	3.09	3.09	0.00	0.00	3.04	3.04	3.04	3.04	3.03	0.00	0.00	2.97	2.97

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	10/21/2026	10/22/2026	10/23/2026	10/24/2026	10/25/2026	10/26/2026	10/27/2026	10/28/2026	10/29/2026	10/30/2026	10/31/2026	11/1/2026	11/2/2026	11/3/2026	11/4/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				4	5	6	7	1	2	3	4	5	6	7	1	2	3	4
Phase Name	Start Date	End Date	# of Workdays	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter str	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Fine Grading and paving site.	9/1/2026	11/15/2026	54	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	1	1	1	0	0	1	1	1	1	1	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	3.55	3.55	3.55	0.00	0.00	3.55	3.55	3.55	3.55	3.55	0.00	0.00	2.78	2.78	2.78
NOX	NOX	50.48	12/2/2024	25.09	25.09	25.09	0.00	0.00	25.09	25.09	25.09	25.09	25.09	0.00	0.00	19.92	19.92	19.92
CO	CO	71.45	12/23/2024	34.72	34.72	34.72	0.00	0.00	34.72	34.72	34.72	34.72	34.72	0.00	0.00	27.76	27.76	27.76
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	1.31	1.31	1.31	0.00	0.00	1.31	1.31	1.31	1.31	1.31	0.00	0.00	1.09	1.09	1.09
PM10 Fugitive	PM10 d	18.38	2/4/2025	12.34	12.34	12.34	0.00	0.00	12.34	12.34	12.34	12.34	12.34	0.00	0.00	12.27	12.27	12.27
PM10 Total	PM10 total	20.11	2/4/2025	13.65	13.65	13.65	0.00	0.00	13.65	13.65	13.65	13.65	13.65	0.00	0.00	13.37	13.37	13.37
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	1.21	1.21	1.21	0.00	0.00	1.21	1.21	1.21	1.21	1.21	0.00	0.00	1.00	1.00	1.00
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	1.76	1.76	1.76	0.00	0.00	1.76	1.76	1.76	1.76	1.76	0.00	0.00	1.74	1.74	1.74
PM2.5 Total	PM2.5 total	4.62	12/2/2024	2.97	2.97	2.97	0.00	0.00	2.97	2.97	2.97	2.97	2.97	0.00	0.00	2.75	2.75	2.75

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	11/5/2026	11/6/2026	11/7/2026	11/8/2026	11/9/2026	11/10/2026	11/11/2026	11/12/2026	11/13/2026	11/14/2026	11/15/2026	11/16/2026	11/17/2026	11/18/2026	11/19/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				5	6	7	1	2	3	4	5	6	7	1	2	3	4	5
Phase Name	Start Date	End Date	# of Workdays	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structures	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter sti	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	1	1	0	0	1	1	1	1	1	0	0	1	1	1	1
Fine Grading and paving site.	9/1/2026	11/15/2026	54	1	1	0	0	1	1	1	1	1	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**															
ROG	ROG	6.71	12/23/2024	2.78	2.78	0.00	0.00	2.78	2.78	2.78	2.78	2.78	0.00	0.00	0.30	0.30	0.30	0.30
NOX	NOX	50.48	12/2/2024	19.92	19.92	0.00	0.00	19.92	19.92	19.92	19.92	19.92	0.00	0.00	4.66	4.66	4.66	4.66
CO	CO	71.45	12/23/2024	27.76	27.76	0.00	0.00	27.76	27.76	27.76	27.76	27.76	0.00	0.00	3.40	3.40	3.40	3.40
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	1.09	1.09	0.00	0.00	1.09	1.09	1.09	1.09	1.09	0.00	0.00	0.09	0.09	0.09	0.09
PM10 Fugitive	PM10 d	18.38	2/4/2025	12.27	12.27	0.00	0.00	12.27	12.27	12.27	12.27	12.27	0.00	0.00	0.17	0.17	0.17	0.17
PM10 Total	PM10 total	20.11	2/4/2025	13.37	13.37	0.00	0.00	13.37	13.37	13.37	13.37	13.37	0.00	0.00	0.27	0.27	0.27	0.27
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.09	0.09	0.09	0.09
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	1.74	1.74	0.00	0.00	1.74	1.74	1.74	1.74	1.74	0.00	0.00	0.04	0.04	0.04	0.04
PM2.5 Total	PM2.5 total	4.62	12/2/2024	2.75	2.75	0.00	0.00	2.75	2.75	2.75	2.75	2.75	0.00	0.00	0.13	0.13	0.13	0.13

MAX DAY SHEET

		Workdays/Week
Project Start Date:	10/1/2024	5
Project End Date:	11/30/2026	

Phase Name	**Start Date**	**End Date**	**# of Workdays**	11/20/2026	11/21/2026	11/22/2026	11/23/2026	11/24/2026	11/25/2026	11/26/2026	11/27/2026	11/28/2026	11/29/2026	11/30/2026
				2026	2026	2026	2026	2026	2026	2026	2026	2026	2026	2026
				6	7	1	2	3	4	5	6	7	1	2
Phase Name	Start Date	End Date	# of Workdays	Fri	Sat	Sun	Monday	Tuesday	Wed	Thurs	Fri	Sat	Sun	Monday
Mobilization	10/1/2024	10/7/2024	4	0	0	0	0	0	0	0	0	0	0	0
Construct Haul Road	10/7/2024	10/22/2024	11	0	0	0	0	0	0	0	0	0	0	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	21	0	0	0	0	0	0	0	0	0	0	0
Utility Locating / Potholing	10/7/2024	10/21/2024	10	0	0	0	0	0	0	0	0	0	0	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	14	0	0	0	0	0	0	0	0	0	0	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	14	0	0	0	0	0	0	0	0	0	0	0
Mass Excavation	12/21/2024	1/17/2025	21	0	0	0	0	0	0	0	0	0	0	0
Rough Grading	1/20/2025	2/4/2025	11	0	0	0	0	0	0	0	0	0	0	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	21	0	0	0	0	0	0	0	0	0	0	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	189	0	0	0	0	0	0	0	0	0	0	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	10	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Oxidation Ditch 1, 2 and	12/10/2025	12/24/2025	10	0	0	0	0	0	0	0	0	0	0	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	143	0	0	0	0	0	0	0	0	0	0	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	7	0	0	0	0	0	0	0	0	0	0	0
Construct Sludge Handling Equipment and Solid	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0
Construct Splitter Structures and Pump Stations	9/22/2025	12/6/2025	54	0	0	0	0	0	0	0	0	0	0	0
Backfill Splitter Structures and Pump Stations (P	12/6/2025	12/20/2025	10	0	0	0	0	0	0	0	0	0	0	0
Process Piping Pump Stations, splitter structure:	12/20/2025	3/5/2026	54	0	0	0	0	0	0	0	0	0	0	0
Electrical underground Clarifiers 1 & 2 Splitter S	12/20/2025	2/18/2026	43	0	0	0	0	0	0	0	0	0	0	0
Construct Electrical Building, Generator Pad and	2/1/2026	10/9/2026	179	0	0	0	0	0	0	0	0	0	0	0
Construct misc above grade equipment pads / e	3/1/2026	4/30/2026	43	0	0	0	0	0	0	0	0	0	0	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	157	0	0	0	0	0	0	0	0	0	0	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	7	0	0	0	0	0	0	0	0	0	0	0
Process Piping Tertiary Pump Staions, splitter st	3/19/2026	4/18/2026	21	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	13	0	0	0	0	0	0	0	0	0	0	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	129	0	0	0	0	0	0	0	0	0	0	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	64	0	0	0	0	0	0	0	0	0	0	0
Construct Control Structures, Pump Stations, an	5/1/2026	7/20/2026	57	0	0	0	0	0	0	0	0	0	0	0
Electrical Underground Tertiary and Disinfectior	10/16/2026	11/25/2026	29	1	0	0	1	1	1	0	0	0	0	0
Fine Grading and paving site.	9/1/2026	11/15/2026	54	0	0	0	0	0	0	0	0	0	0	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	21	0	0	0	0	0	0	0	0	0	0	0
Demobilization	11/15/2026	11/30/2026	11	1	0	0	1	1	1	1	1	0	0	1

Daily Maximum Emissions

Pollutant Name	**Pollutant**	**Daily Max Emissions (lb/day)**	**Max Day Date**											
ROG	ROG	6.71	12/23/2024	0.30	0.00	0.00	0.30	0.30	0.30	0.14	0.14	0.00	0.00	0.14
NOX	NOX	50.48	12/2/2024	4.66	0.00	0.00	4.66	4.66	4.66	2.38	2.38	0.00	0.00	2.38
CO	CO	71.45	12/23/2024	3.40	0.00	0.00	3.40	3.40	3.40	1.73	1.73	0.00	0.00	1.73
SOx	SOx	0.0028	10/1/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PM10 Exhaust	PM10 ex	2.63	12/2/2024	0.09	0.00	0.00	0.09	0.09	0.09	0.04	0.04	0.00	0.00	0.04
PM10 Fugitive	PM10 d	18.38	2/4/2025	0.17	0.00	0.00	0.17	0.17	0.17	0.09	0.09	0.00	0.00	0.09
PM10 Total	PM10 total	20.11	2/4/2025	0.27	0.00	0.00	0.27	0.27	0.27	0.13	0.13	0.00	0.00	0.13
PM2.5 Exhaust	PM2.5 ex	2.42	12/2/2024	0.09	0.00	0.00	0.09	0.09	0.09	0.03	0.03	0.00	0.00	0.03
PM2.5 Fugitive	PM2.5 d	2.61	2/4/2025	0.04	0.00	0.00	0.04	0.04	0.04	0.02	0.02	0.00	0.00	0.02
PM2.5 Total	PM2.5 total	4.62	12/2/2024	0.13	0.00	0.00	0.13	0.13	0.13	0.06	0.06	0.00	0.00	0.06

DAILY SUM (For Max Daily Sheet)

	Daily Emissions (lb/day)												
	ROG	NOX	CO	PM10 ex	PM10 d	PM10 total	PM2.5 ex	PM2.5 d	PM2.5 total	SOx	CO2	CH4	N2O
TOTAL													
Mobilization	0.15	2.40	1.86	0.04	0.09	0.14	0.04	0.02	0.06	0.00	1.00	0.00	0.00
Construct Haul Road	1.11	6.75	11.64	0.37	0.14	0.51	0.34	0.04	0.38	0.00	16.72	0.00	0.00
Dewatering T2, T3 and T4	0.44	3.87	3.61	0.12	0.08	0.20	0.12	0.02	0.14	0.00	7.27	0.00	0.00
Utility Locating / Potholing	0.18	2.32	1.84	0.07	0.08	0.15	0.06	0.02	0.08	0.00	2.22	0.00	0.00
Demolition – T2, T3, and T4	0.19	2.36	1.92	0.07	0.10	0.17	0.06	0.02	0.09	0.00	3.45	0.00	0.00
Sludge Handling T4 to P3	6.51	50.48	68.18	2.63	14.64	17.27	2.42	2.20	4.62	0.00	151.79	0.03	0.01
Mass Excavation	6.71	47.32	71.45	2.48	15.46	17.94	2.28	2.23	4.51	0.00	150.82	0.04	0.00
Rough Grading	3.73	22.34	37.42	1.50	18.19	19.69	1.38	2.56	3.94	0.00	35.93	0.01	0.00
Pipeline excavation, lay and backfill (deep)	0.80	11.23	6.90	0.24	0.19	0.43	0.22	0.05	0.27	0.00	25.06	0.01	0.00
Construct Oxidation Ditch 1, 2 and Anoxic Basin	0.48	4.08	5.16	0.17	0.15	0.32	0.16	0.04	0.19	0.00	99.19	0.03	0.00
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	2.94	21.17	28.44	1.16	12.17	13.33	1.07	1.72	2.79	0.00	27.43	0.01	0.00
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	0.17	2.29	1.73	0.05	0.08	0.13	0.05	0.02	0.07	0.00	2.11	0.00	0.00
Construct Clarifiers 1 and 2	0.46	4.10	5.04	0.17	0.54	0.71	0.16	0.09	0.25	0.00	75.09	0.02	0.00
Backfill Clarifiers 1 and 2	2.19	15.20	21.34	0.88	12.17	13.05	0.81	1.72	2.53	0.00	13.58	0.00	0.00
Construct Sludge Handling Equipment and Solids Storage	0.13	2.36	1.69	0.04	0.08	0.11	0.03	0.02	0.05	0.00	12.22	0.00	0.00
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	0.14	2.49	1.80	0.04	0.10	0.14	0.04	0.02	0.06	0.00	14.75	0.00	0.00
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	0.47	5.26	3.80	0.14	0.08	0.21	0.13	0.02	0.14	0.00	6.70	0.00	0.00
Process Piping Pump Stations, splitter structures Secondary Treatment	0.30	4.91	3.40	0.10	0.13	0.23	0.09	0.03	0.12	0.00	23.47	0.01	0.00
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	0.17	2.28	1.69	0.05	0.08	0.13	0.05	0.02	0.07	0.00	8.91	0.00	0.00
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	0.13	2.35	1.63	0.04	0.08	0.11	0.03	0.02	0.05	0.00	39.60	0.01	0.00
Construct misc above grade equipment pads / equipment	0.15	3.26	1.92	0.05	0.10	0.15	0.04	0.03	0.07	0.00	21.48	0.00	0.00
Construct Recycled Storage Tank 1	0.35	1.76	3.61	0.13	0.09	0.23	0.12	0.02	0.15	0.00	51.57	0.01	0.00
Backfill Recycled Storage Tank 1	0.17	2.55	1.80	0.06	0.06	0.13	0.06	0.02	0.07	0.00	1.52	0.00	0.00
Process Piping Tertiary Pump Staions, splitter structures	0.30	4.90	3.36	0.10	0.13	0.23	0.09	0.03	0.12	0.00	9.08	0.00	0.00
Construct Alt 1A Distribution Pipeline	0.77	11.17	6.59	0.24	0.13	0.36	0.22	0.03	0.25	0.00	14.92	0.00	0.00
Construct Alt 1B Distribution Pipeline	0.77	11.17	6.59	0.24	0.13	0.36	0.22	0.03	0.25	0.00	14.92	0.00	0.00
Construct Tertiary Treatment Facility	0.16	3.29	2.07	0.05	0.13	0.18	0.04	0.04	0.08	0.00	68.13	0.01	0.01
Construct UV Disinfection Facility	0.14	2.36	1.73	0.04	0.09	0.13	0.03	0.02	0.06	0.00	14.86	0.00	0.00
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	0.14	2.36	1.73	0.04	0.09	0.13	0.03	0.02	0.06	0.00	13.23	0.00	0.00
Electrical Underground Tertiary and Disinfection Area	0.16	2.28	1.67	0.05	0.08	0.13	0.05	0.02	0.07	0.00	5.97	0.00	0.00
Fine Grading and paving site.	2.62	17.63	26.09	1.04	12.20	13.23	0.95	1.72	2.68	0.00	133.38	0.04	0.00
Off Haul Dewatered Sludge From Site	0.77	5.17	6.96	0.22	0.06	0.29	0.20	0.02	0.22	0.00	24.04	0.01	0.00
Demobilization	0.14	2.38	1.73	0.04	0.09	0.13	0.03	0.02	0.06	0.00	2.72	0.00	0.00
WORKERS													
Mobilization	0.04	0.03	0.43	0.00	0.09	*0.09*	0.00	0.02	*0.02*	0.00	0.18	0.00	0.00
Construct Haul Road	0.04	0.03	0.43	0.00	0.09	*0.09*	0.00	0.02	*0.02*	0.00	0.49	0.00	0.00
Dewatering T2, T3 and T4	0.04	0.03	0.35	0.00	0.08	*0.08*	0.00	0.02	*0.02*	0.00	0.78	0.00	0.00
Utility Locating / Potholing	0.04	0.03	0.35	0.00	0.08	*0.08*	0.00	0.02	*0.02*	0.00	0.37	0.00	0.00
Demolition – T2, T3, and T4	0.04	0.03	0.43	0.00	0.09	*0.09*	0.00	0.02	*0.02*	0.00	0.62	0.00	0.00
Sludge Handling T4 to P3	0.09	0.07	0.85	0.00	0.18	*0.18*	0.00	0.04	*0.05*	0.00	1.25	0.00	0.00
Mass Excavation	0.09	0.07	0.85	0.00	0.18	*0.18*	0.00	0.04	*0.05*	0.00	1.87	0.00	0.00
Rough Grading	0.05	0.04	0.52	0.00	0.12	*0.12*	0.00	0.03	*0.03*	0.00	0.63	0.00	0.00
Pipeline excavation, lay and backfill (deep)	0.08	0.06	0.79	0.00	0.18	*0.18*	0.00	0.04	*0.05*	0.00	1.82	0.00	0.00
Construct Oxidation Ditch 1, 2 and Anoxic Basin	0.07	0.05	0.65	0.00	0.15	*0.15*	0.00	0.04	*0.04*	0.00	13.61	0.00	0.00
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	0.05	0.04	0.52	0.00	0.12	*0.12*	0.00	0.03	*0.03*	0.00	0.58	0.00	0.00
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	0.03	0.03	0.33	0.00	0.08	*0.08*	0.00	0.02	*0.02*	0.00	0.36	0.00	0.00
Construct Clarifiers 1 and 2	0.05	0.04	0.52	0.00	0.12	*0.12*	0.00	0.03	*0.03*	0.00	8.25	0.00	0.00
Backfill Clarifiers 1 and 2	0.05	0.04	0.52	0.00	0.12	*0.12*	0.00	0.03	*0.03*	0.00	0.40	0.00	0.00
Construct Sludge Handling Equipment and Solids Storage	0.03	0.03	0.33	0.00	0.08	*0.08*	0.00	0.02	*0.02*	0.00	1.94	0.00	0.00
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	0.04	0.03	0.39	0.00	0.09	*0.09*	0.00	0.02	*0.02*	0.00	2.34	0.00	0.00
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	0.03	0.03	0.33	0.00	0.08	*0.08*	0.00	0.02	*0.02*	0.00	0.36	0.00	0.00
Process Piping Pump Stations, splitter structures Secondary Treatment	0.05	0.04	0.52	0.00	0.12	*0.12*	0.00	0.03	*0.03*	0.00	3.11	0.00	0.00
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	0.03	0.03	0.33	0.00	0.08	*0.08*	0.00	0.02	*0.02*	0.00	1.55	0.00	0.00
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	0.03	0.02	0.30	0.00	0.08	*0.08*	0.00	0.02	*0.02*	0.00	6.28	0.00	0.00

DAILY SUM (For Max Daily Sheet)

	Daily Emissions (lb/day)												
TOTAL	**ROG**	**NOX**	**CO**	**PM10 ex**	**PM10 d**	**PM10 total**	**PM2.5 ex**	**PM2.5 d**	**PM2.5 total**	**SOx**	**CO2**	**CH4**	**N2O**
Construct misc above grade equipment pads / equipment	0.02	0.02	0.24	0.00	0.06	*0.06*	0.00	0.02	*0.02*	0.00	1.21	0.00	0.00
Construct Recycled Storage Tank 1	0.04	0.03	0.39	0.00	0.09	*0.09*	0.00	0.02	*0.02*	0.00	6.80	0.00	0.00
Backfill Recycled Storage Tank 1	0.02	0.02	0.24	0.00	0.06	*0.06*	0.00	0.02	*0.02*	0.00	0.20	0.00	0.00
Process Piping Tertiary Pump Staions, splitter structures	0.05	0.04	0.49	0.00	0.12	*0.12*	0.00	0.03	*0.03*	0.00	1.18	0.00	0.00
Construct Alt 1A Distribution Pipeline	0.05	0.04	0.49	0.00	0.12	*0.12*	0.00	0.03	*0.03*	0.00	0.73	0.00	0.00
Construct Alt 1B Distribution Pipeline	0.05	0.04	0.49	0.00	0.12	*0.12*	0.00	0.03	*0.03*	0.00	0.73	0.00	0.00
Construct Tertiary Treatment Facility	0.04	0.03	0.37	0.00	0.09	*0.09*	0.00	0.02	*0.02*	0.00	5.45	0.00	0.00
Construct UV Disinfection Facility	0.04	0.03	0.37	0.00	0.09	*0.09*	0.00	0.02	*0.02*	0.00	2.70	0.00	0.00
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	0.04	0.03	0.37	0.00	0.09	*0.09*	0.00	0.02	*0.02*	0.00	2.41	0.00	0.00
Electrical Underground Tertiary and Disinfection Area	0.03	0.02	0.30	0.00	0.08	*0.08*	0.00	0.02	*0.02*	0.00	1.02	0.00	0.00
Fine Grading and paving site.	0.06	0.04	0.55	0.00	0.14	*0.14*	0.00	0.03	*0.03*	0.00	3.42	0.00	0.00
Off Haul Dewatered Sludge From Site	0.02	0.02	0.24	0.00	0.06	*0.06*	0.00	0.02	*0.02*	0.00	0.59	0.00	0.00
Demobilization	0.04	0.03	0.37	0.00	0.09	*0.09*	0.00	0.02	*0.02*	0.00	0.46	0.00	0.00
DELIVERIES													
Mobilization	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Haul Road	0.03	1.17	0.42	0.01	0.05	*0.06*	0.01	0.02	*0.03*	0.00	4.03	0.00	0.00
Dewatering T2, T3 and T4	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Utility Locating / Potholing	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Demolition – T2, T3, and T4	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Sludge Handling T4 to P3	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Mass Excavation	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Rough Grading	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Pipeline excavation, lay and backfill (deep)	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Oxidation Ditch 1, 2 and Anoxic Basin	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Clarifiers 1 and 2	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Backfill Clarifiers 1 and 2	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Sludge Handling Equipment and Solids Storage	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	0.00	0.13	0.05	0.00	0.01	*0.01*	0.00	0.00	*0.00*	0.00	2.14	0.00	0.00
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Process Piping Pump Stations, splitter structures Secondary Treatment	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct misc above grade equipment pads / equipment	0.02	0.94	0.35	0.01	0.04	*0.05*	0.01	0.01	*0.02*	0.00	12.89	0.00	0.00
Construct Recycled Storage Tank 1	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Backfill Recycled Storage Tank 1	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Process Piping Tertiary Pump Staions, splitter structures	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Alt 1A Distribution Pipeline	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Alt 1B Distribution Pipeline	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Tertiary Treatment Facility	0.02	0.93	0.35	0.01	0.04	*0.05*	0.01	0.01	*0.02*	0.00	38.18	0.00	0.01
Construct UV Disinfection Facility	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Electrical Underground Tertiary and Disinfection Area	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Fine Grading and paving site.	0.01	0.31	0.12	0.00	0.01	*0.02*	0.00	0.00	*0.01*	0.00	5.31	0.00	0.00
Off Haul Dewatered Sludge From Site	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Demobilization	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
HAUL TRUCKS													
Mobilization	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Haul Road	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Dewatering T2, T3 and T4	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Utility Locating / Potholing	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Demolition – T2, T3, and T4	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00

DAILY SUM (For Max Daily Sheet)

	Daily Emissions (lb/day)												
	ROG	NOX	CO	PM10 ex	PM10 d	PM10 total	PM2.5 ex	PM2.5 d	PM2.5 total	SOx	CO2	CH4	N2O
TOTAL													
Sludge Handling T4 to P3	0.19	11.44	2.64	0.16	0.63	*0.79*	0.16	0.20	*0.36*	0.00	63.17	0.00	0.01
Mass Excavation	0.40	8.29	5.91	0.02	0.06	*0.07*	0.02	0.02	*0.03*	0.00	17.88	0.00	0.00
Rough Grading	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Pipeline excavation, lay and backfill (deep)	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Oxidation Ditch 1, 2 and Anoxic Basin	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Clarifiers 1 and 2	0.00	0.04	0.01	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	2.09	0.00	0.00
Backfill Clarifiers 1 and 2	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Sludge Handling Equipment and Solids Storage	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Process Piping Pump Stations, splitter structures Secondary Treatment	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct misc above grade equipment pads / equipment	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Recycled Storage Tank 1	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Backfill Recycled Storage Tank 1	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Process Piping Tertiary Pump Staions, splitter structures	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Alt 1A Distribution Pipeline	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Alt 1B Distribution Pipeline	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Tertiary Treatment Facility	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct UV Disinfection Facility	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Electrical Underground Tertiary and Disinfection Area	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Fine Grading and paving site.	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Off Haul Dewatered Sludge From Site	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
Demobilization	0.00	0.00	0.00	0.00	0.00	*0.00*	0.00	0.00	*0.00*	0.00	0.00	0.00	0.00
ONSITE													
Mobilization	0.11	2.37	1.43	0.04	0.00	*0.05*	0.04	0.00	*0.04*	0.00	0.82	0.00	0.00
Construct Haul Road	1.04	5.55	10.79	0.35	0.00	*0.35*	0.32	0.00	*0.33*	0.00	12.20	0.00	0.00
Dewatering T2, T3 and T4	0.40	3.84	3.25	0.12	0.00	*0.13*	0.12	0.00	*0.12*	0.00	6.49	0.00	0.00
Utility Locating / Potholing	0.15	2.29	1.49	0.07	0.00	*0.07*	0.06	0.00	*0.06*	0.00	1.85	0.00	0.00
Demolition – T2, T3, and T4	0.15	2.33	1.49	0.07	0.01	*0.07*	0.06	0.00	*0.06*	0.00	2.82	0.00	0.00
Sludge Handling T4 to P3	6.23	38.97	64.69	2.46	0.01	*2.47*	2.27	0.00	*2.27*	0.00	87.38	0.03	0.00
Mass Excavation	6.23	38.97	64.69	2.46	0.01	*2.47*	2.27	0.00	*2.27*	0.00	131.07	0.04	0.00
Rough Grading	3.67	22.30	36.89	1.50	0.00	*1.50*	1.38	0.00	*1.38*	0.00	35.30	0.01	0.00
Pipeline excavation, lay and backfill (deep)	0.72	11.17	6.11	0.24	0.01	*0.25*	0.22	0.00	*0.22*	0.00	23.24	0.01	0.00
Construct Oxidation Ditch 1, 2 and Anoxic Basin	0.41	4.03	4.50	0.17	0.00	*0.17*	0.16	0.00	*0.16*	0.00	85.58	0.03	0.00
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	2.88	21.13	27.91	1.16	0.00	*1.16*	1.07	0.00	*1.07*	0.00	26.85	0.01	0.00
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	0.13	2.26	1.40	0.05	0.00	*0.06*	0.05	0.00	*0.05*	0.00	1.75	0.00	0.00
Construct Clarifiers 1 and 2	0.41	4.03	4.50	0.17	0.00	*0.17*	0.16	0.00	*0.16*	0.00	64.75	0.02	0.00
Backfill Clarifiers 1 and 2	2.14	15.16	20.82	0.88	0.00	*0.89*	0.81	0.00	*0.81*	0.00	13.17	0.00	0.00
Construct Sludge Handling Equipment and Solids Storage	0.10	2.33	1.36	0.04	0.00	*0.04*	0.03	0.00	*0.03*	0.00	10.27	0.00	0.00
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	0.10	2.33	1.36	0.04	0.00	*0.04*	0.03	0.00	*0.03*	0.00	10.27	0.00	0.00
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	0.44	5.24	3.48	0.14	0.00	*0.14*	0.12	0.00	*0.13*	0.00	6.34	0.00	0.00
Process Piping Pump Stations, splitter structures Secondary Treatment	0.25	4.87	2.88	0.10	0.01	*0.10*	0.09	0.00	*0.09*	0.00	20.35	0.01	0.00
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	0.13	2.26	1.37	0.05	0.00	*0.06*	0.05	0.00	*0.05*	0.00	7.36	0.00	0.00
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	0.10	2.33	1.33	0.04	0.00	*0.04*	0.03	0.00	*0.03*	0.00	33.32	0.01	0.00
Construct misc above grade equipment pads / equipment	0.10	2.30	1.32	0.04	0.00	*0.04*	0.03	0.00	*0.03*	0.00	7.37	0.00	0.00
Construct Recycled Storage Tank 1	0.31	1.73	3.21	0.13	0.00	*0.13*	0.12	0.00	*0.12*	0.00	44.76	0.01	0.00
Backfill Recycled Storage Tank 1	0.15	2.53	1.55	0.06	0.00	*0.06*	0.06	0.00	*0.06*	0.00	1.32	0.00	0.00
Process Piping Tertiary Pump Staions, splitter structures	0.25	4.87	2.88	0.10	0.01	*0.10*	0.09	0.00	*0.09*	0.00	7.90	0.00	0.00
Construct Alt 1A Distribution Pipeline	0.72	11.14	6.11	0.24	0.01	*0.24*	0.22	0.00	*0.22*	0.00	14.19	0.00	0.00

DAILY SUM (For Max Daily Sheet)

	Daily Emissions (lb/day)												
TOTAL	**ROG**	**NOX**	**CO**	**PM10 ex**	**PM10 d**	**PM10 total**	**PM2.5 ex**	**PM2.5 d**	**PM2.5 total**	**SOx**	**CO2**	**CH4**	**N2O**
Construct Alt 1B Distribution Pipeline	0.72	11.14	6.11	0.24	0.01	*0.24*	0.22	0.00	*0.22*	0.00	14.19	0.00	0.00
Construct Tertiary Treatment Facility	0.10	2.33	1.36	0.04	0.00	*0.04*	0.03	0.00	*0.03*	0.00	24.50	0.01	0.00
Construct UV Disinfection Facility	0.10	2.33	1.36	0.04	0.00	*0.04*	0.03	0.00	*0.03*	0.00	12.15	0.00	0.00
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	0.10	2.33	1.36	0.04	0.00	*0.04*	0.03	0.00	*0.03*	0.00	10.83	0.00	0.00
Electrical Underground Tertiary and Disinfection Area	0.13	2.26	1.37	0.05	0.00	*0.06*	0.05	0.00	*0.05*	0.00	4.95	0.00	0.00
Fine Grading and paving site.	2.55	17.29	25.42	1.03	0.00	*1.03*	0.95	0.00	*0.95*	0.00	124.65	0.04	0.00
Off Haul Dewatered Sludge From Site	0.74	5.15	6.72	0.22	0.00	*0.22*	0.20	0.00	*0.21*	0.00	23.45	0.01	0.00
Demobilization	0.10	2.36	1.36	0.04	0.00	*0.04*	0.03	0.00	*0.04*	0.00	2.25	0.00	0.00
MATERIALS													
Mobilization					0.00	*0.00*		0.00	*0.00*				
Construct Haul Road					0.00	*0.00*		0.00	*0.00*				
Dewatering T2, T3 and T4					0.00	*0.00*		0.00	*0.00*				
Utility Locating / Potholing					0.00	*0.00*		0.00	*0.00*				
Demolition – T2, T3, and T4					0.00	*0.00*		0.00	*0.00*				
Sludge Handling T4 to P3					13.82	*13.82*		1.96	*1.96*				
Mass Excavation					15.21	*15.21*		2.17	*2.17*				
Rough Grading					18.07	*18.07*		2.53	*2.53*				
Pipeline excavation, lay and backfill (deep)					0.00	*0.00*		0.00	*0.00*				
Construct Oxidation Ditch 1, 2 and Anoxic Basin					0.00	*0.00*		0.00	*0.00*				
Backfill Oxidation Ditch 1, 2 and Anoxic Basin					12.04	*12.04*		1.69	*1.69*				
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin					0.00	*0.00*		0.00	*0.00*				
Construct Clarifiers 1 and 2					0.42	*0.42*		0.06	*0.06*				
Backfill Clarifiers 1 and 2					12.04	*12.04*		1.69	*1.69*				
Construct Sludge Handling Equipment and Solids Storage					0.00	*0.00*		0.00	*0.00*				
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)					0.00	*0.00*		0.00	*0.00*				
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)					0.00	*0.00*		0.00	*0.00*				
Process Piping Pump Stations, splitter structures Secondary Treatment					0.00	*0.00*		0.00	*0.00*				
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling					0.00	*0.00*		0.00	*0.00*				
Construct Electrical Building, Generator Pad and Shop / Maintenance Building					0.00	*0.00*		0.00	*0.00*				
Construct misc above grade equipment pads / equipment					0.00	*0.00*		0.00	*0.00*				
Construct Recycled Storage Tank 1					0.00	*0.00*		0.00	*0.00*				
Backfill Recycled Storage Tank 1					0.00	*0.00*		0.00	*0.00*				
Process Piping Tertiary Pump Staions, splitter structures					0.00	*0.00*		0.00	*0.00*				
Construct Alt 1A Distribution Pipeline					0.00	*0.00*		0.00	*0.00*				
Construct Alt 1B Distribution Pipeline					0.00	*0.00*		0.00	*0.00*				
Construct Tertiary Treatment Facility					0.00	*0.00*		0.00	*0.00*				
Construct UV Disinfection Facility					0.00	*0.00*		0.00	*0.00*				
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)					0.00	*0.00*		0.00	*0.00*				
Electrical Underground Tertiary and Disinfection Area					0.00	*0.00*		0.00	*0.00*				
Fine Grading and paving site.					12.04	*12.04*		1.69	*1.69*				
Off Haul Dewatered Sludge From Site					0.00	*0.00*		0.00	*0.00*				
Demobilization					0.00	*0.00*		0.00	*0.00*				

Annual Total Emissions

Year	Tons Per Year						Metric Tons Per Year			
	ROG	NOX	CO	PM10	PM2.5	SOx	CO2	CH4	N2O	CO2e
2024	0.1	1.0	1.4	0.3	0.1	0.003	302.33	0.07	0.01	309
2025	0.2	1.6	1.9	0.3	0.1	0.004	359.23	0.10	0.01	363
2026	0.1	1.4	1.4	0.4	0.1	0.004	330.06	0.08	0.01	336
Total	0.4	3.9	4.6	1.0	0.3	0.011	991.62	0.25	0.03	1008

For TACs Discussion		
DPM on site	total lbs	avg daily pm10e/dpm
0.0472		
0.0652		
0.0442		
0.1566	313.22	0.554374514

Annual by Source		Emisssions (in tons per year)											Emissions (in MT per year)				Fuel
		ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e	Gallons
ONSITE	2024	0.1208	0.7853	1.2462	0.0472	0.0002	0.0435	0.0001	0.0025	242.6250	0.0768	0.0027	220.1057	0.0696	0.0024	222.5662	21558
	2025	0.1598	1.5465	1.6842	0.0652	0.0006	0.0600	0.0002	0.0036	349.9997	0.1097	0.0042	317.5144	0.0995	0.0038	321.1498	31098
	2026	0.1149	1.3201	1.2167	0.0442	0.0008	0.0407	0.0003	0.0029	281.0690	0.0867	0.0040	254.9815	0.0786	0.0036	258.0235	24974
WORKERS	2024	0.0027	0.0021	0.0266	0.0000	0.0056	0.0000	0.0014	0.0001	5.5583	0.0002	0.0002	5.0424	0.0002	0.0002	5.0977	590
	2025	0.0194	0.0145	0.1898	0.0002	0.0436	0.0002	0.0108	0.0004	41.7606	0.0016	0.0013	37.8846	0.0014	0.0012	38.2830	4433
	2026	0.0117	0.0085	0.1141	0.0001	0.0282	0.0001	0.0070	0.0003	26.3795	0.0009	0.0008	23.9311	0.0008	0.0007	24.1730	2800
DELIVERY TRUCKS	2024	0.0002	0.0064	0.0023	0.0001	0.0003	0.0001	0.0001	0.0000	4.0300	0.0001	0.0006	3.6560	0.0001	0.0006	3.8295	357
	2025	0.0001	0.0034	0.0012	0.0000	0.0001	0.0000	0.0000	0.0000	2.1361	0.0000	0.0003	1.9378	0.0000	0.0003	2.0298	190
	2026	0.0023	0.0886	0.0330	0.0010	0.0039	0.0009	0.0012	0.0005	56.3847	0.0009	0.0089	51.1514	0.0008	0.0081	53.5786	5007
HAUL TRUCKS	2024	0.0056	0.1671	0.0806	0.0013	0.0050	0.0013	0.0016	0.0008	81.0445	0.0015	0.0128	73.5223	0.0014	0.0116	77.0175	6665
	2025	0.0000	0.0026	0.0006	0.0000	0.0001	0.0000	0.0000	0.0000	2.0908	0.0000	0.0003	1.8967	0.0000	0.0003	1.9866	195
	2026	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0
DUST	2024					0.2503		0.0355									
	2025					0.2019		0.0283									
	2026					0.3252		0.0455									

Energy

	Diesel %	Gas %	Total Gallons	Diesel	Gas
ONSITE	100%		77,630	77,630	0
WORKERS		100%	7,824	0	7,824
DELIVERY TRUCKS	100%		5,554	5,554	0
HAUL TRUCKS	100%		6,859	6,859	0
			97,867	90,044	7,824

ONSITE EMISSIONS													OFFROAD				ONROAD		
Construction Phase	Estimated Start Date	Estimated End Date	Year	Duration in Weeks	Duration Calendar Days	Duration Working Days	Number of Workers per day (8 hrs/day)	#	Equipment	OFFROAD/EMFAC Equipment Match	Onroad or Offroad	Hrs/day	HP	HP Bin	LF	Daily hp-hrs	Hrs/day/ea	avg travel speed	Daily VMT
Mobilization	10/1/2024	10/7/2024	2024	1	6	4	6	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Mobilization	10/1/2024	10/7/2024	2024	1	6	4	6	2	Utility Trucks	MD/HD	onroad	8					2	5	20
Mobilization	10/1/2024	10/7/2024	2024	1	6	4	6	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Construct Haul Road	10/7/2024	10/22/2024	2024	2	15	11	6	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Construct Haul Road	10/7/2024	10/22/2024	2024	2	15	11	6	1	950 Wheel Loader	Rubber Tired Loaders	offroad	8	225	250	0.3618	651.24			
Construct Haul Road	10/7/2024	10/22/2024	2024	2	15	11	6	1	140 Motor Grader	Graders	offroad	8	250	250	0.4087	817.4			
Construct Haul Road	10/7/2024	10/22/2024	2024	2	15	11	6	1	950 Wheel Loader	Rubber Tired Loaders	offroad	8	225	250	0.3618	651.24			
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	4	30	21	5	1	Pickup Truck	Pickup Truck	onroad	8					2	5	10
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	4	30	21	5	1	Utility Truck	MD/HD	onroad	8					2	5	10
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	4	30	21	5	3	Pumps	Pumps	offroad	8	11	15	0.74	195.36			
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	4	30	21	5	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	2	14	10	5	1	Pickup Truck	Pickup Truck	onroad	8					2	5	10
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	2	14	10	5	1	Utility Truck	MD/HD	onroad	8					2	5	10
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	2	14	10	5	1	Vacuum Truck	MD/HD	onroad	8					2	5	10
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	2	14	10	5	1	Back Hoe	Tractors/Loaders/Backhoes	offroad	8	97	120	0.3685	285.956			
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	1	Pickup Truck	Pickup Truck	onroad	8					2	5	10
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	1	Utility Truck	MD/HD	onroad	8					2	5	10
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	1	Dump truck	HD	onroad	8					2	5	10
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	1	Back Hoe	Tractors/Loaders/Backhoe	offroad	8	97	120	0.3685	285.956			
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	1	Water Truck	MD/HD	onroad	8					2	5	10
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	2	Pickup Truck	Pickup Truck	onroad	8					2	5	20
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	4	657 Scrapers	Scrapers	offroad	8	629	750	0.4824	9709.7472			
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	2	Dump Trucks	HD	onroad	8					2	5	20
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	2	LGP D6 Dozers	Rubber Tired Dozers	offroad	8	215	250	0.3953	1359.832			
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	1	Water Truck	MD/HD	onroad	8					2	5	10
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	1	140 Motor Grader	Graders	offroad	8	250	250	0.4087	817.4			
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	2	Dump Trucks	HD	onroad	8					2	5	20
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	4	657 Scrapers	Scrapers	offroad	8	629	750	0.4824	9709.7472			
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	2	LGP D6 Dozers	Rubber Tired Dozers	offroad	8	215	250	0.3953	1359.832			
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	1	Water Truck	MD/HD	onroad	8					2	5	10
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	1	140 Motor Grader	Graders	offroad	8	250	250	0.4087	817.4			
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	2	Pickup Truck	Pickup Truck	onroad	8					2	5	20
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	2	623 Scrapers	Scrapers	offroad	8	407	500	0.4824	3141.3888			
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	2	LGP D6 Dozers	Rubber Tired Dozers	offroad	8	215	250	0.3953	1359.832			
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	1	815 Compactor	Rubber Tired Dozers	offroad	8	249	250	0.3953	787.4376			
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	1	Water Truck	MD/HD	onroad	8					2	5	10
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	1	140 Motor Grader	Graders	offroad	8	250	250	0.4087	817.4			
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	1	Service Truck	MD/HD	onroad	8					2	5	10
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	1	Water Truck	MD/HD	onroad	8					2	5	10
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	1	Dump Truck	HD	onroad	8					2	5	10
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	2	320 Excavator	Excavators	offroad	8	172	175	0.3819	1050.9888			
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	1	950 Wheel Loader	Rubber Tired Loaders	offroad	8	225	250	0.3618	651.24			
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	2025	38	265	189	10	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	2025	38	265	189	10	1	All Terrain Crane	Cranes	offroad	8	231	250	0.2881	532.4088			
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	2025	38	265	189	10	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	2	623 Scrapers	Scrapers	offroad	8	407	500	0.4824	3141.3888			
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	1	LGP D6 Dozer	Rubber Tired Dozers	offroad	8	215	250	0.3953	679.916			
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	1	815 Compactor	Rubber Tired Dozers	offroad	8	249	250	0.3953	787.4376			
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	1	320 Excavator	Excavators	offroad	8	172	175	0.3819	525.4944			
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	2025	2	14	10	5	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	2025	2	14	10	5	1	Backhoe	Tractors/Loaders/Backhoe -	offroad	8	97	120	0.3685	285.956			
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	2025	2	14	10	5	1	Dump Truck	HD	onroad	8					2	5	10
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	2025	29	200	143	8	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	2025	29	200	143	8	1	All Terrain Crane	Cranes	offroad	8	231	250	0.2881	532.4088			
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	2025	29	200	143	8	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	1	623 Scraper	Scrapers	offroad	8	407	500	0.4824	1570.6944			
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	1	LGP D6 Dozer	Rubber Tired Dozers	offroad	8	215	250	0.3953	679.916			
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	1	815 Compactor	Rubber Tired Dozers	offroad	8	249	250	0.3953	787.4376			
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	1	320 Excavator	Excavators	offroad	8	172	175	0.3819	525.4944			
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	1	Water Truck	MD/HD	onroad	8					2	5	10
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	2025	11	75	54	5	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	2025	11	75	54	5	1	Utility Truck	MD/HD	onroad	8					2	5	10
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	2025	11	75	54	5	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	2025	11	75	54	6	2	Pick Up Trucks	Pickup Truck	onroad	8					2	5	20
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	2025	11	75	54	6	1	Boom Truck	MD/HD	onroad	8					2	5	10
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	2025	11	75	54	6	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			

ONSITE EMISSIONS

Construction Phase	Estimated Start Date	Estimated End Date	Year	Duration in Weeks	Duration Calendar Days	Duration Working Days	Number of Workers per day (8 hrs/day)	Emisssions (in pounds per day)										
								ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O
Mobilization	10/1/2024	10/7/2024	2024	1	6	4	6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Mobilization	10/1/2024	10/7/2024	2024	1	6	4	6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	60.9	0.0	0.0
Mobilization	10/1/2024	10/7/2024	2024	1	6	4	6	0.1	2.3	1.4	0.0		0.0		0.0	335.4	0.1	0.0
Construct Haul Road	10/7/2024	10/22/2024	2024	2	15	11	6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Construct Haul Road	10/7/2024	10/22/2024	2024	2	15	11	6	0.3	1.7	2.6	0.1		0.1		0.0	674.5	0.2	0.0
Construct Haul Road	10/7/2024	10/22/2024	2024	2	15	11	6	0.5	2.2	5.5	0.2		0.2		0.0	853.6	0.3	0.0
Construct Haul Road	10/7/2024	10/22/2024	2024	2	15	11	6	0.3	1.7	2.6	0.1		0.1		0.0	674.5	0.2	0.0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	4	30	21	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	4	30	21	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.5	0.0	0.0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	4	30	21	5	0.3	1.5	1.9	0.1		0.1		0.0	244.8	0.0	0.0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	4	30	21	5	0.1	2.3	1.4	0.0		0.0		0.0	335.4	0.1	0.0
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	2	14	10	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	2	14	10	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.5	0.0	0.0
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	2	14	10	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.5	0.0	0.0
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	2	14	10	5	0.1	2.2	1.4	0.1		0.1		0.0	300.5	0.1	0.0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.5	0.0	0.0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.5	0.0	0.0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	0.1	2.2	1.4	0.1		0.1		0.0	300.5	0.1	0.0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.5	0.0	0.0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	4.6	31.3	46.8	1.7		1.6		0.1	10091.6	3.3	0.1
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	69.0	0.0	0.0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	1.2	5.4	12.3	0.6		0.5		0.0	1422.8	0.5	0.0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.5	0.0	0.0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	0.5	2.2	5.5	0.2		0.2		0.0	853.6	0.3	0.0
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	69.0	0.0	0.0
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	4.6	31.3	46.8	1.7		1.6		0.1	10091.6	3.3	0.1
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	1.2	5.4	12.3	0.6		0.5		0.0	1422.8	0.5	0.0
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.5	0.0	0.0
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	0.5	2.2	5.5	0.2		0.2		0.0	853.6	0.3	0.0
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	1.5	12.0	14.2	0.6		0.5		0.0	3272.6	1.1	0.0
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	1.1	5.2	11.4	0.5		0.5		0.0	1422.7	0.5	0.0
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	0.6	3.0	6.6	0.3		0.3		0.0	823.9	0.3	0.0
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.9	0.0	0.0
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	0.4	2.1	4.6	0.1		0.1		0.0	853.2	0.3	0.0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.9	0.0	0.0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.9	0.0	0.0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.9	0.0	0.0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.4	7.1	2.7	0.1		0.1		0.0	1094.8	0.4	0.0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.3	1.6	2.1	0.1		0.1		0.0	674.6	0.2	0.0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	2025	38	265	189	10	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	2025	38	265	189	10	0.3	1.7	3.1	0.1		0.1		0.0	555.2	0.2	0.0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	2025	38	265	189	10	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	1.5	12.0	14.2	0.6		0.5		0.0	3272.6	1.1	0.0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	0.6	2.6	5.7	0.2		0.2		0.0	711.4	0.2	0.0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	0.6	3.0	6.6	0.3		0.3		0.0	823.9	0.3	0.0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	0.2	3.6	1.3	0.1		0.1		0.0	547.4	0.2	0.0
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	2025	2	14	10	5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	2025	2	14	10	5	0.1	2.2	1.3	0.1		0.0		0.0	300.8	0.1	0.0
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	2025	2	14	10	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.9	0.0	0.0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	2025	29	200	143	8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	2025	29	200	143	8	0.3	1.7	3.1	0.1		0.1		0.0	555.2	0.2	0.0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	2025	29	200	143	8	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	0.7	6.0	7.1	0.3		0.3		0.0	1636.3	0.5	0.0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	0.6	2.6	5.7	0.2		0.2		0.0	711.4	0.2	0.0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	0.6	3.0	6.6	0.3		0.3		0.0	823.9	0.3	0.0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	0.2	3.6	1.3	0.1		0.1		0.0	547.4	0.2	0.0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.9	0.0	0.0
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	2025	11	75	54	5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	2025	11	75	54	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.9	0.0	0.0
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	2025	11	75	54	5	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	2025	11	75	54	6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	2025	11	75	54	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.9	0.0	0.0
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	2025	11	75	54	6	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0

ONSITE EMISSIONS								Emisssions (in tons per year)											Emissions (in MT per year)				
Construction Phase	Estimated Start Date	Estimated End Date	Year	Duration in Weeks	Duration Calendar Days	Duration Working Days	Number of Workers per day (8 hrs/day)	ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e	Fuel Gallons
Mobilization	10/1/2024	10/7/2024	2024	1	6	4	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3
Mobilization	10/1/2024	10/7/2024	2024	1	6	4	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	11
Mobilization	10/1/2024	10/7/2024	2024	1	6	4	6	0.0	0.00	0.0	0.0		0.0		0.0	0.7	0.0	0.0	0.6	0.0	0.0	0.6	60
Construct Haul Road	10/7/2024	10/22/2024	2024	2	15	11	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	7
Construct Haul Road	10/7/2024	10/22/2024	2024	2	15	11	6	0.0	0.01	0.0	0.0		0.0		0.0	3.7	0.0	0.0	3.4	0.0	0.0	3.4	330
Construct Haul Road	10/7/2024	10/22/2024	2024	2	15	11	6	0.0	0.01	0.0	0.0		0.0		0.0	4.7	0.0	0.0	4.3	0.0	0.0	4.3	417
Construct Haul Road	10/7/2024	10/22/2024	2024	2	15	11	6	0.0	0.01	0.0	0.0		0.0		0.0	3.7	0.0	0.0	3.4	0.0	0.0	3.4	330
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	4	30	21	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	7
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	4	30	21	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3	28
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	4	30	21	5	0.0	0.02	0.0	0.0		0.0		0.0	2.6	0.0	0.0	2.3	0.0	0.0	2.3	228
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	4	30	21	5	0.0	0.02	0.0	0.0		0.0		0.0	3.5	0.0	0.0	3.2	0.0	0.0	3.2	313
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	2	14	10	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	2	14	10	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.1	14
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	2	14	10	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.1	14
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	2	14	10	5	0.0	0.01	0.0	0.0		0.0		0.0	1.5	0.0	0.0	1.4	0.0	0.0	1.4	134
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2	19
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2	21
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	0.0	0.02	0.0	0.0		0.0		0.0	2.1	0.0	0.0	1.9	0.0	0.0	1.9	187
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	3	20	14	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2	19
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	9
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	0.0	0.22	0.3	0.0		0.0		0.0	70.6	0.0	0.0	64.1	0.0	0.0	64.8	6277
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.4	0.0	0.0	0.5	43
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	0.0	0.04	0.1	0.0		0.0		0.0	10.0	0.0	0.0	9.0	0.0	0.0	9.1	885
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2	19
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	3	20	14	12	0.0	0.02	0.0	0.0		0.0		0.0	6.0	0.0	0.0	5.4	0.0	0.0	5.5	531
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.1	14
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.7	0.0	0.0	0.7	64
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	0.0	0.33	0.5	0.0		0.0		0.0	106.0	0.0	0.0	96.1	0.0	0.0	97.2	9415
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	0.0	0.06	0.1	0.0		0.0		0.0	14.9	0.0	0.0	13.6	0.0	0.0	13.7	1327
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3	28
Mass Excavation	12/21/2024	1/20/2025	2024	4	30	21	12	0.0	0.02	0.1	0.0		0.0		0.0	9.0	0.0	0.0	8.1	0.0	0.0	8.2	796
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	7
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	0.0	0.07	0.1	0.0		0.0		0.0	18.0	0.0	0.0	16.3	0.0	0.0	16.5	1599
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	0.0	0.03	0.1	0.0		0.0		0.0	7.8	0.0	0.0	7.1	0.0	0.0	7.2	695
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	0.0	0.02	0.0	0.0		0.0		0.0	4.5	0.0	0.0	4.1	0.0	0.0	4.2	403
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.2	15
Rough Grading	1/20/2025	2/4/2025	2025	2	15	11	8	0.0	0.01	0.0	0.0		0.0		0.0	4.7	0.0	0.0	4.3	0.0	0.0	4.3	417
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.1	14
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3	28
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3	28
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.3	0.0	0.0	0.3	32
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.0	0.07	0.0	0.0		0.0		0.0	11.5	0.0	0.0	10.4	0.0	0.0	10.5	1021
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.0	0.02	0.0	0.0		0.0		0.0	7.1	0.0	0.0	6.4	0.0	0.0	6.5	629
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	4	30	21	12	0.0	0.02	0.0	0.0		0.0		0.0	3.5	0.0	0.0	3.2	0.0	0.0	3.2	313
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	2025	38	265	189	10	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.3	0.0	0.0	1.3	127
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	2025	38	265	189	10	0.0	0.16	0.3	0.0		0.0		0.0	52.5	0.0	0.0	47.6	0.0	0.0	48.1	4662
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	2025	38	265	189	10	0.0	0.22	0.1	0.0		0.0		0.0	31.7	0.0	0.0	28.8	0.0	0.0	29.1	2816
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	7
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	0.0	0.06	0.1	0.0		0.0		0.0	16.4	0.0	0.0	14.8	0.0	0.0	15.0	1454
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	0.0	0.01	0.0	0.0		0.0		0.0	3.6	0.0	0.0	3.2	0.0	0.0	3.3	316
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	0.0	0.01	0.0	0.0		0.0		0.0	4.1	0.0	0.0	3.7	0.0	0.0	3.8	366
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	2	14	10	8	0.0	0.02	0.0	0.0		0.0		0.0	2.7	0.0	0.0	2.5	0.0	0.0	2.5	243
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	2025	2	14	10	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	7
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	2025	2	14	10	5	0.0	0.01	0.0	0.0		0.0		0.0	1.5	0.0	0.0	1.4	0.0	0.0	1.4	134
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	2025	2	14	10	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2	15
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	2025	29	200	143	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.0	0.0	0.0	1.0	96
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	2025	29	200	143	8	0.0	0.12	0.2	0.0		0.0		0.0	39.7	0.0	0.0	36.0	0.0	0.0	36.4	3527
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	2025	29	200	143	8	0.0	0.16	0.1	0.0		0.0		0.0	24.0	0.0	0.0	21.8	0.0	0.0	22.0	2131
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	0.0	0.02	0.0	0.0		0.0		0.0	5.7	0.0	0.0	5.2	0.0	0.0	5.3	509
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	0.0	0.01	0.0	0.0		0.0		0.0	2.5	0.0	0.0	2.3	0.0	0.0	2.3	221
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	0.0	0.01	0.0	0.0		0.0		0.0	2.9	0.0	0.0	2.6	0.0	0.0	2.6	256
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	0.0	0.01	0.0	0.0		0.0		0.0	1.9	0.0	0.0	1.7	0.0	0.0	1.8	170
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	1	10	7	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	9
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	2025	11	75	54	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.4	36
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	2025	11	75	54	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.7	0.0	0.0	0.8	72
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	2025	11	75	54	5	0.0	0.06	0.0	0.0		0.0		0.0	9.1	0.0	0.0	8.2	0.0	0.0	8.3	805
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	2025	11	75	54	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.4	36
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	2025	11	75	54	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.7	0.0	0.0	0.8	72
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	2025	11	75	54	6	0.0	0.06	0.0	0.0		0.0		0.0	9.1	0.0	0.0	8.2	0.0	0.0	8.3	805

ONSITE EMISSIONS													OFFROAD				ONROAD		
Construction Phase	Estimated Start Date	Estimated End Date	Year	Duration in Weeks	Duration Calendar Days	Duration Working Days	Number of Workers per day (8 hrs/day)	#	Equipment	OFFROAD/EMFAC Equipment Match	Onroad or Offroad	Hrs/day	HP	HP Bin	LF	Daily hp-hrs	Hrs/day/ea	avg travel speed	Daily VMT
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	2	14	10	5	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	2	14	10	5	1	950 Wheel Loader	Rubber Tired Loaders	offroad	8	225	250	0.3618	651.24			
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	2	14	10	5	1	320 Excavator	Excavators	offroad	8	172	175	0.3819	525.4944			
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	2	14	10	5	1	Water Truck	MD/HD	onroad	8					2	5	10
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	1	315 Excavator	Excavators	offroad	8	108	120	0.3819	329.9616			
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	1	Dump Truck	HD	onroad	8					2	5	10
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	1	Water Truck	MD/HD	onroad	8					2	5	10
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	2025	9	60	43	5	1	Pickup Truck	Pickup Truck	onroad	8					2	5	10
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	2025	9	60	43	5	1	Backhoe	Tractors/Loaders/Backhoe -	offroad	8	97	120	0.3685	285.956			
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	2025	9	60	43	5	1	Dump Truck	HD	onroad	8					2	5	10
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	2026	36	250	179	5	1	Pickup Truck	Pickup Truck	onroad	8					2	5	10
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	2026	36	250	179	5	1	Boom Truck	MD/HD	onroad	8					2	5	10
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	2026	36	250	179	5	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	2026	9	60	43	4	1	Pickup Truck	Pickup Truck	onroad	8					2	5	10
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	2026	9	60	43	4	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	2025	31	220	157	6	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	2025	31	220	157	6	1	All Terrain Crane	Cranes	offroad	8	231	250	0.2881	532.4088			
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	2026	1	10	7	4	1	Pickup Truck	Pickup Truck	onroad	8					2	5	10
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	2026	1	10	7	4	1	315 Excavator	Excavators	offroad	8	108	120	0.3819	329.9616			
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	2026	1	10	7	4	1	Water Truck	MD/HD	onroad	8					2	5	10
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	1	315 Excavator	Excavators	offroad	8	108	120	0.3819	329.9616			
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	1	Dump Truck	HD	onroad	8					2	5	10
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	1	Water Truck	MD/HD	onroad	8					2	5	10
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	2	320 Excavator	Excavators	offroad	8	172	175	0.3819	1050.9888			
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	1	Water Truck	MD/HD	onroad	8					2	5	10
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	1	950 Wheel Loader	Rubber Tired Loaders	offroad	8	225	250	0.3618	651.24			
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	1	Dump Truck	HD	onroad	8					2	5	10
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	2	320 Excavator	Excavators	offroad	8	172	175	0.3819	1050.9888			
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	1	Water Truck	MD/HD	onroad	8					2	5	10
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	1	950 Wheel Loader	Rubber Tired Loaders	offroad	8	225	250	0.3618	651.24			
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	1	Dump Truck	HD	onroad	8					2	5	10
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	2026	26	180	129	6	2	Pick Up Trucks	Pickup Truck	onroad	8					2	5	20
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	2026	26	180	129	6	1	Boom Truck	MD/HD	onroad	8					2	5	10
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	2026	26	180	129	6	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Construct UV Disinfection Facility	7/18/2026	10/16/2026	2026	13	90	64	6	2	Pick Up Trucks	Pickup Truck	onroad	8					2	5	20
Construct UV Disinfection Facility	7/18/2026	10/16/2026	2026	13	90	64	6	1	Boom Truck	MD/HD	onroad	8					2	5	10
Construct UV Disinfection Facility	7/18/2026	10/16/2026	2026	13	90	64	6	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	2026	11	80	57	6	2	Pick Up Trucks	Pickup Truck	onroad	8					2	5	20
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	2026	11	80	57	6	1	Boom Truck	MD/HD	onroad	8					2	5	10
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	2026	11	80	57	6	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	2026	6	40	29	5	1	Pickup Truck	Pickup Truck	onroad	8					2	5	10
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	2026	6	40	29	5	1	Backhoe	Tractors/Loaders/Backhoe -	offroad	8	97	120	0.3685	285.956			
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	2026	6	40	29	5	1	Dump Truck	HD	onroad	8					2	5	10
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	1	623 Scraper	Scrapers	offroad	8	407	500	0.4824	1570.6944			
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	1	LGP D6 Dozer	Rubber Tired Dozers	offroad	8	215	250	0.3953	679.916			
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	1	815 Compactor	Rubber Tired Dozers	offroad	8	249	250	0.3953	787.4376			
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	1	320 Excavator	Excavators	offroad	8	172	175	0.3819	525.4944			
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	1	Water Truck	MD/HD	onroad	8					2	5	10
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	1	140 Motor Grader	Graders	offroad	8	250	250	0.4087	817.4			
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	4	30	21	4	1	Pickup Truck	Pickup Truck	onroad	8					2	5	10
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	4	30	21	4	1	352 Excavator	Excavators	offroad	8	424	500	0.3819	1295.4048			
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	4	30	21	4	1	Water Truck	MD/HD	onroad	8					2	5	10
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	4	30	21	4	1	140 Motor Grader	Graders	offroad	8	250	250	0.4087	817.4			
Demobilization	11/15/2026	11/30/2026	2026	2	15	11	6	2	Pickup Trucks	Pickup Truck	onroad	8					2	5	20
Demobilization	11/15/2026	11/30/2026	2026	2	15	11	6	2	Utility Trucks	MD/HD	onroad	8					2	5	20
Demobilization	11/15/2026	11/30/2026	2026	2	15	11	6	1	All Terrain Fork Lift	Rough Terrain Forklifts	offroad	8	100	120	0.402	321.6			

ONSITE EMISSIONS

								Emisssions (in pounds per day)										
Construction Phase	Estimated Start Date	Estimated End Date	Year	Duration in Weeks	Duration Calendar Days	Duration Working Days	Number of Workers per day (8 hrs/day)	ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	2	14	10	5	0.0	0.006	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	2	14	10	5	0.3	1.6	2.1	0.1		0.1		0.0	674.6	0.2	0.0
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	2	14	10	5	0.2	3.6	1.3	0.1		0.1		0.0	547.4	0.2	0.0
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	2	14	10	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.9	0.0	0.0
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	0.1	2.5	1.5	0.1		0.1		0.0	339.5	0.1	0.0
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.9	0.0	0.0
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.9	0.0	0.0
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	2025	9	60	43	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	2025	9	60	43	5	0.1	2.2	1.3	0.1		0.0		0.0	300.8	0.1	0.0
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	2025	9	60	43	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.9	0.0	0.0
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	2026	36	250	179	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	2026	36	250	179	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.4	0.0	0.0
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	2026	36	250	179	5	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	2026	9	60	43	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	2026	9	60	43	4	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	2025	31	220	157	6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	2025	31	220	157	6	0.3	1.7	3.1	0.1		0.1		0.0	555.2	0.2	0.0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	2026	1	10	7	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	2026	1	10	7	4	0.1	2.5	1.5	0.1		0.1		0.0	339.5	0.1	0.0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	2026	1	10	7	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.4	0.0	0.0
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	0.1	2.5	1.5	0.1		0.1		0.0	339.5	0.1	0.0
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.2	0.0	0.0
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.4	0.0	0.0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.4	7.1	2.7	0.1		0.1		0.0	1094.8	0.4	0.0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.9	0.0	0.0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.3	1.6	2.1	0.1		0.1		0.0	674.6	0.2	0.0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.2	0.0	0.0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.4	7.1	2.7	0.1		0.1		0.0	1094.8	0.4	0.0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.4	0.0	0.0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.3	1.6	2.1	0.1		0.1		0.0	674.6	0.2	0.0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.2	0.0	0.0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	2026	26	180	129	6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	2026	26	180	129	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.4	0.0	0.0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	2026	26	180	129	6	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	2026	13	90	64	6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	2026	13	90	64	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.4	0.0	0.0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	2026	13	90	64	6	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	2026	11	80	57	6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	2026	11	80	57	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.4	0.0	0.0
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	2026	11	80	57	6	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	2026	6	40	29	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	2026	6	40	29	5	0.1	2.2	1.3	0.1		0.0		0.0	300.8	0.1	0.0
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	2026	6	40	29	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.2	0.0	0.0
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.7	6.0	7.1	0.3		0.3		0.0	1636.3	0.5	0.0
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.6	2.6	5.7	0.2		0.2		0.0	711.4	0.2	0.0
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.6	3.0	6.6	0.3		0.3		0.0	823.9	0.3	0.0
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.2	3.6	1.3	0.1		0.1		0.0	547.4	0.2	0.0
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.4	0.0	0.0
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.4	2.1	4.6	0.1		0.1		0.0	853.2	0.3	0.0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	4	30	21	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	4	30	21	4	0.3	3.0	2.1	0.1		0.1		0.0	1343.1	0.4	0.0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	4	30	21	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.4	0.0	0.0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	4	30	21	4	0.4	2.1	4.6	0.1		0.1		0.0	853.2	0.3	0.0
Demobilization	11/15/2026	11/30/2026	2026	2	15	11	6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.1	0.0	0.0
Demobilization	11/15/2026	11/30/2026	2026	2	15	11	6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	58.7	0.0	0.0
Demobilization	11/15/2026	11/30/2026	2026	2	15	11	6	0.1	2.3	1.3	0.0		0.0		0.0	335.4	0.1	0.0

ONSITE EMISSIONS

Construction Phase	Estimated Start Date	Estimated End Date	Year	Duration in Weeks	Duration Calendar Days	Duration Working Days	Number of Workers per day (8 hrs/day)	Emisssions (in tons per year)											Emissions (in MT per year)				
								ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e	Fuel Gallons
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	2	14	10	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	7
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	2	14	10	5	0.0	0.01	0.0	0.0		0.0		0.0	3.4	0.0	0.0	3.1	0.0	0.0	3.1	300
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	2	14	10	5	0.0	0.02	0.0	0.0		0.0		0.0	2.7	0.0	0.0	2.5	0.0	0.0	2.5	243
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	2	14	10	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	13
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.4	36
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	0.0	0.07	0.0	0.0		0.0		0.0	9.2	0.0	0.0	8.3	0.0	0.0	8.4	815
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	0.0	0.06	0.0	0.0		0.0		0.0	9.1	0.0	0.0	8.2	0.0	0.0	8.3	805
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.0	0.0	0.9	81
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	11	75	54	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.7	0.0	0.0	0.8	72
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	2025	9	60	43	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.1	14
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	2025	9	60	43	5	0.0	0.05	0.0	0.0		0.0		0.0	6.5	0.0	0.0	5.9	0.0	0.0	5.9	575
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	2025	9	60	43	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.7	0.0	0.0	0.7	65
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	2026	36	250	179	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.6	0.0	0.0	0.6	60
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	2026	36	250	179	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	2.4	0.0	0.0	2.5	234
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	2026	36	250	179	5	0.0	0.21	0.1	0.0		0.0		0.0	30.0	0.0	0.0	27.2	0.0	0.0	27.5	2667
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	2026	9	60	43	4	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.1	14
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	2026	9	60	43	4	0.0	0.05	0.0	0.0		0.0		0.0	7.2	0.0	0.0	6.5	0.0	0.0	6.6	641
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	2025	31	220	157	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.1	0.0	0.0	1.1	105
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	2025	31	220	157	6	0.0	0.14	0.2	0.0		0.0		0.0	43.6	0.0	0.0	39.5	0.0	0.0	40.0	3872
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	2026	1	10	7	4	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	2026	1	10	7	4	0.0	0.01	0.0	0.0		0.0		0.0	1.2	0.0	0.0	1.1	0.0	0.0	1.1	106
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	2026	1	10	7	4	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	9
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.1	14
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	0.0	0.02	0.0	0.0		0.0		0.0	3.5	0.0	0.0	3.2	0.0	0.0	3.2	313
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	0.0	0.03	0.0	0.0		0.0		0.0	3.6	0.0	0.0	3.2	0.0	0.0	3.3	317
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3	31
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	4	30	21	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3	27
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	9
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.05	0.0	0.0		0.0		0.0	7.1	0.0	0.0	6.5	0.0	0.0	6.5	632
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2	17
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.01	0.0	0.0		0.0		0.0	4.4	0.0	0.0	4.0	0.0	0.0	4.0	390
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2	19
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.01	0.0	0.0		0.0		0.0	2.2	0.0	0.0	2.0	0.0	0.0	2.0	194
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	9
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.05	0.0	0.0		0.0		0.0	7.1	0.0	0.0	6.5	0.0	0.0	6.5	632
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2	17
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.01	0.0	0.0		0.0		0.0	4.4	0.0	0.0	4.0	0.0	0.0	4.0	390
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.2	19
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	3	18	13	8	0.0	0.01	0.0	0.0		0.0		0.0	2.2	0.0	0.0	2.0	0.0	0.0	2.0	194
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	2026	26	180	129	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.9	0.0	0.0	0.9	86
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	2026	26	180	129	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	1.7	0.0	0.0	1.8	168
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	2026	26	180	129	6	0.0	0.15	0.1	0.0		0.0		0.0	21.6	0.0	0.0	19.6	0.0	0.0	19.8	1922
Construct UV Disinfection Facility	7/18/2026	10/16/2026	2026	13	90	64	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.4	0.0	0.0	0.4	43
Construct UV Disinfection Facility	7/18/2026	10/16/2026	2026	13	90	64	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.9	0.0	0.0	0.9	84
Construct UV Disinfection Facility	7/18/2026	10/16/2026	2026	13	90	64	6	0.0	0.07	0.0	0.0		0.0		0.0	10.7	0.0	0.0	9.7	0.0	0.0	9.8	954
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	2026	11	80	57	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.4	38
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	2026	11	80	57	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.8	0.0	0.0	0.8	74
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	2026	11	80	57	6	0.0	0.07	0.0	0.0		0.0		0.0	9.6	0.0	0.0	8.7	0.0	0.0	8.8	849
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	2026	6	40	29	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	10
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	2026	6	40	29	5	0.0	0.03	0.0	0.0		0.0		0.0	4.4	0.0	0.0	4.0	0.0	0.0	4.0	388
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	2026	6	40	29	5	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.4	0.0	0.0	0.5	43
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.4	36
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.0	0.16	0.2	0.0		0.0		0.0	44.2	0.0	0.0	40.1	0.0	0.0	40.5	3926
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.0	0.07	0.2	0.0		0.0		0.0	19.2	0.0	0.0	17.4	0.0	0.0	17.6	1707
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.0	0.08	0.2	0.0		0.0		0.0	22.2	0.0	0.0	20.2	0.0	0.0	20.4	1976
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.0	0.10	0.0	0.0		0.0		0.0	14.8	0.0	0.0	13.4	0.0	0.0	13.6	1313
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.7	0.0	0.0	0.8	70
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	11	75	54	9	0.0	0.06	0.1	0.0		0.0		0.0	23.0	0.0	0.0	20.9	0.0	0.0	21.1	2047
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	4	30	21	4	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	7
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	4	30	21	4	0.0	0.03	0.0	0.0		0.0		0.0	14.1	0.0	0.0	12.8	0.0	0.0	12.9	1253
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	4	30	21	4	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3	27
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	4	30	21	4	0.0	0.02	0.0	0.0		0.0		0.0	9.0	0.0	0.0	8.1	0.0	0.0	8.2	796
Demobilization	11/15/2026	11/30/2026	2026	2	15	11	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	7
Demobilization	11/15/2026	11/30/2026	2026	2	15	11	6	0.0	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3	29
Demobilization	11/15/2026	11/30/2026	2026	2	15	11	6	0.0	0.01	0.0	0.0		0.0		0.0	1.8	0.0	0.0	1.7	0.0	0.0	1.7	164

DELIVERY AND HAUL TRUCKS

					Deliveries						Haul Trucks						
Phase	Start Date	End Date	Year	Working days	#/total	#daily	VMT per trip	Trips per delivery	daily delivery VMT	daily delivery trips	#/total	#daily	VMT per trip	Trips per load	daily haul VMT	daily haul trips	EMFAC Match
Mobilization	10/1/2024	10/7/2024	2024	4	0	0	7.3	2	0	0			20	2	0	0	HD
Construct Haul Road	10/7/2024	10/22/2024	2024	11	148	13	7.3	2	196	27			20	2	0	0	HD
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	21	0	0	7.3	2	0	0			20	2	0	0	HD
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	10	0	0	7.3	2	0	0			20	2	0	0	HD
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	14	0	0	7.3	2	0	0			20	2	0	0	HD
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	14	0	0	7.3	2	0	0	889	64	20	2	2540	127	HD
Mass Excavation	12/21/2024	1/20/2025	2024	21	0	0	7.3	2	0	0	4748	226	0.5	2	226	452	HD
Rough Grading	1/20/2025	2/4/2025	2025	11	0	0	7.3	2	0	0			20	2	0	0	HD
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	21	0	0	7.3	2	0	0			20	2	0	0	HD
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	2025	189	0	0	7.3	2	0	0			20	2	0	0	HD
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	10	0	0	7.3	2	0	0			20	2	0	0	HD
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	2025	10	0	0	7.3	2	0	0			20	2	0	0	HD
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	2025	143	0	0	7.3	2	0	0	30	0.2	20	2	8	0.4	HD
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	7	0	0	7.3	2	0	0			20	2	0	0	HD
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	2025	54	0	0	7.3	2	0	0			20	2	0	0	HD
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	2025	54	80	1	7.3	2	22	3			20	2	0	0	HD
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	10	0	0	7.3	2	0	0			20	2	0	0	HD
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	54	0	0	7.3	2	0	0			20	2	0	0	HD
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	2025	43	0	0	7.3	2	0	0			20	2	0	0	HD
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	2026	179	0	0	7.3	2	0	0			20	2	0	0	HD
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	2026	43	493	11	7.3	2	167	23			20	2	0	0	HD
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	2025	157	0	0	7.3	2	0	0			20	2	0	0	HD
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	2026	7	0	0	7.3	2	0	0			20	2	0	0	HD
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	21	0	0	7.3	2	0	0			20	2	0	0	HD
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	13	0	0	7.3	2	0	0			20	2	0	0	HD
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	13	0	0	7.3	2	0	0			20	2	0	0	HD
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	2026	129	1460	11	7.3	2	165	23			20	2	0	0	HD
Construct UV Disinfection Facility	7/18/2026	10/16/2026	2026	64	0	0	7.3	2	0	0			20	2	0	0	HD
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	2026	57	0	0	7.3	2	0	0			20	2	0	0	HD
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	2026	29	0	0	7.3	2	0	0			20	2	0	0	HD
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	54	203	4	7.3	2	55	8			20	2	0	0	HD
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	21	0	0	7.3	2	0	0			20	2	0	0	HD
Demobilization	11/15/2026	11/30/2026	2026	11	0	0	7.3	2	0	0			20	2	0	0	HD

DELIVERY AND HAUL TRUCKS

DELIVERY TRUCKS

Phase	Start Date	End Date	Emisssions (in pounds per day)											Emisssions (in tons per year)											Emissions (in MT per year)				Fuel Gallons
			ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e	
Mobilization	10/1/2024	10/7/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Haul Road	10/7/2024	10/22/2024	0.03	1.17	0.42	0.01	0.05	0.01	0.02	0.01	732.73	0.01	0.12	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	4.03	0.00	0.00	3.66	0.00	0.00	3.83	357
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Utility Locating / Potholing	10/7/2024	10/21/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Mass Excavation	12/21/2024	1/20/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Rough Grading	1/20/2025	2/4/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	0.00	0.13	0.05	0.00	0.01	0.00	0.00	0.00	79.11	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.14	0.00	0.00	1.94	0.00	0.00	2.03	190
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	0.02	0.94	0.35	0.01	0.04	0.01	0.01	0.01	599.68	0.01	0.09	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	12.89	0.00	0.00	11.70	0.00	0.00	12.25	1145
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	0.02	0.93	0.35	0.01	0.04	0.01	0.01	0.01	591.98	0.01	0.09	0.00	0.06	0.02	0.00	0.00	0.00	0.00	0.00	38.18	0.00	0.01	34.64	0.00	0.01	36.28	3391
Construct UV Disinfection Facility	7/18/2026	10/16/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Fine Grading and paving site.	9/1/2026	11/15/2026	0.01	0.31	0.12	0.00	0.01	0.00	0.00	0.00	196.63	0.00	0.03	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	5.31	0.00	0.00	4.82	0.00	0.00	5.04	471
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Demobilization	11/15/2026	11/30/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0

DELIVERY AND HAUL TRUCKS

HAUL TRUCKS

			Emissions (in pounds per day)											Emissions (in tons per year)											Emissions (in MT per year)				
Phase	Start Date	End Date	ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e	Fuel Gallons
Mobilization	10/1/2024	10/7/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Haul Road	10/7/2024	10/22/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Utility Locating / Potholing	10/7/2024	10/21/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Sludge Handling T4 to P3	12/1/2024	12/21/2024	0.19	11.44	2.64	0.16	0.63	0.16	0.20	0.08	9023.68	0.12	1.43	0.00	0.08	0.02	0.00	0.00	0.00	0.00	0.00	63.17	0.00	0.01	57.30	0.00	0.01	60.02	5880
Mass Excavation	12/21/2024	1/20/2025	0.40	8.29	5.91	0.02	0.06	0.02	0.02	0.02	1702.73	0.06	0.27	0.00	0.09	0.06	0.00	0.00	0.00	0.00	0.00	17.88	0.00	0.00	16.22	0.00	0.00	17.00	785
Rough Grading	1/20/2025	2/4/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00	29.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.09	0.00	0.00	1.90	0.00	0.00	1.99	195
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct UV Disinfection Facility	7/18/2026	10/16/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Fine Grading and paving site.	9/1/2026	11/15/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Demobilization	11/15/2026	11/30/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0

Worker Commute

Phase	Start Date	End Date	Year	Working days	Number of Workers/ Day	Trips per worker	Average Trip Length (one way)	Daily VMT	Daily Ttrips
Mobilization	10/1/2024	10/7/2024	2024	4	6	2	10.8	130	12
Construct Haul Road	10/7/2024	10/22/2024	2024	11	6	2	10.8	130	12
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	21	5	2	10.8	108	10
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	10	5	2	10.8	108	10
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	14	6	2	10.8	130	12
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	14	12	2	10.8	260	24
Mass Excavation	12/21/2024	1/20/2025	2024	21	12	2	10.8	260	24
Rough Grading	1/20/2025	2/4/2025	2025	11	8	2	10.8	173	16
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	21	12	2	10.8	260	24
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	2025	189	10	2	10.8	216	20
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	10	8	2	10.8	173	16
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	2025	10	5	2	10.8	108	10
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	2025	143	8	2	10.8	173	16
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	7	8	2	10.8	173	16
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	2025	54	5	2	10.8	108	10
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	2025	54	6	2	10.8	130	12
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	10	5	2	10.8	108	10
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	54	8	2	10.8	173	16
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	2025	43	5	2	10.8	108	10
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	2026	179	5	2	10.8	108	10
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	2026	43	4	2	10.8	87	8
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	2025	157	6	2	10.8	130	12
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	2026	7	4	2	10.8	87	8
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	21	8	2	10.8	173	16
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	13	8	2	10.8	173	16
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	13	8	2	10.8	173	16
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	2026	129	6	2	10.8	130	12
Construct UV Disinfection Facility	7/18/2026	10/16/2026	2026	64	6	2	10.8	130	12
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	2026	57	6	2	10.8	130	12
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	2026	29	5	2	10.8	108	10
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	54	9	2	10.8	195	18
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	21	4	2	10.8	87	8
Demobilization	11/15/2026	11/30/2026	2026	11	6	2	10.8	130	12

Worker Commute

Phase	Start Date	End Date	Emisssions (in pounds per day)										
			ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O
Mobilization	10/1/2024	10/7/2024	0.04	0.03	0.43	0.00	0.09	0.00	0.02	0.00	89.11	0.00	0.00
Construct Haul Road	10/7/2024	10/22/2024	0.04	0.03	0.43	0.00	0.09	0.00	0.02	0.00	89.11	0.00	0.00
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	0.04	0.03	0.35	0.00	0.08	0.00	0.02	0.00	74.03	0.00	0.00
Utility Locating / Potholing	10/7/2024	10/21/2024	0.04	0.03	0.35	0.00	0.08	0.00	0.02	0.00	74.03	0.00	0.00
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	0.04	0.03	0.43	0.00	0.09	0.00	0.02	0.00	89.11	0.00	0.00
Sludge Handling T4 to P3	12/1/2024	12/21/2024	0.09	0.07	0.85	0.00	0.18	0.00	0.04	0.00	178.21	0.01	0.01
Mass Excavation	12/21/2024	1/20/2025	0.09	0.07	0.85	0.00	0.18	0.00	0.04	0.00	178.21	0.01	0.01
Rough Grading	1/20/2025	2/4/2025	0.05	0.04	0.52	0.00	0.12	0.00	0.03	0.00	115.34	0.00	0.00
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	0.08	0.06	0.79	0.00	0.18	0.00	0.04	0.00	173.34	0.01	0.01
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	0.07	0.05	0.65	0.00	0.15	0.00	0.04	0.00	144.01	0.01	0.00
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	0.05	0.04	0.52	0.00	0.12	0.00	0.03	0.00	115.34	0.00	0.00
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	0.03	0.03	0.33	0.00	0.08	0.00	0.02	0.00	72.01	0.00	0.00
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	0.05	0.04	0.52	0.00	0.12	0.00	0.03	0.00	115.34	0.00	0.00
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	0.05	0.04	0.52	0.00	0.12	0.00	0.03	0.00	115.34	0.00	0.00
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	0.03	0.03	0.33	0.00	0.08	0.00	0.02	0.00	72.01	0.00	0.00
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	0.04	0.03	0.39	0.00	0.09	0.00	0.02	0.00	86.67	0.00	0.00
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	0.03	0.03	0.33	0.00	0.08	0.00	0.02	0.00	72.01	0.00	0.00
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	0.05	0.04	0.52	0.00	0.12	0.00	0.03	0.00	115.34	0.00	0.00
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	0.03	0.03	0.33	0.00	0.08	0.00	0.02	0.00	72.01	0.00	0.00
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	0.03	0.02	0.30	0.00	0.08	0.00	0.02	0.00	70.15	0.00	0.00
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	0.02	0.02	0.24	0.00	0.06	0.00	0.02	0.00	56.50	0.00	0.00
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	0.04	0.03	0.39	0.00	0.09	0.00	0.02	0.00	86.67	0.00	0.00
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	0.02	0.02	0.24	0.00	0.06	0.00	0.02	0.00	56.50	0.00	0.00
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	0.05	0.04	0.49	0.00	0.12	0.00	0.03	0.00	112.36	0.00	0.00
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	0.05	0.04	0.49	0.00	0.12	0.00	0.03	0.00	112.36	0.00	0.00
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	0.05	0.04	0.49	0.00	0.12	0.00	0.03	0.00	112.36	0.00	0.00
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	0.04	0.03	0.37	0.00	0.09	0.00	0.02	0.00	84.43	0.00	0.00
Construct UV Disinfection Facility	7/18/2026	10/16/2026	0.04	0.03	0.37	0.00	0.09	0.00	0.02	0.00	84.43	0.00	0.00
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	0.04	0.03	0.37	0.00	0.09	0.00	0.02	0.00	84.43	0.00	0.00
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	0.03	0.02	0.30	0.00	0.08	0.00	0.02	0.00	70.15	0.00	0.00
Fine Grading and paving site.	9/1/2026	11/15/2026	0.06	0.04	0.55	0.00	0.14	0.00	0.03	0.00	126.65	0.00	0.00
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	0.02	0.02	0.24	0.00	0.06	0.00	0.02	0.00	56.50	0.00	0.00
Demobilization	11/15/2026	11/30/2026	0.04	0.03	0.37	0.00	0.09	0.00	0.02	0.00	84.43	0.00	0.00

Worker Commute

Phase	Start Date	End Date	Emisssions (in tons per year)											Emissions (in MT per year)				Fuel Gallons
			ROG	NOX	CO	PM10 ex	PM10 d	PM2.5 ex	PM2.5 d	SOx	CO2	CH4	N2O	CO2	CH4	N2O	CO2e	
Mobilization	10/1/2024	10/7/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00	0.16	0.00	0.00	0.16	19
Construct Haul Road	10/7/2024	10/22/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.44	0.00	0.00	0.45	52
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.71	0.00	0.00	0.71	83
Utility Locating / Potholing	10/7/2024	10/21/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.34	0.00	0.00	0.34	39
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.00	0.00	0.57	0.00	0.00	0.57	66
Sludge Handling T4 to P3	12/1/2024	12/21/2024	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.25	0.00	0.00	1.13	0.00	0.00	1.14	132
Mass Excavation	12/21/2024	1/20/2025	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.87	0.00	0.00	1.70	0.00	0.00	1.72	199
Rough Grading	1/20/2025	2/4/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.63	0.00	0.00	0.58	0.00	0.00	0.58	67
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.82	0.00	0.00	1.65	0.00	0.00	1.67	193
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	0.01	0.00	0.06	0.00	0.01	0.00	0.00	0.00	13.61	0.00	0.00	12.35	0.00	0.00	12.48	1445
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.52	0.00	0.00	0.53	61
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.33	0.00	0.00	0.33	38
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	0.00	0.00	0.04	0.00	0.01	0.00	0.00	0.00	8.25	0.00	0.00	7.48	0.00	0.00	7.56	875
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.37	0.00	0.00	0.37	43
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.94	0.00	0.00	1.76	0.00	0.00	1.78	206
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	2.34	0.00	0.00	2.12	0.00	0.00	2.15	248
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.33	0.00	0.00	0.33	38
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	3.11	0.00	0.00	2.83	0.00	0.00	2.85	331
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.55	0.00	0.00	1.40	0.00	0.00	1.42	164
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.00	6.28	0.00	0.00	5.70	0.00	0.00	5.75	666
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.21	0.00	0.00	1.10	0.00	0.00	1.11	129
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	0.00	0.00	0.03	0.00	0.01	0.00	0.00	0.00	6.80	0.00	0.00	6.17	0.00	0.00	6.24	722
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.18	0.00	0.00	0.18	21
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	1.18	0.00	0.00	1.07	0.00	0.00	1.08	125
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.66	0.00	0.00	0.67	78
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.66	0.00	0.00	0.67	78
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	0.00	0.00	0.02	0.00	0.01	0.00	0.00	0.00	5.45	0.00	0.00	4.94	0.00	0.00	4.99	578
Construct UV Disinfection Facility	7/18/2026	10/16/2026	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	2.70	0.00	0.00	2.45	0.00	0.00	2.48	287
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	2.41	0.00	0.00	2.18	0.00	0.00	2.21	255
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.02	0.00	0.00	0.92	0.00	0.00	0.93	108
Fine Grading and paving site.	9/1/2026	11/15/2026	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	3.42	0.00	0.00	3.10	0.00	0.00	3.13	363
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.54	0.00	0.00	0.54	63
Demobilization	11/15/2026	11/30/2026	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.42	0.00	0.00	0.43	49

MATERIAL HANDLING

Phase	Start Date	End Date	Year	Working days	Total excavation CY	Total excavation per day	Dozing Hours Per Day	Emisssions (in		Emisssions (in tons	
								PM10 d	PM2.5 d	PM10 d	PM2.5 d
Mobilization	10/1/2024	10/7/2024	2024	4			0	0.00	0.00	0.00	0.00
Construct Haul Road	10/7/2024	10/22/2024	2024	11			0	0.00	0.00	0.00	0.00
Dewatering T2, T3 and T4	10/7/2024	11/6/2024	2024	21			0	0.00	0.00	0.00	0.00
Utility Locating / Potholing	10/7/2024	10/21/2024	2024	10			0	0.00	0.00	0.00	0.00
Demolition – T2, T3, and T4	11/6/2024	11/26/2024	2024	14			0	0.00	0.00	0.00	0.00
Sludge Handling T4 to P3	12/1/2024	12/21/2024	2024	14	24,000	3,429	16	13.82	1.96	0.09	0.01
Mass Excavation	12/21/2024	1/20/2025	2024	21	128,200	6,105	16	15.21	2.17	0.16	0.02
Rough Grading	1/20/2025	2/4/2025	2025	11			24	18.07	2.53	0.10	0.01
Pipeline excavation, lay and backfill (deep)	2/4/2025	3/6/2025	2025	21			0	0.00	0.00	0.00	0.00
Construct Oxidation Ditch 1, 2 and Anoxic Basin	3/6/2025	11/26/2025	2025	189			0	0.00	0.00	0.00	0.00
Backfill Oxidation Ditch 1, 2 and Anoxic Basin	11/26/2025	12/10/2025	2025	10			16	12.04	1.69	0.06	0.01
Electrical underground Oxidation Ditch 1, 2 and Anoxic Basin	12/10/2025	12/24/2025	2025	10			0	0.00	0.00	0.00	0.00
Construct Clarifiers 1 and 2	3/6/2025	9/22/2025	2025	143	800	800	0	0.42	0.06	0.00	0.00
Backfill Clarifiers 1 and 2	9/22/2025	10/2/2025	2025	7			16	12.04	1.69	0.04	0.01
Construct Sludge Handling Equipment and Solids Storage	9/22/2025	12/6/2025	2025	54			0	0.00	0.00	0.00	0.00
Construct Splitter Structures and Pump Stations (Primary and Secondary Treatment)	9/22/2025	12/6/2025	2025	54			0	0.00	0.00	0.00	0.00
Backfill Splitter Structures and Pump Stations (Primary and Secondary Treatment)	12/6/2025	12/20/2025	2025	10			0	0.00	0.00	0.00	0.00
Process Piping Pump Stations, splitter structures Secondary Treatment	12/20/2025	3/5/2026	2025	54			0	0.00	0.00	0.00	0.00
Electrical underground Clarifiers 1 & 2 Splitter Structures, Pump Stations, and Solids Handling	12/20/2025	2/18/2026	2025	43			0	0.00	0.00	0.00	0.00
Construct Electrical Building, Generator Pad and Shop / Maintenance Building	2/1/2026	10/9/2026	2026	179			0	0.00	0.00	0.00	0.00
Construct misc above grade equipment pads / equipment	3/1/2026	4/30/2026	2026	43			0	0.00	0.00	0.00	0.00
Construct Recycled Storage Tank 1	8/1/2025	3/9/2026	2025	157			0	0.00	0.00	0.00	0.00
Backfill Recycled Storage Tank 1	3/9/2026	3/19/2026	2026	7			0	0.00	0.00	0.00	0.00
Process Piping Tertiary Pump Staions, splitter structures	3/19/2026	4/18/2026	2026	21			0	0.00	0.00	0.00	0.00
Construct Alt 1A Distribution Pipeline	4/18/2026	5/6/2026	2026	13			0	0.00	0.00	0.00	0.00
Construct Alt 1B Distribution Pipeline	4/18/2026	5/6/2026	2026	13			0	0.00	0.00	0.00	0.00
Construct Tertiary Treatment Facility	4/18/2026	10/15/2026	2026	129			0	0.00	0.00	0.00	0.00
Construct UV Disinfection Facility	7/18/2026	10/16/2026	2026	64			0	0.00	0.00	0.00	0.00
Construct Control Structures, Pump Stations, and Misc. (Tertiary and Disinfection)	5/1/2026	7/20/2026	2026	57			0	0.00	0.00	0.00	0.00
Electrical Underground Tertiary and Disinfection Area	10/16/2026	11/25/2026	2026	29			0	0.00	0.00	0.00	0.00
Fine Grading and paving site.	9/1/2026	11/15/2026	2026	54			16	12.04	1.69	0.33	0.05
Off Haul Dewatered Sludge From Site	10/1/2026	10/31/2026	2026	21			0	0.00	0.00	0.00	0.00
Demobilization	11/15/2026	11/30/2026	2026	11			0	0.00	0.00	0.00	0.00

EMFAC Summary

		Running (RUNEX, PMTW, PMBW) grams per mile												Process (IDLEX, STREX, TOTEX, DIURN, HTSK, RUNLS, RESTL) grams per trip												Fuel	
Type	Yr	ROG	TOG	CO	NOx	CO2	CH4	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	SOX	N2O	ROG	TOG	CO	NOx	CO2	CH4	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	SOX	N2O	gal/mi	mpg
Worker Commute	2024	0.0171	0.0250	1.1040	0.0858	303.7	0.0041	0.0015	0.0156	0.0014	0.0047	0.0030	0.0071	1.4363	1.4777	4.1688	0.3338	78.31	0.0893	0.0024	0.0000	0.0023	0.0000	0.0008	0.0363	0.0364	27.9395
	2025	0.0151	0.0220	1.0159	0.0761	295.4	0.0036	0.0014	0.0156	0.0013	0.0046	0.0029	0.0065	1.3525	1.3907	3.8759	0.3124	76.02	0.0833	0.0023	0.0000	0.0022	0.0000	0.0008	0.0350	0.0354	28.7565
	2026	0.0134	0.0195	0.9405	0.0679	287.8	0.0032	0.0013	0.0155	0.0012	0.0046	0.0028	0.0060	1.2711	1.3064	3.6132	0.2937	73.90	0.0778	0.0022	0.0000	0.0021	0.0000	0.0007	0.0338	0.0345	29.5386
Pickup Trucks	2024	0.0262	0.0382	1.4760	0.1329	342.0	0.0060	0.0017	0.0163	0.0016	0.0049	0.0034	0.0097	1.9267	1.9806	5.3800	0.4270	89.77	0.1112	0.0029	0.0000	0.0026	0.0000	0.0009	0.0411	0.0410	24.3670
	2025	0.0262	0.0382	1.4760	0.1329	342.0	0.0060	0.0017	0.0163	0.0016	0.0049	0.0034	0.0097	1.9267	1.9806	5.3800	0.4270	89.77	0.1112	0.0029	0.0000	0.0026	0.0000	0.0009	0.0411	0.0410	24.3670
	2026	0.0262	0.0382	1.4760	0.1329	342.0	0.0060	0.0017	0.0163	0.0016	0.0049	0.0034	0.0097	1.9267	1.9806	5.3800	0.4270	89.77	0.1112	0.0029	0.0000	0.0026	0.0000	0.0009	0.0411	0.0410	24.3670
MD/HD	2024	0.0245	0.0430	0.2650	1.3621	1382.0	0.0153	0.0202	0.0846	0.0193	0.0272	0.0130	0.2029	0.2588	0.3178	3.6067	4.9366	550.91	0.0407	0.0022	0.0000	0.0021	0.0000	0.0051	0.0885	0.1460	6.9740
	2025	0.0215	0.0389	0.2317	1.2841	1357.8	0.0146	0.0192	0.0846	0.0184	0.0272	0.0128	0.1997	0.2518	0.3104	3.5607	4.8630	538.24	0.0404	0.0019	0.0000	0.0019	0.0000	0.0050	0.0864	0.1434	7.0955
	2026	0.0191	0.0355	0.2051	1.2133	1332.3	0.0140	0.0184	0.0847	0.0176	0.0272	0.0125	0.1963	0.2457	0.3037	3.5149	4.7755	525.70	0.0400	0.0017	0.0000	0.0017	0.0000	0.0049	0.0844	0.1407	7.2284
HD	2024	0.0150	0.0362	0.1799	1.6696	1565.2	0.0197	0.0289	0.1124	0.0276	0.0358	0.0147	0.2472	0.3937	0.4819	5.8416	7.4768	925.42	0.0518	0.0020	0.0000	0.0019	0.0000	0.0087	0.1463	0.1653	6.0481
	2025	0.0144	0.0347	0.1712	1.6106	1535.5	0.0188	0.0284	0.1124	0.0272	0.0358	0.0144	0.2425	0.3907	0.4779	5.8059	7.3837	902.33	0.0512	0.0020	0.0000	0.0019	0.0000	0.0084	0.1427	0.1623	6.1618
	2026	0.0139	0.0332	0.1621	1.5580	1504.5	0.0179	0.0281	0.1127	0.0269	0.0359	0.0141	0.2376	0.3876	0.4739	5.7683	7.2715	879.69	0.0505	0.0019	0.0000	0.0018	0.0000	0.0082	0.1391	0.1591	6.2862

Vehicle Splits Assumed

	Worker Commute	Pickup Trucks	MD/HD	HD
LDA	50%			
LDT1	25%	50%		
LDT2	25%	50%		
HHDT			50%	
MHDT			50%	100%

Fugitive Dust Emission Factors

Grading and Soil Movement

Summary		PM10	PM2.5
Piles	g/ton	0.23542	0.03565
Bulldozing	g/hr	341.44	47.80
Paved RD	lb/vmt	0.2998	0.0736
Unpaved RD	lb/vmt	667.58	66.62

Aggregate Storage Piles [1]

Emissions result from several distinct processes within the stockpiling cycle: 1. loading in of materials through batch or drop operations, 2. equipment traffic in storage areas, 3. wind erosion of piles, 4. loadout of material through batch or drop operations

E(lb/ton)=(k)(0.0032)(U/5)^1.3/(M/2)^1.4

Where:	PM10	Unit	Source
k= Particle Size Multiplier:	0.35	lbs/ton	AP-42 Chapter 13.2.4-3, PM10 emissions
	0.053	lbs/ton	AP-42 Chapter 13.2.4-3, PM2.5 emissions
U=mean wind speed	4.9	mph	CalEEMod for Stansislaus County
M=moisture content (%)	3.4	constant	AP-42 Chapter 13.2.4-3, Table 13.2.4-1, exposed ground
	0.00052	**lbs/ton PM10**	
	0.00008	**lbs/ton PM2.5**	

Bulldozing [6]

Equation is applied to graders and dozers to estimate fugitive dust from grading activity

Emissions factors for P10 from bulldozing are scaled from those of PM15

E(lbs/hr)=C(PM15)*s^1.5/M^1.5
Where
E(PM10)=E(PM15)*F(PM10)

Where:		PM15	Unit
C=	coeffiecient	1	constant
M=	material moisture content	7.9	%
s=	material silt content	6.9	%
F=	scaling factor	0.75	constant PM10
	scaling factor	0.105	constant PM2.5
		1.00	lbs/hr
		0.75	**lbs/hr, PM10**
		0.11	**lbs/hr, PM2.5**

Road Dust Emission Factors

Daily Paved Road Dust EF [1]

$$E_{ext} = [\, k\,(sL)^{0.91} \times (W)^{1.02}\,]$$

EF_{paved}	Annual or other long-term average emission factor in the same units as k
k	particle size multiplier for particle size range and units of interest
sL	road surface silt loading (g/m^2)
W	average weight (tons) of all the vehicles raveling the road (2.4 tons)
P	Number of "wet' days with at least 0.254 (0.01 in) of precipitation during the averaging period
N	Number of days in the averaging period (e.g. 365 for annual, 91 for seasonal, 30 for monthly)

Parameters	PM10	PM2.5
k (lb/VMT)[2]	0.0022	0.00054
sL (g/m^2)	0.1	0.1
W (tons)	2.4	2.4
EF (lb/mi)	6.61E-04	1.62E-04
EF (g/mi)	3.00E-01	7.36E-02

1) CalEEMod User's Guide, Appendix A, p. 29
2) AP42: Chapter 13: Miscellaneous Sources, 13.2.1 Paved Roads, Table 13.2.1-1

Daily Unpaved Road Dust EF [1]

$$E.F._{dust,i} = \left(\frac{k(s/12)^1 (S/30)^{0.5}}{(M/0.5)^{0.2}} - C \right)$$

k	particle size multiplier for particle size range and units of interest
s	surface material silt content (%)
M	surface material moisture content (%)
S	mean vehicle speed (mph)
C	emission factor for 1980s vehicle fleet exhaust, brakewear and tire wear

Parameters	PM10	PM2.5	
k (g/VMT)[2]	1.8	0.18	
s	8.5	8.5	
M	0.5	0.5	
S[3]	40	40	<-Default is 40, modify if there is a Dust Mitigation Plan
C	0.00047	0.00036	
EF (lb/mi)	1.471773186	0.146864319	
EF (g/mi)	6.68E+02	6.66E+01	

1) CalEEMod User's Guide, Appendix A, p. 29
2) AP42: Chapter 13: Miscellaneous Sources, 13.2.2 Unpaved Roads, Table 13.2.2-2
3) SLO APCD Comment Letter

Table 3.3 OFFROAD Default Horsepower and Load Factors

OFFROAD Equipment Type	Fuel	Horsepower	Load Factor
Aerial Lifts	Diesel	63	0.31
Air Compressors	Diesel	78	0.48
Bore/Drill Rigs	Diesel	221	0.50
Cement and Mortar Mixers	Diesel	9	0.56
Concrete/Industrial Saws	Diesel	81	0.73
Cranes	Diesel	231	0.29
Crawler Tractors	Diesel	212	0.43
Crushing/Proc. Equipment	Diesel	85	0.78
Dumpers/Tenders	Diesel	16	0.38
Excavators	Diesel	158	0.38
Forklifts	Diesel	89	0.20
Generator Sets	Diesel	84	0.74
Graders	Diesel	187	0.41
Off-Highway Tractors	Diesel	124	0.44
Off-Highway Trucks	Diesel	402	0.38
Other Construction Equipment	Diesel	172	0.42
Other General Industrial Equipment	Diesel	88	0.34
Other Material Handling Equipment	Diesel	168	0.40
Pavers	Diesel	130	0.42
Paving Equipment	Diesel	132	0.36
Plate Compactors	Diesel	8	0.43
Pressure Washers	Diesel	13	0.30
Pumps	Diesel	84	0.74
Rollers	Diesel	80	0.38
Rough Terrain Forklifts	Diesel	100	0.40
Rubber Tired Dozers	Diesel	247	0.40
Rubber Tired Loaders	Diesel	203	0.36
Scrapers	Diesel	367	0.48
Signal Boards	Diesel	6	0.82
Skid Steer Loaders	Diesel	65	0.37
Surfacing Equipment	Diesel	263	0.30
Sweepers/Scrubbers	Diesel	64	0.46
Tractors/Loaders/Backhoes	Diesel	97	0.37
Trenchers	Diesel	78	0.50
Welders	Diesel	46	0.45

Source:Caleemod 2020

Unmitigated EFs from Caleemod 2020 (based on OFFROAD 2011) fleet average

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Aerial Lifts	2024	6	15	0.189	0.159	3.113	2.888	0.005	0.022	0.020	525.074	0.170	0.004
Aerial Lifts	2024	16	25	0.189	0.159	3.113	2.888	0.005	0.022	0.020	525.074	0.170	0.004
Aerial Lifts	2024	26	50	0.189	0.159	3.113	2.888	0.005	0.022	0.020	525.074	0.170	0.004
Aerial Lifts	2024	51	120	0.120	0.100	3.173	1.528	0.005	0.026	0.024	472.114	0.153	0.007
Aerial Lifts	2024	251	500	0.097	0.082	0.966	0.647	0.005	0.009	0.009	472.055	0.153	0.005
Aerial Lifts	2024	501	750	21.618	0.161	0.991	1.115	0.005	0.033	0.033	568.299	0.014	0.004
Aerial Lifts	2025	6	15	0.183	0.154	3.088	2.879	0.005	0.021	0.019	525.074	0.170	0.004
Aerial Lifts	2025	16	25	0.183	0.154	3.088	2.879	0.005	0.021	0.019	525.074	0.170	0.004
Aerial Lifts	2025	26	50	0.183	0.154	3.088	2.879	0.005	0.021	0.019	525.074	0.170	0.004
Aerial Lifts	2025	51	120	0.118	0.099	3.167	1.511	0.005	0.026	0.024	472.114	0.153	0.004
Aerial Lifts	2025	251	500	0.101	0.085	0.970	0.649	0.005	0.009	0.009	472.055	0.153	0.007
Aerial Lifts	2025	501	750	20.597	0.153	0.989	0.974	0.005	0.028	0.028	568.299	0.013	0.005
Air Compressors	2024	6	15	1.799	0.690	3.499	4.316	0.008	0.188	0.188	568.300	0.062	0.004
Air Compressors	2024	16	25	3.746	0.718	2.390	4.426	0.007	0.181	0.181	568.300	0.064	0.004
Air Compressors	2024	26	50	5.647	0.702	4.880	3.864	0.007	0.135	0.135	568.299	0.063	0.005
Air Compressors	2024	51	120	6.194	0.365	3.655	2.461	0.006	0.123	0.123	568.299	0.032	0.005
Air Compressors	2024	121	175	9.143	0.286	3.202	1.561	0.006	0.077	0.077	568.299	0.025	0.005
Air Compressors	2024	176	250	10.986	0.232	1.096	1.247	0.006	0.039	0.039	568.299	0.020	0.005
Air Compressors	2024	251	500	19.070	0.228	1.053	1.148	0.005	0.038	0.038	568.299	0.020	0.005
Air Compressors	2024	501	750	29.542	0.228	1.053	1.171	0.005	0.038	0.038	568.299	0.020	0.005
Air Compressors	2024	751	1000	42.762	0.243	1.090	3.082	0.005	0.061	0.061	568.299	0.021	0.005
Air Compressors	2025	6	15	1.781	0.683	3.491	4.278	0.008	0.183	0.183	568.300	0.061	0.005
Air Compressors	2025	16	25	3.701	0.709	2.376	4.407	0.007	0.177	0.177	568.299	0.064	0.005
Air Compressors	2025	26	50	5.297	0.659	4.851	3.755	0.007	0.116	0.116	568.299	0.059	0.005
Air Compressors	2025	51	120	5.855	0.345	3.653	2.313	0.006	0.104	0.104	568.299	0.031	0.005
Air Compressors	2025	121	175	8.602	0.269	3.205	1.383	0.006	0.065	0.065	568.299	0.024	0.005
Air Compressors	2025	176	250	10.451	0.220	1.094	1.086	0.006	0.033	0.033	568.299	0.019	0.005
Air Compressors	2025	251	500	18.188	0.217	1.051	1.001	0.005	0.032	0.032	568.299	0.019	0.005
Air Compressors	2025	501	750	28.169	0.217	1.051	1.021	0.005	0.032	0.032	568.299	0.019	0.005
Air Compressors	2025	751	1000	40.592	0.231	1.079	2.954	0.005	0.055	0.055	568.299	0.020	0.005
Bore/Drill Rigs	2024	6	15	0.725	0.609	4.331	4.159	0.005	0.219	0.202	529.866	0.171	0.004
Bore/Drill Rigs	2024	16	25	0.725	0.609	4.331	4.159	0.005	0.219	0.202	529.866	0.171	0.004
Bore/Drill Rigs	2024	26	50	0.725	0.609	4.331	4.159	0.005	0.219	0.202	529.866	0.171	0.004
Bore/Drill Rigs	2024	51	120	0.211	0.177	3.251	2.216	0.005	0.090	0.083	461.208	0.149	0.007

Unmitigated EFs from Caleemod 2020 (based on OFFROAD 2011) fleet average

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Bore/Drill Rigs	2024	121	175	0.148	0.125	2.978	1.029	0.005	0.046	0.043	478.944	0.155	0.005
Bore/Drill Rigs	2024	176	250	0.129	0.108	1.046	0.975	0.005	0.032	0.030	470.712	0.152	0.004
Bore/Drill Rigs	2024	251	500	0.122	0.103	0.994	0.861	0.005	0.029	0.027	464.480	0.150	0.004
Bore/Drill Rigs	2024	501	750	0.106	0.089	0.985	0.671	0.005	0.026	0.024	480.225	0.155	0.004
Bore/Drill Rigs	2024	751	1000	0.067	0.057	0.943	2.273	0.005	0.018	0.017	471.926	0.153	0.004
Bore/Drill Rigs	2025	6	15	0.703	0.591	4.273	3.978	0.005	0.193	0.178	532.821	0.172	0.004
Bore/Drill Rigs	2025	16	25	0.703	0.591	4.273	3.978	0.005	0.193	0.178	532.821	0.172	0.004
Bore/Drill Rigs	2025	26	50	0.703	0.591	4.273	3.978	0.005	0.193	0.178	532.821	0.172	0.004
Bore/Drill Rigs	2025	51	120	0.184	0.155	3.218	1.964	0.005	0.067	0.062	459.829	0.149	0.007
Bore/Drill Rigs	2025	121	175	0.135	0.114	2.974	0.888	0.005	0.039	0.036	478.266	0.155	0.005
Bore/Drill Rigs	2025	176	250	0.128	0.107	1.045	0.957	0.005	0.031	0.029	470.653	0.152	0.004
Bore/Drill Rigs	2025	251	500	0.121	0.102	0.997	0.823	0.005	0.028	0.026	467.289	0.151	0.004
Bore/Drill Rigs	2025	501	750	0.101	0.084	0.983	0.596	0.005	0.023	0.021	481.249	0.156	0.004
Bore/Drill Rigs	2025	751	1000	0.074	0.062	0.953	2.289	0.005	0.019	0.017	471.917	0.153	0.004
Cement and Mortar I	2024	6	15	1.075	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	0.004
Cement and Mortar I	2024	16	25	3.129	0.693	2.349	4.369	0.007	0.170	0.170	568.299	0.062	0.004
Cement and Mortar I	2025	6	15	1.075	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	0.004
Cement and Mortar I	2025	16	25	3.113	0.689	2.344	4.357	0.007	0.168	0.168	568.299	0.062	0.004
Concrete/Industrial S	2024	16	25	1.532	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	0.005
Concrete/Industrial S	2024	26	50	2.303	0.561	4.330	3.701	0.007	0.115	0.115	568.300	0.050	0.004
Concrete/Industrial S	2024	51	120	3.023	0.300	3.500	2.315	0.006	0.106	0.106	568.299	0.027	0.004
Concrete/Industrial S	2024	121	175	5.117	0.235	3.072	1.418	0.006	0.067	0.067	568.299	0.021	0.004
Concrete/Industrial S	2025	16	25	1.532	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	0.004
Concrete/Industrial S	2025	26	50	2.153	0.525	4.297	3.592	0.007	0.099	0.099	568.299	0.047	0.004
Concrete/Industrial S	2025	51	120	2.849	0.283	3.495	2.176	0.006	0.089	0.089	568.300	0.025	0.004
Concrete/Industrial S	2025	121	175	4.800	0.220	3.073	1.249	0.006	0.056	0.056	568.300	0.019	0.004
Cranes	2024	26	50	2.305	1.937	7.269	5.788	0.005	0.577	0.531	517.872	0.167	0.005
Cranes	2024	51	120	0.624	0.524	3.906	4.619	0.005	0.301	0.277	469.903	0.152	0.005
Cranes	2024	121	175	0.454	0.381	3.389	3.703	0.005	0.196	0.180	474.636	0.154	0.005
Cranes	2024	176	250	0.334	0.281	1.502	2.966	0.005	0.123	0.114	472.964	0.153	0.005
Cranes	2024	251	500	0.274	0.231	1.933	2.383	0.005	0.096	0.089	472.066	0.153	0.005
Cranes	2024	501	750	0.227	0.191	1.283	1.900	0.005	0.080	0.073	470.331	0.152	0.005
Cranes	2024	1001	9999	0.262	0.220	1.031	2.411	0.005	0.064	0.059	472.055	0.153	0.005
Cranes	2025	26	50	2.155	1.811	7.072	5.636	0.005	0.543	0.499	517.872	0.167	0.005

Unmitigated EFs from Caleemod 2020 (based on OFFROAD 2011) fleet average

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Cranes	2025	51	120	0.551	0.463	3.831	4.135	0.005	0.260	0.240	469.533	0.152	0.005
Cranes	2025	121	175	0.398	0.334	3.335	3.160	0.005	0.166	0.153	474.748	0.154	0.005
Cranes	2025	176	250	0.315	0.265	1.470	2.681	0.005	0.114	0.105	472.980	0.153	0.005
Cranes	2025	251	500	0.260	0.218	1.834	2.154	0.005	0.088	0.081	471.967	0.153	0.005
Cranes	2025	501	750	0.204	0.172	1.274	1.638	0.005	0.068	0.062	470.276	0.152	0.005
Cranes	2025	1001	9999	0.272	0.229	1.038	2.422	0.005	0.065	0.060	472.055	0.153	0.005
Crawler Tractors	2024	26	50	2.090	1.756	6.685	4.975	0.005	0.466	0.429	515.466	0.167	0.005
Crawler Tractors	2024	51	120	0.611	0.513	3.852	4.409	0.005	0.335	0.309	476.234	0.154	0.004
Crawler Tractors	2024	121	175	0.388	0.326	3.227	3.041	0.005	0.170	0.157	471.829	0.153	0.004
Crawler Tractors	2024	176	250	0.314	0.264	1.370	2.953	0.005	0.115	0.105	471.860	0.153	0.004
Crawler Tractors	2024	251	500	0.271	0.228	1.780	2.244	0.005	0.093	0.085	474.025	0.153	0.004
Crawler Tractors	2024	501	750	0.215	0.181	1.159	1.767	0.005	0.066	0.061	472.283	0.153	0.004
Crawler Tractors	2024	751	1000	0.313	0.263	1.588	4.689	0.005	0.115	0.106	474.645	0.154	0.004
Crawler Tractors	2025	26	50	2.075	1.744	6.686	4.936	0.005	0.456	0.420	516.128	0.167	0.004
Crawler Tractors	2025	51	120	0.540	0.454	3.788	3.961	0.005	0.285	0.262	476.134	0.154	0.005
Crawler Tractors	2025	121	175	0.354	0.298	3.209	2.688	0.005	0.150	0.138	471.592	0.153	0.005
Crawler Tractors	2025	176	250	0.277	0.232	1.308	2.462	0.005	0.096	0.088	471.622	0.153	0.004
Crawler Tractors	2025	251	500	0.247	0.208	1.717	1.920	0.005	0.081	0.074	474.007	0.153	0.004
Crawler Tractors	2025	501	750	0.199	0.167	1.122	1.545	0.005	0.057	0.052	472.408	0.153	0.004
Crawler Tractors	2025	751	1000	0.309	0.260	1.593	4.598	0.005	0.111	0.103	475.490	0.154	0.004
Crushing/Proc. Equi	2024	26	50	1.825	0.694	5.008	3.850	0.007	0.125	0.125	568.299	0.062	0.004
Crushing/Proc. Equi	2024	51	120	1.810	0.364	3.697	2.389	0.006	0.112	0.112	568.299	0.032	0.004
Crushing/Proc. Equi	2024	121	175	2.866	0.287	3.243	1.472	0.006	0.071	0.071	568.299	0.025	0.004
Crushing/Proc. Equi	2024	176	250	3.448	0.236	1.109	1.165	0.006	0.036	0.036	568.299	0.021	0.004
Crushing/Proc. Equi	2024	251	500	5.193	0.232	1.062	1.077	0.005	0.035	0.035	568.299	0.021	0.004
Crushing/Proc. Equi	2024	501	750	8.207	0.233	1.063	1.098	0.005	0.036	0.036	568.299	0.021	0.004
Crushing/Proc. Equi	2024	1001	9999	21.454	0.274	1.096	3.029	0.005	0.059	0.059	568.299	0.024	0.004
Crushing/Proc. Equi	2025	26	50	1.724	0.656	4.982	3.742	0.007	0.107	0.107	568.299	0.059	0.005
Crushing/Proc. Equi	2025	51	120	1.716	0.345	3.694	2.248	0.006	0.095	0.095	568.299	0.031	0.005
Crushing/Proc. Equi	2025	121	175	2.696	0.270	3.246	1.301	0.006	0.060	0.060	568.299	0.024	0.004
Crushing/Proc. Equi	2025	176	250	3.279	0.224	1.108	1.012	0.006	0.031	0.031	568.299	0.020	0.004
Crushing/Proc. Equi	2025	251	500	4.950	0.221	1.061	0.937	0.005	0.030	0.030	568.299	0.020	0.004
Crushing/Proc. Equi	2025	501	750	7.826	0.222	1.061	0.955	0.005	0.030	0.030	568.299	0.020	0.004
Crushing/Proc. Equi	2025	1001	9999	20.429	0.261	1.087	2.910	0.005	0.053	0.053	568.299	0.023	0.004

Unmitigated EFs from Caleemod 2020 (based on OFFROAD 2011) fleet average

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Dumpers/Tenders	2024	16	25	0.819	0.685	2.340	4.332	0.007	0.161	0.161	568.299	0.061	0.005
Dumpers/Tenders	2025	16	25	0.819	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	0.005
Excavators	2024	16	25	0.496	0.416	4.205	3.508	0.005	0.120	0.110	525.979	0.170	0.004
Excavators	2024	26	50	0.496	0.416	4.205	3.508	0.005	0.120	0.110	525.979	0.170	0.004
Excavators	2024	51	120	0.259	0.217	3.453	2.248	0.005	0.102	0.094	467.384	0.151	0.004
Excavators	2024	121	175	0.203	0.170	3.083	1.325	0.005	0.065	0.060	472.428	0.153	0.004
Excavators	2024	176	250	0.165	0.139	1.090	1.108	0.005	0.036	0.033	472.441	0.153	0.004
Excavators	2024	251	500	0.144	0.121	1.054	0.831	0.005	0.029	0.026	469.711	0.152	0.004
Excavators	2024	501	750	0.169	0.142	1.134	1.105	0.005	0.041	0.037	468.652	0.152	0.005
Excavators	2025	16	25	0.480	0.403	4.219	3.453	0.005	0.107	0.099	525.777	0.170	0.004
Excavators	2025	26	50	0.480	0.403	4.219	3.453	0.005	0.107	0.099	525.777	0.170	0.004
Excavators	2025	51	120	0.239	0.201	3.439	2.082	0.005	0.085	0.078	466.738	0.151	0.004
Excavators	2025	121	175	0.188	0.158	3.078	1.154	0.005	0.057	0.052	472.496	0.153	0.004
Excavators	2025	176	250	0.156	0.131	1.081	0.962	0.005	0.032	0.029	472.560	0.153	0.004
Excavators	2025	251	500	0.137	0.115	1.051	0.726	0.005	0.026	0.024	470.291	0.152	0.004
Excavators	2025	501	750	0.165	0.139	1.135	1.026	0.005	0.038	0.035	468.558	0.152	0.004
Forklifts	2024	26	50	0.824	0.692	5.088	4.039	0.005	0.203	0.187	525.483	0.170	0.004
Forklifts	2024	51	120	0.357	0.300	3.629	2.814	0.005	0.163	0.150	471.528	0.153	0.004
Forklifts	2024	121	175	0.267	0.224	3.174	1.861	0.005	0.096	0.088	472.106	0.153	0.004
Forklifts	2024	176	250	0.233	0.195	1.218	1.625	0.005	0.061	0.056	473.325	0.153	0.004
Forklifts	2024	251	500	0.259	0.218	1.219	1.723	0.005	0.065	0.060	473.615	0.153	0.004
Forklifts	2025	26	50	0.757	0.636	5.029	3.932	0.005	0.178	0.164	525.483	0.170	0.004
Forklifts	2025	51	120	0.329	0.277	3.611	2.607	0.005	0.140	0.128	471.528	0.153	0.005
Forklifts	2025	121	175	0.248	0.209	3.170	1.653	0.005	0.084	0.078	472.106	0.153	0.004
Forklifts	2025	176	250	0.227	0.190	1.214	1.466	0.005	0.056	0.052	473.325	0.153	0.004
Forklifts	2025	251	500	0.256	0.215	1.222	1.658	0.005	0.062	0.057	473.615	0.153	0.004
Generator Sets	2024	6	15	1.627	0.612	3.499	4.305	0.008	0.181	0.181	568.299	0.055	0.005
Generator Sets	2024	16	25	3.200	0.697	2.390	4.426	0.007	0.178	0.178	568.299	0.062	0.005
Generator Sets	2024	26	50	3.789	0.475	3.787	3.582	0.007	0.107	0.107	568.299	0.042	0.005
Generator Sets	2024	51	120	5.287	0.260	3.342	2.321	0.006	0.101	0.101	568.299	0.023	0.005
Generator Sets	2024	121	175	7.312	0.197	2.929	1.462	0.006	0.062	0.062	568.299	0.017	0.005
Generator Sets	2024	176	250	8.611	0.155	1.003	1.169	0.006	0.033	0.033	568.299	0.014	0.005
Generator Sets	2024	251	500	13.260	0.151	0.983	1.082	0.005	0.032	0.032	568.300	0.013	0.005
Generator Sets	2024	501	750	21.567	0.152	0.983	1.104	0.005	0.032	0.032	568.299	0.013	0.005

Unmitigated EFs from Caleemod 2020 (based on OFFROAD 2011) fleet average

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Generator Sets	2024	1001	9999	50.108	0.183	1.018	2.929	0.005	0.052	0.052	568.300	0.016	0.005
Generator Sets	2025	6	15	1.613	0.607	3.491	4.269	0.008	0.178	0.178	568.299	0.054	0.005
Generator Sets	2025	16	25	3.185	0.694	2.376	4.407	0.007	0.175	0.175	568.299	0.062	0.005
Generator Sets	2025	26	50	3.511	0.440	3.758	3.481	0.007	0.093	0.093	568.300	0.039	0.005
Generator Sets	2025	51	120	4.942	0.243	3.338	2.185	0.006	0.087	0.087	568.299	0.021	0.005
Generator Sets	2025	121	175	6.832	0.184	2.930	1.297	0.006	0.053	0.053	568.299	0.016	0.005
Generator Sets	2025	176	250	8.168	0.147	1.000	1.020	0.006	0.028	0.028	568.299	0.013	0.005
Generator Sets	2025	251	500	12.627	0.144	0.981	0.945	0.005	0.027	0.027	568.300	0.013	0.005
Generator Sets	2025	501	750	20.518	0.145	0.981	0.964	0.005	0.027	0.027	568.299	0.013	0.005
Generator Sets	2025	1001	9999	47.320	0.173	1.008	2.812	0.005	0.047	0.047	568.299	0.015	0.005
Graders	2024	26	50	2.202	1.850	7.051	5.028	0.005	0.520	0.479	493.791	0.160	0.004
Graders	2024	51	120	0.812	0.683	4.200	5.434	0.005	0.408	0.375	469.821	0.152	0.004
Graders	2024	121	175	0.433	0.364	3.432	3.202	0.005	0.177	0.163	478.497	0.155	0.004
Graders	2024	176	250	0.312	0.262	1.225	3.073	0.005	0.100	0.092	473.668	0.153	0.004
Graders	2024	251	500	0.348	0.293	1.356	2.432	0.005	0.095	0.088	470.266	0.152	0.004
Graders	2024	501	750	10.734	0.264	1.155	1.265	0.005	0.046	0.046	568.300	0.023	0.004
Graders	2025	26	50	2.219	1.864	7.125	5.043	0.005	0.522	0.480	493.532	0.160	0.004
Graders	2025	51	120	0.759	0.638	4.149	5.074	0.005	0.371	0.342	468.316	0.151	0.007
Graders	2025	121	175	0.391	0.329	3.418	2.774	0.005	0.152	0.140	478.508	0.155	0.005
Graders	2025	176	250	0.274	0.230	1.179	2.556	0.005	0.082	0.076	473.470	0.153	0.004
Graders	2025	251	500	0.333	0.280	1.315	2.265	0.005	0.088	0.081	470.753	0.152	0.004
Graders	2025	501	750	10.301	0.253	1.141	1.125	0.005	0.041	0.041	568.300	0.022	0.004
Off-Highway Tractors	2024	51	120	0.359	0.302	3.691	2.949	0.005	0.171	0.157	476.371	0.154	0.007
Off-Highway Tractors	2024	121	175	0.217	0.183	3.133	1.496	0.005	0.071	0.066	473.097	0.153	0.005
Off-Highway Tractors	2024	176	250	0.201	0.169	1.135	1.377	0.005	0.049	0.045	470.689	0.152	0.004
Off-Highway Tractors	2024	501	750	0.201	0.169	1.130	1.235	0.005	0.048	0.044	471.925	0.153	0.004
Off-Highway Tractors	2024	751	1000	0.225	0.189	1.066	2.466	0.005	0.068	0.063	472.055	0.153	0.004
Off-Highway Tractors	2025	51	120	0.328	0.276	3.669	2.707	0.005	0.144	0.132	476.921	0.154	0.004
Off-Highway Tractors	2025	121	175	0.209	0.175	3.142	1.349	0.005	0.065	0.059	473.302	0.153	0.004
Off-Highway Tractors	2025	176	250	0.184	0.154	1.130	1.116	0.005	0.040	0.037	470.861	0.152	0.004
Off-Highway Tractors	2025	501	750	0.199	0.167	1.135	1.118	0.005	0.045	0.041	471.917	0.153	0.004
Off-Highway Tractors	2025	751	1000	0.236	0.198	1.077	2.482	0.005	0.069	0.064	472.055	0.153	0.007
Off-Highway Trucks	2024	121	175	0.266	0.224	3.325	1.494	0.005	0.070	0.064	470.264	0.152	0.004
Off-Highway Trucks	2024	176	250	0.240	0.202	1.259	1.355	0.005	0.054	0.050	469.113	0.152	0.004

Unmitigated EFs from Caleemod 2020 (based on OFFROAD 2011) fleet average

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Off-Highway Trucks	2024	251	500	0.220	0.184	1.206	1.235	0.005	0.044	0.041	475.220	0.154	0.004
Off-Highway Trucks	2024	501	750	0.308	0.259	1.650	2.085	0.005	0.079	0.073	473.839	0.153	0.004
Off-Highway Trucks	2024	751	1000	0.248	0.209	1.200	3.439	0.005	0.069	0.064	473.097	0.153	0.004
Off-Highway Trucks	2025	121	175	0.254	0.214	3.328	1.335	0.005	0.065	0.060	470.004	0.152	0.004
Off-Highway Trucks	2025	176	250	0.220	0.185	1.213	1.129	0.005	0.043	0.040	469.126	0.152	0.004
Off-Highway Trucks	2025	251	500	0.211	0.177	1.182	1.064	0.005	0.038	0.035	474.970	0.154	0.007
Off-Highway Trucks	2025	501	750	0.280	0.235	1.578	1.751	0.005	0.066	0.061	476.314	0.154	0.005
Off-Highway Trucks	2025	751	1000	0.223	0.187	1.146	3.135	0.005	0.057	0.052	473.369	0.153	0.004
Other Construction E	2024	6	15	0.985	0.828	5.032	4.510	0.005	0.305	0.280	529.209	0.171	0.004
Other Construction E	2024	16	25	0.985	0.828	5.032	4.510	0.005	0.305	0.280	529.209	0.171	0.005
Other Construction E	2024	26	50	0.985	0.828	5.032	4.510	0.005	0.305	0.280	529.209	0.171	0.004
Other Construction E	2024	51	120	0.454	0.382	3.620	3.582	0.005	0.237	0.218	472.125	0.153	0.004
Other Construction E	2024	121	175	0.310	0.261	3.150	2.520	0.005	0.130	0.120	469.545	0.152	0.004
Other Construction E	2024	251	500	0.208	0.175	1.382	1.677	0.005	0.064	0.059	476.484	0.154	0.004
Other Construction E	2025	6	15	0.901	0.757	4.874	4.306	0.005	0.268	0.246	528.954	0.171	0.004
Other Construction E	2025	16	25	0.901	0.757	4.874	4.306	0.005	0.268	0.246	528.954	0.171	0.004
Other Construction E	2025	26	50	0.901	0.757	4.874	4.306	0.005	0.268	0.246	528.954	0.171	0.004
Other Construction E	2025	51	120	0.406	0.341	3.584	3.252	0.005	0.203	0.187	472.748	0.153	0.005
Other Construction E	2025	121	175	0.279	0.235	3.136	2.167	0.005	0.112	0.103	469.843	0.152	0.004
Other Construction E	2025	251	500	0.200	0.168	1.358	1.552	0.005	0.059	0.055	476.296	0.154	0.004
Other General Indus	2024	6	15	0.650	0.546	4.780	3.859	0.005	0.165	0.152	526.176	0.170	0.004
Other General Indus	2024	16	25	0.650	0.546	4.780	3.859	0.005	0.165	0.152	526.176	0.170	0.004
Other General Indus	2024	26	50	0.650	0.546	4.780	3.859	0.005	0.165	0.152	526.176	0.170	0.005
Other General Indus	2024	51	120	0.342	0.287	3.639	2.708	0.005	0.146	0.134	470.000	0.152	0.004
Other General Indus	2024	121	175	0.227	0.191	3.185	1.448	0.005	0.073	0.067	471.850	0.153	0.004
Other General Indus	2024	176	250	0.206	0.173	1.141	1.319	0.005	0.046	0.042	473.223	0.153	0.004
Other General Indus	2024	251	500	0.188	0.158	1.110	1.153	0.005	0.040	0.036	472.929	0.153	0.004
Other General Indus	2024	501	750	0.137	0.115	1.112	0.628	0.005	0.023	0.021	473.464	0.153	0.004
Other General Indus	2024	751	1000	0.235	0.198	1.058	3.971	0.005	0.080	0.074	472.055	0.153	0.004
Other General Indus	2025	6	15	0.586	0.492	4.680	3.717	0.005	0.136	0.125	526.176	0.170	0.004
Other General Indus	2025	16	25	0.586	0.492	4.680	3.717	0.005	0.136	0.125	526.176	0.170	0.005
Other General Indus	2025	26	50	0.586	0.492	4.680	3.717	0.005	0.136	0.125	526.176	0.170	0.004
Other General Indus	2025	51	120	0.306	0.257	3.612	2.439	0.005	0.118	0.109	470.000	0.152	0.004
Other General Indus	2025	121	175	0.225	0.189	3.204	1.364	0.005	0.070	0.065	471.850	0.153	0.004

Unmitigated EFs from Caleemod 2020 (based on OFFROAD 2011) fleet average

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Other General Indus	2025	176	250	0.184	0.155	1.132	1.028	0.005	0.036	0.033	473.223	0.153	0.004
Other General Indus	2025	251	500	0.180	0.151	1.109	1.053	0.005	0.035	0.032	472.929	0.153	0.004
Other General Indus	2025	501	750	0.139	0.117	1.115	0.629	0.005	0.023	0.021	473.464	0.153	0.004
Other General Indus	2025	751	1000	0.242	0.203	1.067	3.985	0.005	0.081	0.074	472.055	0.153	0.004
Other Material Handl	2024	26	50	1.122	0.943	5.669	4.579	0.005	0.314	0.289	523.709	0.169	0.004
Other Material Handl	2024	51	120	0.262	0.220	3.510	2.222	0.005	0.096	0.089	473.588	0.153	0.004
Other Material Handl	2024	121	175	0.248	0.208	3.181	1.639	0.005	0.088	0.081	472.219	0.153	0.004
Other Material Handl	2024	176	250	0.250	0.210	1.218	1.986	0.005	0.068	0.063	471.482	0.152	0.005
Other Material Handl	2024	251	500	0.252	0.212	1.262	1.756	0.005	0.072	0.066	470.297	0.152	0.005
Other Material Handl	2024	1001	9999	0.069	0.058	0.946	2.278	0.005	0.018	0.017	472.055	0.153	0.004
Other Material Handl	2025	26	50	0.886	0.744	5.248	4.233	0.005	0.239	0.219	523.709	0.169	0.004
Other Material Handl	2025	51	120	0.242	0.203	3.497	2.055	0.005	0.081	0.074	473.588	0.153	0.004
Other Material Handl	2025	121	175	0.225	0.189	3.168	1.396	0.005	0.072	0.067	472.219	0.153	0.004
Other Material Handl	2025	176	250	0.238	0.200	1.197	1.774	0.005	0.060	0.055	471.482	0.152	0.004
Other Material Handl	2025	251	500	0.243	0.204	1.260	1.601	0.005	0.067	0.061	470.297	0.152	0.004
Other Material Handl	2025	1001	9999	0.078	0.065	0.959	2.298	0.005	0.019	0.017	472.055	0.153	0.004
Pavers	2024	16	25	1.131	0.950	4.956	4.203	0.005	0.279	0.257	526.856	0.170	0.004
Pavers	2024	26	50	1.131	0.950	4.956	4.203	0.005	0.279	0.257	526.856	0.170	0.004
Pavers	2024	51	120	0.401	0.337	3.508	3.277	0.005	0.213	0.196	470.226	0.152	0.004
Pavers	2024	121	175	0.227	0.191	3.004	1.809	0.005	0.084	0.078	472.660	0.153	0.004
Pavers	2024	176	250	0.142	0.119	1.009	1.343	0.005	0.041	0.038	473.236	0.153	0.005
Pavers	2024	251	500	0.170	0.143	0.986	1.548	0.005	0.054	0.049	467.171	0.151	0.005
Pavers	2025	16	25	1.093	0.918	4.945	4.131	0.005	0.265	0.243	526.853	0.170	0.004
Pavers	2025	26	50	1.093	0.918	4.945	4.131	0.005	0.265	0.243	526.853	0.170	0.004
Pavers	2025	51	120	0.373	0.314	3.493	3.068	0.005	0.190	0.175	469.899	0.152	0.004
Pavers	2025	121	175	0.215	0.180	3.007	1.644	0.005	0.077	0.071	472.485	0.153	0.004
Pavers	2025	176	250	0.127	0.107	1.004	1.035	0.005	0.034	0.031	473.483	0.153	0.004
Pavers	2025	251	500	0.137	0.115	0.969	1.134	0.005	0.039	0.036	465.882	0.151	0.004
Paving Equipment	2024	16	25	0.622	0.523	4.275	3.743	0.005	0.164	0.151	521.057	0.169	0.004
Paving Equipment	2024	26	50	0.622	0.523	4.275	3.743	0.005	0.164	0.151	521.057	0.169	0.004
Paving Equipment	2024	51	120	0.312	0.262	3.503	2.673	0.005	0.135	0.125	473.175	0.153	0.004
Paving Equipment	2024	121	175	0.234	0.197	3.066	1.785	0.005	0.086	0.079	470.661	0.152	0.004
Paving Equipment	2024	176	250	0.165	0.138	1.114	1.296	0.005	0.048	0.044	472.212	0.153	0.004
Paving Equipment	2025	16	25	0.567	0.476	4.203	3.627	0.005	0.141	0.130	520.997	0.169	0.004

Unmitigated EFs from Caleemod 2020 (based on OFFROAD 2011) fleet average

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Paving Equipment	2025	26	50	0.567	0.476	4.203	3.627	0.005	0.141	0.130	520.997	0.169	0.005
Paving Equipment	2025	51	120	0.287	0.241	3.483	2.496	0.005	0.118	0.108	473.424	0.153	0.005
Paving Equipment	2025	121	175	0.208	0.175	3.038	1.509	0.005	0.075	0.069	470.484	0.152	0.004
Paving Equipment	2025	176	250	0.159	0.133	1.117	1.110	0.005	0.043	0.040	472.234	0.153	0.004
Plate Compactors	2024	6	15	0.790	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	0.005
Plate Compactors	2025	6	15	0.790	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	0.005
Pressure Washers	2024	6	15	1.689	0.612	3.499	4.305	0.008	0.181	0.181	568.299	0.055	0.004
Pressure Washers	2024	16	25	2.811	0.697	2.390	4.426	0.007	0.178	0.178	568.299	0.062	0.005
Pressure Washers	2024	26	50	2.685	0.333	3.233	3.441	0.007	0.087	0.087	568.299	0.030	0.005
Pressure Washers	2024	51	120	2.780	0.204	3.191	2.229	0.006	0.084	0.084	568.299	0.018	0.004
Pressure Washers	2024	121	175	12.332	0.191	2.907	1.482	0.006	0.062	0.062	568.299	0.017	0.004
Pressure Washers	2024	176	250	8.005	0.098	0.986	0.265	0.006	0.009	0.009	568.299	0.008	0.004
Pressure Washers	2025	6	15	1.674	0.607	3.491	4.269	0.008	0.178	0.178	568.299	0.054	0.004
Pressure Washers	2025	16	25	2.797	0.694	2.376	4.407	0.007	0.175	0.175	568.299	0.062	0.004
Pressure Washers	2025	26	50	2.472	0.306	3.210	3.344	0.007	0.075	0.075	568.299	0.027	0.004
Pressure Washers	2025	51	120	2.575	0.189	3.186	2.100	0.006	0.072	0.072	568.299	0.017	0.004
Pressure Washers	2025	121	175	11.476	0.178	2.907	1.310	0.006	0.053	0.053	568.299	0.016	0.005
Pressure Washers	2025	176	250	8.005	0.098	0.986	0.265	0.006	0.009	0.009	568.299	0.008	0.004
Pumps	2024	6	15	1.503	0.690	3.499	4.316	0.008	0.188	0.188	568.299	0.062	0.004
Pumps	2024	16	25	4.107	0.718	2.390	4.426	0.007	0.181	0.181	568.299	0.064	0.005
Pumps	2024	26	50	5.272	0.523	3.974	3.630	0.007	0.114	0.114	568.299	0.047	0.005
Pumps	2024	51	120	6.391	0.279	3.393	2.352	0.006	0.107	0.107	568.299	0.025	0.004
Pumps	2024	121	175	8.769	0.213	2.973	1.486	0.006	0.065	0.065	568.299	0.019	0.004
Pumps	2024	176	250	9.948	0.168	1.018	1.189	0.006	0.034	0.034	568.300	0.015	0.004
Pumps	2024	251	500	16.610	0.164	0.994	1.098	0.005	0.033	0.033	568.299	0.014	0.004
Pumps	2024	501	750	27.614	0.164	0.994	1.120	0.005	0.034	0.034	568.299	0.014	0.004
Pumps	2024	1001	9999	78.184	0.196	1.031	2.960	0.005	0.054	0.054	568.299	0.017	0.004
Pumps	2025	6	15	1.488	0.683	3.491	4.278	0.008	0.183	0.183	568.299	0.061	0.004
Pumps	2025	16	25	4.058	0.709	2.376	4.407	0.007	0.177	0.177	568.299	0.064	0.005
Pumps	2025	26	50	4.891	0.485	3.943	3.528	0.007	0.099	0.099	568.299	0.043	0.005
Pumps	2025	51	120	5.988	0.261	3.389	2.213	0.006	0.092	0.092	568.299	0.023	0.004
Pumps	2025	121	175	8.209	0.199	2.974	1.318	0.006	0.056	0.056	568.300	0.018	0.004
Pumps	2025	176	250	9.449	0.159	1.016	1.038	0.006	0.029	0.029	568.299	0.014	0.004
Pumps	2025	251	500	15.837	0.156	0.992	0.958	0.005	0.028	0.028	568.300	0.014	0.004

Unmitigated EFs from Caleemod 2020 (based on OFFROAD 2011) fleet average

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Pumps	2025	501	750	26.308	0.157	0.992	0.977	0.005	0.029	0.029	568.300	0.014	0.004
Pumps	2025	1001	9999	74.054	0.186	1.020	2.840	0.005	0.049	0.049	568.299	0.016	0.004
Rollers	2024	6	15	0.738	0.620	4.207	3.824	0.005	0.192	0.177	525.957	0.170	0.004
Rollers	2024	16	25	0.738	0.620	4.207	3.824	0.005	0.192	0.177	525.957	0.170	0.004
Rollers	2024	26	50	0.738	0.620	4.207	3.824	0.005	0.192	0.177	525.957	0.170	0.004
Rollers	2024	51	120	0.323	0.272	3.451	2.843	0.005	0.150	0.138	474.007	0.153	0.004
Rollers	2024	121	175	0.168	0.141	2.914	1.324	0.005	0.061	0.056	472.012	0.153	0.004
Rollers	2024	176	250	0.214	0.179	1.214	1.977	0.005	0.070	0.064	473.512	0.153	0.004
Rollers	2024	251	500	0.250	0.210	1.961	2.216	0.005	0.090	0.083	477.900	0.155	0.004
Rollers	2025	6	15	0.677	0.569	4.125	3.689	0.005	0.167	0.154	526.141	0.170	0.005
Rollers	2025	16	25	0.677	0.569	4.125	3.689	0.005	0.167	0.154	526.141	0.170	0.005
Rollers	2025	26	50	0.677	0.569	4.125	3.689	0.005	0.167	0.154	526.141	0.170	0.004
Rollers	2025	51	120	0.304	0.255	3.444	2.691	0.005	0.135	0.125	473.851	0.153	0.004
Rollers	2025	121	175	0.151	0.127	2.909	1.101	0.005	0.049	0.045	471.970	0.153	0.004
Rollers	2025	176	250	0.206	0.173	1.215	1.783	0.005	0.066	0.060	473.681	0.153	0.004
Rollers	2025	251	500	0.252	0.212	1.968	2.200	0.005	0.090	0.083	477.573	0.154	0.004
Rough Terrain Forkli	2024	26	50	0.678	0.570	3.918	3.653	0.005	0.166	0.152	524.923	0.170	0.004
Rough Terrain Forkli	2024	51	120	0.173	0.145	3.245	1.914	0.005	0.058	0.054	473.063	0.153	0.004
Rough Terrain Forkli	2024	121	175	0.122	0.103	2.834	1.044	0.005	0.039	0.035	471.535	0.153	0.005
Rough Terrain Forkli	2024	176	250	0.142	0.119	0.995	1.480	0.005	0.035	0.032	472.853	0.153	0.004
Rough Terrain Forkli	2024	251	500	0.079	0.066	0.937	0.476	0.005	0.009	0.008	466.548	0.151	0.004
Rough Terrain Forkli	2025	26	50	0.542	0.456	3.740	3.477	0.005	0.128	0.118	525.027	0.170	0.004
Rough Terrain Forkli	2025	51	120	0.164	0.137	3.240	1.821	0.005	0.051	0.047	473.037	0.153	0.004
Rough Terrain Forkli	2025	121	175	0.104	0.087	2.821	0.786	0.005	0.030	0.028	471.475	0.152	0.004
Rough Terrain Forkli	2025	176	250	0.146	0.122	1.001	1.489	0.005	0.035	0.033	472.927	0.153	0.004
Rough Terrain Forkli	2025	251	500	0.082	0.069	0.942	0.477	0.005	0.009	0.008	466.541	0.151	0.004
Rubber Tired Dozers	2024	121	175	0.634	0.532	3.696	5.014	0.005	0.279	0.257	473.515	0.153	0.005
Rubber Tired Dozers	2024	176	250	0.475	0.399	1.797	4.090	0.005	0.184	0.170	474.585	0.153	0.004
Rubber Tired Dozers	2024	251	500	0.496	0.417	3.457	4.030	0.005	0.182	0.168	479.394	0.155	0.004
Rubber Tired Dozers	2024	501	750	0.506	0.425	2.596	5.334	0.005	0.196	0.180	473.011	0.153	0.004
Rubber Tired Dozers	2024	751	1000	6.485	0.433	1.796	4.532	0.005	0.123	0.123	568.299	0.039	0.004
Rubber Tired Dozers	2025	121	175	0.549	0.461	3.612	4.229	0.005	0.230	0.212	474.103	0.153	0.004
Rubber Tired Dozers	2025	176	250	0.443	0.372	1.720	3.805	0.005	0.167	0.153	474.573	0.153	0.004
Rubber Tired Dozers	2025	251	500	0.437	0.367	2.959	3.370	0.005	0.151	0.139	479.092	0.155	0.004

Unmitigated EFs from Caleemod 2020 (based on OFFROAD 2011) fleet average

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Rubber Tired Dozers	2025	501	750	0.509	0.428	2.601	5.333	0.005	0.196	0.180	472.998	0.153	0.005
Rubber Tired Dozers	2025	751	1000	6.203	0.414	1.725	4.365	0.005	0.115	0.115	568.299	0.037	0.005
Rubber Tired Loader	2024	16	25	1.201	1.009	5.987	4.468	0.005	0.286	0.263	524.230	0.170	0.005
Rubber Tired Loader	2024	26	50	1.201	1.009	5.987	4.468	0.005	0.286	0.263	524.230	0.170	0.004
Rubber Tired Loader	2024	51	120	0.473	0.397	3.832	3.339	0.005	0.220	0.203	466.808	0.151	0.004
Rubber Tired Loader	2024	121	175	0.293	0.246	3.288	1.884	0.005	0.100	0.092	470.357	0.152	0.004
Rubber Tired Loader	2024	176	250	0.235	0.197	1.161	1.806	0.005	0.060	0.056	469.788	0.152	0.004
Rubber Tired Loader	2024	251	500	0.249	0.209	1.352	1.702	0.005	0.063	0.058	468.513	0.152	0.004
Rubber Tired Loader	2024	501	750	0.268	0.226	1.333	1.881	0.005	0.072	0.066	464.866	0.150	0.004
Rubber Tired Loader	2024	751	1000	0.239	0.201	1.191	3.544	0.005	0.071	0.066	472.345	0.153	0.004
Rubber Tired Loader	2025	16	25	1.143	0.960	5.941	4.348	0.005	0.259	0.238	523.908	0.169	0.007
Rubber Tired Loader	2025	26	50	1.143	0.960	5.941	4.348	0.005	0.259	0.238	523.908	0.169	0.005
Rubber Tired Loader	2025	51	120	0.419	0.352	3.791	2.970	0.005	0.179	0.165	466.898	0.151	0.004
Rubber Tired Loader	2025	121	175	0.266	0.224	3.281	1.590	0.005	0.084	0.077	470.459	0.152	0.004
Rubber Tired Loader	2025	176	250	0.211	0.177	1.142	1.442	0.005	0.048	0.045	469.871	0.152	0.004
Rubber Tired Loader	2025	251	500	0.230	0.193	1.276	1.433	0.005	0.053	0.048	469.143	0.152	0.004
Rubber Tired Loader	2025	501	750	0.253	0.212	1.333	1.654	0.005	0.064	0.059	465.052	0.150	0.004
Rubber Tired Loader	2025	751	1000	0.197	0.165	1.122	3.089	0.005	0.052	0.048	472.456	0.153	0.004
Scrapers	2024	51	120	0.684	0.575	4.095	5.632	0.005	0.414	0.381	482.701	0.156	0.007
Scrapers	2024	121	175	0.400	0.336	3.372	3.156	0.005	0.166	0.153	478.809	0.155	0.005
Scrapers	2024	176	250	0.359	0.301	1.627	3.014	0.005	0.133	0.122	469.352	0.152	0.004
Scrapers	2024	251	500	0.291	0.245	1.921	2.477	0.005	0.098	0.090	472.845	0.153	0.004
Scrapers	2024	501	750	0.253	0.213	1.461	2.187	0.005	0.081	0.074	471.429	0.152	0.004
Scrapers	2025	51	120	0.674	0.566	4.094	5.503	0.005	0.405	0.372	482.363	0.156	0.004
Scrapers	2025	121	175	0.345	0.290	3.321	2.631	0.005	0.137	0.126	478.948	0.155	0.004
Scrapers	2025	176	250	0.347	0.291	1.602	2.803	0.005	0.125	0.115	469.446	0.152	0.004
Scrapers	2025	251	500	0.257	0.216	1.732	2.051	0.005	0.081	0.074	472.539	0.153	0.004
Scrapers	2025	501	750	0.219	0.184	1.338	1.713	0.005	0.064	0.059	472.115	0.153	0.007
Signal Boards	2024	6	15	1.040	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	0.004
Signal Boards	2024	26	50	5.168	0.559	4.247	3.662	0.007	0.114	0.114	568.299	0.050	0.004
Signal Boards	2024	51	120	6.055	0.296	3.474	2.315	0.006	0.105	0.105	568.299	0.026	0.004
Signal Boards	2024	121	175	9.047	0.229	3.047	1.427	0.006	0.065	0.065	568.299	0.020	0.004
Signal Boards	2024	176	250	12.079	0.224	1.259	1.370	0.007	0.041	0.041	686.695	0.020	0.004
Signal Boards	2025	6	15	1.040	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	0.004

Unmitigated EFs from Caleemod 2020 (based on OFFROAD 2011) fleet average

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Signal Boards	2025	26	50	4.819	0.522	4.217	3.561	0.007	0.098	0.098	568.299	0.047	0.004
Signal Boards	2025	51	120	5.705	0.278	3.470	2.179	0.006	0.089	0.089	568.299	0.025	0.007
Signal Boards	2025	121	175	8.500	0.215	3.049	1.262	0.006	0.055	0.055	568.299	0.019	0.005
Signal Boards	2025	176	250	11.509	0.213	1.257	1.192	0.007	0.035	0.035	686.695	0.019	0.004
Skid Steer Loaders	2024	16	25	0.416	0.349	3.671	3.346	0.005	0.089	0.082	527.800	0.171	0.004
Skid Steer Loaders	2024	26	50	0.416	0.349	3.671	3.346	0.005	0.089	0.082	527.800	0.171	0.004
Skid Steer Loaders	2024	51	120	0.175	0.147	3.264	1.948	0.005	0.063	0.058	472.847	0.153	0.004
Skid Steer Loaders	2025	16	25	0.406	0.341	3.660	3.309	0.005	0.084	0.077	527.861	0.171	0.007
Skid Steer Loaders	2025	26	50	0.406	0.341	3.660	3.309	0.005	0.084	0.077	527.861	0.171	0.005
Skid Steer Loaders	2025	51	120	0.166	0.140	3.252	1.867	0.005	0.057	0.052	472.629	0.153	0.004
Surfacing Equipmen	2024	26	50	0.396	0.333	3.662	3.721	0.006	0.116	0.107	536.030	0.173	0.004
Surfacing Equipmen	2024	51	120	0.299	0.251	3.389	2.883	0.005	0.142	0.131	475.381	0.154	0.004
Surfacing Equipmen	2024	121	175	0.271	0.228	2.930	2.464	0.005	0.120	0.111	470.077	0.152	0.004
Surfacing Equipmen	2024	176	250	0.209	0.176	1.183	2.236	0.005	0.071	0.065	477.096	0.154	0.007
Surfacing Equipmen	2024	251	500	0.159	0.134	1.168	1.478	0.005	0.056	0.051	470.252	0.152	0.005
Surfacing Equipmen	2024	501	750	0.112	0.094	0.985	0.947	0.005	0.034	0.032	472.983	0.153	0.004
Surfacing Equipmen	2025	26	50	0.279	0.235	3.537	3.576	0.006	0.082	0.075	536.140	0.173	0.004
Surfacing Equipmen	2025	51	120	0.276	0.232	3.385	2.659	0.005	0.124	0.114	476.766	0.154	0.004
Surfacing Equipmen	2025	121	175	0.222	0.187	2.926	1.999	0.005	0.094	0.087	471.040	0.152	0.004
Surfacing Equipmen	2025	176	250	0.176	0.148	1.143	1.747	0.005	0.055	0.051	477.110	0.154	0.004
Surfacing Equipmen	2025	251	500	0.152	0.128	1.169	1.327	0.005	0.051	0.047	470.283	0.152	0.004
Surfacing Equipmen	2025	501	750	0.101	0.085	0.978	0.768	0.005	0.027	0.025	470.551	0.152	0.004
Sweepers/Scrubbers	2024	6	15	0.888	0.746	5.003	4.079	0.005	0.239	0.219	525.328	0.170	0.004
Sweepers/Scrubbers	2024	16	25	0.888	0.746	5.003	4.079	0.005	0.239	0.219	525.328	0.170	0.004
Sweepers/Scrubbers	2024	26	50	0.888	0.746	5.003	4.079	0.005	0.239	0.219	525.328	0.170	0.004
Sweepers/Scrubbers	2024	51	120	0.395	0.332	3.693	3.098	0.005	0.188	0.173	474.116	0.153	0.004
Sweepers/Scrubbers	2024	121	175	0.317	0.266	3.234	2.253	0.005	0.107	0.099	473.122	0.153	0.004
Sweepers/Scrubbers	2024	176	250	0.196	0.164	1.127	1.614	0.005	0.051	0.046	470.126	0.152	0.004
Sweepers/Scrubbers	2025	6	15	0.741	0.622	4.768	3.856	0.005	0.191	0.176	525.328	0.170	0.007
Sweepers/Scrubbers	2025	16	25	0.741	0.622	4.768	3.856	0.005	0.191	0.176	525.328	0.170	0.005
Sweepers/Scrubbers	2025	26	50	0.741	0.622	4.768	3.856	0.005	0.191	0.176	525.328	0.170	0.004
Sweepers/Scrubbers	2025	51	120	0.361	0.303	3.664	2.817	0.005	0.160	0.147	474.116	0.153	0.004
Sweepers/Scrubbers	2025	121	175	0.254	0.213	3.201	1.638	0.005	0.072	0.066	473.122	0.153	0.004
Sweepers/Scrubbers	2025	176	250	0.202	0.170	1.140	1.616	0.005	0.051	0.047	470.126	0.152	0.004

Unmitigated EFs from Caleemod 2020 (based on OFFROAD 2011) fleet average

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Tractors/Loaders/Ba	2024	16	25	0.702	0.590	4.609	3.768	0.005	0.166	0.153	513.852	0.166	0.004
Tractors/Loaders/Ba	2024	26	50	0.702	0.590	4.609	3.768	0.005	0.166	0.153	513.852	0.166	0.005
Tractors/Loaders/Ba	2024	51	120	0.271	0.227	3.532	2.288	0.005	0.105	0.097	476.731	0.154	0.005
Tractors/Loaders/Ba	2024	121	175	0.209	0.176	3.089	1.376	0.005	0.068	0.063	469.403	0.152	0.004
Tractors/Loaders/Ba	2024	176	250	0.199	0.168	1.151	1.491	0.005	0.054	0.050	469.914	0.152	0.004
Tractors/Loaders/Ba	2024	251	500	0.179	0.150	1.277	1.163	0.005	0.044	0.041	470.084	0.152	0.004
Tractors/Loaders/Ba	2024	501	750	0.263	0.221	1.311	2.215	0.005	0.085	0.079	466.638	0.151	0.004
Tractors/Loaders/Ba	2025	16	25	0.655	0.550	4.560	3.662	0.005	0.145	0.133	513.803	0.166	0.004
Tractors/Loaders/Ba	2025	26	50	0.655	0.550	4.560	3.662	0.005	0.145	0.133	513.803	0.166	0.004
Tractors/Loaders/Ba	2025	51	120	0.248	0.209	3.522	2.109	0.005	0.085	0.079	477.188	0.154	0.004
Tractors/Loaders/Ba	2025	121	175	0.193	0.162	3.083	1.180	0.005	0.058	0.054	469.329	0.152	0.005
Tractors/Loaders/Ba	2025	176	250	0.183	0.154	1.146	1.235	0.005	0.047	0.044	470.598	0.152	0.005
Tractors/Loaders/Ba	2025	251	500	0.172	0.144	1.234	1.046	0.005	0.039	0.036	470.910	0.152	0.004
Tractors/Loaders/Ba	2025	501	750	0.223	0.187	1.261	1.649	0.005	0.067	0.062	466.452	0.151	0.004
Trenchers	2024	6	15	0.715	0.601	4.233	3.834	0.005	0.197	0.181	527.022	0.170	0.004
Trenchers	2024	16	25	0.715	0.601	4.233	3.834	0.005	0.197	0.181	527.022	0.170	0.004
Trenchers	2024	26	50	0.715	0.601	4.233	3.834	0.005	0.197	0.181	527.022	0.170	0.004
Trenchers	2024	51	120	0.588	0.494	3.769	4.593	0.005	0.318	0.292	475.632	0.154	0.004
Trenchers	2024	121	175	0.433	0.364	3.311	3.667	0.005	0.187	0.172	467.733	0.151	0.004
Trenchers	2024	176	250	0.371	0.312	1.598	3.483	0.005	0.145	0.134	473.845	0.153	0.004
Trenchers	2024	251	500	0.228	0.192	1.668	1.859	0.005	0.080	0.074	469.994	0.152	0.005
Trenchers	2024	501	750	0.077	0.064	0.958	0.304	0.005	0.009	0.008	474.478	0.153	0.005
Trenchers	2025	6	15	0.645	0.542	4.120	3.657	0.005	0.163	0.150	527.160	0.170	0.004
Trenchers	2025	16	25	0.645	0.542	4.120	3.657	0.005	0.163	0.150	527.160	0.170	0.004
Trenchers	2025	26	50	0.645	0.542	4.120	3.657	0.005	0.163	0.150	527.160	0.170	0.004
Trenchers	2025	51	120	0.543	0.457	3.734	4.279	0.005	0.285	0.262	475.901	0.154	0.004
Trenchers	2025	121	175	0.426	0.358	3.309	3.549	0.005	0.179	0.165	467.732	0.151	0.004
Trenchers	2025	176	250	0.365	0.307	1.601	3.315	0.005	0.144	0.132	473.917	0.153	0.004
Trenchers	2025	251	500	0.227	0.191	1.676	1.826	0.005	0.079	0.072	470.439	0.152	0.004
Trenchers	2025	501	750	0.079	0.067	0.962	0.305	0.005	0.009	0.008	474.486	0.153	0.005
Welders	2024	6	15	1.731	0.690	3.499	4.316	0.008	0.188	0.188	568.299	0.062	0.004
Welders	2024	16	25	3.276	0.718	2.390	4.426	0.007	0.181	0.181	568.299	0.064	0.004
Welders	2024	26	50	6.780	0.646	4.557	3.782	0.007	0.130	0.130	568.299	0.058	0.004
Welders	2024	51	120	5.366	0.336	3.560	2.430	0.006	0.120	0.120	568.299	0.030	0.004

Unmitigated EFs from Caleemod 2020 (based on OFFROAD 2011) fleet average

Equipment	Year	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Welders	2024	121	175	10.369	0.261	3.118	1.541	0.006	0.074	0.074	568.299	0.023	0.004
Welders	2024	176	250	10.107	0.210	1.068	1.234	0.006	0.038	0.038	568.299	0.018	0.007
Welders	2024	251	500	13.957	0.206	1.032	1.135	0.005	0.037	0.037	568.299	0.018	0.005
Welders	2025	6	15	1.713	0.683	3.491	4.278	0.008	0.183	0.183	568.300	0.061	0.004
Welders	2025	16	25	3.237	0.709	2.376	4.407	0.007	0.177	0.177	568.299	0.064	0.004
Welders	2025	26	50	6.315	0.602	4.524	3.676	0.007	0.112	0.112	568.299	0.054	0.004
Welders	2025	51	120	5.055	0.316	3.557	2.283	0.006	0.102	0.102	568.299	0.028	0.004
Welders	2025	121	175	9.743	0.245	3.121	1.365	0.006	0.063	0.063	568.299	0.022	0.004
Welders	2025	176	250	9.621	0.199	1.065	1.075	0.006	0.032	0.032	568.299	0.018	0.004
Welders	2025	251	500	13.325	0.196	1.029	0.990	0.005	0.031	0.031	568.299	0.017	0.007

OFFROAD Equipment Type Match

Equipment	Match	HP for offroad/trip length for onroa	type
Pickup Trucks	Pickup Truck	10.8	onroad
Utility Trucks	MD/HD	7.3	onroad
All Terrain Fork Lift	Rough Terrain Forklifts	100	offroad
950 Wheel Loader	Rubber Tired Loaders	225	offroad
140 Motor Grader	Graders	250	offroad
Pickup Truck	Pickup Truck	10.8	onroad
Utility Truck	MD/HD	5	onroad
Pumps	Pumps	11	offroad
Vacuum Truck	MD/HD	7.3	onroad
Back Hoe	Tractors/Loaders/Backhoes	97	offroad
Dump truck	HD	20	onroad
Water Truck	MD/HD	7.3	onroad
657 Scrapers	Scrapers	629	offroad
Dump Trucks	HD	20	onroad
LGP D6 Dozers	Rubber Tired Dozers	215	offroad
Dump Trucks	HD	20	onroad
LGP D6 Dozers	Rubber Tired Dozers	215	offroad
623 Scrapers	Scrapers	407	offroad
815 Compactor	Rubber Tired Dozers	249	offroad
Service Truck	MD/HD	7.3	onroad
320 Excavator	Excavators	172	offroad
All Terrain Crane	Cranes	231	offroad
623 Scrapers	Scrapers	407	offroad
LGP D6 Dozer	Rubber Tired Dozers	215	offroad
Backhoe	Tractors/Loaders/Backhoes	97	offroad
623 Scraper	Scrapers	407	offroad
320 Excavator	Excavators	172	offroad
Pick Up Trucks	Pickup Truck	10.8	onroad
Boom Truck	MD/HD	7.3	onroad
315 Excavator	Excavators	108	offroad
All Terrain Fork Lift	Rough Terrain Forklifts	100	offroad
352 Excavator	Excavators	424	offroad

onroad	non default
offroad	default

project equipment names	specific hp	
950 Wheel Loader	225	https://www.cat.com/en_US/products/new/equipment/wheel-loaders/medium-wheel-loaders/1000029532.html
140 Motor Grader	250	https://www.cat.com/en_US/products/new/equipment/motor-graders/motor-graders/15969811.html
657 Scrapers	629	https://www.cat.com/en_US/products/new/equipment/wheel-tractor-scrapers/open-bowl-scrapers/15969767.html
LGP D6 Dozer	215	https://www.cat.com/en_US/products/new/equipment/dozers/medium-dozers/15969751.html
623 Scraper	407	https://www.cat.com/en_US/products/new/equipment/wheel-tractor-scrapers/elevating-scrapers/18576198.html
815 Compactor	249	https://www.cat.com/en_US/products/new/equipment/compactors/soil-compactors/106520.html
320 Excavator	172	https://www.cat.com/en_US/products/new/equipment/excavators/medium-excavators/1000032602.html
315 Excavator	108	https://www.cat.com/en_US/products/new/equipment/excavators/small-excavators/102643.html
352 Excavator	424	https://www.cat.com/en_US/products/new/equipment/excavators/large-excavators/15969691.html
LGP D6 Dozers	215	
623 Scrapers	407	
623 Scrapers	407	
320 Excavator	172	
LGP D6 Dozers	215	

all others, caleemod default HPs

General Assumptions

lbs/gram	0.002204634	Standard	
kg/mt	1000	Standard	
mt/gram	0.000001	Standard	
mt/lbs	0.000453592	Standard	
ton/lbs	0.0005	Standard	
g to ton	1.10231E-06	Standard	
t to mt	0.907184741	Standard	
Gallons per acre-foot	325851	Standard	
MWh to mmBTU	3.41	Standard	
ton per cy conversion	1.2641662	CalEEMod	
ton per SF conversion	0.046	CalEEMod	
acre per SF conversion	2.29568E-05	Standard	
lbs CO2 per gallon of diesel	22.5091702	Climate Registry 2018	
lbs CO2 per gallon of gas	19.3565636	Climate Registry 2018	
HP to KW	0.7457		
MW/KW	0.001		
CH4 GWP	25	AR4	
N2O GWP	298	AR4	
Single trips per vehicle	2		
Employee one-way commute	10.8	miles/trip	
Vendor truck one-way trip dis	7.3	miles	CalEEMod default vendor trip
Truck one-way trip distance of	20	miles	from applicant

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Riverbank Operational Energy Run

Stanislaus County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	6.00	1000sqft	0.14	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	46
Climate Zone	3			**Operational Year**	2027
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	206	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - CO2e sourced from CalEEMod Handbook Table E-4.4

Land Use - -

Vehicle Trips - 2.02 trips per tsf based on 12 worker tips/day (4workers, 3 trips each, 365 days) + 12 deliveries per year + 16 biosolids trips per year = 4,408 annual ADT

Trips and VMT - demolition used as operational O&M "vendor" trips

Energy Use - 2027 electricity use

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	3.22	0.00
tblEnergyUse	NT24E	5.13	0.00
tblEnergyUse	NT24NG	1.05	0.00
tblEnergyUse	T24E	0.93	770.67

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblEnergyUse	T24NG	16.86	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	206
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	603.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	4.00
tblVehicleTrips	ST_TR	1.74	2.02
tblVehicleTrips	SU_TR	1.74	2.02
tblVehicleTrips	WD_TR	1.74	2.02

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0419	0.4170	0.4286	7.1000e-004	7.9500e-003	0.0217	0.0297	3.2400e-003	0.0201	0.0233	0.0000	62.0027	62.0027	0.0185	2.0000e-004	62.5247
2023	0.0422	3.2600e-003	4.5900e-003	1.0000e-005	2.0000e-005	1.8000e-004	2.0000e-004	1.0000e-005	1.8000e-004	1.8000e-004	0.0000	0.6546	0.6546	4.0000e-005	0.0000	0.6557
Maximum	**0.0422**	**0.4170**	**0.4286**	**7.1000e-004**	**7.9500e-003**	**0.0217**	**0.0297**	**3.2400e-003**	**0.0201**	**0.0233**	**0.0000**	**62.0027**	**62.0027**	**0.0185**	**2.0000e-004**	**62.5247**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0419	0.4170	0.4286	7.1000e-004	7.9500e-003	0.0217	0.0297	3.2400e-003	0.0201	0.0233	0.0000	62.0027	62.0027	0.0185	2.0000e-004	62.5246
2023	0.0422	3.2600e-003	4.5900e-003	1.0000e-005	2.0000e-005	1.8000e-004	2.0000e-004	1.0000e-005	1.8000e-004	1.8000e-004	0.0000	0.6546	0.6546	4.0000e-005	0.0000	0.6557
Maximum	**0.0422**	**0.4170**	**0.4286**	**7.1000e-004**	**7.9500e-003**	**0.0217**	**0.0297**	**3.2400e-003**	**0.0201**	**0.0233**	**0.0000**	**62.0027**	**62.0027**	**0.0185**	**2.0000e-004**	**62.5246**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-20-2022**	**10-19-2022**	0.2566	0.2566
2	**10-20-2022**	**1-19-2023**	0.2430	0.2430
		Highest	0.2566	0.2566

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0276	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	432.0667	432.0667	0.0000	0.0000	432.0667
Mobile	5.5800e-003	8.5800e-003	0.0522	1.2000e-004	0.0132	1.1000e-004	0.0134	3.5400e-003	1.0000e-004	3.6400e-003	0.0000	11.6951	11.6951	6.2000e-004	5.9000e-004	11.8854
Stationary	0.0238	0.0664	0.0606	1.1000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003	0.0000	11.0218	11.0218	1.5500e-003	0.0000	11.0604
Waste						0.0000	0.0000		0.0000	0.0000	1.1449	0.0000	1.1449	0.0677	0.0000	2.8364
Water						0.0000	0.0000		0.0000	0.0000	0.4402	0.7015	1.1417	0.0452	1.0700e-003	2.5901
Total	**0.0569**	**0.0750**	**0.1128**	**2.3000e-004**	**0.0132**	**3.6000e-003**	**0.0168**	**3.5400e-003**	**3.5900e-003**	**7.1300e-003**	**1.5851**	**455.4852**	**457.0703**	**0.1150**	**1.6600e-003**	**460.4392**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0276	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	432.0667	432.0667	0.0000	0.0000	432.0667
Mobile	5.5800e-003	8.5800e-003	0.0522	1.2000e-004	0.0132	1.1000e-004	0.0134	3.5400e-003	1.0000e-004	3.6400e-003	0.0000	11.6951	11.6951	6.2000e-004	5.9000e-004	11.8854
Stationary	0.0238	0.0664	0.0606	1.1000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003	0.0000	11.0218	11.0218	1.5500e-003	0.0000	11.0604
Waste						0.0000	0.0000		0.0000	0.0000	1.1449	0.0000	1.1449	0.0677	0.0000	2.8364
Water						0.0000	0.0000		0.0000	0.0000	0.4402	0.7015	1.1417	0.0452	1.0700e-003	2.5901
Total	**0.0569**	**0.0750**	**0.1128**	**2.3000e-004**	**0.0132**	**3.6000e-003**	**0.0168**	**3.5400e-003**	**3.5900e-003**	**7.1300e-003**	**1.5851**	**455.4852**	**457.0703**	**0.1150**	**1.6600e-003**	**460.4392**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/20/2022	8/2/2022	5	10	
2	Site Preparation	Site Preparation	8/3/2022	8/3/2022	5	1	

3	Grading	Grading	8/4/2022	8/5/2022	5	2	
4	Building Construction	Building Construction	8/6/2022	12/23/2022	5	100	
5	Paving	Paving	12/24/2022	12/30/2022	5	5	
6	Architectural Coating	Architectural Coating	12/31/2022	1/6/2023	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,000; Non-Residential Outdoor: 3,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Site Preparation	Graders	1	8.00	187	0.41
Building Construction	Forklifts	2	6.00	89	0.20
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	3.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**		**1.6900e-003**	**1.6900e-003**		**1.6100e-003**	**1.6100e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.4400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3345	0.3345	1.0000e-005	1.0000e-005	0.3379
Total	**1.8000e-004**	**1.2000e-004**	**1.4400e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3345**	**0.3345**	**1.0000e-005**	**1.0000e-005**	**0.3379**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**		**1.6900e-003**	**1.6900e-003**		**1.6100e-003**	**1.6100e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.4400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3345	0.3345	1.0000e-005	1.0000e-005	0.3379
Total	**1.8000e-004**	**1.2000e-004**	**1.4400e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3345**	**0.3345**	**1.0000e-005**	**1.0000e-005**	**0.3379**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	3.4700e-003	1.9800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**2.9000e-004**	**3.4700e-003**	**1.9800e-003**	**0.0000**	**2.7000e-004**	**1.3000e-004**	**4.0000e-004**	**3.0000e-005**	**1.2000e-004**	**1.5000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0167	0.0167	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0167**	**0.0167**	**0.0000**	**0.0000**	**0.0169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	3.4700e-003	1.9800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**2.9000e-004**	**3.4700e-003**	**1.9800e-003**	**0.0000**	**2.7000e-004**	**1.3000e-004**	**4.0000e-004**	**3.0000e-005**	**1.2000e-004**	**1.5000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0167	0.0167	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0167**	**0.0167**	**0.0000**	**0.0000**	**0.0169**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	0.0120	5.9400e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**1.0800e-003**	**0.0120**	**5.9400e-003**	**1.0000e-005**	**5.3100e-003**	**5.2000e-004**	**5.8300e-003**	**2.5700e-003**	**4.8000e-004**	**3.0500e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0535	0.0535	0.0000	0.0000	0.0541
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0535**	**0.0535**	**0.0000**	**0.0000**	**0.0541**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	0.0120	5.9400e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**1.0800e-003**	**0.0120**	**5.9400e-003**	**1.0000e-005**	**5.3100e-003**	**5.2000e-004**	**5.8300e-003**	**2.5700e-003**	**4.8000e-004**	**3.0500e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0535	0.0535	0.0000	0.0000	0.0541
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0535**	**0.0535**	**0.0000**	**0.0000**	**0.0541**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3513	0.3576	5.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	50.0739	50.0739	0.0162	0.0000	50.4787
Total	**0.0343**	**0.3513**	**0.3576**	**5.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**50.0739**	**50.0739**	**0.0162**	**0.0000**	**50.4787**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	2.7400e-003	7.5000e-004	1.0000e-005	3.3000e-004	3.0000e-005	3.6000e-004	1.0000e-004	3.0000e-005	1.2000e-004	0.0000	0.9980	0.9980	1.0000e-005	1.5000e-004	1.0432
Worker	5.4000e-004	3.7000e-004	4.3200e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0034	1.0034	4.0000e-005	3.0000e-005	1.0136
Total	**6.4000e-004**	**3.1100e-003**	**5.0700e-003**	**2.0000e-005**	**1.5300e-003**	**4.0000e-005**	**1.5700e-003**	**4.2000e-004**	**4.0000e-005**	**4.5000e-004**	**0.0000**	**2.0015**	**2.0015**	**5.0000e-005**	**1.8000e-004**	**2.0568**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3513	0.3576	5.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	50.0738	50.0738	0.0162	0.0000	50.4787
Total	**0.0343**	**0.3513**	**0.3576**	**5.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**50.0738**	**50.0738**	**0.0162**	**0.0000**	**50.4787**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	2.7400e-003	7.5000e-004	1.0000e-005	3.3000e-004	3.0000e-005	3.6000e-004	1.0000e-004	3.0000e-005	1.2000e-004	0.0000	0.9980	0.9980	1.0000e-005	1.5000e-004	1.0432
Worker	5.4000e-004	3.7000e-004	4.3200e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0034	1.0034	4.0000e-005	3.0000e-005	1.0136
Total	**6.4000e-004**	**3.1100e-003**	**5.0700e-003**	**2.0000e-005**	**1.5300e-003**	**4.0000e-005**	**1.5700e-003**	**4.2000e-004**	**4.0000e-005**	**4.5000e-004**	**0.0000**	**2.0015**	**2.0015**	**5.0000e-005**	**1.8000e-004**	**2.0568**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6200e-003	0.0148	0.0176	3.0000e-005		7.4000e-004	7.4000e-004		6.9000e-004	6.9000e-004	0.0000	2.3492	2.3492	6.8000e-004	0.0000	2.3663
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.6200e-003**	**0.0148**	**0.0176**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**2.3492**	**2.3492**	**6.8000e-004**	**0.0000**	**2.3663**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.3000e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3010	0.3010	1.0000e-005	1.0000e-005	0.3041
Total	**1.6000e-004**	**1.1000e-004**	**1.3000e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3010**	**0.3010**	**1.0000e-005**	**1.0000e-005**	**0.3041**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6200e-003	0.0148	0.0176	3.0000e-005		7.4000e-004	7.4000e-004		6.9000e-004	6.9000e-004	0.0000	2.3492	2.3492	6.8000e-004	0.0000	2.3663
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.6200e-003**	**0.0148**	**0.0176**	**3.0000e-005**		**7.4000e-004**	**7.4000e-004**		**6.9000e-004**	**6.9000e-004**	**0.0000**	**2.3492**	**2.3492**	**6.8000e-004**	**0.0000**	**2.3663**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.3000e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3010	0.3010	1.0000e-005	1.0000e-005	0.3041
Total	**1.6000e-004**	**1.1000e-004**	**1.3000e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3010**	**0.3010**	**1.0000e-005**	**1.0000e-005**	**0.3041**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.2600e-003	4.5300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6393
Total	**0.0422**	**3.2600e-003**	**4.5300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6393**

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0163	0.0163	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**0.0000**	**0.0000**	**0.0164**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.2600e-003	4.5300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6393
Total	**0.0422**	**3.2600e-003**	**4.5300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6393**

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0163	0.0163	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**0.0000**	**0.0000**	**0.0164**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Mitigated	5.5800e-003	8.5800e-003	0.0522	1.2000e-004	0.0132	1.1000e-004	0.0134	3.5400e-003	1.0000e-004	3.6400e-003	0.0000	11.6951	11.6951	6.2000e-004	5.9000e-004	11.8854
Unmitigated	5.5800e-003	8.5800e-003	0.0522	1.2000e-004	0.0132	1.1000e-004	0.0134	3.5400e-003	1.0000e-004	3.6400e-003	0.0000	11.6951	11.6951	6.2000e-004	5.9000e-004	11.8854

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	12.12	12.12	12.12	35,384	35,384
Total	12.12	12.12	12.12	35,384	35,384

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.544047	0.052033	0.166255	0.143296	0.027914	0.007146	0.013602	0.016633	0.000801	0.000298	0.023394	0.001288	0.003293

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	432.0667	432.0667	0.0000	0.0000	432.0667
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	432.0667	432.0667	0.0000	0.0000	432.0667
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	4.624e +006	432.0667	0.0000	0.0000	432.0667
Total		**432.0667**	**0.0000**	**0.0000**	**432.0667**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	4.624e +006	432.0667	0.0000	0.0000	432.0667
Total		**432.0667**	**0.0000**	**0.0000**	**432.0667**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0276	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Unmitigated	0.0276	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Total	**0.0276**	**0.0000**	**5.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.0000**	**1.1000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Total	**0.0276**	**0.0000**	**5.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.0000**	**1.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.1417	0.0452	1.0700e-003	2.5901
Unmitigated	1.1417	0.0452	1.0700e-003	2.5901

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1.3875 / 0	1.1417	0.0452	1.0700e-003	2.5901
Total		**1.1417**	**0.0452**	**1.0700e-003**	**2.5901**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1.3875 / 0	1.1417	0.0452	1.0700e-003	2.5901
Total		**1.1417**	**0.0452**	**1.0700e-003**	**2.5901**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.1449	0.0677	0.0000	2.8364
Unmitigated	1.1449	0.0677	0.0000	2.8364

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	5.64	1.1449	0.0677	0.0000	2.8364
Total		**1.1449**	**0.0677**	**0.0000**	**2.8364**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	5.64	1.1449	0.0677	0.0000	2.8364
Total		**1.1449**	**0.0677**	**0.0000**	**2.8364**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	4	0	12	603	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (600 - 750 HP)	0.0238	0.0664	0.0606	1.1000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003	0.0000	11.0218	11.0218	1.5500e-003	0.0000	11.0604
Total	**0.0238**	**0.0664**	**0.0606**	**1.1000e-004**		**3.4900e-003**	**3.4900e-003**		**3.4900e-003**	**3.4900e-003**	**0.0000**	**11.0218**	**11.0218**	**1.5500e-003**	**0.0000**	**11.0604**

11.0 Vegetation

Riverbank Operations

Stanislaus County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	6.00	1000sqft	0.14	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	46
Climate Zone	3			**Operational Year**	2050
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - carbon-zero electricity in 2050

Land Use -

Construction Phase - Operations only run - ignore construction

Vehicle Trips - 2.02 trips per tsf based on 12 worker tips/day (4workers, 3 trips each, 365 days) + 12 deliveries per year + 16 biosolids trips per year = 4,408 annual ADT

Energy Use - 6,632,000 kwh / 6,000 sf uses = 1,105.33 kw/sf. The rest zeroed out.

Stationary Sources - Emergency Generators and Fire Pumps - monthly testing for 1 hr

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	3.22	0.00
tblEnergyUse	NT24E	5.13	0.00
tblEnergyUse	NT24NG	1.05	0.00
tblEnergyUse	T24E	0.93	1,105.33

tblEnergyUse	T24NG	16.86	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	0
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	603.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	4.00
tblVehicleTrips	ST_TR	1.74	2.02
tblVehicleTrips	SU_TR	1.74	2.02
tblVehicleTrips	WD_TR	1.74	2.02

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0408	0.4081	0.4173	6.9000e-004	7.7300e-003	0.0213	0.0290	3.1800e-003	0.0196	0.0228	0.0000	60.4126	60.4126	0.0180	2.0000e-004	60.9225
2023	0.0432	0.0116	0.0158	3.0000e-005	2.4000e-004	5.7000e-004	8.1000e-004	6.0000e-005	5.5000e-004	6.1000e-004	0.0000	2.2403	2.2403	4.6000e-004	1.0000e-005	2.2534
Maximum	**0.0432**	**0.4081**	**0.4173**	**6.9000e-004**	**7.7300e-003**	**0.0213**	**0.0290**	**3.1800e-003**	**0.0196**	**0.0228**	**0.0000**	**60.4126**	**60.4126**	**0.0180**	**2.0000e-004**	**60.9225**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0408	0.4081	0.4173	6.9000e-004	7.7300e-003	0.0213	0.0290	3.1800e-003	0.0196	0.0228	0.0000	60.4125	60.4125	0.0180	2.0000e-004	60.9224
2023	0.0432	0.0116	0.0158	3.0000e-005	2.4000e-004	5.7000e-004	8.1000e-004	6.0000e-005	5.5000e-004	6.1000e-004	0.0000	2.2403	2.2403	4.6000e-004	1.0000e-005	2.2534
Maximum	**0.0432**	**0.4081**	**0.4173**	**6.9000e-004**	**7.7300e-003**	**0.0213**	**0.0290**	**3.1800e-003**	**0.0196**	**0.0228**	**0.0000**	**60.4125**	**60.4125**	**0.0180**	**2.0000e-004**	**60.9224**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-25-2022**	**10-24-2022**	0.2569	0.2569
2	**10-25-2022**	**1-24-2023**	0.2423	0.2423
		Highest	0.2569	0.2569

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0276	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.2000e-003	5.2300e-003	0.0365	9.0000e-005	0.0132	5.0000e-005	0.0132	3.5200e-003	5.0000e-005	3.5700e-003	0.0000	9.3659	9.3659	3.9000e-004	4.3000e-004	9.5028
Stationary	0.0238	0.0664	0.0606	1.1000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003	0.0000	11.0218	11.0218	1.5500e-003	0.0000	11.0604
Waste						0.0000	0.0000		0.0000	0.0000	1.1449	0.0000	1.1449	0.0677	0.0000	2.8364
Water						0.0000	0.0000		0.0000	0.0000	0.4402	0.0000	0.4402	0.0452	1.0700e-003	1.8886
Total	**0.0546**	**0.0716**	**0.0971**	**2.0000e-004**	**0.0132**	**3.5400e-003**	**0.0167**	**3.5200e-003**	**3.5400e-003**	**7.0600e-003**	**1.5851**	**20.3878**	**21.9728**	**0.1148**	**1.5000e-003**	**25.2883**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0276	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.2000e-003	5.2300e-003	0.0365	9.0000e-005	0.0132	5.0000e-005	0.0132	3.5200e-003	5.0000e-005	3.5700e-003	0.0000	9.3659	9.3659	3.9000e-004	4.3000e-004	9.5028
Stationary	0.0238	0.0664	0.0606	1.1000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003	0.0000	11.0218	11.0218	1.5500e-003	0.0000	11.0604
Waste						0.0000	0.0000		0.0000	0.0000	1.1449	0.0000	1.1449	0.0677	0.0000	2.8364
Water						0.0000	0.0000		0.0000	0.0000	0.4402	0.0000	0.4402	0.0452	1.0700e-003	1.8886
Total	**0.0546**	**0.0716**	**0.0971**	**2.0000e-004**	**0.0132**	**3.5400e-003**	**0.0167**	**3.5200e-003**	**3.5400e-003**	**7.0600e-003**	**1.5851**	**20.3878**	**21.9728**	**0.1148**	**1.5000e-003**	**25.2883**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/25/2022	8/5/2022	5	10	
2	Site Preparation	Site Preparation	8/6/2022	8/8/2022	5	1	

3	Grading	Grading	8/9/2022	8/10/2022	5	2	
4	Building Construction	Building Construction	8/11/2022	12/28/2022	5	100	
5	Paving	Paving	12/29/2022	1/4/2023	5	5	
6	Architectural Coating	Architectural Coating	1/5/2023	1/11/2023	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,000; Non-Residential Outdoor: 3,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	3.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**		**1.6900e-003**	**1.6900e-003**		**1.6100e-003**	**1.6100e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.4400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3345	0.3345	1.0000e-005	1.0000e-005	0.3379
Total	**1.8000e-004**	**1.2000e-004**	**1.4400e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3345**	**0.3345**	**1.0000e-005**	**1.0000e-005**	**0.3379**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**		**1.6900e-003**	**1.6900e-003**		**1.6100e-003**	**1.6100e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.4400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3345	0.3345	1.0000e-005	1.0000e-005	0.3379
Total	**1.8000e-004**	**1.2000e-004**	**1.4400e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3345**	**0.3345**	**1.0000e-005**	**1.0000e-005**	**0.3379**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	3.4700e-003	1.9800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**2.9000e-004**	**3.4700e-003**	**1.9800e-003**	**0.0000**	**2.7000e-004**	**1.3000e-004**	**4.0000e-004**	**3.0000e-005**	**1.2000e-004**	**1.5000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0167	0.0167	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0167**	**0.0167**	**0.0000**	**0.0000**	**0.0169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	3.4700e-003	1.9800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**2.9000e-004**	**3.4700e-003**	**1.9800e-003**	**0.0000**	**2.7000e-004**	**1.3000e-004**	**4.0000e-004**	**3.0000e-005**	**1.2000e-004**	**1.5000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0167	0.0167	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0167**	**0.0167**	**0.0000**	**0.0000**	**0.0169**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	0.0120	5.9400e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**1.0800e-003**	**0.0120**	**5.9400e-003**	**1.0000e-005**	**5.3100e-003**	**5.2000e-004**	**5.8300e-003**	**2.5700e-003**	**4.8000e-004**	**3.0500e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0535	0.0535	0.0000	0.0000	0.0541
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0535**	**0.0535**	**0.0000**	**0.0000**	**0.0541**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	0.0120	5.9400e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**1.0800e-003**	**0.0120**	**5.9400e-003**	**1.0000e-005**	**5.3100e-003**	**5.2000e-004**	**5.8300e-003**	**2.5700e-003**	**4.8000e-004**	**3.0500e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0535	0.0535	0.0000	0.0000	0.0541
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0535**	**0.0535**	**0.0000**	**0.0000**	**0.0541**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3513	0.3576	5.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	50.0739	50.0739	0.0162	0.0000	50.4787
Total	**0.0343**	**0.3513**	**0.3576**	**5.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**50.0739**	**50.0739**	**0.0162**	**0.0000**	**50.4787**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	2.7400e-003	7.5000e-004	1.0000e-005	3.3000e-004	3.0000e-005	3.6000e-004	1.0000e-004	3.0000e-005	1.2000e-004	0.0000	0.9980	0.9980	1.0000e-005	1.5000e-004	1.0432
Worker	5.4000e-004	3.7000e-004	4.3200e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0034	1.0034	4.0000e-005	3.0000e-005	1.0136
Total	**6.4000e-004**	**3.1100e-003**	**5.0700e-003**	**2.0000e-005**	**1.5300e-003**	**4.0000e-005**	**1.5700e-003**	**4.2000e-004**	**4.0000e-005**	**4.5000e-004**	**0.0000**	**2.0015**	**2.0015**	**5.0000e-005**	**1.8000e-004**	**2.0568**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3513	0.3576	5.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	50.0738	50.0738	0.0162	0.0000	50.4787
Total	**0.0343**	**0.3513**	**0.3576**	**5.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**50.0738**	**50.0738**	**0.0162**	**0.0000**	**50.4787**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	2.7400e-003	7.5000e-004	1.0000e-005	3.3000e-004	3.0000e-005	3.6000e-004	1.0000e-004	3.0000e-005	1.2000e-004	0.0000	0.9980	0.9980	1.0000e-005	1.5000e-004	1.0432
Worker	5.4000e-004	3.7000e-004	4.3200e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0034	1.0034	4.0000e-005	3.0000e-005	1.0136
Total	**6.4000e-004**	**3.1100e-003**	**5.0700e-003**	**2.0000e-005**	**1.5300e-003**	**4.0000e-005**	**1.5700e-003**	**4.2000e-004**	**4.0000e-005**	**4.5000e-004**	**0.0000**	**2.0015**	**2.0015**	**5.0000e-005**	**1.8000e-004**	**2.0568**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5000e-004	5.9200e-003	7.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.9397	0.9397	2.7000e-004	0.0000	0.9465
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.5000e-004**	**5.9200e-003**	**7.0300e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.9397**	**0.9397**	**2.7000e-004**	**0.0000**	**0.9465**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.2000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1204	0.1204	0.0000	0.0000	0.1216
Total	**6.0000e-005**	**4.0000e-005**	**5.2000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1204**	**0.1204**	**0.0000**	**0.0000**	**0.1216**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5000e-004	5.9200e-003	7.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.9397	0.9397	2.7000e-004	0.0000	0.9465
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.5000e-004**	**5.9200e-003**	**7.0300e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.9397**	**0.9397**	**2.7000e-004**	**0.0000**	**0.9465**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.2000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1204	0.1204	0.0000	0.0000	0.1216
Total	**6.0000e-005**	**4.0000e-005**	**5.2000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1204**	**0.1204**	**0.0000**	**0.0000**	**0.1216**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.2000e-004	8.2600e-003	0.0105	2.0000e-005		4.0000e-004	4.0000e-004		3.7000e-004	3.7000e-004	0.0000	1.4099	1.4099	4.1000e-004	0.0000	1.4202
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.2000e-004**	**8.2600e-003**	**0.0105**	**2.0000e-005**		**4.0000e-004**	**4.0000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**1.4099**	**1.4099**	**4.1000e-004**	**0.0000**	**1.4202**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	6.0000e-005	7.1000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1758	0.1758	1.0000e-005	1.0000e-005	0.1775
Total	**9.0000e-005**	**6.0000e-005**	**7.1000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1758**	**0.1758**	**1.0000e-005**	**1.0000e-005**	**0.1775**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.2000e-004	8.2600e-003	0.0105	2.0000e-005		4.0000e-004	4.0000e-004		3.7000e-004	3.7000e-004	0.0000	1.4099	1.4099	4.1000e-004	0.0000	1.4202
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.2000e-004**	**8.2600e-003**	**0.0105**	**2.0000e-005**		**4.0000e-004**	**4.0000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**1.4099**	**1.4099**	**4.1000e-004**	**0.0000**	**1.4202**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	6.0000e-005	7.1000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1758	0.1758	1.0000e-005	1.0000e-005	0.1775
Total	**9.0000e-005**	**6.0000e-005**	**7.1000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1758**	**0.1758**	**1.0000e-005**	**1.0000e-005**	**0.1775**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.2600e-003	4.5300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6393
Total	**0.0422**	**3.2600e-003**	**4.5300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6393**

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0163	0.0163	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**0.0000**	**0.0000**	**0.0164**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.2600e-003	4.5300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6393
Total	**0.0422**	**3.2600e-003**	**4.5300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6393**

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0163	0.0163	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**0.0000**	**0.0000**	**0.0164**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.2000e-003	5.2300e-003	0.0365	9.0000e-005	0.0132	5.0000e-005	0.0132	3.5200e-003	5.0000e-005	3.5700e-003	0.0000	9.3659	9.3659	3.9000e-004	4.3000e-004	9.5028
Unmitigated	3.2000e-003	5.2300e-003	0.0365	9.0000e-005	0.0132	5.0000e-005	0.0132	3.5200e-003	5.0000e-005	3.5700e-003	0.0000	9.3659	9.3659	3.9000e-004	4.3000e-004	9.5028

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	12.12	12.12	12.12	35,384	35,384
Total	12.12	12.12	12.12	35,384	35,384

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.589691	0.055184	0.169528	0.112749	0.016986	0.004784	0.012601	0.016203	0.000593	0.000270	0.018923	0.000522	0.001966

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	6.63198e +006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	6.63198e +006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0276	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Unmitigated	0.0276	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Total	**0.0276**	**0.0000**	**5.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.0000**	**1.1000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Total	**0.0276**	**0.0000**	**5.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.0000**	**1.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.4402	0.0452	1.0700e-003	1.8886
Unmitigated	0.4402	0.0452	1.0700e-003	1.8886

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1.3875 / 0	0.4402	0.0452	1.0700e-003	1.8886
Total		**0.4402**	**0.0452**	**1.0700e-003**	**1.8886**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1.3875 / 0	0.4402	0.0452	1.0700e-003	1.8886
Total		**0.4402**	**0.0452**	**1.0700e-003**	**1.8886**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.1449	0.0677	0.0000	2.8364
Unmitigated	1.1449	0.0677	0.0000	2.8364

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	5.64	1.1449	0.0677	0.0000	2.8364
Total		**1.1449**	**0.0677**	**0.0000**	**2.8364**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	5.64	1.1449	0.0677	0.0000	2.8364
Total		**1.1449**	**0.0677**	**0.0000**	**2.8364**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	4	1	12	603	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (600 - 750 HP)	0.0238	0.0664	0.0606	1.1000e-004		3.4900e-003	3.4900e-003		3.4900e-003	3.4900e-003	0.0000	11.0218	11.0218	1.5500e-003	0.0000	11.0604
Total	**0.0238**	**0.0664**	**0.0606**	**1.1000e-004**		**3.4900e-003**	**3.4900e-003**		**3.4900e-003**	**3.4900e-003**	**0.0000**	**11.0218**	**11.0218**	**1.5500e-003**	**0.0000**	**11.0604**

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Riverbank Operations

Stanislaus County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	6.00	1000sqft	0.14	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	46
Climate Zone	3			**Operational Year**	2050
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - carbon-zero electricity in 2050

Land Use -

Construction Phase - Operations only run - ignore construction

Vehicle Trips - 2.02 trips per tsf based on 12 worker tips/day (4workers, 3 trips each, 365 days) + 12 deliveries per year + 16 biosolids trips per year = 4,408 annual ADT

Energy Use - 6,632,000 kwh / 6,000 sf uses = 1,105.33 kw/sf. The rest zeroed out.

Stationary Sources - Emergency Generators and Fire Pumps - monthly testing for 1 hr

Stationary Sources - Emergency Generators and Fire Pumps EF - Tier 4 final per BACT table

Table Name	Column Name	Default Value	New Value
tblEnergyUse	LightingElect	3.22	0.00
tblEnergyUse	NT24E	5.13	0.00
tblEnergyUse	NT24NG	1.05	0.00

tblEnergyUse	T24E	0.93	1,105.33
tblEnergyUse	T24NG	16.86	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.033	0
tblProjectCharacteristics	CO2IntensityFactor	203.98	0
tblProjectCharacteristics	N2OIntensityFactor	0.004	0
tblStationaryGeneratorsPumpsEF	NOX_EF	2.85	0.30
tblStationaryGeneratorsPumpsEF	PM10_EF	0.15	0.02
tblStationaryGeneratorsPumpsEF	PM2_5_EF	0.15	0.02
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	603.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	4.00
tblVehicleTrips	ST_TR	1.74	2.02
tblVehicleTrips	SU_TR	1.74	2.02
tblVehicleTrips	WD_TR	1.74	2.02

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0408	0.4081	0.4173	6.9000e-004	7.7300e-003	0.0213	0.0290	3.1800e-003	0.0196	0.0228	0.0000	60.4126	60.4126	0.0180	2.0000e-004	60.9225
2023	0.0432	0.0116	0.0158	3.0000e-005	2.4000e-004	5.7000e-004	8.1000e-004	6.0000e-005	5.5000e-004	6.1000e-004	0.0000	2.2403	2.2403	4.6000e-004	1.0000e-005	2.2534
Maximum	**0.0432**	**0.4081**	**0.4173**	**6.9000e-004**	**7.7300e-003**	**0.0213**	**0.0290**	**3.1800e-003**	**0.0196**	**0.0228**	**0.0000**	**60.4126**	**60.4126**	**0.0180**	**2.0000e-004**	**60.9225**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0408	0.4081	0.4173	6.9000e-004	7.7300e-003	0.0213	0.0290	3.1800e-003	0.0196	0.0228	0.0000	60.4125	60.4125	0.0180	2.0000e-004	60.9224
2023	0.0432	0.0116	0.0158	3.0000e-005	2.4000e-004	5.7000e-004	8.1000e-004	6.0000e-005	5.5000e-004	6.1000e-004	0.0000	2.2403	2.2403	4.6000e-004	1.0000e-005	2.2534
Maximum	**0.0432**	**0.4081**	**0.4173**	**6.9000e-004**	**7.7300e-003**	**0.0213**	**0.0290**	**3.1800e-003**	**0.0196**	**0.0228**	**0.0000**	**60.4125**	**60.4125**	**0.0180**	**2.0000e-004**	**60.9224**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-25-2022**	**10-24-2022**	0.2569	0.2569
2	**10-25-2022**	**1-24-2023**	0.2423	0.2423
		Highest	0.2569	0.2569

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0276	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.2000e-003	5.2300e-003	0.0365	9.0000e-005	0.0132	5.0000e-005	0.0132	3.5200e-003	5.0000e-005	3.5700e-003	0.0000	9.3659	9.3659	3.9000e-004	4.3000e-004	9.5028
Stationary	0.0238	6.9900e-003	0.0606	1.1000e-004		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	11.0218	11.0218	1.5500e-003	0.0000	11.0604
Waste						0.0000	0.0000		0.0000	0.0000	1.1449	0.0000	1.1449	0.0677	0.0000	2.8364
Water						0.0000	0.0000		0.0000	0.0000	0.4402	0.0000	0.4402	0.0452	1.0700e-003	1.8886
Total	**0.0546**	**0.0122**	**0.0971**	**2.0000e-004**	**0.0132**	**4.0000e-004**	**0.0136**	**3.5200e-003**	**4.0000e-004**	**3.9200e-003**	**1.5851**	**20.3878**	**21.9728**	**0.1148**	**1.5000e-003**	**25.2883**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0276	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	3.2000e-003	5.2300e-003	0.0365	9.0000e-005	0.0132	5.0000e-005	0.0132	3.5200e-003	5.0000e-005	3.5700e-003	0.0000	9.3659	9.3659	3.9000e-004	4.3000e-004	9.5028
Stationary	0.0238	6.9900e-003	0.0606	1.1000e-004		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	11.0218	11.0218	1.5500e-003	0.0000	11.0604
Waste						0.0000	0.0000		0.0000	0.0000	1.1449	0.0000	1.1449	0.0677	0.0000	2.8364
Water						0.0000	0.0000		0.0000	0.0000	0.4402	0.0000	0.4402	0.0452	1.0700e-003	1.8886
Total	**0.0546**	**0.0122**	**0.0971**	**2.0000e-004**	**0.0132**	**4.0000e-004**	**0.0136**	**3.5200e-003**	**4.0000e-004**	**3.9200e-003**	**1.5851**	**20.3878**	**21.9728**	**0.1148**	**1.5000e-003**	**25.2883**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/25/2022	8/5/2022	5	10	
2	Site Preparation	Site Preparation	8/6/2022	8/8/2022	5	1	

3	Grading	Grading	8/9/2022	8/10/2022	5	2	
4	Building Construction	Building Construction	8/11/2022	12/28/2022	5	100	
5	Paving	Paving	12/29/2022	1/4/2023	5	5	
6	Architectural Coating	Architectural Coating	1/5/2023	1/11/2023	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 9,000; Non-Residential Outdoor: 3,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	3.00	1.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**		**1.6900e-003**	**1.6900e-003**		**1.6100e-003**	**1.6100e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.4400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3345	0.3345	1.0000e-005	1.0000e-005	0.3379
Total	**1.8000e-004**	**1.2000e-004**	**1.4400e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3345**	**0.3345**	**1.0000e-005**	**1.0000e-005**	**0.3379**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.5500e-003	0.0321	0.0374	6.0000e-005		1.6900e-003	1.6900e-003		1.6100e-003	1.6100e-003	0.0000	5.2068	5.2068	9.6000e-004	0.0000	5.2308
Total	**3.5500e-003**	**0.0321**	**0.0374**	**6.0000e-005**		**1.6900e-003**	**1.6900e-003**		**1.6100e-003**	**1.6100e-003**	**0.0000**	**5.2068**	**5.2068**	**9.6000e-004**	**0.0000**	**5.2308**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.2000e-004	1.4400e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3345	0.3345	1.0000e-005	1.0000e-005	0.3379
Total	**1.8000e-004**	**1.2000e-004**	**1.4400e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3345**	**0.3345**	**1.0000e-005**	**1.0000e-005**	**0.3379**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	3.4700e-003	1.9800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**2.9000e-004**	**3.4700e-003**	**1.9800e-003**	**0.0000**	**2.7000e-004**	**1.3000e-004**	**4.0000e-004**	**3.0000e-005**	**1.2000e-004**	**1.5000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0167	0.0167	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0167**	**0.0167**	**0.0000**	**0.0000**	**0.0169**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9000e-004	3.4700e-003	1.9800e-003	0.0000		1.3000e-004	1.3000e-004		1.2000e-004	1.2000e-004	0.0000	0.4275	0.4275	1.4000e-004	0.0000	0.4310
Total	**2.9000e-004**	**3.4700e-003**	**1.9800e-003**	**0.0000**	**2.7000e-004**	**1.3000e-004**	**4.0000e-004**	**3.0000e-005**	**1.2000e-004**	**1.5000e-004**	**0.0000**	**0.4275**	**0.4275**	**1.4000e-004**	**0.0000**	**0.4310**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0167	0.0167	0.0000	0.0000	0.0169
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0167**	**0.0167**	**0.0000**	**0.0000**	**0.0169**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	0.0120	5.9400e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**1.0800e-003**	**0.0120**	**5.9400e-003**	**1.0000e-005**	**5.3100e-003**	**5.2000e-004**	**5.8300e-003**	**2.5700e-003**	**4.8000e-004**	**3.0500e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0535	0.0535	0.0000	0.0000	0.0541
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0535**	**0.0535**	**0.0000**	**0.0000**	**0.0541**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	0.0120	5.9400e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	1.2381	1.2381	4.0000e-004	0.0000	1.2482
Total	**1.0800e-003**	**0.0120**	**5.9400e-003**	**1.0000e-005**	**5.3100e-003**	**5.2000e-004**	**5.8300e-003**	**2.5700e-003**	**4.8000e-004**	**3.0500e-003**	**0.0000**	**1.2381**	**1.2381**	**4.0000e-004**	**0.0000**	**1.2482**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0535	0.0535	0.0000	0.0000	0.0541
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0535**	**0.0535**	**0.0000**	**0.0000**	**0.0541**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3513	0.3576	5.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	50.0739	50.0739	0.0162	0.0000	50.4787
Total	**0.0343**	**0.3513**	**0.3576**	**5.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**50.0739**	**50.0739**	**0.0162**	**0.0000**	**50.4787**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	2.7400e-003	7.5000e-004	1.0000e-005	3.3000e-004	3.0000e-005	3.6000e-004	1.0000e-004	3.0000e-005	1.2000e-004	0.0000	0.9980	0.9980	1.0000e-005	1.5000e-004	1.0432
Worker	5.4000e-004	3.7000e-004	4.3200e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0034	1.0034	4.0000e-005	3.0000e-005	1.0136
Total	**6.4000e-004**	**3.1100e-003**	**5.0700e-003**	**2.0000e-005**	**1.5300e-003**	**4.0000e-005**	**1.5700e-003**	**4.2000e-004**	**4.0000e-005**	**4.5000e-004**	**0.0000**	**2.0015**	**2.0015**	**5.0000e-005**	**1.8000e-004**	**2.0568**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0343	0.3513	0.3576	5.7000e-004		0.0186	0.0186		0.0171	0.0171	0.0000	50.0738	50.0738	0.0162	0.0000	50.4787
Total	**0.0343**	**0.3513**	**0.3576**	**5.7000e-004**		**0.0186**	**0.0186**		**0.0171**	**0.0171**	**0.0000**	**50.0738**	**50.0738**	**0.0162**	**0.0000**	**50.4787**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e-004	2.7400e-003	7.5000e-004	1.0000e-005	3.3000e-004	3.0000e-005	3.6000e-004	1.0000e-004	3.0000e-005	1.2000e-004	0.0000	0.9980	0.9980	1.0000e-005	1.5000e-004	1.0432
Worker	5.4000e-004	3.7000e-004	4.3200e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0034	1.0034	4.0000e-005	3.0000e-005	1.0136
Total	**6.4000e-004**	**3.1100e-003**	**5.0700e-003**	**2.0000e-005**	**1.5300e-003**	**4.0000e-005**	**1.5700e-003**	**4.2000e-004**	**4.0000e-005**	**4.5000e-004**	**0.0000**	**2.0015**	**2.0015**	**5.0000e-005**	**1.8000e-004**	**2.0568**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5000e-004	5.9200e-003	7.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.9397	0.9397	2.7000e-004	0.0000	0.9465
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.5000e-004**	**5.9200e-003**	**7.0300e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.9397**	**0.9397**	**2.7000e-004**	**0.0000**	**0.9465**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.2000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1204	0.1204	0.0000	0.0000	0.1216
Total	**6.0000e-005**	**4.0000e-005**	**5.2000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1204**	**0.1204**	**0.0000**	**0.0000**	**0.1216**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5000e-004	5.9200e-003	7.0300e-003	1.0000e-005		3.0000e-004	3.0000e-004		2.8000e-004	2.8000e-004	0.0000	0.9397	0.9397	2.7000e-004	0.0000	0.9465
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.5000e-004**	**5.9200e-003**	**7.0300e-003**	**1.0000e-005**		**3.0000e-004**	**3.0000e-004**		**2.8000e-004**	**2.8000e-004**	**0.0000**	**0.9397**	**0.9397**	**2.7000e-004**	**0.0000**	**0.9465**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	5.2000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1204	0.1204	0.0000	0.0000	0.1216
Total	**6.0000e-005**	**4.0000e-005**	**5.2000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1204**	**0.1204**	**0.0000**	**0.0000**	**0.1216**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.2000e-004	8.2600e-003	0.0105	2.0000e-005		4.0000e-004	4.0000e-004		3.7000e-004	3.7000e-004	0.0000	1.4099	1.4099	4.1000e-004	0.0000	1.4202
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.2000e-004**	**8.2600e-003**	**0.0105**	**2.0000e-005**		**4.0000e-004**	**4.0000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**1.4099**	**1.4099**	**4.1000e-004**	**0.0000**	**1.4202**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	6.0000e-005	7.1000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1758	0.1758	1.0000e-005	1.0000e-005	0.1775
Total	**9.0000e-005**	**6.0000e-005**	**7.1000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1758**	**0.1758**	**1.0000e-005**	**1.0000e-005**	**0.1775**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.2000e-004	8.2600e-003	0.0105	2.0000e-005		4.0000e-004	4.0000e-004		3.7000e-004	3.7000e-004	0.0000	1.4099	1.4099	4.1000e-004	0.0000	1.4202
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.2000e-004**	**8.2600e-003**	**0.0105**	**2.0000e-005**		**4.0000e-004**	**4.0000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**1.4099**	**1.4099**	**4.1000e-004**	**0.0000**	**1.4202**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.0000e-005	6.0000e-005	7.1000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1758	0.1758	1.0000e-005	1.0000e-005	0.1775
Total	**9.0000e-005**	**6.0000e-005**	**7.1000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1758**	**0.1758**	**1.0000e-005**	**1.0000e-005**	**0.1775**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.2600e-003	4.5300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6393
Total	**0.0422**	**3.2600e-003**	**4.5300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6393**

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0163	0.0163	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**0.0000**	**0.0000**	**0.0164**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0417					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	3.2600e-003	4.5300e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6393
Total	**0.0422**	**3.2600e-003**	**4.5300e-003**	**1.0000e-005**		**1.8000e-004**	**1.8000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6393**

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0163	0.0163	0.0000	0.0000	0.0164
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0163**	**0.0163**	**0.0000**	**0.0000**	**0.0164**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.2000e-003	5.2300e-003	0.0365	9.0000e-005	0.0132	5.0000e-005	0.0132	3.5200e-003	5.0000e-005	3.5700e-003	0.0000	9.3659	9.3659	3.9000e-004	4.3000e-004	9.5028
Unmitigated	3.2000e-003	5.2300e-003	0.0365	9.0000e-005	0.0132	5.0000e-005	0.0132	3.5200e-003	5.0000e-005	3.5700e-003	0.0000	9.3659	9.3659	3.9000e-004	4.3000e-004	9.5028

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Unrefrigerated Warehouse-No Rail	12.12	12.12	12.12	35,384	35,384
Total	12.12	12.12	12.12	35,384	35,384

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Unrefrigerated Warehouse-No Rail	0.589691	0.055184	0.169528	0.112749	0.016986	0.004784	0.012601	0.016203	0.000593	0.000270	0.018923	0.000522	0.001966

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	6.63198e +006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Unrefrigerated Warehouse-No Rail	6.63198e +006	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0276	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Unmitigated	0.0276	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Total	**0.0276**	**0.0000**	**5.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.0000**	**1.1000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.1700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0234					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-004	1.1000e-004	0.0000	0.0000	1.1000e-004
Total	**0.0276**	**0.0000**	**5.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-004**	**1.1000e-004**	**0.0000**	**0.0000**	**1.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.4402	0.0452	1.0700e-003	1.8886
Unmitigated	0.4402	0.0452	1.0700e-003	1.8886

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1.3875 / 0	0.4402	0.0452	1.0700e-003	1.8886
Total		**0.4402**	**0.0452**	**1.0700e-003**	**1.8886**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Unrefrigerated Warehouse-No Rail	1.3875 / 0	0.4402	0.0452	1.0700e-003	1.8886
Total		**0.4402**	**0.0452**	**1.0700e-003**	**1.8886**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.1449	0.0677	0.0000	2.8364
Unmitigated	1.1449	0.0677	0.0000	2.8364

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	5.64	1.1449	0.0677	0.0000	2.8364
Total		**1.1449**	**0.0677**	**0.0000**	**2.8364**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Unrefrigerated Warehouse-No Rail	5.64	1.1449	0.0677	0.0000	2.8364
Total		**1.1449**	**0.0677**	**0.0000**	**2.8364**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	4	1	12	603	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (600 - 750 HP)	0.0238	6.9900e-003	0.0606	1.1000e-004		3.5000e-004	3.5000e-004		3.5000e-004	3.5000e-004	0.0000	11.0218	11.0218	1.5500e-003	0.0000	11.0604
Total	**0.0238**	**6.9900e-003**	**0.0606**	**1.1000e-004**		**3.5000e-004**	**3.5000e-004**		**3.5000e-004**	**3.5000e-004**	**0.0000**	**11.0218**	**11.0218**	**1.5500e-003**	**0.0000**	**11.0604**

11.0 Vegetation

Name

Prioritization Calculator

Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in gray areas.

Applicability				
Author or updater	Matthew Cegielski	*Last Update*	March 28, 2022	
Facility:	Riverbank Gen Set No BACT			
ID#:				
Project #:				
Unit and Process#				
Operating Hours hr/yr	8,760.00			

Receptor Proximity (meters)	Cancer Score	Chronic Score	Acute Score	Max Score
0< R<100	1.61E+01	2.39E-02	0.00E+00	1.61E+01
100≤R<250	4.03E+00	5.98E-03	0.00E+00	4.03E+00
250≤R<500	6.45E-01	9.56E-04	0.00E+00	6.45E-01
500≤R<1000	1.77E-01	2.63E-04	0.00E+00	1.77E-01
1000≤R<1500	4.84E-02	7.17E-05	0.00E+00	4.84E-02
1500≤R<2000	3.22E-02	4.78E-05	0.00E+00	3.22E-02
2000<R	1.61E-02	2.39E-05	0.00E+00	1.61E-02

0	Enter the unit's CAS# of the substances emitted and their amounts.				Prioritization score for each substance generated below. Totals on last row.		
Substance	**CAS#**	**Annual Emissions (lbs/yr)**	**Maximum Hourly (lbs/hr)**	**Average Hourly (lbs/hr)**	**Cancer**	**Chronic**	**Acute**
Diesel engine exhaust, particulate matter (Diesel PM)	**9901**	6.98E+00		7.97E-04	1.61E+01	2.39E-02	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				Totals	**1.61E+01**	**2.39E-02**	**0.00E+00**

Instructions:

1. If applicable, fill in the facility name, ID#, Project #, and Unit/Process # in the yellow highlighted cells located at the top left hand corner of the sheet.
2. Calculate the annual and max hourly emission rates for all toxic air contaminants (TACs) associated with the unit/process.
3. Find the CAS number for all TACs emitted from the units/processes using the dropdown list in Table 1.
4. Insert yearly operating hours, all CAS numbers, and annual/max hourly emission rates into the yellow highlighted cells.
5. Identify the proximity of the nearest receptor to the unit/process in meters.
6. Identfiy the maximum score in column E (in blue font) associated with the range that includes the nearest receptor distance to the unit/process.
7. If the substance list for the unit is longer than the number of rows or if there are multiple processes use additional prior worksheets and use the "Totals" tab to identify the Max Score for the Project.

Table 1.

Use the substance dropdown list in the CAS# Finder to locate CAS# of substances.

Substance	CAS# Finder
Diesel engine exhaust, particulate matter (Diesel PM)	9901

	0	0	0	0	
Receptor Proximity (meters)	**Max Score**	**Max Score**	**Max Score**	**Max Score**	**Total Max Score**
0< R<100	1.61E+01	0.00E+00	0.00E+00	0.00E+00	16.12
100≤R<250	4.03E+00	0.00E+00	0.00E+00	0.00E+00	4.03
250≤R<500	6.45E-01	0.00E+00	0.00E+00	0.00E+00	0.64
500≤R<1000	1.77E-01	0.00E+00	0.00E+00	0.00E+00	0.18
1000≤R<1500	4.84E-02	0.00E+00	0.00E+00	0.00E+00	0.05
1500≤R<2000	3.22E-02	0.00E+00	0.00E+00	0.00E+00	0.03
2000<R	1.61E-02	0.00E+00	0.00E+00	0.00E+00	0.02

Name

Prioritization Calculator

Applicability	Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in gray areas.			
Author or updater	Matthew Cegielski	*Last Update*	March 28, 2022	
Facility:	Riverbank Gen Set with BACT			
ID#:				
Project #:				
Unit and Process#				
Operating Hours hr/yr	8,760.00			

Receptor Proximity (meters)	Cancer Score	Chronic Score	Acute Score	Max Score
0< R<100	1.06E+00	1.58E-03	0.00E+00	1.06E+00
100≤R<250	2.66E-01	3.94E-04	0.00E+00	2.66E-01
250≤R<500	4.25E-02	6.30E-05	0.00E+00	4.25E-02
500≤R<1000	1.17E-02	1.73E-05	0.00E+00	1.17E-02
1000≤R<1500	3.19E-03	4.73E-06	0.00E+00	3.19E-03
1500≤R<2000	2.13E-03	3.15E-06	0.00E+00	2.13E-03
2000<R	1.06E-03	1.58E-06	0.00E+00	1.06E-03

0	Enter the unit's CAS# of the substances emitted and their amounts.				Prioritization score for each substance generated below. Totals on last row.		
Substance	**CAS#**	**Annual Emissions (lbs/yr)**	**Maximum Hourly (lbs/hr)**	**Average Hourly (lbs/hr)**	**Cancer**	**Chronic**	**Acute**
Diesel engine exhaust, particulate matter (Diesel PM)	**9901**	4.60E-01	4.60E-01	5.25E-05	1.06E+00	1.58E-03	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				Totals	**1.06E+00**	**1.58E-03**	**0.00E+00**

Instructions:

1. If applicable, fill in the facility name, ID#, Project #, and Unit/Process # in the yellow highlighted cells located at the top left hand corner of the sheet.
2. Calculate the annual and max hourly emission rates for all toxic air contaminants (TACs) associated with the unit/process.
3. Find the CAS number for all TACs emitted from the units/processes using the dropdown list in Table 1.
4. Insert yearly operating hours, all CAS numbers, and annual/max hourly emission rates into the yellow highlighted cells.
5. Identify the proximity of the nearest receptor to the unit/process in meters.
6. Identfiy the maximum score in column E (in blue font) associated with the range that includes the nearest receptor distance to the unit/process.
7. If the substance list for the unit is longer than the number of rows or if there are multiple processes use additional prior worksheets and use the "Totals" tab to identify the Max Score for the Project.

Table 1.

Use the substance dropdown list in the CAS# Finder to locate CAS# of substances.

Substance	CAS# Finder
Diesel engine exhaust, particulate matter (Diesel PM)	9901

	0	0	0	0	
Receptor Proximity (meters)	**Max Score**	**Max Score**	**Max Score**	**Max Score**	**Total Max Score**
0< R<100	1.06E+00	0.00E+00	0.00E+00	0.00E+00	1.06
100≤R<250	2.66E-01	0.00E+00	0.00E+00	0.00E+00	0.27
250≤R<500	4.25E-02	0.00E+00	0.00E+00	0.00E+00	0.04
500≤R<1000	1.17E-02	0.00E+00	0.00E+00	0.00E+00	0.01
1000≤R<1500	3.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00
1500≤R<2000	2.13E-03	0.00E+00	0.00E+00	0.00E+00	0.00
2000<R	1.06E-03	0.00E+00	0.00E+00	0.00E+00	0.00

Appendix C

Botanical and Wildlife Species Evaluated for the Potential to Occur on the Project Site

Methods

The species tables in this appendix were developed through a review of relevant databases and other available information. The California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2022) and California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CNDDB 2022) were reviewed for specific information on documented observations of special-status species previously recorded in the project site and vicinity. A search of the CNDDB and CNPS was conducted for the following US Geological Survey 7.5′ quadrangles surrounding the project area: Riverbank, Waterford, Oakdale, Escalon, Brush Lake, Ceres, Denair, Avena, and Salida. In addition, an official species list was received for the project from the US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) database (USFWS 2022a).

Table 1 Special-Status Botanical Species Known to Occur in the Project Region and their Potential for Occurrence in the Project Site

Species	Status [1]			Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR		
Large-flowered fiddleneck *Amsinckia grandiflora*	FE	SE	1B.1	Annual herb found on grassy slopes in grasslands and woodlands. 885 – 1,805 feet in elevation. Blooms April – May.	**Not expected to occur:** The project area contains grassland habitat. However, the project area is outside the known geographical and elevational range of the species. In addition, the grassland habitat in the project area is substantially disturbed and dominated by non-native species.
Alkali milk-vetch *Astragalus tener* var. *tener*	-	-	1B.2	Annual herb found on adobe clay soils in vernal pools and playas. 5 – 195 feet in elevation. Blooms March – June.	**Not expected to occur:** No vernal pools or playas are located within or adjacent to the project area. In addition, the species is presumed to be extirpated from San Joaquin and Stanislaus Counties (CNPS 2022).
Heartscale *Atriplex cordulata* var. *cordulata*	-	-	1B.2	Annual herb found in sandy soils in alkaline flats and scalds in chenopod scrub, grassland, meadows, and seeps in the Central Valley. 0 – 1,835 feet in elevation. Blooms April – October.	**Not expected to occur:** The project area contains grassland habitat with alkaline soils (USDA 2022) suitable for this species. The project area is within the elevational range of the species. However, the grassland habitat in the project area is substantially disturbed and dominated by non-native species. In addition, the species is presumed to be extirpated from San Joaquin and Stanislaus Counties (CNPS 2022).
Brittlescale *Atriplex depressa*	-	-	1B.2	Annual herb found on alkaline or clay soils in chenopod scrub, meadows, seeps, playas, grassland, and vernal pools. 5 – 1,050 feet in elevation. Blooms April – October.	**Not expected to occur:** The project area contains grassland habitat with alkaline soils (USDA 2022) suitable for this species. The project area is within the elevational range of the species. However, the grassland habitat in the project area is substantially disturbed and dominated by non-native species. In addition, the species has been extirpated from San Joaquin and Stanislaus Counties (CNPS 2022).

Species	Status[1]			Habitat and Blooming Period	Potential for Occurrence[2]
	Federal	State	CRPR		
Subtle orache *Atriplex subtilis*	-	-	1B.2	Annual herb found in saline depressions and alkaline soils in grassland. 130 – 330 feet in elevation. Blooms (April) June – September (October).	Not expected to occur: The project area contains grassland habitat with alkaline soils (USDA 2022), and project area is within the elevational range of the species. However, the grassland habitat in the project area is substantially disturbed and dominated by non-native species.
Hoover's calycadenia *Calycadenia hooveri*	-	-	1B.3	Annual herb found on rocky, exposed soils in cismontane woodland and grasslands. 215 – 985 feet in elevation. Blooms July – September.	Not expected to occur: The project area does not contain grassland or woodland habitats with rocky, exposed soils.
Bristly sedge *Carex comosa*	-	-	2B.1	Perennial rhizomatous herb found in wet areas in coastal prairies, grasslands, marshes, and swamps. 0 -2,050 feet in elevation. Blooms May – September.	Not expected to occur: The project area does not support coastal prairie, marsh, or swamp habitats, and grassland habitats in the project area do not contain wet areas.
Succulent owl's clover *Castilleja campestris* ssp. *succulenta*	FT	SE	1B.2	Annual, hemiparisitic herb found in vernal pools, often in acidic conditions. 165 – 2,460 feet in elevation. Blooms (March) April-May.	Not expected to occur: No vernal pools are located within or adjacent to the project area.
Slough thistle *Cirsium crassicaule*	-	-	1B.1	Annual/perennial herb found in freshwater marshes and in wet areas in chenopod scrub and riparian scrub. 10 – 330 feet in elevation. Blooms May – August.	Not expected to occur: The project area does not support freshwater marsh, chenopod scrub, or riparian scrub.
Beaked clarkia *Clarkia rostrata*	-	-	1B.3	Annual herb found on north-facing slopes, sometimes on sandstone soils, in cismontane woodland. 195 – 1,640 feet in elevation. Blooms April – May.	Not expected to occur: The project area does not support cismontane woodland habitat.
Hospital Canyon larkspur *Delphinium californicum* ssp. *interius*	-	-	1B.2	Perennial herb found on slopes in chaparral (openings), mesic sites in cismontane woodland, and coastal scrub. Generally restricted to the east side of the coast ranges. 640 – 3,595 feet in elevation. Blooms April – June.	Not expected to occur: The project area does not support chaparral, cismontane woodland, or coastal scrub. In addition, the project area is outside the known geographic and elevational range of the species.
Recurved larkspur *Delphinium recurvatum*	-	-	1B.2	Perennial herb found in poorly drained, fine, alkaline soils in grasslands, chenopod scrub, and cismontane woodland. 10 – 2,590 feet in elevation. Blooms March – June.	Not expected to occur: The project area contains grassland habitat with alkaline soils (USDA 2022), and project area is within the elevational range of the species. However, the grassland habitat in the project area is substantially disturbed and dominated by non-native species.
Delta button-celery *Eryngium racemosum*	-	SE	1B.1	Annual/perennial herb found in seasonally flooded clay depressions in floodplains. 10 – 100 feet. Blooms (May) June – October.	Not expected to occur: The project area does not support suitable habitat for this species.
Diamond-petaled California poppy *Eschscholzia rhombipetala*	-	-	1B.1	Perennial herb found in alkaline soils in grassland, chenopod scrub, and cismontane woodland. 10 – 2,590 feet in elevation. Blooms March – June.	Not expected to occur: The project area contains grassland habitat with alkaline soils (USDA 2022), and project area is within the elevational range of the species. However, the grassland habitat in the project area is substantially disturbed and dominated by non-native species.

Species	Status[1]			Habitat and Blooming Period	Potential for Occurrence[2]
	Federal	State	CRPR		
Boggs Lake hedge-hyssop *Gratiola heterosepala*	-	SE	1B.2	Annual herb found in shallow water in vernal pools. 35 – 7,790 feet in elevation. Blooms April – August.	**Not expected to occur:** No vernal pools are located within or adjacent to the project area.
Woolly rose mallow *Hibiscus lasiocarpos* var. *occidentalis* (Synonym: *Hibiscus lasiocarpos*)	-	-	1B.2	Perennial rhizomatous herb (emergent) found in freshwater marshes and swamps. 0 – 395 feet in elevation. Blooms June – September.	**Not expected to occur:** No freshwater marshes or swamps are located within or adjacent to the project area.
Red Bluff dwarf rush *Juncus leiospermus* var. *leiospermus*	-	-	1B.1	Annual herb found in vernal pools and in vernally mesic sites in chaparral and cismontane woodland. 115 – 4,100 feet in elevation. Blooms March – June.	**Not expected to occur:** The project area does not support vernal pools or vernally mesic sites in chaparral and woodland. In addition, the project area is outside the known geographic range of the species.
Delta tule pea *Lathyrus jepsonii* var. *jepsonii*	-	-	1B.2	Perennial herb found in coastal and estuarine marshes. 0 -15 feet in elevation. Blooms May – July (August – September)	**Not expected to occur:** The project area does not support marshes.
Legenere *Legenere limosa*	-	-	1B.1	Annual herb found in the beds of vernal pools and seasonal wetlands. 5 – 2885 feet in elevation. Blooms April–June.	**Not expected to occur:** No vernal pools are located within or adjacent to the project area.
Mason's lilaeopsis *Lilaeopsis masonii*	-	SR	1B.1	Perennial rhizomatous herb found in intertidal marshes and streambanks. 0 – 35 feet in elevation. Blooms April – November.	**Not expected to occur:** The project area does not support intertidal marshes or streambanks.
Mt. Hamilton coreopsis *Leptosyne hamiltonii* (Synonym: *Coreopsis hamiltonii)*	-	-	1B.2	Annual herb growing on rocky, dry, exposed slopes in cismontane woodland.	**Not expected to occur:** The project area does not support cismontane woodland.
Delta mudwort *Limosella australis* (Synonym: *Limosella subulata*)	-	-	2B.1	Perennial stoloniferous herb found on muddy or intertidal flats and brackish water in marshes and swamps. 0 – 10 feet in elevation. Blooms May – August.	**Not expected to occur:** The project area does not support marshes or swamps.
Showy golden madia *Madia radiata*	-	-	1B.1	Annual herb found on vertic clay soils (rarely serpentine) on grassy or open slopes in cismontane woodland and grasslands. 80 – 3,985 feet in elevation. Blooms March – May.	**Not expected to occur:** The project area does not support suitable habitat for this species. The project area does not have vertic lay or serpentine soils.
Colusa grass *Neostapfia colusana*	FT	SE	1B.1	Annual herb found on adobe clay soils in vernal pools; usually in the bottoms of large or deep vernal pools. 15 – 655 feet in elevation. Blooms May – August.	**Not expected to occur:** No vernal pools are located within or adjacent to the project area.
San Joaquin Valley Orcutt grass *Orcuttia inaequalis*	FT	SE	1B.1	Annual herb found in vernal pools and seasonal wetlands. 35 – 2,475 feet in elevation. Blooms April–September.	**Not expected to occur:** No vernal pools are located within or adjacent to the project area.
Sanford's arrowhead *Sagittaria sanfordii*	-	-	1B.2	Perennial rhizomatous herb (emergent) found in shallow freshwater marshes, swamps, and ditches. 0 – 2,135 feet in elevation. Blooms May – October (November).	**Not expected to occur:** The project area does not support suitable habitat for this species.

Species	Status [1]			Habitat and Blooming Period	Potential for Occurrence [2]
	Federal	State	CRPR		
Mod-dog skullcap *Scutellaria lateriflora*	-	-	2B.2	Perennial rhizomatous herb found in marshes, swamps, seeps, and mesic meadows. 0 – 1,640 feet in elevation. Blooms July – September.	**Not expected to occur:** The project area does not support marshes, swamps, seeps, or mesic meadows.
Prairie wedge grass *Sphenopholis obtusata*	-	-	2B.2	Perennial herb found in wetlands, wet meadows, and seeps within cismontane woodlands. Also open moist sites, along rivers and springs, alkaline desert seeps. 985 – 6560 feet in elevation. Blooms April – July.	**Not expected to occur:** No suitable wetland habitat is located within the project area; in addition, the project area is substantially below the elevational range of the species.
Suisun marsh aster *Symphyotrichum lentum* (Synonym: *Aster lentus*)	-	-	1B.2	Perennail rhizomatous herb growing in brackish and freshwater marshes and swamps. 0 – 10 feet in elevation. Blooms May-November.	**Not expected to occur:** No suitable wetland habitat is located within the project area.
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	-	-	2B.1	Annual herb found in moist places such as drying riverbeds and vernal pools. 15 – 1,425 feet in elevation. Blooms May – September.	**Not expected to occur:** No suitable wetland habitat is located within the project area.
Caper-fruited tropidocarpum *Tropidocarpum capparideum*	-	-	1B.1	Annual herb found on alkaline soils on hills in grassland. 5 – 1,495 feet in elevation. Blooms March – April.	**Not expected to occur:** The project area contains grassland habitat with alkaline soils (USDA 2022), and project area is within the elevational range of the species. However, the grassland habitat in the project area is substantially disturbed and dominated by non-native species.
Greene's tuctoria *Tuctoria greenei*	FE	SR	1B.1	Annual herb found in vernal pools and seasonal wetlands in open grasslands. 100 – 3,510 feet in elevation. Blooms May – July (September).	**Not expected to occur:** No vernal pools are located within or adjacent to the project area.

Notes: CRPR = California Rare Plant Rank; CNPS California Native Plant Society; ESA = Federal Endangered Species Act; CESA = California Endangered Species Act.

[1] Legal Status Definitions

Federal:
FE Endangered (legally protected by ESA)
ST Threatened (legally protected by ESA)

State:
SE Endangered (legally protected by CESA)
SR Rare (legally protected by Native Plant Protection Act)

California Rare Plant Ranks:
1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)
2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

Threat Ranks
0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2-Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3-Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

[2] Potential for Occurrence Definitions
Not expected to occur: Species is unlikely to be present on the project site due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.
Could occur: Suitable habitat is available at the project site; however, there are little to no other indicators that the species might be present.
Known to occur: The species, or evidence of its presence, was observed at the project site during reconnaissance surveys, or was reported by others.

Sources: CNPS 2022; USDA 2022, USFWS 2022a

Table 2 Special-Status Wildlife Known to Occur in the Project Region and their Potential to Occur within or adjacent to the Project area

Species	Listing Status[1] Federal	Listing Status[1] State	Habitat	Potential for Occurrence[2]
Invertebrates				
Ciervo aegialian scarab beetle *Aegialia concinna*	-	_	Interior dunes. Known only from Fresno County in sandy substrates.	**Not expected to occur:** The project site is outside of the current known range of the species.
Crotch bumble bee *Bombus crotchii*	_	_	Coastal California east to the Sierra-Cascade crest and south into Mexico. Suitable habitats include grasslands and scrub. Food plant genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia*, and *Eriogonum.*	**Not expected to occur:** The grasslands within the project site are likley too disturbed to provide sufficient floral resources to support this species.
Conservancy fairy shrimp *Branchinecta conservatio*	FE	-	Valley and foothill grassland, vernal pool, wetland. Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	**Not expected to occur:** No vernal pools are located within or adjacent to the project area.
Longhorn fairy shrimp *Branchinecta longiantenna*	FE	-	Valley and foothill grassland, vernal pool, wetland. Endemic to the eastern margin of the Central Coast mountains in seasonally astatic grassland vernal pools. Inhabit small, clear-water depressions in sandstone and clear-to-turbid clay/grass-bottomed pools in shallow swales.	**Not expected to occur:** No vernal pools are located within or adjacent to the project area.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT	-	Valley and foothill grassland, vernal pool, wetland. Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**Not expected to occur:** No vernal pools are located within or adjacent to the project area.
Mid-valley fairy shrimp *Branchinecta* sp. *nova*	_	_	Vernal pool, wetland. Vernal pools in the Central Valley.	**Not expected to occur:** No vernal pools are located within or adjacent to the project area.
Monarch butterfly - California overwintering population *Danaus plexippus*	FC	-	Closed-cone coniferous forest. Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	**Not expected to occur:** The project site is too far from the coast to provide overwintering habitat.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT	-	Riparian scrub. Occurs only in the Central Valley of California, in association with blue elderberry (*Sambucus nigra* ssp. *caerulea*). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	**Could occur:** Riparian habitat associated with the Stanislaus River is located directly adjacent to the project area. Numerous elderberry shrubs were observed during the reconnaissance surveys located within 165 feet of the disturbance footprint. The species was documented to occur historically along the north bank of the Stanislaus River adjacent to the WWTP (CNDDB 2022a).

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Vernal pool tadpole shrimp *Lepidurus packardi*	FE	-	Valley and foothill grassland, vernal pool, wetland. Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	Not expected to occur: No vernal pools are located within or adjacent to the project area.
Curved-foot diving beetle *Hygrotis curvipes*	-	-	Aquatic. Known only from Alameda and Contra Costa Counties.	Not expected to occur: The project site is outside of the current known range of the species.
Molestan blister beetle *Lytta molesta*	-	-	Vernal pool, wetland. Inhabits the Central Valley of California, from Contra Costa to Kern and Tulare Counties.	Not expected to occur: No vernal pools are located within or adjacent to the project area.
Fish				
Green sturgeon *Acipenser medirostris*	FT		Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters. These are the most marine species of sturgeon. Abundance increases northward of Point Conception. Spawns in the Sacramento, Klamath, and Trinity Rivers. Spawns at temperatures between 8-14 degrees C. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	Could Occur: There are no aquatic features within the project area suitable for green sturgeon; however, the species may be present within the Stanislaus River directly adjacent to the eastern application area.
Delta smelt *Hypomesus transpacificus*	FT	SE	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.	Not expected to occur: There are no aquatic features within the project area suitable for Delta smelt. Stanislaus River is located outside of the range of the species (USFWS 2022).
Hardhead *Mylopharodon conocephalus*		SSC	Klamath/North coast flowing waters, Sacramento/San Joaquin flowing waters. Low to mid-elevation streams in the Sacramento-San Joaquin drainage. Also present in the Russian River. Clear, deep pools with sand-gravel-boulder bottoms and slow water velocity. Not found where exotic centrarchids predominate.	Could Occur: There are no aquatic features within the project area suitable for hardhead; however, the species may be present within the Stanislaus River directly adjacent to the eastern application area.
Steelhead - Central Valley DPS *Oncorhynchus mykiss irideus* pop. 11	FT		Aquatic. Sacramento/San Joaquin flowing waters. Populations in the Sacramento and San Joaquin rivers and their tributaries.	Could Occur: There are no aquatic features within the project area suitable for steelhead; however, the species may be present within the Stanislaus River directly adjacent to the eastern application area.
Chinook salmon - Central Valley fall / late fall-run Evolutionary Significant Unit *Oncorhynchus tshawytscha* pop. 13		SSC	Sacramento/San Joaquin flowing waters. Populations spawning in the Sacramento and San Joaquin rivers and their tributaries.	Could Occur: There are no aquatic features within the project area suitable for Chinook salmon; however, the species may be present within the Stanislaus River directly adjacent to the eastern application area.
Sacramento splittail *Pogonichthys macrolepidotus*		SSC	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay and associated marshes. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	Not Expected to Occur: Estuary habitat suitable for this species is not found within or adjacent to the project area.

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Longfin smelt *Spirinchus thaleichthys*		SSC	Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15–30 parts per thousand but can be found in completely freshwater to almost pure seawater.	Not Expected to Occur: Estuary habitat suitable for this species is not found within or adjacent to the project area.
Amphibians and Reptiles				
California tiger salamander - central California DPS *Ambystoma californiense* pop. 1	FT	ST	Lives in vacant or mammal-occupied burrows throughout most of the year; in grassland, savanna, or open woodland habitats. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	Not Expected to Occur: There are several historic occurrences within approximately 5 miles of the project area that are listed in the CNDDB as extant (CNDDB 2022a). Potentially suitable aquatic habitat is located within 0.75 mile of the western access road, and within 0.5 mile of the proposed pipeline alignment; however, the distance and lack of connectivity between the potentially suitable aquatic habitat near the project area and recorded occurrences (CNDDB 2022a) makes it unlikely that these ponds are occupied by California tiger salamander. Therefore, the upland portions of the project area are not likely to be suitable habitat.
Northern California legless lizard *Anniella pulchra*		SSC	Chaparral. Coastal dunes. Coastal scrub. Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	Not Expected to Occur: The project area does not contain chaparral, dune, or scrub habitat suitable for this species.
Western pond turtle *Emys marmorata*		SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Could Occur: Riparian vegetation adjacent to the project area, as well as undisturbed portions of the WWTP and application areas, may be used by western pond turtle as upland habitat. Unidentified turtles were seen using the existing treatment ponds during the site visit on May 17, 2022. Nearest documented occurrence is approximately 7 miles from the project area (CNDDB 2022a).
San Joaquin coachwhip *Coluber* (=*Masticophis*) *flagellum ruddocki*			Chenopod scrub, valley, and foothill grassland. Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and oviposition sites.	Not expected to occur: The project area is outside of the current range of this species (CNDDB 2022).
Coast horned lizard *Phrynosoma coronatum (blainvillii* population)			Frequents a wide variety of habitats, commonly occurring in lowlands along sandy washes, coastal sage scrub, and chaparral in arid and semi-arid climate conditions. Species prefers friable, rocky, or shallow sandy soils.	Not expected to occur: The habitats within the project area are too disturbed to provide suitable habitat for this species.
California red-legged frog *Rana aurora draytonii*	FT	SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Not expected to occur: The project area is outside of the current range of this species (CNDDB 2022).

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Foothill yellow-legged frog *Rana boylii*		SE	Frequents rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Range in California includes the north and central coasts and the western Sierra Nevada.	Not Expected to Occur: The project area does not contain stream habitat suitable for this species.
Western spadefoot *Spea hammondii*		SSC	Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pool, and wetlands. Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Not Expected to Occur: There are no aquatic features within the project area suitable for western spadefoot.
Giant gartersnake *Thamnophis gigas*	FT	ST	Marsh and swamp, riparian scrub, wetland. Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	Not Expected to Occur: The project area is outside the extent of the recovery units in the recovery plan for the species and therefore, the extent of suitable habitat for the species (USFWS 2017; USFWS 2020a). Furthermore, there are no documented occurrences within the project region (CNDDB 2022a).
Birds				
Cooper's hawk *Accipter cooperi*	–	–	Cismontane woodland, riparian forest, riparian woodland, upper montane coniferous forest. Woodland, chiefly of open, interrupted, or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	Could occur: Riparian forest adjacent to the project area is potentially suitable nesting habitat for this species.
Sharp-shinned hawk *Accipter striatus*	–	–	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland. Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas. North-facing slopes with plucking perches are critical requirements. Nests usually within 275 feet of water.	Could occur: Riparian habitat adjacent to project area is suitable foraging habitat for the species. Project is outside of the breeding range of the species.
Western grebe *Aechmophorus occidentalis*	–	–	Breeds on freshwater lakes and marshes with open water bordered by vegetation. Saltwater or brackish bays, estuaries, or seacoasts in winter. Less frequently on freshwater lakes or rivers.	Not expected to occur: The project area does not contain suitable nesting or foraging habitat for this species.
Tricolored blackbird *Agelaius tricolor*		SSC	Freshwater marsh, marsh and swamp, swamp, wetland. Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	Could occur: Riparian forest adjacent to the project area is potentially suitable habitat for this species; however, no nesting habitat is present within the project area, and the orchards within the project area are not likely to support Foraging tricolored blackbird.
Bell's sage sparrow *Amphispiza belli belli*			Chaparral, coastal scrub. Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Nest located on the ground beneath a shrub or in a shrub 6–18 inches above ground. Territories about 50 yards apart.	Not expected to occur: The project area does not contain suitable nesting or foraging habitat for this species.

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Golden eagle *Aquila chrysaetos*			Broadleaved upland forest, cismontane woodland, coastal prairie, Great Basin grassland, Great Basin scrub, lower montane coniferous forest, pinyon and juniper woodlands, upper montane coniferous forest, and valley and foothill grassland. Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Not expected to occur: The project area does not contain suitable nesting or foraging habitat for this species.
Great egret *Ardea albus*			Brackish marsh, estuary, freshwater marsh, marsh and swamp, riparian forest, and wetlands. Colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	Could occur: Riparian forest adjacent to the project area is potentially suitable nesting habitat for this species.
Great blue heron *Ardea herodias*			Brackish marsh, estuary, freshwater marsh, marsh and swamp, riparian forest, and wetlands. Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	Could occur: Riparian forest adjacent to the project area is potentially suitable nesting habitat for this species.
Short-eared owl *Asio flammens*			Great Basin grassland, marsh and swamp, meadow and seep, valley and foothill grassland, and wetlands. Found in swamplands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	Not expected to occur: The grasslands within the project area are not large enough to support this species and no wetland habitat is present.
Burrowing owl *Athene cunicularia*		SSC	Coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley and foothill grassland. Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Could Occur: The project area includes low-growing open grassland and open ruderal habitats containing ground squirrel burrows that may provide suitable burrows for this species.
Ferruginous hawk *Buteo regalis*	–	–	Great Basin grassland, Great Basin scrub, pinyon and juniper woodlands, valley and foothill grassland. Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	Not expected to occur: The grasslands within the project area are not large enough to support foraging habitat for this species.
Aleutian Canada (cackling) goose *Branta canadensis leucopareia*	FD		Artificial standing waters, Sacramento/San Joaquin standing waters, valley and foothill grassland. Winters on lakes and inland prairies. Forages on natural pasture or that cultivated to grain; loafs on lakes, reservoirs, ponds.	Not expected to occur: The ponds in the project area do not contain aquatic vegetation; therefore, the project area does not contain suitable nesting or foraging habitat for this species.
Swainson's hawk *Buteo swainsoni*		ST	Great Basin grassland, riparian forest, riparian woodland, valley and foothill grassland. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Known to Occur: Large riparian and other trees within and adjacent to the project area provide potential nesting habitat for this species. Swainson's hawks were observed nesting in oak trees just north of the WWTP along the railroad right of way in 2003 (CNDDB 2022a).

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Mountain plover *Charadrius montanus*		SSC	Chenopod scrub, valley and foothill grassland. Short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms. Short vegetation, bare ground and flat topography. Prefers grazed areas and areas with burrowing rodents.	Not expected to occur: The project area does not contain suitable foraging habitat and is outside of the breeding range for this species.
Northern harrier *Circus cyanus*		SSC	Coastal scrub, Great Basin grassland, marsh and swamp, riparian scrub, valley and foothill grassland, and wetlands. Coastal salt and fresh-water marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Not expected to occur: The project area does not contain suitable nesting or foraging habitat for this species.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	T	E	Riparian forest. Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Not expected to occur: The project area is outside of the current range of the species (USFWS 2022c)
Yellow warbler *Dendroica petechia brewsteri*		SSC	Riparian forest, riparian scrub, riparian woodland. Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascade Range and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	Could occur: Riparian forest adjacent to the project area is potentially suitable nesting habitat for this species.
Snowy egret *Egretta thula*			Marsh and swamp, meadow and seep, riparian forest, riparian woodland, wetland. Colonial nester, with nest sites situated in protected beds of dense tules. Rookery sites situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.	Could occur: Riparian trees adjacent to the project area may provide potential nesting habitat for this species.
White-tailed kite *Elanus leucurus*		FP	Cismontane woodland, marsh and swamp, riparian woodland, valley and foothill grassland, and wetlands. Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Could Occur: Large riparian and other trees within and adjacent to the project area provide potential nesting habitat for this species.
California horned lark *Eremophila alpestris actia*			A common to abundant resident in a variety of open habitats, usually where trees and large shrubs are absent. Found from grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above treeline.	Could occur: Grassland adjacent to the project area is potentially suitable nesting habitat for this species.
Merlin *Falco columbarius*			Estuary, Great Basin grassland, valley and foothill grassland. Seacoast, tidal estuaries, open woodlands, savannas, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	Could occur: Grassland and oak woodlands within the project area are potentially suitable foraging habitat for this species.
Prairie falcon *Falco mexicanus*			Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran Desert scrub, valley and foothill grassland. Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	Not expected to occur: The project area does not contain suitable nesting or foraging habitat for this species.

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Greater sandhill crane *Grus canadensis tabida*		ST	Marsh and swamp, meadow and seep, wetland. Nests in wetland habitats in northeastern California; winters in the Central Valley. Prefers grain fields within 4 miles of a shallow body of water used as a communal roost site; irrigated pasture used as loafing sites.	Not expected to occur: The project area does not contain suitable nesting or foraging habitat for this species.
Yellow-breasted chat *Icteria virens*		SSC	Riparian forest, riparian scrub, riparian woodland. Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 feet of ground.	Could occur: Riparian forest adjacent to the project area is potentially suitable nesting habitat for this species.
Loggerhead shrike *Lanius ludovicianus*		SSC	Broken woodlands, savanna, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Could occur: Riparian forest adjacent to the project area is potentially suitable nesting habitat for this species.
California black rail *Laterallus jamaicensis coturniculus*		ST FP	Brackish marsh, freshwater marsh, marsh and swamp, salt marsh, wetland. Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Not expected to occur: The project area does not contain suitable nesting or foraging habitat for this species.
Long-billed curlew *Numenius americanus*			Great Basin grassland, meadow and seep. Breeds in upland shortgrass prairies and wet meadows in northeastern California. Habitats on gravelly soils and gently rolling terrain are favored over others.	Not expected to occur: The project area does not contain suitable nesting or foraging habitat for this species.
Black-crowned night heron *Nycticorax nycticorax*			Marsh and swamp, riparian forest, riparian woodland, and wetlands. Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.	Could occur: Riparian trees adjacent to the project area may provide potential nesting habitat for this species.
Osprey *Pandion haliaetus*			Riparian forest. Ocean shore, bays, fresh-water lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	Could occur: Large riparian and other trees within and adjacent to the project area provide potential nesting habitat for this species, which may forage within the Stanislaus River.
American white pelican *Pelecanus erthrorhynchos*			Colonial nester on large interior lakes. Nests on large lakes, providing safe roosting and breeding places in the form of well-sequestered islets.	Not expected to occur: The project area does not contain suitable nesting or foraging habitat for this species.
Double-crested cormorant *Phalacrocorax auritus*			Riparian forest, riparian scrub, riparian woodland. Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	Not expected to occur: The project area does not contain suitable nesting or foraging habitat for this species.
White-faced ibis *Plegadis chichi*			Marsh and swamp, wetlands. Shallow fresh-water marsh. Dense tule thickets for nesting interspersed with areas of shallow water for foraging.	Not expected to occur: The project area does not include marsh and swamp habitat suitable for this species.
Bank swallow *Riparia riparia*		ST	Riparian scrub, riparian woodland. Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not expected to occur: The project area does not contain the riparian habitat with banks/cliffs suitable for nesting.

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Mammals				
Ringtail *Bassaricus astutus*		FP	Riparian habitats, forest habitats, and shrub habitats used for denning and foraging in lower to middle elevations	**Not expected to occur:** The project area does not contain the riparian and forested habitat suitable for this species.
Townsend's big-eared bat *Corynorhinus townsendii*		SSC	Broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow & seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub. Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**Could occur:** The project area and adjacent riparian corridor may provide foraging habitat for this species, which has been recorded to occur upstream along the Stanislaus River near Knights Ferry (CNDDB 2022a). However, the project area does not likely support roosts for Townsends' big-eared bat, because structures in the area that may provide suitable shelter are subject to regular human disturbance.
Berkeley kangaroo rat *Dipodomys heermanni berkeleyensis*			Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations. Usually found within 0.6 mile of a permanent water source.	**Not expected to occur:** The project site does not provide suitable habitat for this species.
Western mastiff bat *Eumops perotis californicus*		SSC	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	**Could occur:** The project area and adjacent riparian corridor may provide foraging habitat for this species. There is a historical record of the species approximately 5.5 miles east of the project area, and more recent occurrences upstream along the Stanislaus River (CNDDB 2022a). While there is no roosting habitat within the project area, the railroad bridge over the Stanislaus River near the project area may support roosts of this species.
Western red bat *Lasiurus blossevillii*		SSC	Cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland. Roosts primarily in trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	**Could Occur:** Riparian trees adjacent to the project area, as well as large oaks within the application areas may provide roosting habitat for this species.
[Western] small-footed myotis bat *Myotis ciliolabrum*			Wide range of habitats; mostly arid wooded and brushy uplands near water. Seeks cover in caves, buildings, mines, and crevices Prefers open stands in forests and woodlands. Requires drinking water. Feeds on a wide variety of small flying insects.	**Not expected to occur.** The project area and the Central Valley are outside of predicted habitat for the species (CNDDB 2022b).
Long-eared myotis bat *Myotis evotis*			Upper montane coniferous forest. Most common in woodland and forest habitats above 4,000 feet. Trees are important day roosts; caves and mines are night roosts. Nursery colonies usually under bark or in hollow trees, but occasionally in crevices or buildings.	**Not expected to occur.** The project area and the Central Valley are outside of predicted habitat for the species (CNDDB 2022c).
Fringed myotis bat *Myotis thysanodes*			In a wide variety of habitats; optimal habitats are pinyon-juniper, valley foothill hardwood, and hardwood-conifer. Uses caves, mines, buildings, or crevices for maternity colonies and roosts.	**Not expected to occur.** The project area and the Central Valley are outside of predicted habitat for the species (CNDDB 2022d).

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Long-legged myotis bat *Myotis volans*			Upper montane coniferous forest. Most common in woodland and forest habitats above 4,000 feet. Trees are important day roosts; caves and mines are night roosts. Nursery colonies usually under bark or in hollow trees, but occasionally in crevices or buildings.	**Not expected to occur.** The project site is outside of the elevational range for this species.
Yuma myotis bat *Myotis yumanensis*			Lower montane coniferous forest, riparian forest, riparian woodland, upper montane coniferous forest. Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings, or crevices.	**Could occur:** The project area and adjacent riparian corridor may provide foraging habitat for this species. While there is no roosting habitat within the project area, the railroad bridge over the Stanislaus River near the project area may support roosts of this species.
Riparian woodrat *Neotoma fuscipes riparia*	FE	SSC	Occurs in coastal central California in habitats that exhibit a moderate vegetative canopy, with a brushy understory. Builds nests of sticks and leaves at the base of, or within, a tree or shrub, or at the base of a hill. Primarily feeds on woody plants, but also eats fungi, flowers, grasses, and acorns.	**Not expected to occur:** The project site is outside of the current range of the species, which is restricted to the area around Caswell Memorial State Park and San Joaquin River National Wildlife Refuge (USFWS 2022d).
San Joaquin pocket mouse *Perognathus inornatus*	–	–	Cismontane woodland, Mojavean desert scrub, valley and foothill grassland. Grassland, oak savanna, and arid scrubland in the southern Sacramento Valley, Salinas Valley, San Joaquin Valley and adjacent foothills, south to the Mojave Desert. Associated with fine-textured, sandy, friable soils.	**Not expected to occur:** The California annual grassland and oak woodland within the project area are too small and isolated by orchards and other development to provide suitable habitat for this species.
Riparian brush rabbit *Sylvilagus bachmani riparius*	FE	SE	Riparian forest. Riparian areas on the San Joaquin River in northern Stanislaus County. Dense thickets of wild rose, willows, and blackberries.	**Not expected to occur:** The project site is outside of the current range of the species, which is restricted to the lower Stanislaus River and areas along the San Joaquin River into San Joaquin County (USFWS 2020b).
American badger *Taxidea taxus*		SSC	Occurs in open stages of shrub, forest, and herbaceous habitats; needs uncultivated ground with friable soils.	**Not expected to occur:** The project site does not provide suitable habitat for this species.
San Joaquin kit fox *Vulpes macrotis mutica*	FE	ST	Chenopod scrub, valley and foothill grassland. Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	**Not expected to occur:** The project site is outside of the range of the species and does not provide suitable habitat for this species (CNDDB 2022e).

Note: CNDDB = California Natural Diversity Database; USFWS = US Fish and Wildlife Service; ESU = Evolutionary Significant Unit;

DPS= Distinct Population Segment

[1] Legal Status Definitions

Federal:
FE Endangered (legally protected)
FC Candidate (no formal protection)
FT Threatened (legally protected)

State:
SSC Species of special concern (no formal protection)
SE Endangered (legally protected)
ST Threatened (legally protected

[2] Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present in the project area due to poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.
Could occur: Suitable habitat is available in the project area; however, there are little to no other indicators that the species might be present.
Known to occur: The species, or evidence of its presence, has been reported by others.

Source: CNDDB 2022a; CNDDB 2022b; CNDDB 2022c; CNDDB 2022d; CNDDB 2022e; USFWS 2017; USFWS 2020a; USFWS 2020b; USFWS 2022a, USFWS 2022b; USFWS 2022c; USFWS 2022d.

REFERENCES

California Natural Diversity Database. 2022a. Results of electronic records search. Sacramento: California Department of Fish and Wildlife, Biogeographic Data Branch. Accessed April 29, 2022.

________. 2022b. Small-Footed Myotis Predicted Habitat (DS2488). Sacramento: California Department of Fish and Wildlife, Biogeographic Data Branch. Accessed September, 2022.

________. 2022c. Long-Eared Myotis Predicted Habitat (DS2484). Sacramento: California Department of Fish and Wildlife, Biogeographic Data Branch. Accessed September, 2022.

________. 2022d. Fringed Myotis Predicted Habitat (DS2485). Sacramento: California Department of Fish and Wildlife, Biogeographic Data Branch. Accessed September, 2022.

________. 2022e. San Joaquin Kit Fox Range (DS911). Sacramento: California Department of Fish and Wildlife, Biogeographic Data Branch. Accessed September, 2022.

California Native Plant Society. 2022. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Available: http://www.rareplants.cnps.org. Accessed May 5, 2022.

CNDDB. *See* California Natural Diversity Database.

CNPS. *See* California Native Plant Society.

US Department of Agriculture. 2022. USDA, Natural Resources Conservation Service, Custom Soil Resource Report for the Eastern Stanislaus Area, California, and San Joaquin County, California. May 13, 2022.

US Fish and Wildlife Service. 2017. Final Recovery Plan for the Giant Garter Snake (*Thamnophis gigas*). Region 8. US Fish and Wildlife Service, Sacramento, California. September 2017.

_______. 2020a. Giant Garter Snake (Thamnophis gigas). 5-Year Review: Summary and Evaluation. US Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Sacramento, California. June 2020.

_______. 2020b. Species Status Assessment for the Riparian Brush Rabbit (*Sylvilagus bachmani riparius*). June 2020. Available: https://ecos.fws.gov/ServCat/DownloadFile/171805 Accessed: September 2022.

_______. 2022a (July 30). List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project. Official Species List for Project Code: 2022-0059435, Project Name: Riverbank Regional Recycled Water Project. Sacramento Fish And Wildlife Office, Sacramento, CA.

_______. 2022b. Species Profile for Delta smelt (*Hypomesus transpacificus*). Available: https://ecos.fws.gov/ecp/species/321. Accessed: May 2022.

_______. 2022c. Species Profile for Yellow-billed Cuckoo (*Coccyzus americanus*). Available: https://ecos.fws.gov/ecp/species/3911 Accessed: September 2022.

_______. 2022d. Riparian Woodrat. Available: https://www.fws.gov/species/riparian-woodrat-neotoma-fuscipes-riparia Accessed: September 2022.

USDA. *See* US Department of Agriculture.

USFWS. *See* US Fish and Wildlife Service.

Appendix D

Noise Modeling
Assumptions and Results

Traffic Noise Spreadsheet Calculator

Project: Riverbank WWTP

Noise Level Descriptor: Leq
Site Conditions: Hard
Traffic Input: ADT
Traffic K-Factor: 8

	Segment Description and Location			Input											Output				
						Distance to Directional Centerline, (feet)4		Traffic Distribution Characteristics								Distance to Contour, (feet)3			
Number	Name	From	To	ADT	Speed (mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	Leq, (dBA)5,6,7	70 dBA	65 dBA	60 dBA	55 dBA
Existing Conditions																		
1	Rivercove Drive	Turnberry Lane	Dunbar Lane	15,300	35	1280	1280	97.5%	1.5%	1.0%	85.0%	7.5%	7.5%	52.7	24	76	239	756
2	Henry Road	Project Driveway	South Santa Fe Road	15,300	35	1933	1933	97.5%	1.5%	1.0%	85.0%	7.5%	7.5%	50.9	24	76	239	756

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Traffic Noise Spreadsheet Calculator

Project: Riverbank WWTP

Noise Level Descriptor: Ldn
Site Conditions: Hard
Traffic Input: ADT
Traffic K-Factor:

	Segment Description and Location			Input											Output				
						Distance to Directional Centerline, (feet)[4]		Traffic Distribution Characteristics								Distance to Contour, (feet)[3]			
Number	Name	From	To	ADT	Speed (mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	Ldn, (dBA)[5,6,7]		70 dBA	65 dBA	60 dBA	55 dBA
Existing Conditions																			
1	Rivercove Drive	Turnberry Lane	Dunbar Lane	15,300	35	1280	1280	97.5%	1.5%	1.0%	85.0%	7.5%	7.5%	52.1		21	66	209	660
2	Henry Road	Project Driveway	South Santa Fe Road	15,300	35	1933	1933	97.5%	1.5%	1.0%	85.0%	7.5%	7.5%	50.3		21	66	209	660

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Traffic Noise Spreadsheet Calculator

Project: Riverbank WWTP

Noise Level Descriptor: CNEL
Site Conditions: Hard
Traffic Input: ADT
Traffic K-Factor:

Segment Description and Location				Input										Output				
						Distance to Directional Centerline, (feet)4		Traffic Distribution Characteristics						CNEL,	Distance to Contour, (feet)3			
Number	Name	From	To	ADT	Speed (mph)	Near	Far	% Auto	% Medium	% Heavy	% Day	% Eve	% Night	(dBA)5,6,7	70 dBA	65 dBA	60 dBA	55 dBA
Existing Conditions																		
1	Rivercove Drive	Turnberry Lane	Dunbar Lane	15,300	35	1280	1280	97.5%	1.5%	1.0%	85.0%	7.5%	7.5%	52.5	23	72	227	719
2	Henry Road	Project Driveway	South Santa Fe Road	15,300	35	1933	1933	97.5%	1.5%	1.0%	85.0%	7.5%	7.5%	50.7	23	72	227	719

*All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow and does not account for shielding of any type or finite roadway adjustments. All levels are reported as A-weighted noise levels.

Citation #	Citations	
1	Caltrans Technical Noise Supplement. 2009 (November). Table (5-11), Pg 5-60.	Caltrans Technical Noise Supplement. 2013 (September). Table (4-2), Pg 4-17.
2	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-26), Pg 5-60.	Caltrans Technical Noise Supplement. 2013 (September). Equation (4-5), Pg 4-17.
3	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-16), Pg 2-32.	FHWA 2004 TNM Version 2.5
4	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-11), Pg 5-47, 48.	FHWA 2004 TNM Version 2.5
5	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-26), Pg 2-55, 56.	Caltrans Technical Noise Supplement. 2013 (September). Equation (2-23), Pg 2-51, 52.
6	Caltrans Technical Noise Supplement. 2009 (November). Equation (2-27), Pg 2-57.	Caltrans Technical Noise Supplement. 2013 (September). Equation (2-24), Pg 2-53.
7	Caltrans Technical Noise Supplement. 2009 (November). Pg 2-53.	Caltrans Technical Noise Supplement. 2013 (September). Pg 2-57.
8	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-7), Pg 5-45.	FHWA 2004 TNM Version 2.5
9	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-8), Pg 5-45.	FHWA 2004 TNM Version 2.5
10	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-9), Pg 5-45.	FHWA 2004 TNM Version 2.5
11	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-13), Pg 5-49.	FHWA 2004 TNM Version 2.5
12	Caltrans Technical Noise Supplement. 2009 (November). Equation (5-14), Pg 5-49.	FHWA 2004 TNM Version 2.5
13	Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (16), Pg 67	
14	Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (20), Pg 69	
15	Federal Highway Administration Traffic Noise Model Technical Manual. Report No. FHWA-PD-96-010. 1998 (January). Equation (18), Pg 69	

References

California Department of Transportation (Caltrans). 2009 (November). Technical Noise Supplement. Available: http://www.dot.ca.gov/hq/env/noise/pub/tens_complete.pdf. Accessed August 17, 2017.

California Department of Transportation (Caltrans). 2013 (September). Technical Noise Supplement. Available: http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013A.pdf. Accessed August 17, 2017.

Federal Highway Administration. 2004. Traffic Noise Model Version 2.5. Available: https://www.fhwa.dot.gov/environment/noise/traffic_noise_model/tnm_v25/. Accessed August 17, 2017.

Mass Excavation (LEQ)

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
Riverbank Threshold	578	60.0
2806 River Cove Dr.	615	57.9
23655 Santa Fe Rd.	645	57.3

Equipment	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Pickup Truck	55	0.4
Pickup Truck	55	0.4
Dump Truck	84	0.4
Dump Truck	84	0.4
Scraper	85	0.4
Scraper	85	0.4
Scraper	85	0.4
Scraper	85	0.4
Dozer	85	0.4
Dozer	85	0.4
Grader	85	0.4
Pickup Truck	55	0.4
Ground Type	Soft	
Source Height	8	
Receiver Height	5	
Ground Factor[2]	0.63	

Predicted Noise Level [3]	L_{eq} dBA at 50 feet[3]
Pickup Truck	51.0
Pickup Truck	51.0
Dump Truck	80.0
Dump Truck	80.0
Scraper	81.0
Scraper	81.0
Scraper	81.0
Scraper	81.0
Dozer	81.0
Dozer	81.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
86.6

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

Mass Excavation (LMAX)

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
Riverbank Threshold	834	60.0
2806 River Cove Dr.	615	61.8
23655 Santa Fe Rd.	645	61.3

Equipment	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Pickup Truck	55	1
Pickup Truck	55	1
Dump Truck	84	1
Dump Truck	84	1
Scraper	85	1
Scraper	85	1
Scraper	85	1
Scraper	85	1
Dozer	85	1
Dozer	85	1
Grader	85	1
Pickup Truck	55	1
Ground Type	Soft	
Source Height	8	
Receiver Height	5	
Ground Factor[2]	0.63	

Predicted Noise Level [3]	L_{eq} dBA at 50 feet[3]
Pickup Truck	55.0
Pickup Truck	55.0
Dump Truck	84.0
Dump Truck	84.0
Scraper	85.0
Scraper	85.0
Scraper	85.0
Scraper	85.0
Dozer	85.0
Dozer	85.0
Combined Predicted Noise Level (L_{eq} dBA at 50 feet)	
90.6	

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

Construct Alt 1B Distribution Pipeline (LEQ)

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
Riverbank Threshold	458	60.0
2806 River Cove Dr.	645	54.8
23655 Santa Fe Rd.	65	81.0

Equipment	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Pickup Truck	55	0.4
Pickup Truck	55	0.4
Excavator	85	0.4
Excavator	85	0.4
Pickup Truck	55	0.4
Front End Loader	80	0.4
Dump Truck	84	0.4

Ground Type	Soft
Source Height	8
Receiver Height	5
Ground Factor[2]	0.63

Predicted Noise Level [3]	L_{eq} dBA at 50 feet[3]
Pickup Truck	51.0
Pickup Truck	51.0
Excavator	81.0
Excavator	81.0
Pickup Truck	51.0
Front End Loader	76.0
Dump Truck	80.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
84.0

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

Construct Alt 1B Distribution Pipeline (LMAX)

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
Riverbank Threshold	660	60.0
2806 River Cove Dr.	645	58.8
23655 Santa Fe Rd.	65	85.0

Equipment	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Pickup Truck	55	1
Pickup Truck	55	1
Excavator	85	1
Excavator	85	1
Pickup Truck	55	1
Front End Loader	80	1
Dump Truck	84	1

Ground Type	Soft
Source Height	8
Receiver Height	5
Ground Factor[2]	0.63

Predicted Noise Level [3]	L_{eq} dBA at 50 feet[3]
Pickup Truck	55.0
Pickup Truck	55.0
Excavator	85.0
Excavator	85.0
Pickup Truck	55.0
Front End Loader	80.0
Dump Truck	84.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)
88.0

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

Equipment Description	Acoustical Usage Factor (%)	Spec 721.560 Lmax @ 50ft (dBA slow)	Actual Measured Lmax @ 50ft (dBA slow)	No. of Actual Data Samples (count)	Spec 721.560 LmaxCalc	Spec 721.560 Leq	Distance	Actual Measured LmaxCalc	Actual Measured Leq
Auger Drill Rig	20	85	84	36	79.0	72.0	100	78.0	71.0
Backhoe	40	80	78	372	74.0	70.0	100	72.0	68.0
Bar Bender	20	80	na	0	74.0	67.0	100		
Blasting	na	94	na	0	88.0		100		
Boring Jack Power Unit	50	80	83	1	74.0	71.0	100	77.0	74.0
Chain Saw	20	85	84	46	79.0	72.0	100	78.0	71.0
Clam Shovel (dropping)	20	93	87	4	87.0	80.0	100	81.0	74.0
Compactor (ground)	20	80	83	57	74.0	67.0	100	77.0	70.0
Compressor (air)	40	80	78	18	74.0	70.0	100	72.0	68.0
Concrete Batch Plant	15	83	na	0	77.0	68.7	100		
Concrete Mixer Truck	40	85	79	40	79.0	75.0	100	73.0	69.0
Concrete Pump Truck	20	82	81	30	76.0	69.0	100	75.0	68.0
Concrete Saw	20	90	90	55	84.0	77.0	100	84.0	77.0
Crane	16	85	81	405	79.0	71.0	100	75.0	67.0
Dozer	40	85	82	55	79.0	75.0	100	76.0	72.0
Drill Rig Truck	20	84	79	22	78.0	71.0	100	73.0	66.0
Drum Mixer	50	80	80	1	74.0	71.0	100	74.0	71.0
Dump Truck	40	84	76	31	78.0	74.0	100	70.0	66.0
Excavator	40	85	81	170	79.0	75.0	100	75.0	71.0
Flat Bed Truck	40	84	74	4	78.0	74.0	100	68.0	64.0
Front End Loader	40	80	79	96	74.0	70.0	100	73.0	69.0
Generator	50	82	81	19	76.0	73.0	100	75.0	72.0
Generator (<25KVA, VMS signs)	50	70	73	74	64.0	61.0	100	67.0	64.0
Gradall	40	85	83	70	79.0	75.0	100	77.0	73.0
Grader	40	85	na	0	79.0	75.0	100		
Grapple (on Backhoe)	40	85	87	1	79.0	75.0	100	81.0	77.0
Horizontal Boring Hydr. Jack	25	80	82	6	74.0	68.0	100	76.0	70.0
Hydra Break Ram	10	90	na	0	84.0	74.0	100		
Impact Pile Driver	20	95	101	11	89.0	82.0	100	95.0	88.0
Jackhammer	20	85	89	133	79.0	72.0	100	83.0	76.0
Man Lift	20	85	75	23	79.0	72.0	100	69.0	62.0
Mounted Impact Hammer (hoe ram)	20	90	90	212	84.0	77.0	100	84.0	77.0
Pavement Scarafier	20	85	90	2	79.0	72.0	100	84.0	77.0
Paver	50	85	77	9	79.0	76.0	100	71.0	68.0
Pickup Truck	40	55	75	1	49.0	45.0	100	69.0	65.0
Pneumatic Tools	50	85	85	90	79.0	76.0	100	79.0	76.0
Pumps	50	77	81	17	71.0	68.0	100	75.0	72.0
Refrigerator Unit	100	82	73	3	76.0	76.0	100	67.0	67.0
Rivit Buster/chipping gun	20	85	79	19	79.0	72.0	100	73.0	66.0
Rock Drill	20	85	81	3	79.0	72.0	100	75.0	68.0
Roller	20	85	80	16	79.0	72.0	100	74.0	67.0
Sand Blasting (Single Nozzle)	20	85	96	9	79.0	72.0	100	90.0	83.0
Scraper	40	85	84	12	79.0	75.0	100	78.0	74.0
Shears (on backhoe)	40	85	96	5	79.0	75.0	100	90.0	86.0
Slurry Plant	100	78	78	1	72.0	72.0	100	72.0	72.0
Slurry Trenching Machine	50	82	80	75	76.0	73.0	100	74.0	71.0
Soil Mix Drill Rig	50	80	na	0	74.0	71.0	100		
Tractor	40	84	na	0	78.0	74.0	100		
Vacuum Excavator (Vac-truck)	40	85	85	149	79.0	75.0	100	79.0	75.0
Vacuum Street Sweeper	10	80	82	19	74.0	64.0	100	76.0	66.0
Ventilation Fan	100	85	79	13	79.0	79.0	100	73.0	73.0
Vibrating Hopper	50	85	87	1	79.0	76.0	100	81.0	78.0
Vibratory Concrete Mixer	20	80	80	1	74.0	67.0	100	74.0	67.0
Vibratory Pile Driver	20	95	101	44	89.0	82.0	100	95.0	88.0
Warning Horn	5	85	83	12	79.0	66.0	100	77.0	64.0
Welder / Torch	40	73	74	5	67.0	63.0	100	68.0	64.0
chipper		75							

Source:
FHWA Roadway Construction Noise Model, January 2006. Table 9.1
U.S. Department of Transportation
CA/T Construction Spec. 721.560

Distance Propagation Calculations for Stationary Sources of Ground Vibration

ASCENT ENVIRONMENTAL

KEY: Orange cells are for input.

Grey cells are intermediate calculations performed by the model.

Green cells are data to present in a written analysis (output).

STEP 1: Determine units in which to perform calculation.

— If vibration decibels (VdB), then use Table A and proceed to Steps 2A and 3A.

— If peak particle velocity (PPV), then use Table B and proceed to Steps 2B and 3B.

STEP 2A: Identify the vibration source and enter the reference vibration level (VdB) and distance.

STEP 3A: Select the distance to the receiver.

Table A. Propagation of vibration decibels (VdB) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
2806 River Cove Dr.	vibration level (VdB)	@	distance (ft)	vibration level (VdB)	@	distance (ft)
Large Bull Dozer	87.000	@	25	45.3	@	615
Loaded Truck	86.000	@	25	44.3	@	615

The Lv metric (VdB) is used to assess the likelihood for vibration to result in human annoyance.

STEP 2B: Identify the vibration source and enter the reference peak particle velocity (PPV) and distance.

STEP 3B: Select the distance to the receiver.

Table B. Propagation of peak particle velocity (PPV) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
2806 River Cove Dr.	vibration level (PPV)	@	distance (ft)	vibration level (PPV)	@	distance (ft)
Large Bulldozer	0.089	@	25	0.001	@	615
Loaded Truck	0.076		25	0.001	@	615

The PPV metric (in/sec) is used for assessing the likelihood for the potential of structural damage.

Notes:

Computation of propagated vibration levels is based on the equations presented on pg. 185 of FTA 2018. Estimates of attenuated vibration levels do not account for reductions from intervening underground barriers or other underground structures of any type, or changes in soil type.

Federal Transit Association (FTA). 2018 (September). Transit Noise and Vibration Impact Assessment Manual. FTA Report No. 0123. Washington, D.C. Accessed: December 20, 2020. Page Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

Distance Propagation Calculations for Stationary Sources of Ground Vibration

ASCENT ENVIRONMENTAL

KEY: Orange cells are for input.
Grey cells are intermediate calculations performed by the model.
Green cells are data to present in a written analysis (output).

STEP 1: Determine units in which to perform calculation.

— If vibration decibels (VdB), then use Table A and proceed to Steps 2A and 3A.
— If peak particle velocity (PPV), then use Table B and proceed to Steps 2B and 3B.

STEP 2A: Identify the vibration source and enter the reference vibration level (VdB) and distance.

STEP 3A: Select the distance to the receiver.

Table A. Propagation of vibration decibels (VdB) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
23655 Santa Fe Rd.	vibration level (VdB)	@	distance (ft)	vibration level (VdB)	@	distance (ft)
Large Bull Dozer	87.000	@	25	44.7	@	645
Loaded Truck	86.000	@	25	43.7	@	645

The Lv metric (VdB) is used to assess the likelihood for vibration to result in human annoyance.

STEP 2B: Identify the vibration source and enter the reference peak particle velocity (PPV) and distance.

STEP 3B: Select the distance to the receiver.

Table B. Propagation of peak particle velocity (PPV) with distance

Noise Source/ID	Reference Noise Level			Attenuated Noise Level at Receptor		
23655 Santa Fe Rd.	vibration level (PPV)	@	distance (ft)	vibration level (PPV)	@	distance (ft)
Large Bulldozer	0.089	@	25	0.001	@	645
Loaded Truck	0.076		25	0.001	@	645

The PPV metric (in/sec) is used for assessing the likelihood for the potential of structural damage.

Notes:

Computation of propagated vibration levels is based on the equations presented on pg. 185 of FTA 2018. Estimates of attenuated vibration levels do not account for reductions from intervening underground barriers or other underground structures of any type, or changes in soil type.

Federal Transit Association (FTA). 2018 (September). Transit Noise and Vibration Impact Assessment Manual. FTA Report No. 0123. Washington, D.C. Accessed: December 20, 2020. Page Available:

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

New Stationary Upgrades to Riverbank WWTP (LEQ)

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
threshold	642	60.0
2806 River Cove Dr.	615	59.0
23655 Santa Fe Rd.	645	58.5

Equipment	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Pumps	77	0.4
Generator	82	0.4
Generator	82	0.4
Generator	82	0.4
Ground Type	Soft	
Source Height	8	
Receiver Height	5	
Ground Factor[2]	0.63	

Predicted Noise Level[3]	L_{eq} dBA at 50 feet[3]
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Pumps	73.0
Generator	78.0
Generator	78.0
Generator	78.0
Combined Predicted Noise Level (L_{eq} dBA at 50 feet)	
87.7	

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

New Stationary Upgrades to Riverbank WWTP (LMAX)

ASCENT ENVIRONMENTAL

Location	Distance to Nearest Receptor in feet	Combined Predicted Noise Level (L_{eq} dBA)
threshold	926	60.0
2806 River Cove Dr.	615	63.0
23655 Santa Fe Rd.	645	62.4

Equipment	Reference Emission Noise Levels (L_{max}) at 50 feet[1]	Usage Factor[1]
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Pumps	77	1
Generator	82	1
Generator	82	1
Generator	82	1
Ground Type	Soft	
Source Height	8	
Receiver Height	5	
Ground Factor[2]	0.63	

Predicted Noise Level [3]	L_{eq} dBA at 50 feet[3]
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Pumps	77.0
Generator	82.0
Generator	82.0
Generator	82.0

Combined Predicted Noise Level (L_{eq} dBA at 50 feet)

91.7

Sources:

[1] Obtained from the FHWA Roadway Construction Noise Model, January 2006. Table 1.

[2] Based on Figure 6-5 from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 6-23).

[3] Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006 (pg 12-3).

L_{eq}(equip) = E.L.+10*log (U.F.) - 20*log (D/50) - 10*G*log (D/50)

Where: E.L. = Emission Level;

U.F.= Usage Factor;

G = Constant that accounts for topography and ground effects (FTA 2006: pg 6-23); and

D = Distance from source to receiver.

Equipment Description	Acoustical Usage Factor (%)	Spec 721.560 Lmax @ 50ft (dBA slow)	Actual Measured Lmax @ 50ft (dBA slow)	No. of Actual Data Samples (count)	Spec 721.560 LmaxCalc	Spec 721.560 Leq	Distance	Actual Measured LmaxCalc	Actual Measured Leq
Auger Drill Rig	20	85	84	36	79.0	72.0	100	78.0	71.0
Backhoe	40	80	78	372	74.0	70.0	100	72.0	68.0
Bar Bender	20	80	na	0	74.0	67.0	100		
Blasting	na	94	na	0	88.0		100		
Boring Jack Power Unit	50	80	83	1	74.0	71.0	100	77.0	74.0
Chain Saw	20	85	84	46	79.0	72.0	100	78.0	71.0
Clam Shovel (dropping)	20	93	87	4	87.0	80.0	100	81.0	74.0
Compactor (ground)	20	80	83	57	74.0	67.0	100	77.0	70.0
Compressor (air)	40	80	78	18	74.0	70.0	100	72.0	68.0
Concrete Batch Plant	15	83	na	0	77.0	68.7	100		
Concrete Mixer Truck	40	85	79	40	79.0	75.0	100	73.0	69.0
Concrete Pump Truck	20	82	81	30	76.0	69.0	100	75.0	68.0
Concrete Saw	20	90	90	55	84.0	77.0	100	84.0	77.0
Crane	16	85	81	405	79.0	71.0	100	75.0	67.0
Dozer	40	85	82	55	79.0	75.0	100	76.0	72.0
Drill Rig Truck	20	84	79	22	78.0	71.0	100	73.0	66.0
Drum Mixer	50	80	80	1	74.0	71.0	100	74.0	71.0
Dump Truck	40	84	76	31	78.0	74.0	100	70.0	66.0
Excavator	40	85	81	170	79.0	75.0	100	75.0	71.0
Flat Bed Truck	40	84	74	4	78.0	74.0	100	68.0	64.0
Front End Loader	40	80	79	96	74.0	70.0	100	73.0	69.0
Generator	50	82	81	19	76.0	73.0	100	75.0	72.0
Generator (<25KVA, VMS s	50	70	73	74	64.0	61.0	100	67.0	64.0
Gradall	40	85	83	70	79.0	75.0	100	77.0	73.0
Grader	40	85	na	0	79.0	75.0	100		
Grapple (on Backhoe)	40	85	87	1	79.0	75.0	100	81.0	77.0
Horizontal Boring Hydr. Jac	25	80	82	6	74.0	68.0	100	76.0	70.0
Hydra Break Ram	10	90	na	0	84.0	74.0	100		
Impact Pile Driver	20	95	101	11	89.0	82.0	100	95.0	88.0
Jackhammer	20	85	89	133	79.0	72.0	100	83.0	76.0
Man Lift	20	85	75	23	79.0	72.0	100	69.0	62.0
Mounted Impact Hammer (	20	90	90	212	84.0	77.0	100	84.0	77.0
Pavement Scarafier	20	85	90	2	79.0	72.0	100	84.0	77.0
Paver	50	85	77	9	79.0	76.0	100	71.0	68.0
Pickup Truck	40	55	75	1	49.0	45.0	100	69.0	65.0
Pneumatic Tools	50	85	85	90	79.0	76.0	100	79.0	76.0
Pumps	50	77	81	17	71.0	68.0	100	75.0	72.0
Refrigerator Unit	100	82	73	3	76.0	76.0	100	67.0	67.0
Rivit Buster/chipping gun	20	85	79	19	79.0	72.0	100	73.0	66.0
Rock Drill	20	85	81	3	79.0	72.0	100	75.0	68.0
Roller	20	85	80	16	79.0	72.0	100	74.0	67.0
Sand Blasting (Single Nozzl	20	85	96	9	79.0	72.0	100	90.0	83.0
Scraper	40	85	84	12	79.0	75.0	100	78.0	74.0
Shears (on backhoe)	40	85	96	5	79.0	75.0	100	90.0	86.0
Slurry Plant	100	78	78	1	72.0	72.0	100	72.0	72.0
Slurry Trenching Machine	50	82	80	75	76.0	73.0	100	74.0	71.0
Soil Mix Drill Rig	50	80	na	0	74.0	71.0	100		
Tractor	40	84	na	0	78.0	74.0	100		
Vacuum Excavator (Vac-tru	40	85	85	149	79.0	75.0	100	79.0	75.0
Vacuum Street Sweeper	10	80	82	19	74.0	64.0	100	76.0	66.0
Ventilation Fan	100	85	79	13	79.0	79.0	100	73.0	73.0
Vibrating Hopper	50	85	87	1	79.0	76.0	100	81.0	78.0
Vibratory Concrete Mixer	20	80	80	1	74.0	67.0	100	74.0	67.0
Vibratory Pile Driver	20	95	101	44	89.0	82.0	100	95.0	88.0
Warning Horn	5	85	83	12	79.0	66.0	100	77.0	64.0
Welder / Torch	40	73	74	5	67.0	63.0	100	68.0	64.0

Source:
FHWA Roadway Construction Noise Model, January 2006. Table 9.1
U.S. Department of Transportation
CA/T Construction Spec. 721.560