CITY OF RIVERBANK

REGULAR CITY COUNCIL AND THE

LOCAL REDEVELOPMENT AUTHORITY MEETINGS

(The City Council also serves as the LRA Board)

City Hall North • Council Chambers

6707 Third Street • Suite B• Riverbank • CA • 95367

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AGENDA

TUESDAY, OCTOBER 25, 2016 – 6:00 P.M.

(THE AGENDA PACKET IS POSTED AT THE CITY CLERK'S OFFICE AND AT WWW.RIVERBANK.ORG)

CALL TO ORDER: Mayor/Chair Richard D. O'Brien

FLAG SALUTE: Mayor/Chair Richard D. O'Brien

INVOCATION: Riverbank Ministerial Association

ROLL CALL: Mayor/Chair Richard D. O'Brien
Vice Mayor/Chair Jeanine Tucker
Council/Authority Member Darlene Barber-Martinez
Council/Authority Member Cal Campbell
Council/Authority Member Leanne Jones Cruz

AGENDA CHANGES: Mayor/Chair Richard D. O'Brien

CONFLICT OF INTEREST
Any Council/Authority Member or Staff who has a direct Conflict of Interest on any scheduled agenda item to be considered is to declare their conflict at this time.

1. PRESENTATIONS **There are no presentations.**

2. PUBLIC COMMENTS (No Action Can Be Taken)

At this time, members of the public may comment on any item not appearing on the agenda, and within the subject matter jurisdiction of the City Council/LRA Board. Individual comments will be limited to a **maximum of 5 minutes** per person and each person may speak once during this time; time cannot be yielded to another person. Under State Law, matters presented during the public comment period cannot be discussed or acted upon. For record purposes, state your name and City of residence. Please make your comments directly to the City Council/LRA Board.

3. CONSENT CALENDAR

All items listed on the Consent Calendar are to be acted upon by a single action of the City Council/LRA Board unless otherwise requested by an individual Council/Authority Member for special consideration. Otherwise, the recommendation of staff will be accepted and acted upon by roll call vote.

Item 3.A: Waive Readings. All Readings of ordinances and resolutions, except by title, are waived.

Item 3.B: Approval of the August 9, 2016, City Council and Local Redevelopment Authority Minutes.

Item 3.B-1: Approval of the September 29, 2016, Special City Council Minutes.

Item 3.B-2: Approval of the October 11, 2016, City Council and Local Redevelopment Authority Minutes.

Item 3.B-3: Approval of the October 17, 2016, Special City Council Minutes.

Item 3.C: **A Resolution Approving the Submittal of an Application for Youth Soccer and Recreation Development Program Grant Funds** – It is recommended that the City Council consider approval of a Resolution Approving the submittal of an Application for $1,000,000 for Youth Soccer and Recreation Development Program Grant Funds.

Item 3.D: **A Resolution Authorizing the Execution of the San Joaquin Valley Air Pollution Control District (SJVAPCD), New Alternative Fuel Vehicle Purchase Grant (Zero Electric Police Motorcycles)** - It is recommended that the Riverbank City Council receive this report and approve the corresponding resolution to approve the securing and completion of this grant. It is also recommended that the Riverbank City Council, per the grant requirements, authorize the initial expenditure of $62,178 in city funds to secure three Zero Electric Police Motorcycles, whereby the grant and California Air Resources Board (CARB) rebates will collectively reimburse the city for its $62,178 expenditure.

Recommendation: It is recommended that City Council/LRA Board approve the Consent Calendar items by roll call vote.

4. UNFINISHED BUSINESS

There are no items to consider.

5. PUBLIC HEARINGS

The Public Hearing Notices were published in the local newspaper of general circulation on 09/21/16, for Item 5.1 and a display ad on 10/5/16 (Riverbank News) and a display ad on 10/18/16 (Modesto Bee) for Item 5.2. A Continuance Notice for Item 5.1 was posted near the door of the Council Chambers on 10/12/16 within 24 hours of the 10/11/16 regular City Council Meeting.

Item 5.1: **The Continued First Reading and Introduction by Title Only of a Proposed Ordinance, Amending Chapter 73, Traffic Schedules of Title VII, Traffic Code, of the Riverbank Municipal Code** – It is recommended that the City Council conduct the continued public hearing for the first reading and introduction by title only of the proposed ordinance to consider its approval as presented, which will initiate the scheduling of the ordinance for its second reading by title only on November 8, 2016, to consider its adoption. The purpose of this Ordinance amendment is to recommend changes to speed limits on 13 street segments in the City of Riverbank (the "City").

Item 5.2: **A Resolution Adopting a 2.5% Consumer Price Index Increase in Rates for Solid Waste Disposal Services Pursuant to the 2014 Executed Franchise Agreement with Gilton Solid Waste, Inc.** – It is recommended that the City Council consider adopting a resolution approving a 2.5% Consumer Price Index (CPI) increase in rates for solid waste disposal services pursuant to the executed franchise agreement with Gilton Solid Waste, Inc.

6. NEW BUSINESS

Item 6.1: **A Resolution Adopting the 2015 Updated Urban Water Management Plan** - Staff recommends the 2015 Public Draft Urban Water Management Plan (UWMP) be adopted with the revisions as noted at the public hearing held on October 11, 2016. If approved, the Final (adopted) 2015 UWMP will be sent to the Department of Water Resources (DWR), The California State Library, Stanislaus County, and San Joaquin County within 30 days of the adoption by the City of Riverbank City Council as per California Water Code Section 10644 (a).

7. COMMENTS (Information only – No action)

Item 7.1: Staff Comments

Item 7.2: Council/Authority Member Comments

Item 7.3: Mayor/Chair Comments

8. CLOSED SESSION

The public will have a limit of 5 minutes to comment on Closed Session item(s) as set forth on the agenda prior to the City Council/LRA Board recessing into Closed Session.

Item 8.1: **PUBLIC EMPLOYMENT**
Pursuant to Government Code Section 54957(b) (1)
Position Title: City Manager

Recommendation: It is recommended that City Council /LRA Board provide direction to Staff on the Closed Session item(s).

9. REPORT FROM CLOSED SESSION

Item 9.1: Report on Closed Session Item 8.1: **PUBLIC EMPLOYMENT** – City Manager Position

ADJOURNMENT **(The next regular City Council meeting – Tuesday, Nov. 8 @ 6:00 pm)**

UPCOMING EVENTS:

City Hall Friday Office Hours	▪ **City Offices are Closed Alternating Fridays** o **Friday: October 21 and November 4 – CLOSED** o **Friday: November 11 – CLOSED in honor of Veteran's Day** o **Friday: October 28– Hours 8:am – 5:pm**
October 24	• **Special City Council Meeting** – Closed Session to consider Public Employment for the City Manager position.
October 26	• **Special City Council Meeting** – Closed Session to consider Public Employee Appointment for the City Manager position.
October 28 & 29	• **Haunted Hayride Event** – Jacob Myers Park o **Friday, October 28: 7:00 – 9:30 p.m.** o **Saturday, October 29: 7:00 – 10:00 p.m.** For more information contact Parks and Recreation Dept. (209) 863-7150

AFFIDAVIT OF POSTING

I, Annabelle Aguilar, do hereby certify under penalty of perjury, under the laws of the State of California that the foregoing agenda was posted 72 hours prior to the meeting in accordance to the Brown Act.

Posted this 20th day of October. 2016
/s/Annabelle H. Aguilar, CMC, City Clerk /LRA Recorder

Notice Regarding Americans with Disabilities Act: In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk's Office at (209) 863-7122 or cityclerk@riverbank.org. Notification 72-hours before the meeting will enable the City to make reasonable arrangements to ensure any special needs are met. [28 CFR 35.102-35.104 ADA Title II].

Notice Regarding Non-English Speakers: Pursuant to California Constitution Article III, Section IV, establishing English as the official language for the State of California, and in accordance with California Code of Civil Procedures Section 185, which requires proceedings before any State Court to be in English, notice is hereby given that all proceedings before the City of Riverbank City Council/LRA Board shall be in English and anyone wishing to address the Council is required to have a translator present who will take an oath to make an accurate translation from any language not English into the English language.

GENERAL INFORMATION

Meeting Schedule	Regular City Council Meetings: 6:00 p.m. on the 2nd and 4th Tuesday of every month, unless otherwise noticed. Local Redevelopment Authority Board: Meets on an "as needed" basis. The City Council also serves as the LRA Board.
City Council / LRA Agenda & Reports	The City Council/LRA Board agenda is posted pursuant to the California Brown Act, which only requires these agenda title pages to be posted near the entrance of the location where the meeting is to be held and, when technologically able, on the City's website. Additional documents may be provided by the City in its efforts of transparency to keep the public well informed. **The agenda packet (agenda plus supporting documents) are posted for public review at the City Clerk's Office**, **6707 Third Street, Riverbank, CA and at www.riverbank.org upon distribution to a majority of the City Council/LRA Board.** A subscription to receive the agenda can be purchased for a nominal fee through the City Clerk's Office.
Public Hearings	In general, a public hearing is an open consideration within a regular meeting of the City Council or a meeting of the LRA, for which special notice has been given and may be required. During a specified portion of the hearing, any resident or concerned individual is invited to present protests or offer support for the subject under consideration.
Televised / Video of Meetings	• Charter – Channel 2 • AT&T Uverse – Channel 99 Visit www.riverbank.org to connect to meeting videos. (Note: Technical difficulty occurs on occasion preventing the televising or recording of the meeting.)
City Hall Hours	City Hall is open Monday – Thursday; 7:30 am – 5:30 pm and Fridays: 8:00 am – 5:00 pm; CLOSED alternating Fridays
Questions	Contact the City Clerk at (209) 863-7122 or cityclerk@riverbank.org

RIVERBANK CITY COUNCIL / LRA AGENDA ITEM NO. 3.A

SECTION 3: CONSENT CALENDAR

Meeting Date:	October 25 , 2016
Subject:	Waiver of Readings
From:	Marisela H. Garcia, Interim City Manager/Director of Finance
Submitted by:	Annabelle Aguilar, CMC, City Clerk / LRA Recorder

RECOMMENDATION

It is recommended that the City Council / LRA Board approve the waiver of readings of Ordinances and Resolutions, except by title.

SUMMARY

The approval of the waiver of readings will allow Ordinances and Resolutions to be introduced by title only and acted upon without the need to read the entire text of the item into the public record. The documents related to proposed Ordinances and Resolutions are available for review by the public on the City's website and in the City Clerk's office at City Hall (North).

FINANCIAL IMPACT

There is no financial impact to this item.

ATTACHMENTS

There are no attachments to this report.

RIVERBANK CITY COUNCIL / LOCAL REDEVELOPMENT AUTHORITY
AGENDA ITEM NO. 3.B

SECTION 3: CONSENT CALENDAR

Meeting Date:	October 25, 2016
Subject:	Approval of the August 9, 2016, City Council and Local Redevelopment Authority Minutes
From:	Marisela H. Garcia, Interim City Manager/Director of Finance
Submitted by:	Annabelle Aguilar, CMC, City Clerk / LRA Recorder

RECOMMENDATION

It is recommended that the City Council / Local Redevelopment Authority Board approve the City Council /LRA Meeting Minutes as presented.

SUMMARY

The Draft Minutes of the August 9, 2016, regular City Council and the Local Redevelopment Authority Board meetings have been prepared for review and approval.

FINANCIAL IMPACT

There is no financial impact to this item.

ATTACHMENT

1. August 9, 2016, City Council and LRA Minutes

City of Riverbank

REGULAR CITY COUNCIL AN
LOCAL REDEVELOPMENT AUTHORITY MEETINGS
(The City Council also serves as the LRA Board)

MINUTES OF

TUESDAY, AUGUST 9, 2016

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CALL TO ORDER:

The City Council and Local Redevelopment Authority Board of the City of Riverbank met at 6:03 p.m. on this date at the Riverbank City Council Chambers, 6707 Third Street, Suite B, Riverbank, California, with Mayor/Chair Richard D. O'Brien presiding.

FLAG SALUTE: Mayor Richard D. O'Brien

INVOCATION: Reverend Charles Neal, Ministerial Association

ROLL CALL:

Present
Mayor/Chair Richard D. O'Brien
Vice Mayor/Chair Jeanine Tucker
Council/Authority Member Darlene Barber-Martinez
Council/Authority Member Cal Campbell
Council/Authority Member Leanne Jones Cruz

AGENDA CHANGES: Mayor/Chair Richard D. O'Brien – ***no changes to agenda.***

CONFLICT OF INTEREST
Any Council/Authority Member and Staff who would have a direct Conflict of Interest on any scheduled agenda item to be considered are to declare their conflict.

No one declared a conflict.

1. PRESENTATIONS There were no items to consider.

2. PUBLIC COMMENTS (No Action Can Be Taken)

At this time, members of the public may comment on any item not appearing on the agenda, and within the subject matter jurisdiction of the City Council/LRA Board. Individual comments will be limited to a **maximum of 5 minutes** per person and each person may speak once during this time; time cannot be yielded to another person. Under State Law, matters presented during the public comment period cannot be discussed or acted upon. For record purposes, state your name and City of residence. Please make your comments directly to the City Council/LRA Board.

Mr. Edward Jones presented a donation to the Jacob Myers Park Committee.

3. CONSENT CALENDAR There were no items to consider.

4. UNFINISHED BUSINESS There were no items to consider.

5. PUBLIC HEARINGS There were no items to consider.

6. NEW BUSINESS There were no items to consider.

7. COMMENTS (Information only – No action)

Item 7.1: Staff Comments – ***No comments were made.***

Item 7.2: Council/Authority Member Comments – ***No comments were made.***

Item 7.3: Mayor/Chair Comments – ***No comments were made.***

8. CLOSED SESSION

The public will have a limit of 5 minutes to comment on Closed Session item(s) as set forth on the agenda prior to the City Council/LRA Board recessing into Closed Session.

MAYOR/CHAIR O'BRIEN ANNOUNCED THE CLOSED SESSION ITEMS AND OPENED THE ITEMS FOR PUBLIC COMMENT; NO ONE SPOKE, THE MEETINGS WERE RECESSED TO CLOSED SESSION AT 6:12 P.M.

LRA Item 8.1: **CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION** Significant exposure to litigation pursuant to subdivision (b) of Government Code § 54956.9: (2) cases

Item 8.2: **PUBLIC EMPLOYEE PERFORMANCE EVALUATION**
Pursuant to Government Code Section 54957
Title: City Attorney

Recommendation: It is recommended that City Council /LRA Board provide direction to Staff on the Closed Session item(s).

9. REPORT FROM CLOSED SESSION

MAYOR/CHAIR O'BRIEN RECONVENED THE MEETINGS AT 7:13 P.M.

LRA Item 9.1: Report from Closed Session LRA Item 8.1: **CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION** – (2) cases

Chair O'Brien reported that direction was provided to staff.

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Item 9.2: Report from Closed Session Item 8.2: **PUBLIC EMPLOYEE PERFORMANCE EVALUATION** – City Attorney

Mayor O'Brien reported that direction was provided to staff.

ADJOURNMENT

There being no further business, Mayor/Chair O'Brien adjourned the meetings at 7:14 p.m.

ATTEST: (Adopted *10/25/2016*)

APPROVED:

_____

Marisela H. Garcia
Finance Director/Recorder

_____

Richard D. O'Brien
Mayor/Chair

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RIVERBANK CITY COUNCIL AGENDA ITEM NO. 3.B-1

SECTION 3: CONSENT CALENDAR

Meeting Date:	October 25, 2016
Subject:	Approval of the September 29, 2016, Special City Council Minutes
From:	Marisela H. Garcia Interim City Manager/Director of Finance
Submitted by:	Annabelle Aguilar, CMC, City Clerk

RECOMMENDATION

It is recommended that the City Council approve the Special City Council Minutes as presented.

SUMMARY

The Draft Minutes of the September 29, 2016, Special City Council meeting have been prepared for review and approval.

FINANCIAL IMPACT

There is no financial impact to this item.

ATTACHMENT

1. September 29, 2016, Special City Council Minutes

City of Riverbank
SPECIAL CITY COUNCIL MEETING
(STRATEGIC PLANNING WORKSHOP)

MINUTES OF
THURSDAY, SEPTEMBER 29, 2016

CALL TO ORDER:

The City Council of the City of Riverbank met at 8:30 a.m. on this date at the Riverbank Industrial Complex Conference Room, 5300 Claus Road, Modesto, California, with Mayor Richard D. O'Brien presiding.

CALL TO ORDER: Mayor Richard D. O'Brien

ROLL CALL:
Present: Mayor Richard D. O'Brien
Councilmember Darlene Barber-Martinez
Councilmember Cal Campbell
Councilmember Leanne Jones Cruz

Absent: Vice Mayor Jeanine Tucker

CONFLICT OF INTEREST
Council Members and Staff who would have a direct Conflict of Interest on any scheduled agenda item to be considered are to declare their conflict at this time.

No one declared a conflict.

1. PUBLIC BUSINESS FROM THE FLOOR (No Action Can Be Taken)

Pursuant to Government Code in reference to a special meeting, the public has the opportunity to address the City Council only on items appearing on this special meeting notice. Individual comments are limited to a **maximum of 5 minutes** per person and each person may speak once during this time. Time cannot be yielded to another person.

No one spoke.

2. CONSENT CALENDAR

All items listed on the Consent Calendar are to be acted upon by a single action of the City Council unless otherwise requested by an individual Council Member for special consideration. Otherwise, the recommendation of staff will be accepted and acted upon by roll call vote.

Item 2.A: Waive Readings. All Readings of ordinances and resolutions, except by title, are waived.

Item 2.B: **A Resolution [2016-085] of the City Council of the City of Riverbank, California, Appointing Cliff Nagel to the Riverbank Housing Authority Board of Commissioners; To Serve A Four-Year Term** – It is recommended that the City Council adopt the proposed resolution to appoint Mr. Cliff Nagel to the Riverbank Housing Authority Commission as recommended in the letter received from the RHA Commission.

ACTION: ***By motion moved and seconded (Jones Cruz / Campbell / passed 4-0) to approve Items 2.A through 2.B as presented. Motion carried by unanimous City Council roll call vote.***
AYES: Jones Cruz, Campbell, Barber-Martinez, and Mayor O'Brien
NAYS: None / ABSENT: Tucker / ABSTAINED: None

3. BUSINESS

Item 3.1: **Discussion and Update of the City's Strategic Plan** – It is recommended that the City Council consider the City's Strategic Plan and provide direction and/or comments to guide Management Staff on the implementation and accomplishment of the Plan's goals.

Mayor O'Brien began the City's Strategic Planning Update with an introduction of Marilyn Snider, with Snider and Associates. Mrs. Snider served as the facilitator of the strategic plan update process. Management Staff in attendance included Marisela Garcia (Interim City Manager/Director of Finance),Sue Fitzpatrick (Director of Parks & Recreation), Debbie Olson (Executive Director of the Local Redevelopment Authority), Kathleen Cleek (Development Services Administration Manager), Donna Kenney (Planning and Building Manager), Michael Riddell (Public Works Superintendent), John Anderson (Contract Planner J.B. Anderson Land Use Planning), Tom Hallinan (City Attorney) and Robin Baral (Deputy City Attorney).

Mrs. Snider began the strategic plan update process with an evaluation of the City's Strengths, Weaknesses, Opportunities, and Threats. City Council and Management Staff reviewed the 2013-2016 Three-Year Goals, and established the new Three-Year Goals for 2016-2019 as follows:

- ***Achieve and Maintain Financial Stability and Sustainability***
- ***Stabilize City Systems***
- ***Retain and Attract Businesses***
- ***Expand Economic Development***
- ***Attract, Develop, and Retain Quality Staff***

Through discussion, the City Council and Management Staff developed the objectives for each three-year goal.

ADJOURNMENT

There being no further business, Mayor O'Brien adjourned the meeting at 2:34 p.m.

ATTEST: (Adopted *10/25/2016*)

APPROVED:

_____

Marisela H. Garcia
Interim City Manager/Recorder

_____

Richard D. O'Brien
Mayor/Chair

Attachment: Strategic Planning – Mission, Vision, Values, and SWOT Analysis
Six Months Strategic Objectives Grid

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RIVERBANK CITY COUNCIL / LOCAL REDEVELOPMENT AUTHORITY
AGENDA ITEM NO. 3.B-2

SECTION 3: CONSENT CALENDAR

Meeting Date:	October 25, 2016
Subject:	Approval of the October 11, 2016, City Council and Local Redevelopment Authority Minutes
From:	Marisela H. Garcia, Interim City Manager/Director of Finance
Submitted by:	Annabelle Aguilar, CMC, City Clerk / LRA Recorder

RECOMMENDATION

It is recommended that the City Council / Local Redevelopment Authority Board approve the City Council /LRA Meeting Minutes as presented.

SUMMARY

The Draft Minutes of the October 11, 2016, regular City Council and the Local Redevelopment Authority Board meetings have been prepared for review and approval.

FINANCIAL IMPACT

There is no financial impact to this item.

ATTACHMENT

1. October 11, 2016, City Council and LRA Minutes

City of Riverbank

REGULAR CITY COUNCIL AN
LOCAL REDEVELOPMENT AUTHORITY MEETINGS
(The City Council also serves as the LRA Board)

MINUTES

TUESDAY, OCTOBER 11, 2016

CALL TO ORDER:

The City Council and Local Redevelopment Authority Board of the City of Riverbank met at 6:00 p.m. on this date at the Riverbank City Council Chambers, 6707 Third Street, Suite B, Riverbank, California, with Mayor/Chair Richard D. O'Brien presiding.

FLAG SALUTE: Mayor Richard D. O'Brien

INVOCATION: Reverend Charles Neal, Ministerial Association

ROLL CALL:

Present
Mayor/Chair Richard D. O'Brien
Vice Mayor/Chair Jeanine Tucker
Council/Authority Member Darlene Barber-Martinez
Council/Authority Member Cal Campbell
Council/Authority Member Leanne Jones Cruz

AGENDA CHANGES: Mayor/Chair Richard D. O'Brien – ***no changes to agenda.***

CONFLICT OF INTEREST
Any Council/Authority Member and Staff who would have a direct Conflict of Interest on any scheduled agenda item to be considered are to declare their conflict.

No one declared a conflict.

1. PRESENTATIONS

Item 1.1: Proclamation – Lights on Afterschool – October 21, 2016.

After School Program Advisor for Mesa Verde Elementary Angela Bailey Cabrie , along with several Elementary School children spoke in support of the program. Mayor O'Brien presented the proclamation.

Item 1.2: Update on Stanislaus Consolidated Fire Protection District Board.

Riverbank SCFPD Board of Directors Representative Michelle Guzman provided an update.

Item 1.3: Strategic Plan Update.

Interim City Manager/Director of Finance Marisela Garcia presented the plan update.

2. PUBLIC COMMENTS (No Action Can Be Taken)

At this time, members of the public may comment on any item not appearing on the agenda, and within the subject matter jurisdiction of the City Council/LRA Board. Individual comments will be limited to a **maximum of 5 minutes** per person and each person may speak once during this time; time cannot be yielded to another person. Under State Law, matters presented during the public comment period cannot be discussed or acted upon. For record purposes, state your name and City of residence. Please make your comments directly to the City Council/LRA Board.

Riverbank Library Manager Vicky Holt provided an update on Library programs and activities, and announced a Town Hall meeting to help plan for the Library's future.

Scott McRitchie, Riverbank, inquired about the interview process allowing citizens to meet the potential candidates for the City Manager position.

Lester Williams, Riverbank, spoke in regards to the review of the City's ordinance on the cost and hardship of payment to connect to the City's water system when a well goes dry.

Haskell Moore, Riverbank, spoke in support of Mr. William's request.

Ric McGinnis, representative of the Riverbank Historical Society, thanked the City for improving the Museum grounds with flowers and bark.

Interim City Manager Marisela Garcia responded that City Council could consider Mr. McRitchie's request during closed session and staff would review the ordinance and what arrangements could be made in regards to Mr. Williams request.

Mayor O'Briens responded that meeting with the candidates for the City Manager position would need to be at the approval of the candidates.

3. CONSENT CALENDAR

All items listed on the Consent Calendar are to be acted upon by a single action of the City Council/LRA Board unless otherwise requested by an individual Council/Authority Member for special consideration. Otherwise, the recommendation of staff will be accepted and acted upon by roll call vote.

Item 3.A: Waive Readings. All Readings of ordinances and resolutions, except by title, are waived.

Item 3.B: Approval of the August 5, 2016, Special City Council Minutes.

Item 3.B-1: Approval of the September 27, 2016, City Council and Local Redevelopment Authority Minutes.

Item 3.C: A **Resolution [No. 2016-086]** Approving the Application for Grant Funds for the California Urban Rivers Grant Program Under the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1).

Recommendation: It is recommended that City Council/LRA Board approve the Consent Calendar items by roll call vote.

ACTION: ***By motion moved and seconded (Jones Cruz / Barber-Martinez / passed 5-0) to approve Items 3.A through 3.C as presented. Motion carried by unanimous City Council and LRA Board roll call vote.***
AYES: Barber-Martinez, Campbell, Jones Cruz, Tucker, and Mayor/Chair O'Brien
NAYS: None / ABSENT: None / ABSTAINED: None

4. UNFINISHED BUSINESS

There were no items to consider.

5. PUBLIC HEARINGS

The Public Hearing Notices were published in the local newspaper of general circulation on September 21, 2016, for Item 5.1 and on September 28, 2016, for Item 5.2.

Item 5.1: **The First Reading and Introduction by Title Only of a Proposed Ordinance, Amending Chapter 73, rTraffic Schedules of Title VII, Traffic Code, of the Riverbank Municipal Code** – It is recommended that the City Council conduct the public hearing for the first reading and introduction by title only of the proposed ordinance to consider its approval as presented, which will initiate the scheduling of the ordinance for its second reading by title only on October 25, 2016, to consider its adoption. The purpose of this Ordinance amendment is to recommend changes to speed limits on 13 street segments in the City of Riverbank (the "City").

Development Services Administration Manager Kathleen Cleek presented the item.

Mayor O'Brien opened the public hearing at 6:40 p.m.

- ***Ms. Mary Gardiolla, Riverbank, spoke against raising the speed limit on California Street.***
- ***Mr. Haskell Moore, Riverbank, spoke against changing the speed limits.***

Mayor O'Brien closed the public hearing at 6:43 p.m.

City Council and Staff discussed the item, stating concerns with some of the proposed changes..

Chief Erin Kiely commented on the problem of not having the ability to conduct radar readings, if the proposed street speed limit changes were not approved.

DRAFT

After further discussion, City Council agreed to continue the item for further research.

ACTION: ***By motion moved and seconded (Barber-Martinez / Campbell / passed 5-0) to continue the first reading of the ordinance to the next regular City Council meeting to allow for further research of the proposed speed limit changes. Motion carried by unanimous City Council roll call vote.***
AYES: Barber-Martinez, Campbell, Jones Cruz, Tucker, and Mayor O'Brien
NAYS: None / ABSENT: None / ABSTAINED: None

Item 5.2: **Public Hearing – 2015 Urban Water Management Plan (UWMP) Public Draft Review** – It is recommended that:

1) City Council open the public hearing; receive public questions and comments; close the public hearing, and
2) City Council, in review and consideration of the 2015 Public Draft UWMP, provide questions or comments.

All general public and City Council questions and comments will be received, and revisions determined to be needed, will be made to the public draft document. A final draft UWMP will be prepared for further consideration and adoption at the next regular City Council meeting on October 25, 2016.

Public Works Superintendent Michael Riddell introduced the item and Consultant Neil Caldwell of Kjeldsen, Sinnock, and Neudeck Engineering, Inc. who presented the report.

Mayor O'Brien opened the public hearing at 7:06 p.m.

- ***Mr. Scott McRitchie, Riverbank, spoke in regards to not understanding why the newspaper continuously stated that the City of Riverbank's water use [level] was up and the surrounding cities' water use was down.***

Mayor O'Brien closed the public hearing at 7:10 p.m.

City Council and staff discussed the item.

ACTION: ***By motion moved and seconded (Tucker / Campbell / passed 5-0) to accept the UWMP as presented. Motion carried by unanimous City Council roll call vote.***
AYES: Barber-Martinez, Campbell, Jones Cruz, Tucker, and Mayor O'Brien
NAYS: None / ABSENT: None / ABSTAINED: None

6. NEW BUSINESS

Item 6.1: **City of Riverbank Water Conservation Update** – It is recommended that the City Council:

1) Continue with the enforcement of the current water use policies for all

2) residents and Industrial/Commercial businesses within the City of Riverbank in accordance with the City of Riverbanks Ordinance Chapter 52: Water, and the City Council's related Resolution No. 2016-026; and
3) Set a water conservation goal of an additional 10 percent reduction by 2020 in accordance with the 2010 Urban Water Management Plan mandate of an overall reduction of 20 percent by 2020; setting a total reduction goal of 30 percent.

Public Works Superintendent Michael Riddell presented the staff report.

ACTION: ***By motion moved and seconded (Tucker / Jones Cruz / passed 5-0) to continue the enforcement of the current policies of Ordinance Chapter 52 and related Resolution No. 2016-026, and increase the water conservation goal for the 2020 reduction level in accordance with the 2010 UWMP mandate to a total of 30% as presented. Motion carried by unanimous City Council roll call vote.***
AYES: Barber-Martinez, Campbell, Jones Cruz, Tucker, and Mayor O'Brien
NAYS: None / ABSENT: None / ABSTAINED: None

7. COMMENTS (Information only – No action)

Item 7.1: Staff Comments

- ***Interim City Manager/Director of Finance Marisela Garcia announced that a two-week water meter audit was in progress to determine its accuracy, commended all staff involved in making the Cheese and Wine Exposition a success, and thanked Planning and Building Manager Donna Kenney for removing unlawful posted signs throughout the City.***
- ***Parks and Recreation Director Sue Fitzpatrick reported on the success of the Cheese and Wine Exposition and proposed a November presentation of on the success of the event for the last three years.***
- ***Police Chief Kiely reported that the Cheese and Wine event was peaceful and only one incident occurred.***
- ***Interim City Manager Garcia commented on the idea of creating Youtube videos to help explain the new water meters, how the program works, and the billing system.***

Item 7.2: Council/Authority Member Comments

- ***Council/Authority Member Jones Cruz 1) Thanked participants of the strategic planning session, 2) reported on her attendance of the California League of Cities Conference, 3) thanked everyone for the success of the Cheese and Wine event, and 4) was glad to see the placement of a sidewalk [requested by Mr. Edward Jones].***

DRAFT

- ***Council/Authority Member Campbell encouraged volunteerism, thanked staff for their work, and thanked the Riverbank Library Manager [Vicky Holt] for her efforts in operating the local library.***
- ***Council/Authority Member Barber-Martinez 1) agreed with the comments made about the Cheese and Wine event, 20 reported on her attendance of the California League of Cities Conference, 3) thanked everyone involved with the After School Lights On event and program, and 4) announced that the Stanislaus Elder Abuse Prevention Alliance event on Friday, October 28th.***

Item 7.3: Mayor/Chair Comments

- ***Mayor/Chair O'Brien 1) encouraged everyone to attend the Library Town Hall meeting, 2) thanked Director Fitzpatrick and her staff for a successful Cheese and Wine event, 3) thanked fellow Council Members and Interim City Manager Garcia for their efforts of important discussions derived from the League Conference, such as retrieving the General Fund subsidies that have been made to cover costs as well as looking into the amount per capita the City is spending and how much, by section, the City is receiving per capita, and 4) thanked the children for the presentation and looked forward to the event [Lights on After School] on the [October] 21st***

8. CLOSED SESSION

The public will have a limit of 5 minutes to comment on Closed Session item(s) as set forth on the agenda prior to the City Council/LRA Board recessing into Closed Session.

MAYOR/CHAIR O'BRIEN ANNOUNCED THE CLOSED SESSION ITEMS AND OPENED THE ITEMS FOR PUBLIC COMMENT; NO ONE SPOKE, THE MEETINGS WERE RECESSED TO CLOSED SESSION AT 7:35 P.M.

LRA Item 8.1: **CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION**
Significant exposure to litigation pursuant to subdivision (b) of Government Code § 54956.9: (2) potential cases

Item 8.2: **PUBLIC EMPLOYMENT**
Pursuant to Government Code Section 54957(b) (1)
Position Title: City Manager

Item 8.3: **CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION**
Pursuant to Government Code § 54956.9(a)
Name of Case: Barham Construction, Inc. v. City of Riverbank
Court of Appeals of California, Fifth District
Case No. F058692 and Case No. F059499

Recommendation: It is recommended that City Council /LRA Board provide direction to Staff on the Closed Session item(s).

9. REPORT FROM CLOSED SESSION

MAYOR/CHAIR O'BRIEN RECONVENED THE MEETINGS AT 8:15 P.M.

LRA Item 9.1: Report on Closed Session LRA Item 8.1: **CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION.**

Chair O'Brien reported that direction was provided to staff.

Item 9.2: Report on Closed Session Item 8.2: **PUBLIC EMPLOYMENT**

Mayor O'Brien reported that direction was provided to staff.

Item 9.3: Report from Closed Session Item 8.3: **CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION.**

Mayor O'Brien reported that direction was provided to staff.

ADJOURNMENT

There being no further business, Mayor/Chair O'Brien adjourned the meetings at 8:16 p.m.

ATTEST: (Adopted *10/25//2016*)

APPROVED:

_____

Annabelle H. Aguilar, CMC
City Clerk / LRA Recorder

_____

Richard D. O'Brien
Mayor / Chair

DRAFT

RIVERBANK CITY COUNCIL AGENDA ITEM NO. 3.B-3

SECTION 3: CONSENT CALENDAR

Meeting Date:	October 25, 2016
Subject:	Approval of the October 17, 2016, Special City Council Minutes
From:	Marisela H. Garcia Interim City Manager/Director of Finance
Submitted by:	Annabelle Aguilar, CMC, City Clerk

RECOMMENDATION

It is recommended that the City Council approve the Special City Council Minutes as presented.

SUMMARY

The Draft Minutes of the October 17, 2016, Special City Council meeting have been prepared for review and approval.

FINANCIAL IMPACT

There is no financial impact to this item.

ATTACHMENT

1. October 17, 2016, Special City Council Minutes

CITY OF RIVERBANK
SPECIAL CITY COUNCIL MEETING
(CLOSED SESSION)
MINUTES OF
MONDAY, OCTOBER 17, 2016

CALL TO ORDER:

The City Council of the City of Riverbank met at 3:31 p.m. on this date at the Riverbank City Hall Council Chambers, 6707 Third Street, Suite B, Riverbank, California, with Mayor O'Brien presiding.

FLAG SALUTE: **Mayor Richard D. O'Brien**

ROLL CALL: **Mayor Richard D. O'Brien**
Present: **Vice Mayor Jeanine Tucker**
Councilmember Darlene Barber-Martinez
Councilmember Cal Campbell
Councilmember Leanne Jones Cruz

CONFLICT OF INTEREST
Any Council Member and Staff who would have a direct Conflict of Interest on any scheduled agenda item to be considered are to declare their conflict at this time.

No one declared a conflict.

1. PUBLIC BUSINESS FROM THE FLOOR (No Action Can Be Taken)

Pursuant to Government Code in reference to a special meeting, the public has the opportunity to address the City Council only on items appearing on this special meeting notice. Individual comments are limited to a **maximum of 5 minutes** per person and each person may speak once during this time. Time cannot be yielded to another person. For record purposes, please state your name and City of residence. When speaking, please address the entire City Council.

No one spoke.

2. CLOSED SESSION

The public will have a limit of 5 minutes to comment on Closed Session item(s) as set forth on the agenda prior to the City Council recessing into Closed Session.

Mayor O'Brien announced the Item and opened the Item for comment; no one spoke, City Council recessed to Closed Session at 3:32 p.m.

Item 2.1: **PUBLIC EMPLOYMENT**
Pursuant to Government Code Section 54957(b) (1)
Position Title: City Manager

Recommendation: It is recommended that City Council provide direction to Staff on the Closed Session item(s).

3. REPORT FROM CLOSED SESSION

Mayor O'Brien reconvened the meeting at 3:57 p.m.

Item 3.1: Report on Closed Session Item 2.1: **PUBLIC EMPLOYMENT**

Mayor O'Brien announced that direction was provided to staff.

ADJOURNMENT

There being no further business, Mayor O'Brien adjourned the meetings at 3:57 p.m.

ATTEST: (Adopted *10/25/2016*)

APPROVED:

Annabelle H. Aguilar, CMC
City Clerk

Richard D. O'Brien
Mayor

DRAFT

RIVERBANK CITY COUNCIL AGENDA ITEM NO. 3.C

SECTION 3: CONSENT CALENDAR

Meeting Date:	October 25, 2016
Subject:	A **Resolution** Approving the Submittal of an Application for Youth Soccer and Recreation Development Program Grant Funds
From:	Marisela H. Garcia, Interim City Manager/Director of Finance
Submitted by:	Sue Fitzpatrick, Director of Parks and Recreation

RECOMMENDATION

It is recommended that the City Council consider approval of a Resolution Approving the submittal of an Application for $1,000,000 for Youth Soccer and Recreation Development Program Grant Funds.

SUMMARY

The Parks and Recreation Department is requesting approval to submit an application for $1,000,000 for Youth Soccer and Recreation Development Program Grant Funds. The grant funds would be used to develop an Artificial Turf Soccer Field within Phase II of the existing Riverbank Sports Complex on Morrill Road.

BACKGROUND

In 2008, the City of Riverbank developed phase I of the Riverbank Sports Complex on Morrill Road. Phase I consisted of the construction of one lighted soccer field, one lighted football field, a restroom/concession building, and a parking lot.

The conceptual design for Phase II was included in the Parks Master Plan and includes an additional soccer field, play area, and BMX bike area within the 6 undeveloped acres of the complex. The City Parks and Recreation Department plans to work with an Architect and the community to update the plan to include additional parking and revisit the amenities planned in Phase II in an updated master plan in the future.

At this time the City has the opportunity to apply for grant funding for a soccer field through the Youth Soccer and Recreation Development Program. The intent of the Youth Soccer Program is to award grants on a competitive basis for fostering new soccer, baseball, softball, and basketball recreation opportunities. This program has an emphasis on creating new recreation opportunities along with water conservation

measures. The submittal of the grant application would be for the design and construction of one artificial turf soccer field with no lights.

FINANCIAL IMPACT:

This grant does not require a match of funds but additional points are awarded if other sources of funds are designated toward the project. The City would use a combination of Park System Development Fee Funds and community donations to provide the cost of the design and construction documents. There would be no impact to the General Fund as other funding sources would be obtained. The grant performance period is eight years.

ATTACHMENTS:

1) Resolution

CITY OF RIVERBANK

RESOLUTION

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RIVERBANK, CALIFORNIA, APPROVING THE SUBMITTAL OF AN APPLICATION FOR YOUTH SOCCER AND RECREATION DEVEOPMENT PROGRAM GRANT FUNDS

WHEREAS, the State Department of Parks and Recreation has been delegated the responsibility by the legislature of the State of California for the administration of the Youth Soccer and Recreation Development Program, setting up necessary procedures governing the application; and

WHEREAS, said procedures established by the State Department of Parks and Recreation require the Applicant to certify by resolution the approval of an application before submission of said application to the State; and

WHEREAS, successful applicants will enter into a contract with the State of California to complete the Grant Scope project, with a grant performance period of (8) eight years; and

WHEREAS, the grant does not require matching funds; the City would use a combination of Park System Development Fees funds and community donations to provide the cost of the design and construction documents; having no impact to the General Fund.

NOW, THEREFORE, BE IT RESOLVED that the City of Riverbank, hereby approves the submittal of an application for $1,000,000.00 for the development of the Riverbank Artificial Turf Soccer Field at the Riverbank Sports Complex, and

1) Certifies that said Applicant has or will have available, prior to commencement of any work on the project included in this application, the sufficient funds to complete the project; and

2) Certifies that if the project is awarded the Applicant has or will have sufficient funds to operate and maintain the project, and

3) Certifies that the Applicant has reviewed, understands, and agrees to the General Provisions contained in the contract shown in the Grant Administration Guide; and

4) Agrees to comply with all applicable federal, state, and local laws; rules, regulations, and guidelines.

PROPOSED

PASSED AND ADOPTED by the City Council of the City of Riverbank at a regular meeting held on the 25th day of October, 2016; motioned by Councilmember _____, seconded by Councilmember _____, and upon roll call was carried by the following City Council vote of ___:

AYES:
NAYS:
ABSENT:
ABSTAIN:

ATTEST:	**APPROVED:**
_____	_____
Annabelle Aguilar, CMC **City Clerk**	**Richard D. O'Brien** **Mayor**

Attachments: Executed Grant Contract

PROPOSED

RIVERBANK CITY COUNCIL AGENDA ITEM NO. 3.D

SECTION 3: CONSENT CALENDAR

Meeting Date:	October 25, 2016
Subject/ Title:	A **Resolution** Authorizing the Execution of the San Joaquin Valley Air Pollution Control District (SJVAPCD), New Alternative Fuel Vehicle Purchase Grant (Zero Electric Police Motorcycles)
From:	Marisela H. Garcia, Interim City Manager/Director of Finance
Submitted by:	Chief Erin Kiely, Riverbank Police Services

RECOMMENDATION:

It is recommended that the Riverbank City Council receive this report and approve the corresponding resolution to approve the securing and completion of this grant. It is also recommended that the Riverbank City Council, per the grant requirements, authorize the initial expenditure of $62,178 in city funds to secure three Zero Electric Police Motorcycles, whereby the grant and California Air Resources Board (CARB) rebates will collectively reimburse the city for its $62,178 expenditure.

SUMMARY:

In keeping with AB 2766, AB 923, SB 709 and AB 2522 the SJVAPCD uses related funding to support grants for certain specified, new, alternative fuel vehicle purchases by public agencies. Zero Electric Police Motorcycles qualify for this grant. The cost of a fully equipped Zero is $20,726 per motorcycle and Riverbank Police Services wishes to purchase 3 of them, for a total of $62,178.

The SJVAPCD, New Alternative Fuel Vehicle Purchase Grant reimburses $20,000 per motorcycle, with an additional $900 per motorcycle CARB rebate available. The City of Riverbank would qualify for a total of $62,700 in potential grant reimbursements/CARB rebates. Therefore, the city will be fully reimbursed for the $62,178 purchase price.

As Zero's do not have a traditional drive train, the only routine maintenance will be for tires and brakes (which can be paid for out of the existing traffic fund). Operating costs for the Zero's is anticipated to be $800, per every 12,000 miles, per motorcycle.

In addition to improving air quality, which is the primary goal of the grant, Zero's are extremely quiet and offer much more stealth than a traditional police vehicle while doing proactive patrol or traffic enforcement.

Zero's have a fully charged range of 141 miles (city) and 79 miles (highway). They have a top speed of 98 mph. They will charge off of any standard 110 V or 220 V, with a standard charge time of 8.9 hours and an average electrical charging cost of $1.46/charge. The long term battery life is estimated at 312,000 miles. The equivalent city fuel economy is 415 MPG and highway is 170 MPG. Curb weight of the Zero is 437 pounds. Police Model Zero's come fully equipped with Code 3 lights and siren.

The cities of Ceres, Patterson and Waterford have all procured Zero's through similar SJVAPCD grants and are very satisfied with the Zero's performance.

FINANCIAL IMPACT:

Initial city expenditure of $62,178 for three fully equipped Zero's, to be completely reimbursed (within several months) by the grant and CARB rebates. Tire and brake maintenance will be paid for out of the traffic fund. There will be no perceived impact to the general budget.

ATTACHMENTS:

1. Resolution
2. Funding Agreement
3. Zero DSP ZF 13.0 specifications are attached.

CITY OF RIVERBANK

RESOLUTION

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RIVERBANK, CALIFORNIA, AUTHORIZING THE EXECUTION OF THE SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT NEW ALTERNATIVE FUEL VEHICLE PURCHASE GRANT (ZERO ELECTRIC POLICE MOTORCYCLE)

WHEREAS, Riverbank Police Services provides proactive patrol and traffic enforcement for the city, to maintain public safety; and,

WHEREAS, Riverbank Police Services has recognized that San Joaquin Valley Air Pollution Control District (SJVAPCD) has a grant program which allows for the specific purchase of Zero Electric Police Motorcycles , which can be used to accomplish proactive patrol and traffic enforcement; and,

WHEREAS, Riverbank Police Services, on behalf of the City of Riverbank, is seeking to obtain three such motorcycles through the grant; and,

WHEREAS, the grant promotes the transition to green energy and helps with maintaining our air quality in the central valley; and,

WHEREAS, the grant will provide up to $20,000 in reimbursement per motorcycle, and there is an additional $900 California Air Resources Board (CARB) rebate per motorcycle; and,

WHEREAS, the cost for all three fully equipped motorcycles will total $62,178 with $60,000 in reimbursements being paid back to the City of Riverbank by the grant and an additional $2,700 in CARB rebates being paid to the City of Riverbank; and,

WHEREAS, the City of Riverbank will be able to procure the three Zero motorcycles essentially at no cost.

PROPOSED

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Riverbank hereby:

1) Approves the filing of the San Joaquin Valley Air Pollution Control District, New Alternative Fuel Vehicle Purchase, grant application; and,

2) Approves the expenditure of $62,178 in city funds for the purchase of three, fully equipped Zero Electric Police Motorcycles, with the condition that the grant and CARB credits reimburse all of these funds, as they will reimburse up to $62,700; and

3) Appoints the City Manager, or designee, as the agent to execute and submit all documents including, but not limited to applications, agreements, reports, insurance, and payment requests, which may be necessary for the completion of the grant and CARB rebate requirements.

PASSED AND ADOPTED by the City Council of the City of Riverbank at a regular meeting held on the 25th day of October, 2016; motioned by Councilmember _____, seconded by Councilmember _____, and upon roll call was carried by the following City Council vote of ___:

AYES:
NAYS:
ABSENT:
ABSTAINED:

ATTEST:	**APPROVED:**
_____	_____
Annabelle Aguilar, CMC **City Clerk**	**Richard D. O'Brien** **Mayor**

Attachments: Copy of Executed documents submitted

PROPOSED

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

September 1, 2016

Pat McCulloch
City of Riverbank
6707 Third Street
Riverbank, CA 95367

RE: **Project Status: Executed Agreement**
Public Benefit Program Alt-Fuel Component - Project Number: **C-45410-A**

Dear Pat McCulloch:

Thank you for your participation in the San Joaquin Valley Air Pollution Control District (SJVAPCD) Incentive Programs. Your agreement with the SJVAPCD is now executed.

The following documents are enclosed:

1. A copy of your executed agreement
2. Public Benefit Grant Program, New Alternative Fuel Vehicle Purchase Component Payment Procedures

Please keep the copy of your executed agreement for your records as it contains important information regarding the project implementation life, required reporting and record keeping, and other important agreement obligations. The Payment Procedures document contains the necessary form and instructions for successful completion of a Claim for Payment Packet to be reimbursed. Please review the Payment Procedures document in its entirety for instructions on reimbursement.

If you have any questions, please call (559) 230-5800 or email weberip@valleyair.org and the Incentive Programs staff will be happy to assist you. Please be sure to reference your Project Number **C-45410-A**.

Sincerely,

Public Benefit Program Staff
Incentive Programs

Enclosures (2)

COPY

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

Printed on recycled paper.

Agreement No. **C-45410-A**

SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT

PUBLIC BENEFIT GRANTS PROGRAM

FUNDING AGREEMENT

(New Alternative Fuel Vehicle Purchase)

This Agreement is made and entered into this 31st day of August, 2016, by and between the SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, a unified air pollution control district formed pursuant to California Health and Safety Code section 40150 et seq. (District), and **City of Riverbank** (Participant).

WITNESSETH:

WHEREAS, the California Clean Air Act (CCAA) requires local air pollution control districts to reduce emissions from motor vehicles;

WHEREAS, AB 2766, AB 923, SB 709, and AB 2522 authorize districts to impose fees upon certain registered motor vehicles within the district, and the governing board of the District has imposed said fees;

WHEREAS, said legislation requires District to use said funds for activities related to reduce air pollution from motor vehicles and for related planning, monitoring, enforcement, and technical studies necessary for the implementation of the California Clean Air Act of 1988; and

WHEREAS, the District has developed other funding mechanisms in order to provide grant monies for its incentive programs; and

WHEREAS, on August 11, 2011, the District began accepting applications to approve for funding those projects deemed to be most suitable for vehicle license fees and other funding; and

WHEREAS, Participant has proposed a project that meets the eligibility criteria of the Public Benefit Grants Program, New Alternative Fuel Vehicle Purchase Component and has been approved by the District for funding; and

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Fresno, CA 93726
(559) 230-6000

WHEREAS, Participant represents that it is willing and able to perform the activities set forth herein.

NOW, THEREFORE, based on their mutual promises, covenants, and conditions, the parties hereby agree as follows:

1. PROJECT

The Participant agrees to purchase and place into service the type and number of new alternative fuel vehicle(s) as set forth in the application attached hereto and incorporated herein as Exhibit A. Participant agrees, that at the date of execution of this Agreement, Participant has not yet purchased, taken possession, or ordered said vehicle(s) and agrees to furnish all labor, materials, equipment, licenses, permits, fees, and other incidentals necessary to perform and complete, per schedule, in a professional manner, the requirements described herein. Participant agrees and represents that purchase of the specified vehicle(s) subject of this Agreement is/are not required by or to be used for compliance with any local, state, or federal rule or regulation, settlement agreement, mitigation agreement, memorandum of understanding (MOU), memorandum of agreement (MOA), or other legal mandate currently in effect. Participant waives all rights to any emission reduction credits that may accrue as a result of purchase of the specified vehicle(s).

In the event of any conflict between or among the terms and conditions of this Agreement and the exhibit incorporated herein, such conflict shall be resolved by giving precedence in the following order of priority:

1. To the text of this Agreement
2. Exhibit to this Agreement

2. TIMETABLE/PERIOD OF PERFORMANCE

Participant shall purchase and place the new alternative fuel vehicle(s) into service, and submit all final claims as outlined in paragraph 3, **no later than 9 months from execution date of this agreement.** If the Participant cannot meet the project timetable as set forth herein, the Participant must notify the District in writing

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and request to amend the Agreement to provide the Participant additional time to meet all performance requirements under the Agreement. Such request is subject to review and approval by the District. Participant agrees to amend the Agreement as necessary, if requested by the District, to ensure the project is completed within the timetable approved by the District.

A. **Agreement Period**: The Participant shall own and operate the new alternative fuel vehicle(s) purchased under this Agreement according to the terms of this Agreement for no less than three (3) years from the date in which the vehicle(s) is/are first placed into service.

3. COMPENSATION

The total obligation of the District under this Agreement shall not exceed **Sixty Thousand And 00/100 dollars ($60,000.00)** for the purchase of the new alternative fuel vehicle(s) identified in Exhibit A.

Participant shall obtain through other sources sufficient additional monies to fund the total cost of the vehicle(s) as outlined in Exhibit A. In the event funding from other sources for the total cost of the vehicle(s) as outlined in Exhibit A is not received by Participant, District reserves the right to terminate or re-negotiate this Agreement.

A. **Payments:** Advance payments shall not be permitted. The District shall issue payment to Participant upon receipt of a properly supported and verified claim for payment as specified in the Public Benefit Grants Program, New Alternative Fuel Vehicle Purchase Component payment procedures document. Payment is for reimbursement to the Participant for the purchase of the specified new alternative fuel vehicle(s) and funding shall only be allowed toward the purchase of the specific vehicle(s) described in Exhibit A. The District reserves the right to reduce the funding paid to the Participant if it is determined that the actual invoiced costs paid by the Participant for the purchase of the new vehicle(s) is/are less than the costs specified on the application. The District also reserves the right to reduce the funding

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if the Participant receives or will receive co-funding from a third party that, in addition to the District's funding, exceeds the total invoiced cost(s) of the new alternative fuel vehicle(s) purchased under this Agreement. Participant is required to disclose all such information to the District prior to the execution date of this Agreement. The Participant will not be reimbursed by the District for the purchase of the new alternative fuel vehicle(s) if the Participant has purchased, taken possession, or ordered the said new vehicle(s) prior to the execution date of this Agreement.

Concurrently with the submission of any claim for payment, Participant shall certify (through copies of invoices issued, checks, receipts, and the like) that complete payment has been made or invoiced. Participant understands that any payment received from the District to fund the vehicle(s) in this Agreement may be subject to taxation and the District will issue a form 1099 to the Participant. Any tax liability on the funds provided by the District shall be the sole responsibility of the Participant.

B. Surplus Funds: Any compensation, which is not expended by Participant pursuant to the terms and conditions of this Agreement by the project completion date, shall automatically revert to District. Only expenditures incurred by Participant in the direct performance of this Agreement will be reimbursed by District.

4. NON-ALLOCATION OF FUNDS

The terms of this Agreement are contingent on the approval and receipt of funds by the appropriating government agency. Should sufficient funds not be allocated, the services provided may be modified or this Agreement terminated at any time by giving Participant thirty (30) days' prior written notice.

5. ANNUAL REPORTING

Participant shall submit annual reports on the vehicle(s) that include the following information:

1. Participant contact information;
2. Proof of current California registration for the new alternative

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fuel vehicle(s);

3. Proof of insurance as required by paragraph 11.
4. Annual miles or hours traveled (including mileage/activity or hour/activity logs for documentation);
5. Summary of maintenance performed;
6. Any other pertinent information requested by the District on a form to be provided to the Participant by the District.

Annual reporting will be required for three (3) subsequent years following the purchase of the new alternative fuel vehicle(s). The first year annual report is due on the anniversary date of when the new alternative fuel vehicle(s) was/were first placed into service and for each ensuing year thereafter. Noncompliance with the reporting requirements shall result in on-site monitoring by District personnel and will impact the Participant's ability to receive funding from the District for future projects. Participants with annual reports more than six (6) months late will not be granted any additional grant funds from the District until all reports are satisfactorily submitted.

The District or representative designated by the District reserves the right to monitor the vehicle(s), enforce the terms of this Agreement at any time during the Agreement Period specified in subparagraph 2.A, and pursue repayment of funds for non-compliance within the terms and conditions of this Agreement or applicable state laws or regulations.

6. TERMINATION

A. Breach of Agreement: District may immediately suspend or terminate this Agreement, in whole or in part, where in the determination of District there is:

1. An illegal or improper use of funds;
2. A failure to comply with any term of this Agreement;
3. A substantially incorrect or incomplete annual report submitted to the District;

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In no event shall any payment by District constitute a waiver by District of any breach of this Agreement or any default, which may then exist on the part of Participant. Neither shall such payment impair or prejudice any remedy available to the District with respect to the breach or default. District shall have the right to demand of Participant the repayment to the District of any funds disbursed to Participant under this Agreement which in the judgment of District were not expended in accordance with the terms of this Agreement. Participant shall promptly refund any such funds upon demand.

In addition to immediate suspension or termination, District may impose any other remedies available at law, in equity, or otherwise specified in this Agreement. The District may prohibit Participant from participating in all other District and State grant programs in the future.

B. Without Cause: Either party may terminate this Agreement at any time upon giving the other party at least thirty (30) days' advance written notice of intention to terminate. The District shall have the right to demand prompt repayment of a portion or all monies expended under this Agreement as provided in paragraph 3 if the Participant does not meet all obligations under this Agreement upon such termination.

7. MODIFICATION

Any matters of this Agreement may be modified from time to time by the written consent of all the parties without in any way affecting the remainder.

8. INDEPENDENT CONTRACTOR

In performance of the work, duties, and obligations assumed by Participant (also referred to in this section as 'Contractor') under this Agreement, it is mutually understood and agreed that Contractor, including any and all of Contractor's officers, agents, and employees, will at all times be acting and performing as an independent contractor and shall act in an independent capacity and not as an officer, agent, servant, employee, joint venture, partner, or associate of District or ARB.

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Furthermore, District shall have no right to control or supervise or direct the manner or method by which Contractor shall perform its work and function. However, District shall retain the right to administer this Agreement so as to verify that Contractor is performing its obligations in accordance to the terms and conditions thereof. Contractor and District shall comply with all applicable provisions of law and the rules and regulations, if any, of governmental authorities having jurisdiction over matters the subject thereof.

Because of its status as an independent contractor, Contractor shall have absolutely no right to employment rights and benefits available to District employees. Contractor shall be solely liable and responsible for providing to, or on behalf of, itself all legally required employee benefits. In addition, Contractor shall be solely responsible and save District harmless from all matters relating to payment of Contractor's employees, including compliance with social security, withholding, and all other regulations governing such matters. It is acknowledged that during the term of this Agreement, Contractor may be providing services to others unrelated to District or to this Agreement.

9. NON-ASSIGNMENT

Participant may not assign, sell, transfer, license, or subcontract any rights or obligations to a third party within or outside of the District's boundaries without the express prior consent of the District for the duration of the Agreement Period specified in subparagraph 2.A. If the Participant sells or transfers ownership of the vehicle(s) or any portion thereof for any reason, or is required to replace the vehicle(s) with cleaner vehicle(s) prior to the end of the Agreement Period, the Participant must request and receive written consent from the District prior to selling or transferring ownership of the vehicle(s) or any portion thereof.

Prior to completing the transaction, the Participant understands that it is responsible to inform the party purchasing the vehicle(s) of the Agreement provisions and disclose the remaining Agreement term. The Participant shall be responsible for

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establishing an agreement between the new owner and District in order to facilitate the transfer of the Agreement provisions and terms. The Participant shall provide the prospective new owner with valid contact information for the District so the new owner can assume legal responsibility under the original Agreement or enter into a new Agreement with the District, for the remainder of the Agreement Period. Participant understands that they shall not be relieved of their legal obligation to fulfill the conditions of this Agreement unless the new owner has assumed responsibility through an executed agreement with the District.

10. INDEMNIFICATION

Participant agrees to indemnify, save, hold harmless, and at District's request, defend the District, its boards, committees, representatives, officers, agents, and employees from and against any and all costs and expenses (including reasonable attorneys' fees and litigation costs), damages, liabilities, claims, and losses (whether in contract, tort, or strict liability, including, but not limited to, personal injury, death, and property damage) which arise or are alleged to arise directly or indirectly from any act or omission of Participant, its officers, agents, sub participants, or employees in their performance of this Agreement, or out of the operations of the Participant.

11. INSURANCE AND VEHICLE WARRANTY

Participant is responsible for securing warranty and maintaining replacement value insurance on the new alternative fuel vehicle(s) for the duration of the Agreement Period specified in subparagraph 2.A. The new alternative fuel vehicle(s) purchased through this Agreement must not be tampered with or modified in any such manner than would void the warranty of the vehicle(s). Insurance coverage must be sufficient to repay the District's investment in case major damage to the new alternative fuel vehicle(s) occurs during the Agreement Period. A copy of the current insurance for each vehicle purchased under this Agreement is required to be submitted annually with the Participant's annual report.

SJVUAPCD
1990 East
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Fresno, CA
93726
(559) 230-6000

In the event that the new alternative fuel vehicle(s) purchased under this Agreement is/are in an accident, stolen, destroyed, or otherwise rendered temporarily or permanently inoperable, the Participant must immediately inform the District of such damage(s) and repair or replace the vehicles(s) within three (3) months from the date of the occurrence at the Participant's expense and to the standards which meet all program requirements for the remainder of the Participant's obligation under this Agreement.

If the Participant repairs a vehicle rendered temporarily inoperable, said repairs shall include any and all repairs necessary to restore the vehicle and any optional equipment purchased under this Agreement to a reasonable condition. If the Participant replaces a vehicle rendered permanently inoperable; said replacement shall include an equivalent vehicle(s) that, at a minimum, meets all program eligibility requirements, including emission level, Gross Vehicle Weight Rating (GVWR), etcetera. As the replacement of a vehicle may require an amendment to the existing Agreement, the Participant must receive prior authorization from the District in advance of any purchases, and must provide any and all replacement vehicle information to the District.

In the event the Participant does not repair or replace vehicle(s) that become inoperable to fulfill the Agreement Period specified in subparagraph 2.A, the District may undertake actions pursuant to this Agreement, including recouping a portion or all incentive funds provided for the vehicle(s) in question.

12. RECORD KEEPING

Participant shall maintain records sufficient to provide, on an annual basis, information regarding annual mileage, fuel usage, invoices, general maintenance details, correspondence associated with the application, award, agreement, monitoring, enforcement, and reporting requirements and any other available information that may be deemed pertinent to the evaluation of the program for at least two (2) years after the equipment project term or three (3) years after final

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payment, whichever is later. Records shall be readily available and accessible to the District, or District designated representative, upon request for the purposes of ongoing evaluations or auditing.

13. NOTICES

The persons and their addresses having authority to give and receive notices under this Agreement are as follows:

PARTICIPANT	DISTRICT
Jill Anderson **Riverbank City Manager** **City of Riverbank** **6707 Third Street** **Riverbank, CA 95367**	**Seyed Sadredin** **Executive Director/APCO** **San Joaquin Valley Unified APCD** **1990 East Gettysburg Ave.** **Fresno, CA 93726**

Any and all notices between District and Participant provided for or permitted under this Agreement or by law shall be in writing and shall be deemed duly served when personally delivered to one of the parties, or in lieu of such personal service, when deposited in the United States mail, postage prepared, addressed to such party.

14. AUDITS AND INSPECTIONS

In addition to enforcement by the District or designated representative(s) of the District, the District reserves the right to perform audits of vehicle(s) and documentation and enforce the terms of this Agreement at any time during the Agreement term.

If, after audit, the District makes a determination that funds provided to the Participant pursuant to this Agreement were not spent in conformance with this Agreement or any other applicable provisions of law, the Participant agrees to immediately reimburse District all funds determined to have been expended not in conformance with said provisions.

15. POLITICAL ACTIVITY PROHIBITED

None of the funds, materials, property, or services provided under this Agreement shall be used for any political activity, or to further the election or defeat of

any candidate for public office contrary to federal or state laws, statutes, regulations, rules, or guidelines.

16. LOBBYING PROHIBITED

None of the funds provided under this Agreement shall be used for publicity, lobbying, or propaganda purposes designed to support or defeat legislation before the Congress of the United States of America or the Legislature of the State of California.

17. CONFLICT OF INTEREST

No officer, employee, or agent of District who exercises any function or responsibility for planning and carrying out the services provided under this Agreement shall have any direct or indirect personal financial interest in this Agreement. Participant shall comply with all federal and state conflict of interest laws, statutes, and regulations, which shall be applicable to all parties and beneficiaries under this Agreement and any officer, agent, or employee of District.

18. GOVERNING LAW

This Agreement shall be governed in all respects by the laws of the State of California. Venue for any action arising out of this Agreement shall only be in Fresno County, California.

19. COMPLIANCE WITH LAWS

The Participant shall comply will all federal and state laws, statutes, regulations, rules, and guidelines which apply to its performance under this Agreement, including California driving eligibility and financial liability laws.

20. BINDING ON SUCCESSORS

This Agreement, including all covenants and conditions contained herein, shall be binding upon and inure to the benefit of the parties, including their respective successors-in-interest, assigns, and legal representatives.

21. TIME IS OF THE ESSENCE

It is understood that for Participant's performance under this Agreement,

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time is of the essence. The parties reasonably anticipate that Participant will, to the reasonable satisfaction of District, complete all activities provided herein within the time schedule outlined in this Agreement, provided that Participant is not caused unreasonable delay in such performance.

22. DATA OWNERSHIP

Upon termination or expiration of this Agreement, all data which is received, collected, produced, or developed by Participant under this Agreement shall become the exclusive property of District, provided, however, Participant shall be allowed to retain a copy of any non-confidential data received, collected, produced, or developed by Participant under this Agreement subject to District's exclusive ownership rights stated herein. Accordingly, Participant shall, if requested, surrender to District all such data which is in its possession (including its sub participants or agents), without any reservation of right or title, not otherwise enumerated herein.

District shall have the right at reasonable times during the term of this Agreement to inspect and reproduce any data received, collected, produced, or developed by Participant under this Agreement. No reports, professional papers, information, inventions, improvements, discoveries, or data obtained, prepared, assembled, or developed by Participant, pursuant to this Agreement, shall be released or made available (except to District) without prior, express written approval of District while this Agreement is in force, and except as otherwise required under the California Public Records Act.

23. NO THIRD-PARTY BENEFICIARIES

Notwithstanding anything else stated to the contrary herein, it is understood that Participant's services and activities under this Agreement are being rendered only for the benefit of District, and no other person, firm, corporation, or entity shall be deemed an intended third-party beneficiary of this Agreement.

24. SEVERABILITY

In the event that any one or more of the provisions contained in this

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Agreement shall for any reason be held to be unenforceable in any respect by a court of competent jurisdiction, such holding shall not affect any other provisions of this Agreement, and the Agreement shall then be construed as if such unenforceable provisions are not a part hereof.

25. ENTIRE AGREEMENT

This Agreement constitutes the entire agreement between Participant and District with respect to the subject matter hereof and supersedes all previous negotiations, proposals, commitments, writings, advertisements, publications, and understandings of any nature whatsoever unless expressly included in this Agreement.

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Fresno, CA
93726
(559) 230-6000

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first hereinabove written.

PARTICIPANT

City of Riverbank

Jill Anderson
Riverbank City Manager

DISTRICT

San Joaquin Valley Air Pollution Control District

For Seyed Sadredin
Executive Director/APCO

Approved as to legal form:
San Joaquin Valley Unified Air Pollution Control District

Annette Ballatore-Williamson
District Counsel

Approved as to accounting form:
San Joaquin Valley Unified Air Pollution Control District

Mehri Barati, C.P.A.
Director of Administrative Services

For accounting use only:
Program: # 282
Account No.:

SJVUAPCD
1990 East
Gettysburg
Fresno, CA
93726
(559) 230-6000

Please return all completed applications to:
SJVAPCD Strategies and Incentives Department
1990 East Gettysburg Avenue; Fresno, CA 93726-0244

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

'16 MAR 11 AM 6:54

PUBLIC BENEFIT GRANTS PROGRAM

New Alternative Fuel Vehicle Purchase Application

C- 45410

Applicant Information

1. Public Agency Name (as it appears on Form W-9): City of Riverbank		
2. Tax ID: Taxpayer ID Number (TIN) 94-6000407		
3. Address: 6707 Third Street		
4. City: Riverbank	5. State: CA	6. ZIP Code: 95367
7. Mailing Address (if different from above): same as above		
8. City:	9. State:	10. ZIP Code:
11. Have you applied to any other grant programs for any vehicle in this application? ☒ No ☐ Yes – Name of Grant Program(s):		

Primary Contact Information

1. First Name: Pat	2. Last Name: McCulloch	
3. Title: Deputy	4. E-Mail: pmcculloch@stanislaussheriff.com	
5. Phone Number: 209-840-0973	6. Alternate Contact Number: 209-869-7162	7. Fax Number: 209-869-7160

Contract Signing Authority

1. First Name: Jill	2. Last Name: Anderson
3. Title: Riverbank City Manager	

WORKING COPY

Exhibit A

New Vehicle Information- *Complete a separate page for each vehicle make/model*

1. Number of Vehicles:
THREE

2. Vehicle Type (*please select one*):

Electric
- ☐ Light-light Duty Vehicle (GVWR ≤ 8,500 lbs.)
- ☐ Transport/Utility Cart
- ☐ Scooter
- ☐ Bicycle
- ☒ Other (specify): ZERO ELECTRIC MOTORCYCLE

Plug-In Hybrid
- ☐ Light-Light Duty Vehicle (GVWR ≤ 8,500 lbs.)
- ☐ Light-Medium Duty Vehicle (GVWR 8,501 – 14,000 lbs.)
- ☐ Other (specify):

CNG, LNG, or LPG
- ☐ Light-light Duty Vehicle (GVWR ≤ 8,500 lbs.)
- ☐ Light-Medium Duty Vehicle (GVWR 8,501 – 14,000 lbs.)
- ☐ Transport/Utility Cart
- ☐ Other (specify):

3. Vehicle Make: ZERO
4. Vehicle Model: DS POLICE 12.5
5. Vehicle Model Year: 2016
6. Vehicle GVWR: 777 GVW lbs.
7. Engine Horsepower/Kilowatts: 54 HP / 13 KW
8. Fuel Type: ☒ Electric ☐ Plug-In Hybrid ☐ CNG ☐ LNG ☐ LPG ☐ Other (specify):
9. Manufacturer's estimated range for fully charged vehicle (electric vehicles only): 139 MILES (CITY)
10. Total Cost of each New Vehicle: $ 20,726
11. Total Funding Requested from SJVAPCD (per vehicle): $ 20,000 EACH
12. Is there existing charging/fueling infrastructure in place for the proposed vehicle(s)? ☒ Yes ☐ No
If no, please describe a plan for building infrastructure or gaining access to existing infrastructure:
VEHICLE PLUGS INTO STANDARD 110 VOLT OUTLET TO CHARGE.
13. How do you intend to pay for the remaining balance of the project after the grant has been applied?
☒ Co-funding (please name source): CARB REBATE
☐ Other (please specify):

New Vehicle Dealer Information

1. Vehicle Dealer Name: ECKHAUS FLEET LLC
2. Contact / Salesperson Name: TIM YOPP
3. E-mail: TIM@ECKHAUSFLEET.COM
4. Phone Number: (559) 291-4400
5. Fax Number: (559) 346-1600

Internal use only
GMS Unit(s): 1-3

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Exhibit A

New Vehicle Activity Information- Complete a separate page for each vehicle make/model

**If applying for multiple vehicles that will be performing different activities, please complete a separate section for each different vehicle activity*

1. Number of vehicles with same vehicle activity: THREE

2. Use within SJVAPCD boundaries:	3. Use within CA boundaries:	4. Estimated Annual Vehicle Usage (per vehicle):
100 %	100 %	5000 MILES

5. Vehicle Vocation/Use (examples: law enforcement, emergency services, commuting, patrol, pool vehicle, etc.): LAW ENFORCEMENT PATROL, EMERGENCY SERVICES, SPECIAL EVENTS, OFF ROAD PATROL.

6. Please mark the reason for purchasing the new vehicle(s):

☒ Fleet Expansion - Please list the vehicle(s) you would have purchased had you not applied for this grant: NONE

☐ Vehicle Replacement - Please list the year, make, and model of the vehicle(s) to be replaced:

☐ Other - Please specify:

Internal use only

GMS Unit(s): 1-3

New Vehicle Activity Information

1. Number of vehicles with same vehicle activity:

2. Use within SJVAPCD boundaries:	3. Use within CA boundaries:	4. Estimated Annual Vehicle Usage (per vehicle):
%	%	

5. Vehicle Vocation/Use (examples: law enforcement, emergency services, commuting, patrol, pool vehicle, etc.):

6. Please mark the reason for purchasing the new vehicle(s):

☐ Fleet Expansion - Please list the vehicle(s) you would have purchased had you not applied for this grant:

☐ Vehicle Replacement - Please list the year, make, and model of the vehicle(s) to be replaced:

☐ Other - Please specify:

Internal use only

GMS Unit(s):

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Exhibit A

ECKHAUS FLEET, LLC (Seller)
2873 LARKIN AVENUE, CLOVIS, CA 93612
PHONE: 559-291-4100/559-346-1600 FAX, EMAIL tim@eckhausfleet.com or jack@eckhausfleet.com
RE: ECKHAUS FLEET

Date: 20-May-16

QUOTE Z-012
REPRESENTATIVE: Tim Yopp/Jack Goode

AGENCY
City of Riverbank
Riverbank Police Department
6727 3rd Street
Riverbank, CA 95367
Patrick McCullock
(209) 869-7162

RE: (3) 2016 ZERO DS ZF13.0 PD

MODEL	COLOR	MILES	YOUR COST
Zero DS Police 13.0	Black	10	$16,998.00
Zero Side Cases and Rack Kit			$600.00
Top Box Rack Kit			$150.00
Commuter Screen			$200.00
Aux LED Tail Light w/ License Plate Holder			$300.00
Hand guards	Black		$170.00
12V Accessory Socket Kit			$50.00
12V Accessory wire Harness			$110.00
Zero Brake Lever Lock			$10.00
Zero Smart Phone Mount			$70.00
	Shipping		$600.00
	Sub Total		$19,258.00
	SALES TAX		$1,468.00
	DOC FEES		$0.00
	TOTAL FOR ONE UNIT:		$20,726.00
	TOTAL FOR THREE UNITS:		$62,178.00

DEPARTMENT WILL HANDLE DMV
GVW 777 LB
MANUFACTURER'S TWO (2) YEAR LIMITED WARRANTY INCLUDED

QUOTE GOOD FOR 60 DAYS
TERMS:DUE ON DELIVERY

Dealer has no control over rebates and incentives offered by other enitities.
Agency considering use of available rebates and incentives need to apply to the appropriate enitity

Valley Air District Public Benefit	-$20,000.00
CARB rebate	-$900.00
Possible Grants and Rebates per unit	**-$20,900.00**
Amount not covered by grants & rebates per unit	$0.00

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT:
TIM YOPP OR JACK GOODE @ ECKHAUS FLEET
800-768-3303

THANK YOU VERY MUCH FOR THE OPPORTUNITY!

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UPDATED
Date 6-1-16

19,826

Exhibit A

COPY

Signature Form

Signing Authority to *initial and sign in* ***blue ink***

Certifications

By **initialing each of the following sections,** I certify that I have read the Eligibility Criteria and Application Guidelines and agree to **ALL** of the following terms and conditions:

Initial ____ The new vehicle(s) will be based within the geographic area of the SJVAPCD and seventy-five percent (75%) or more of the vehicle miles traveled or fuel consumption will be within the boundaries of the SJVAPCD for at least three (3) years from the date the vehicle is placed into service.

Initial ____ The new vehicle(s) will be used by a public agency located within the geographic area of the SJVAPCD.

Initial ____ The vehicle(s) purchased is/are a new OEM **electric, plug-in hybrid, or alternative fuel** vehicle(s) eligible for this program in accordance with the program guidelines.

Initial ____ Appropriate fueling or charging infrastructure for the new vehicle(s) is or will be readily available or accessible.

Initial ____ Any funding received, including funding from other sources, combined with this grant will not exceed the full cost of the new vehicle(s).

Initial ____ Additional funding sources, or other financial incentive(s) and funding amounts to be used towards this project are disclosed on the application.

Initial ____ Project match funding is reasonably available to complete the project in a timely manner.

Initial ____ Applicant will not purchase or take delivery of the new vehicle(s) until receiving an executed contract with the SJVAPCD.

Initial ____ SJVAPCD maintains the right to inspect the new vehicle(s) at any time during the contract period.

I hereby certify that all information provided in this application and any attachments are true and correct to the best of my knowledge.

Jill Anderson
Signing Authority Signature

3-3-16
Date

WORKING COPY

Exhibit A

SELECT MODEL

ZERO SP | ZERO DSP | ZERO FXP

RANGE	ZERO DSP ZF13.0	ZERO DSP ZF13.0 +POWER TANK
City	141 miles (227 km)	172 miles (277 km)
Highway, 55 mph (89 km/h)	79 miles (127 km)	97 miles (156 km)
» Combined	101 miles (163 km)	124 miles (200 km)
Highway, 70 mph (113 km/h)	58 miles (93 km)	71 miles (114 km)
» Combined	82 miles (132 km)	101 miles (163 km)
MOTOR		
Max torque	68 ft-lb (92 Nm)	68 ft-lb (92 Nm)
Max power	54 hp (40 kW) @ 4,300 rpm	54 hp (40 kW) @ 4,300 rpm
Top speed (max)	98 mph (158 km/h)	98 mph (158 km/h)
Top speed (sustained)	85 mph (137 km/h)	85 mph (137 km/h)
Type	Z-Force® 75-7 passively air-cooled, high efficiency, radial flux, interior permanent magnet, brushless motor	Z-Force® 75-7 passively air-cooled, high efficiency, radial flux, interior permanent magnet, brushless motor
Controller	High efficiency, 420 amp, 3-phase brushless controller with regenerative deceleration	High efficiency, 420 amp, 3-phase brushless controller with regenerative deceleration
POWER SYSTEM		
Est. pack life to 80% (city)	317,000 miles (510,000 km)	387,000 miles (623,000 km)
Power pack	Z-Force® Li-Ion intelligent	Z-Force® Li-Ion intelligent
Max capacity	13.0 kWh	15.9 kWh
Nominal capacity	11.4 kWh	14.0 kWh
Charger type	1.3 kW, integrated	1.3 kW, integrated
Charge time (standard)	8.9 hours (100% charged) / 8.4 hours (95% charged)	10.8 hours (100% charged) / 10.3 hours (95% charged)

» With Charge Tank accessory	3.4 hours (100% charged) / 2.9 hours (95% charged)	N/A
» With one accessory charger	5.2 hours (100% charged) / 4.7 hours (95% charged)	6.3 hours (100% charged) / 5.8 hours (95% charged)
» With max accessory chargers	2.6 hours (100% charged) / 2.1 hours (95% charged)	3.0 hours (100% charged) / 2.5 hours (95% charged)
Input	Standard 110 V or 220 V	Standard 110 V or 220 V

DRIVETRAIN

Transmission	Clutchless direct drive	Clutchless direct drive
Final drive	130T / 28T, Poly Chain® GT® Carbon™ belt	130T / 28T, Poly Chain® GT® Carbon™ belt

CHASSIS / SUSPENSION / BRAKES

Front suspension	Showa 41 mm inverted cartridge forks, with adjustable spring preload, compression and rebound damping	Showa 41 mm inverted cartridge forks, with adjustable spring preload, compression and rebound damping
Rear suspension	Showa 40 mm piston, piggy-back reservoir shock with adjustable spring preload, compression and rebound damping	Showa 40 mm piston, piggy-back reservoir shock with adjustable spring preload, compression and rebound damping
Front suspension travel	7.00 in (178 mm)	7.00 in (178 mm)
Rear suspension travel	7.03 in (179 mm)	7.03 in (179 mm)
Front brakes	Bosch Gen 9 ABS, J-Juan asymmetric dual piston floating caliper, 320 x 5 mm disc	Bosch Gen 9 ABS, J-Juan asymmetric dual piston floating caliper, 320 x 5 mm disc
Rear brakes	Bosch Gen 9 ABS, J-Juan single piston floating caliper, 240 x 4.5 mm disc	Bosch Gen 9 ABS, J-Juan single piston floating caliper, 240 x 4.5 mm disc
Front tire	Pirelli MT-60 100/90-19	Pirelli MT-60 100/90-19
Rear tire	Pirelli MT-60 130/80-17	Pirelli MT-60 130/80-17
Front wheel	2.50 x 19	2.50 x 19
Rear wheel	3.50 x 17	3.50 x 17

DIMENSIONS

Wheelbase	56.2 in (1,427 mm)	56.2 in (1,427 mm)
Seat height	33.3 in (846 mm)	33.3 in (846 mm)
Rake	26.5°	26.5°
Trail	4.6 in (117 mm)	4.6 in (117 mm)

WEIGHT

Frame	23 lb (10.4 kg)	23 lb (10.4 kg)
Curb weight	437 lb (198 kg)	481 lb (218 kg)
Carrying capacity	338 lb (153 kg)	294 lb (133 kg)

ECONOMY

Equivalent fuel economy (city)	415 MPGe (0.57 l/100 km)	415 MPGe (0.57 l/100 km)
Equivalent fuel economy (highway)	170 MPGe (1.38 l/100 km)	170 MPGe (1.38 l/100 km)
Typical cost to recharge	$1.46	$1.78

Specifications are subject to change without notice. Imagery may not reflect most current product specifications. Zero Motorcycles reserves the right to make improvements and/or design changes without any obligation to previously sold, assembled or fabricated equipment.

ABOUT
Who We Are
Employment
Press
News
High Res Images

INTERACT
Contact Us
Find a Dealer
Events
Owners

COMMERCIAL
Fleet Programs
Become a Dealer

PURCHASE
Financing
Incentives
Shop
Promotions

NEWSLETTER / DEMO RIDE
Email*:
-- Start Here --

SELECT COUNTRY

Contact: (888) RUN-ZERO | Employment | Privacy Policy - Terms of Service | ©2016 Copyright Zero Motorcycles, Inc. All rights reserved

RIVERBANK CITY COUNCIL AGENDA ITEM NO. 5.1

SECTION 5: PUBLIC HEARING

Meeting Date:	October 25, 2016
Subject/ Title:	The Continued First Reading and Introduction by Title Only of a Proposed **Ordinance**, Amending Chapter 73, Traffic Schedules of Title VII, Traffic Code, of the Riverbank Municipal Code
From:	Marisela H. Garcia, Interim City Manager/Director of Finance
Submitted by:	Robin Baral, Deputy City Attorney Kathleen Cleek, Development Services Administration Manager

RECOMMENDATION

It is recommended that the City Council conduct the continued public hearing for the first reading and introduction by title only of the proposed ordinance to consider its approval as presented, which will initiate the scheduling of the ordinance for its second reading by title only on November 8, 2016, to consider its adoption. The purpose of this Ordinance amendment is to recommend changes to speed limits on 13 street segments in the City of Riverbank (the "City").

SUMMARY

As required under California law, the City engaged KD Anderson & Associates, Transportation Engineers, to conduct Engineering & Traffic Surveys ("E&TS") along specified City streets. Based on the results of the E&TS prepared by KD Anderson, staff recommends an increase in speed limits by 5 mph on eleven (11) street segments, a decrease on one (1) street segment, and add a speed limit to one (1) street segment.

LEGAL BACKGROUND

In accordance with California Vehicle Code Sections 22357 and 22358, the City may increase or decrease speed limits for local roadways. If a city enforces speed limits by way of radar, Vehicle Code Section 40802 requires the preparation of an E&TS to justify the speed limits on those designated streets. Traffic speeds must be supported by an E&TS; otherwise, if speed limits are too low the City could face liability for setting "speed traps".

The requirements and guidelines for performing an E&TS are set forth in Vehicle Code Section 627 and in the California Manual on Uniform Traffic Control Devices[1] (the "Traffic Manual"). The Traffic Manual provides that speed limits are generally established at or near the 85th percentile, which is defined as the speed at or below which 85 percent of traffic is moving. Speed limits established on this basis conform to the consensus of those who drive on the roadways as to what speed is reasonable and safe, and are not dependent on the judgment of a few individuals. Speed limits higher than the 85th percentile are not generally considered reasonable and prudent, while speed limits below the 85th percentile do not ordinarily facilitate the orderly movement of traffic and require extensive enforcement to maintain compliance.

Under the guidelines in the Traffic Manual, speed limits should be set at the nearest 5 mile per hour ("mph") increment of the 85th percentile speed. For example, given a measured 85th percentile speed of 48 mph, the Traffic Manual suggests that the speed limit be set at 50 mph. If the measured 85th percentile speed is 47 mph, then the suggested speed limit is 45 mph.

A single 5 mph reduction of the posted speed, as determined by the 85th percentile speed, may be taken if there are conditions not readily apparent to motorists on a particular street segment.[2] In accordance with Vehicle Code Section 627 and the Traffic Manual, an E&TS may consider residential density, collision history, pedestrian and bicycle activity, roadway traffic, and roadside conditions not readily apparent to the driver.

DISCUSSION

In April 2016, the City contracted with the consulting firm of KD Anderson & Association, Inc. to provide E&TS reports to analyze whether speed limits on 16 roadway segments should be updated. The 16 roadways determined to be studied were provided by the City of Riverbank's Police Chief Erin Kiely. The results of the E&TS reports recommend decreasing the speed limit on 1 street segment, increasing the speed limit on 11 street segments, and maintaining the speed limits on 6 street segments. The E&TS also established a speed limit on 1 street segment.

In reviewing each E&TS, City staff requested input from Police Chief Kiely and the Stanislaus County Sheriff's Department. Deputy Sheriff Worsham provided comments regarding Squire Wells Way and River Cove Drive. Along River Cove Drive, police have received complaints that drivers disobey speed limits, fail to adhere to stop signs, and drive around school buses. KD Anderson responded that these factors justify a 5 mph reduction, under Vehicle Code sections 22358.5 and 627. Staff therefore proposes to maintain the River Cove Drive speed limit at 25 mph, instead of implementing the recommended change to 30 mph.

[1] The Traffic Manual is a document that prescribes uniform standards and specifications for all official traffic control devices in California.
[2] Vehicle Code Section 22358.5

The Squire Wells Way E&TS recommends changing the speed limit from 25 mph to 35 mph. Here, Deputy Sheriff Worsham noted a high amount of pedestrian traffic, including school children and pedestrians, going to and from the Crossroads Shopping Center. KD Anderson noted that the Deputy Sheriff's field observations justify a 5 mph reduction in the speed limit, to 30 mph. The City therefore proposes to reduce the increase in speed limit to 30 mph, as opposed to 35 mph, which would otherwise be required under the Traffic Manual.

The following chart summarizes roadways with required changes to meet the 85 percentile standard under the Traffic Manual:

Street	**Street Section**	**Current MPH**	**Proposed MPH**
California Street	Between Claus Road and Snedigar Road (east and westbound lanes)	25	30
Claribel Road	Between Oakdale Road and the eastern City limit (MID Main) (east and westbound lanes)	45	50
Claus Road	Between Claribel Road and California Street (north and southbound lanes)	45	50
Claus Road	Between California Street and SR-108 (north and southbound lanes)	45	40
Morrill Road	Between Oakdale Road and Roselle Avenue (east and westbound lanes)	25	35
Oakdale Road	Between Morrill Road and Patterson Road (SR-108) (north and southbound lanes)	40	45
Oakdale Road	Between Claribel Road and Morrill Road (north and southbound lanes)	45	50
Roselle Avenue	Between Claribel Road and Patterson Road (north and southbound lanes)	35	40
Santa Fe Street	Between 7th Street and Claus Road (east and westbound lanes)	25	30
Snedigar Road	Between California Avenue and Santa Fe Street (north and southbound lanes)	25	35
Squire Wells Way	Between Morrill Road and Claribel Road (north and southbound lanes)	25	30
Terminal Avenue	Between the southern City limit and Patterson Road (north and southbound lanes)	25	30
Antique Rose Way	Between Crawford Road and Squire Wells Way (north and southbound lanes)	Not Posted	30

The following segments surveyed do not require a change in their posted speed limit sign:

Townsend	Between Terminal Avenue and Claus Road (east and westbound lanes)	30	30
First Street	Between Patterson Road and the North City Limits (San Joaquin County Line) (north and southbound lanes)	30	30
Crawford Road	Between Oakdale Road and Roselle Avenue (east and westbound lanes)	35	35
Patterson Road	Between Callander (SR-108) and Central Avenue (east and westbound lanes)	35	35
Rivercove Drive	Between Briarcliff Drive and Burneyville Road (east and westbound lanes)	25	25
Santa Fe Street	Between Claus Road and Snedigar Road (east and westbound lanes)	40	40

ADDITIONAL LEGAL INFORMATION

Staff discussed this matter further with legal counsel and KD Anderson's traffic engineer. Below are some of their comments:

Legal Counsel: "Although the City would have much broader authority under its police powers to reduce speed limits, the cases involving enforcement of speed limits by radar interpret the 85th percentile requirement pretty strictly. Therefore, the City is limited in the findings it can make if it continues to enforce speed limits using radar. Legal counsel also stated that the City must accept all of the recommended street limit changes in order for Riverbank sheriff's to legally continue enforcing speed limits using radar."

Traffic Engineer: "California Street road width and pavement condition are considered to be conditions readily apparent to a driver. This is discussed in the middle paragraph on page 2 of our report. As stated, the CVC prohibits speed reduction for conditions readily apparent to a driver. The observed 85th percentile speeds were 29 mph and 33 mph. Standard rounding of these numbers would yield 30 mph and 35 mph speed zones. We recommended rounding down of the higher value and establishing a consistent 30 mph zone along the 0.5 mile segment. The 29 mph speed could technically be rounded down to 25 mph or reduced by 5 mph to 25 mph, but the justification can't be roadway width or condition. However, the 33 mph value can only be reduced to 30 mph. If we are to use both of the surveyed speeds, I think we can only justify a 30 mph zone as a defensible speed limit."

RECOMMENDATION

Staff recommends that the City Council find that the speed limits identified in the proposed ordinance for each street segment will facilitate the orderly movement of

vehicular traffic, will be reasonable and safe, and will be in compliance with the Traffic Manual and California law, based on each E&TS. A copy of the E&TS for California Street is attached for reference; copies of all other E&TS reports can be made available upon request.

FINANCIAL IMPACT

Final implementation of the approved ordinance will result in costs associated with replacement of speed limit signs.

ATTACHMENT

1. Proposed Ordinance
2. Engineering and Traffic Survey for California Street for reference. Copies of all other E&TS reports can be made available upon request.

CITY OF RIVERBANK
IN THE CITY COUNCIL
ORDINANCE 2016-XX

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF RIVERBANK AMENDING CHAPTER 73: TRAFFIC SCHEDULES OF TITLE VII: TRAFFIC CODE OF THE CITY OF RIVERBANK CODE OF ORDINANCES

WHEREAS, in accordance with the California Vehicle Code ("CVC") and the California Manual on Uniform Traffic Control Devices (the "CA MUTCD"), an Engineering and Traffic Survey ("E&TS") must be performed to establish speed limits on street segments, and before the use of radar or other electronic devices is authorized; and

WHEREAS, CVC Section 22357 states that whenever a local authority determines upon the basis of an E&TS that a speed greater than 25 mph would facilitate the orderly movement of vehicular traffic, and would be reasonable and safe upon any street other than a state highway otherwise subject to a prima facie limit of 25 mph, the local authority may by ordinance determine and declare a prima facie speed limit of 30, 35, 40, 45, 50, 55, or 60 mph, or a maximum speed limit of 65 mph, whichever is found most appropriate to facilitate the orderly movement of traffic and is reasonable and safe; and

WHEREAS, CVC Section 22358 states that whenever a local authority determines upon the basis of an E&TS that the limit of 65 mph is more than reasonable or safe upon any portion of any street other than a state highway where the limit of 65 mph is applicable, the local authority may by ordinance determine and declare a prima facie speed limit of 60, 55, 50 45, 40, 35, 30, or 25 mph, whichever is found most appropriate to facilitate the orderly movement of traffic and is reasonable and safe; and

WHEREAS, an E&TS shall include, among other requirements deemed necessary in CVC Section 627, consideration of prevailing speeds as determined by traffic engineering measurements; collision records; highway, traffic, and roadside conditions not readily apparent to the driver; and

WHEREAS, in April, 2016, KD Anderson & Associates, Inc. prepared 16 E&TS for 16 roadways within the City of Riverbank (the "City"). The E&TS recommended that speed limits increase on 11 street segments, decrease on 1 street segment, and remain the same on 6 street segments. The E&TS further recommended that a speed limit be established on 1 City street segment; and

PROPOSED

WHEREAS, the City Council of the City finds that this ordinance is in the best interest of the health, welfare and safety of the public.

NOW, THEREFORE THE CITY OF RIVERBANK CITY COUNCIL DOES ORDAIN AS FOLLOWS:

SECTION 1: Chapter 73: Traffic Schedules, of Title VII: Traffic Code of Riverbank's Municipal Code shall be amended as follows:

Schedule I, Speed Limits, of Chapter 73: Traffic Schedules, of Riverbank's Municipal Code shall be deleted in its entirety and replaced to read:

SCHEDULE I. SPEED LIMITS.

The speed limit of 25 mph will apply to all residential roadways within the City except as noted below. The following declared prima facie speed limits shall be applicable to the following streets:

(A) 30 miles per hour:

Street	*Location*	*Speed Limit (m.p.h.)*
Santa Fe Street	Between 7th Street and Claus Road (east and westbound lanes)	30
First Street	Between Patterson Road and the northern City limits (San Joaquin County line) (north and southbound lanes)	30
California Street	Between Claus Road and Snedigar Road (east and westbound lanes)	30
Terminal Avenue	Between the southern City limit and Patterson Road (north and southbound lanes)	30
Townsend Avenue	Between Terminal Avenue and Claus Road (east and westbound lanes)	30
Antique Rose Way	Between Crawford Road and Squire Wells Way (north and southbound lanes)	30
Squire Wells Way	Between Morrill Road and Claribel Road (north and southbound lanes)	30

PROPOSED

(B) 35 miles per hour:

Street	*Location*	*Speed Limit (m.p.h.)*
Morrill Road	Between Oakdale Road and Roselle Avenue (east and westbound lanes)	35
Patterson Road	Between Callander (SR-108) and Central Avenue (east and westbound lanes)	35
Snedigar Road	Between California Avenue and Santa Fe Street (north and southbound lanes)	35
Crawford Road	Between Oakdale Road and Roselle Avenue (east and westbound lanes)	35

(C) 40 miles per hour:

Street	Location	Speed Limit (m.p.h.)
Santa Fe Street	Between Claus Road and Snedigar Road (east and westbound lanes)	40
Claus Road	Between California Street and SR-108 (north and southbound lanes)	40
Roselle Avenue	Between Claribel Road and Patterson Road (north and southbound lanes)	40

(D) 45 miles per hour

Street	Location	Speed Limit (m.p.h.)
Oakdale Road	Between Morrill Road and Patterson Road (SR-108) (north and southbound lanes)	45

(E) 50 miles per hour

Street	Location	Speed Limit (m.p.h.)
Claribel Road	Between Oakdale Road and the east city limits (MID Main) (east and westbound lanes)	50
Oakdale Road	Between Claribel Road and Morrill Road (north and southbound lanes)	50
Claus Road	Between Claribel Road and California Street (north and southbound lanes)	50

PROPOSED

SECTION 2: This ordinance shall become effective thirty (30) days from and after its final passage and adoption,

SECTION 3: This ordinance shall be published in a newspaper of general circulation at least fifteen (15) days prior to its effective date or a summary of the ordinance is published in a newspaper of general circulation at least five (5) days prior to adoption and again at least fifteen (15) days prior to its effective date.

The foregoing ordinance was introduced at a regular meeting of the City Council of the City of Riverbank held on _____, 2016. Said ordinance was given a second reading at a regular meeting of said Council on _____, 2016, and Councilmember _____ seconded by Councilmember _____, moved the adoption of said ordinance, and upon roll call was carried by the following vote:

AYES: COUNCIL MEMBERS

NOES: COUNCIL MEMBERS

ABSENT: COUNCIL MEMBERS

ABSTAIN: COUNCIL MEMBERS

ATTEST:

_____

Annabelle Aguilar, CMC

City Clerk

APPROVED:

_____

Richard O'Brien

Mayor

PROPOSED

ENGINEERING AND TRAFFIC SURVEY
FOR

CALIFORNIA STREET

City of Riverbank, CA

Prepared For:

City of Riverbank
6707 Third Street
Riverbank, CA 95367

Prepared By:

KD Anderson & Associates, Inc.
3853 Taylor Road, Suite G
Loomis, CA 95650
(916) 660-1555

April, 2016

5895-12

INTRODUCTION

The following provides an Engineering and Traffic Survey to establish speed limits on California Street within the City of Riverbank. Once established, the City intends to continue to enforce the speed limits with the use of radar.

Speed limits in California are governed by the California Vehicle Code (CVC), and the California Manual on Uniform Traffic Control Devices (CA MUTCD) outlines Standards, Guidance and Options for establishing speed limits which can be enforced using radar. CVC Sections 627 and 40802 identify the need for and define the term "Engineering and Traffic Survey" (E&TS) and lists its requirements.

BACKGROUND

CVC Section 22350 identifies the basic speed law and indicates "No person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent having due regard for weather, visibility, the traffic on, and the surface and width of, the highway, and in no event at a speed which endangers the safety of persons and property".

CVC Section 22352 sets the prima facie speed limits in California and these speed limits apply when no other specific speed limit is posted. A 15 mph speed limit is applicable to uncontrolled railway crossings, intersections and alleyways. A 25 mph speed limit is applicable to business and residential districts without other posted speed limits and to school zones.

CVC Section 22349 sets a maximum speed limit for all California roadways which is 55 mph on 2-lane undivided roadways and 65 mph on all other roadways. Any deviation of speed limits upwards or downwards from these limits must be justified by an E&TS. CVC Sections 40801 and 40803 also prohibit the use of speed traps and the use of any evidence obtained by use of a speed trap for the purpose of prosecution. A speed trap as defined in CVC Section 40802 is:

- a highway segment marked so that an officer can calculate speed based upon travel time between the markers;
- use of radar or electronic devices that measure the speed of a vehicle on a segment of highway which does not have a current E&TS as required under the CVC.

When an E&TS shows that the statutory or prima facie speed limits are not applicable for the existing conditions, the speed limits can be altered by posting a different limit based upon the findings of the E&TS.

Speed limits set by the findings of an E&TS are normally set near the 85th percentile speed. This is the speed at or below which 85% of the free flowing traffic is moving. Use of the measured 85th percentile speed for posting speed limits is based upon the premise that the

majority of drivers comply with the basic speed law and consider this speed reasonable and prudent for given conditions. Speed limits set at or near the 85th percentile speed provide law enforcement officers with a limit to cite drivers who do not conform to what the majority considers reasonable and prudent.

STANDARDS

Standard: An engineering and traffic survey (E&TS) shall include, among other requirements deemed necessary , consideration of all of the following:

A. Prevailing speeds as determined by traffic engineering measurements.
B. Collision records.
C. Highway, traffic, and roadside conditions not readily apparent to the driver.

The E&TS should contain sufficient information to document that the required three elements identified above are provided and that any other conditions not readily apparent to the driver are properly identified.

The influence of factors such as lane and shoulder width, roadway surface, intersection frequency and adjacent development on speed are not readily individually quantified. In general, the appropriate speed reflecting such factors are measured by spot speed surveys of vehicles using the subject road.

Conditions not readily apparent to a driver are conditions which, if the driver was aware, they would adjust their speed accordingly. Drivers are aware of such conditions as lane and shoulder width, grades, surface condition and curvature. CVC Section 22358.5 prohibits speed reduction for these conditions and any other conditions readily apparent to the driver. Non-apparent conditions include high volume generators of vehicle, bicycle and pedestrian traffic not visible to the driver as well as access driveways and/or intersections not readily visible. Collision history provides evidence of conditions not readily apparent to the driver.

Standard: Speed zones (other than statutory speed limits) shall only be established on the basis of an engineering and traffic survey (E&TS) that has been performed in accordance with traffic engineering practices. The engineering study shall include an analysis of the current speed distribution of free-flowing vehicles.

The Speed Limit (R2-1) sign shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency based on the engineering study. The speed limits displayed shall be in multiples of 5 mph.

Standard: When a speed limit is to be posted, it shall be established at the nearest 5 mph increment of the 85th-percentile speed of free-flowing traffic, except as shown in the two Options below.

Option:

1. The posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85th-percentile speed, in compliance with CVC Sections 627 and 22358.5.

2. For cases in which the nearest 5 mph increment of the 85th-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85th-percentile speed, if no further reduction is used. Refer to CVC Section 21400.

Standard: If the speed limit to be posted has had the 5 mph reduction applied, then an E&TS shall document in writing the conditions and justification for the lower speed limit and be approved by a registered Civil or Traffic Engineer. The reasons for the lower speed limit shall be in compliance with CVC Sections 627 and 22358.5.

Option:
Other factors that may be considered when establishing or reevaluating speed limits are the following:

A. Sight distance;
B. The pace;
C. Roadside development and environment;
D. Parking practices and pedestrian activity; and
E. Reported crash experience for at least a 12-month period.

DEFINITIONS

Residence District. CVC Section 515 states a "residence district" is that portion of a highway and the property contiguous thereto, other than a business district, (a) upon one side of said highway, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 13 or more separate dwelling houses or business structures, or (b) upon both sides of said highway, collectively, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 16 or more separate dwelling houses or business structures. A residence district may be longer than one-quarter of a mile if the above ratio of separate dwelling houses or business structures to the length of the highway exists.

Business District. CVC Section 235 states a "business district" is that portion of a highway and the property contiguous thereto (a) upon one side of said highway, for a distance of 600 feet, 50% or more of the contiguous property fronting thereon is occupied by buildings in use for business, or (b) upon both sides of said highway, collectively, for a distance of 300 feet, 50% or more of the contiguous property fronting thereon is so occupied. A business district may be longer than the distances specified if the above ratio of buildings in use for business to the length of the highway exists.

EXISTING CONDITIONS

California Street, from Claus Road to Snedigar Road.

This segment of California Street is an east-west roadway which extends a distance of 0.5 miles. The majority of the roadway provides an 18' - 20' pavement section with one travel lane in each direction and no shoulders. There is one intersecting side street along the roadway segment and left turn lane channelization is not provided at this side street intersection. Adjacent land uses are rural residential and the north side of the roadway abuts the Riverbank High School ball fields for a distance of 1/4 mile east of Claus Road.

Existing roadway features are summarized below and further illustrated on the attached speed zone survey strip map.

Number of lanes - 2
Travel lane width - 9' - 10'
Shoulder width - 0'
Terrain - Flat
Adjacent land uses - Rural residential, H.S. ball fields
Sidewalks present - No
Pedestrian activity - Generally Low, can be high adjacent to ball fields
On-street parking - No
Striping - Dashed yellow centerline
Existing posted speed limits - 25 mph

Available sight distance at intersecting side streets and driveways along the route is generally good. Field review indicates no other conditions not readily apparent to a driver that would warrant reducing the speed limit by an additional 5 mph below that established based upon the 85th percentile speed.

Radar Speed Surveys. Radar speed surveys were conducted at two locations along the roadway. These locations are also displayed on the attached speed zone survey strip map, as are the 85th percentile speeds identified from the surveys. A limited sample size of vehicles was surveyed at each location due to the low roadway traffic volumes. Surveys were conducted for a 4-hour period at each location. The spot speed surveys are appended to this report.

Observed 85th percentile speeds consist of the following:

Location 1 - 33 mph
Location 2 - 29 mph

Collision Records. Accident records for the subject roadway have been reviewed for the most recently available three year period. A total of two (2) accidents occurred over the three year period along the subject street segment. The subject roadway accident history is not judged to warrant reducing the speed limit by an additional 5 mph below that established based upon the 85th percentile speed.

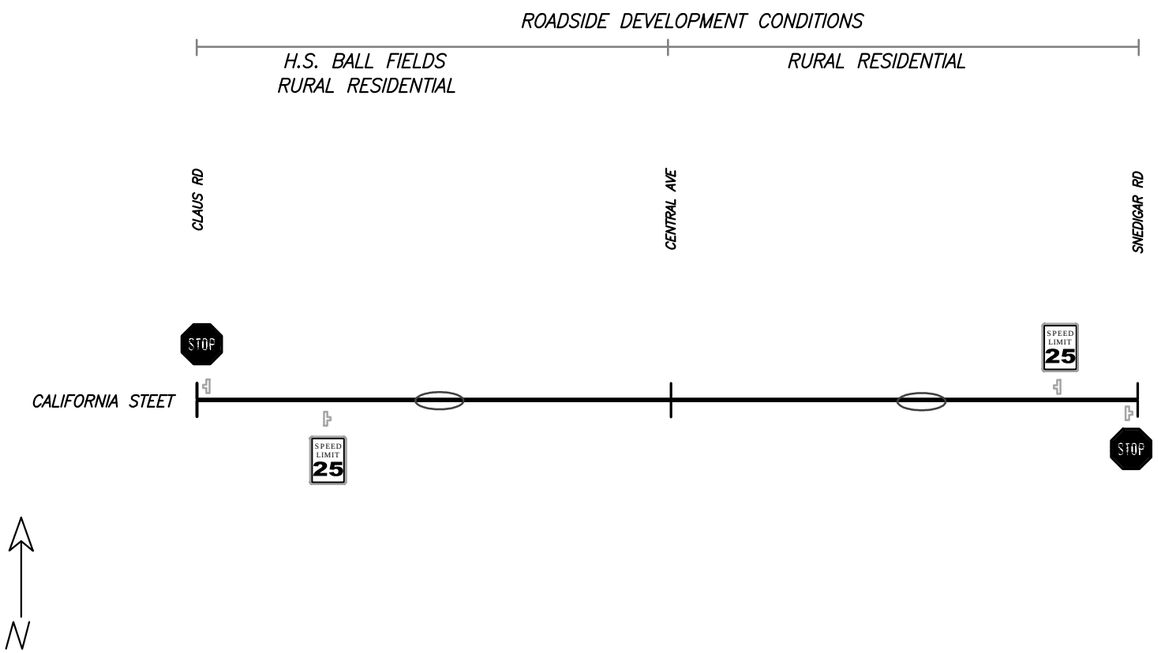
CONCLUSIONS AND RECOMMENDATIONS

Standard rounding of the surveyed 85th percentile speeds to the nearest 5 mph increment yields the following:

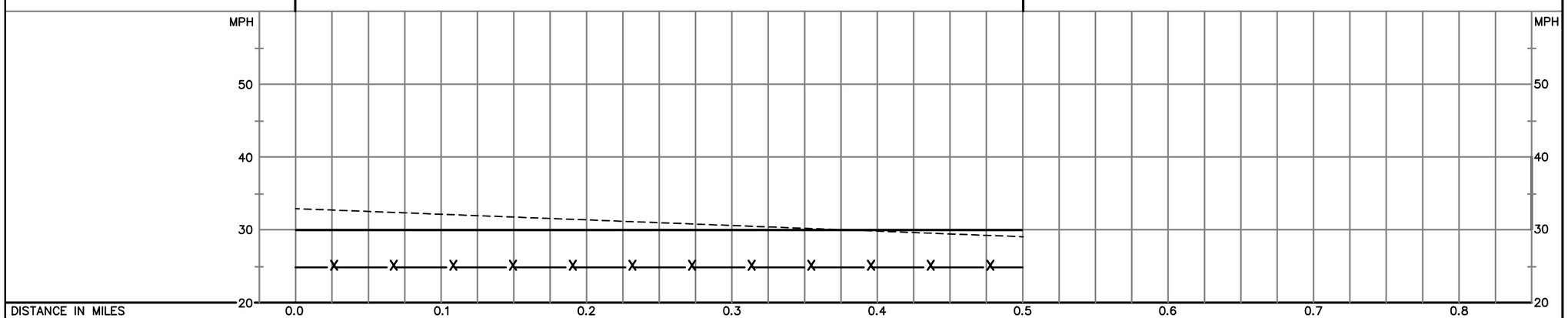
Location 1 - 33 mph 85th percentile, speed limit = 35 mph
Location 2 - 29 mph 85th percentile, speed limit = 30 mph

Establishing a 30 mph speed zone along the length of this segment of California Street consistent with the 85th percentile speed survey data observed at one of the two survey locations is recommended. Rounding down of the second location is recommended to provide a consistent 30 mph speed zone along the 0.5 mile segment. This segment of the roadway currently has a posted speed limit of 25 mph. This is illustrated in the attached speed zone survey strip map.

NOTES:



TRAVEL LANE WIDTH	9'–10'	
NUMBER OF STRIPED LANES	2	
SHOULDER WIDTH	0'	
CENTERLINE STRIPING	SINGLE YELLOW DASHED	
AVERAGE DAILY TRAFFIC	100	
OBSERVED 85TH PERCENTILE SPEED	33 MPH	29 MPH
OBSERVED 10 MPH PACE	21–30 MPH	22–31 MPH
CURRENT SPEED LIMIT	25 MPH	
PROPOSED SPEED LIMIT	30 MPH	



City of
RIVERBANK

SPEED ZONE SURVEY

ROAD NAME:	CALIFORNIA STREET
FROM:	CLAUS RD
TO:	SNEDIGAR RD
DATE:	APRIL 2016
PREPARED BY:	M.B.
SCALE:	NTS

LEGEND

- ROAD SIGNS
- TRAFFIC SIGNAL
- CURRENT SPEED ZONES
- CRITICAL 85th SPEED
- PROPOSED SPEED LIMIT
- VICINITY OF SPOT SPEED SURVEY

Appendix

Speed Surveys

City of Riverbank

Survey Time: 12:30 - 14:30 **Street Width:** 20 Ft
DATE: 3/16/2016 **Location:** 4112 California Street
DAY: Wednesday **Posted Speed:** 25 MPH **Project #:** 16-7178-005

Eastbound & Westbound Spot Speeds

Speed mph	ALL Vehicles
<=10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	0
21	0
22	0
23	2
24	1
25	3
26	2
27	3
28	3
29	0
30	2
31	0
32	0
33	1
34	1
35	0
36	0
37	0
38	0
39	0
40	1
41	0
42	0
43	0
44	0
45	0
46	0
47	0
48	0
49	0
50	0
51	0
52	0
53	0
54	0
55	0
56	0
57	0
58	0
59	0
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62	0
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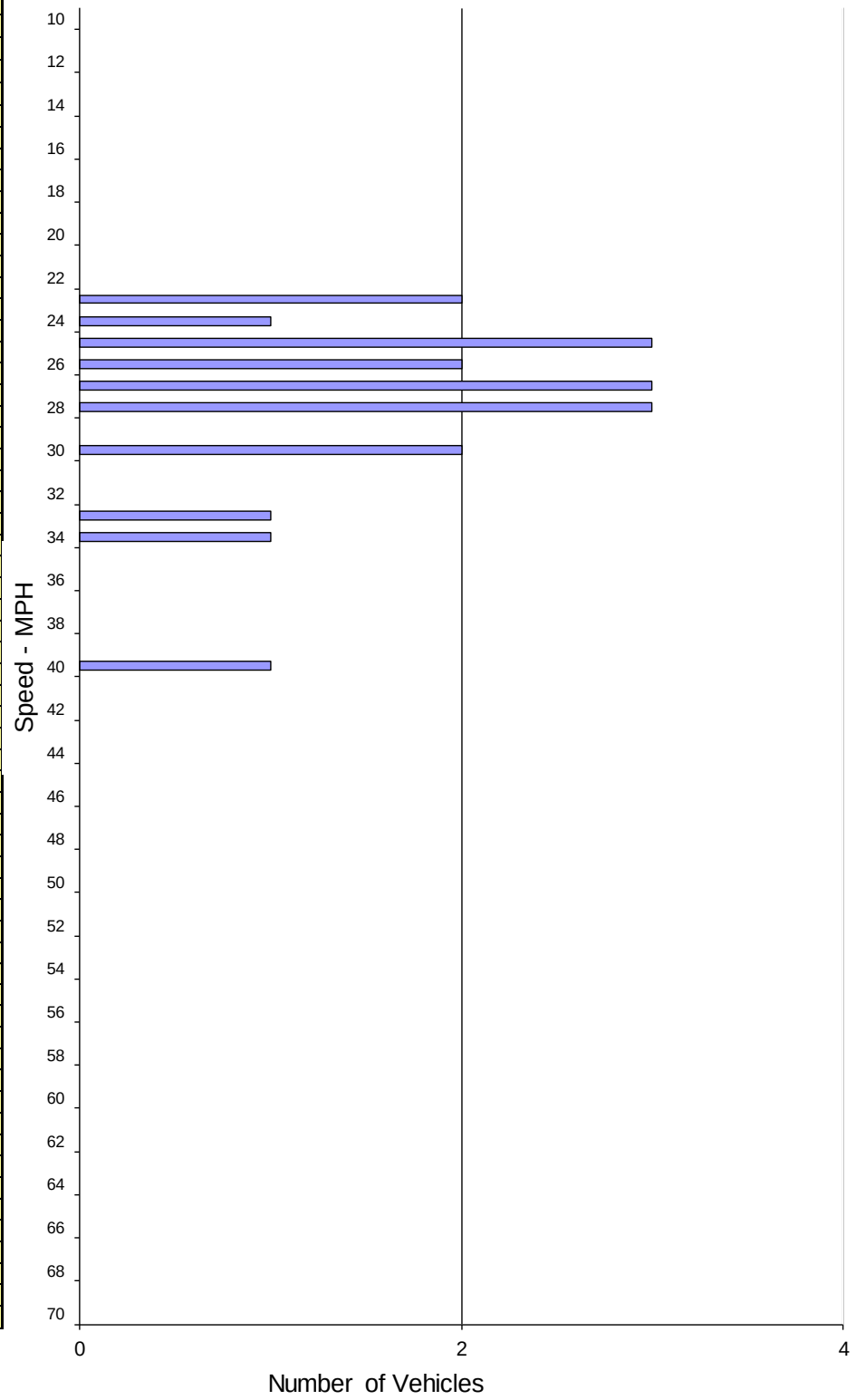
64	0
65	0
66	0
67	0
68	0
69	0
>=70	0



SPEED PARAMETERS									
Class	Count	Range	50th Percentile	85th Percentile	10 MPH Pace	# in Pace	Percent in Pace	%/ # Below Pace	%/ # Above Pace
ALL	19	23 - 40	27 mph	33 mph	21 - 30	16	84%	0% / 0	16% / 3

City of Riverbank

Survey Time: 12:30 - 14:30 **Street Width:** 20 Ft
DATE: 3/16/2016 **Location:** 4112 California Street
DAY: Wednesday **Posted Speed:** 25 MPH **Project #:** 16-7178-005

Westbound Spot Speeds

Speed mph	ALL Vehicles
<=10	
11	
12	
13	
14	
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17	
18	
19	
20	
21	
22	
23	
24	1
25	1
26	1
27	1
28	2
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30	2
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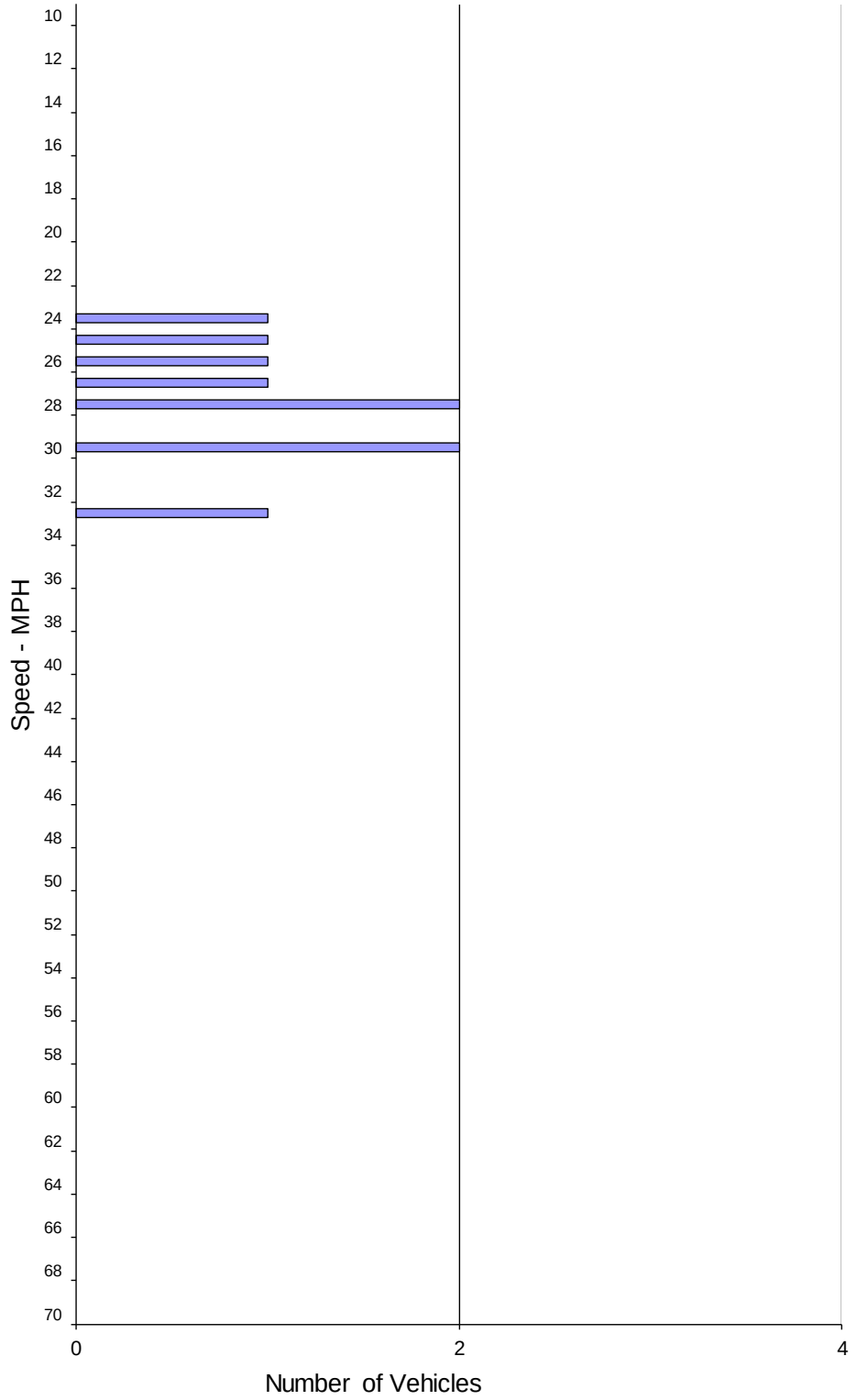

SPEED PARAMETERS

Class	Count	Range	50th Percentile	85th Percentile	10 MPH Pace	# in Pace	Percent in Pace	% / # Below Pace	% / # Above Pace
ALL	9	24 - 33	28 mph	30 mph	24 - 33	9	100%	0% / 0	0% / 0

City of Riverbank

Survey Time: 12:30 - 14:30 **Street Width:** 20 Ft
DATE: 3/16/2016 **Location:** 4112 California Street
DAY: Wednesday **Posted Speed:** 25 MPH **Project #:** 16-7178-005

Eastbound Spot Speeds

Speed mph	ALL Vehicles
<=10	
11	
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17	
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22	
23	2
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26	1
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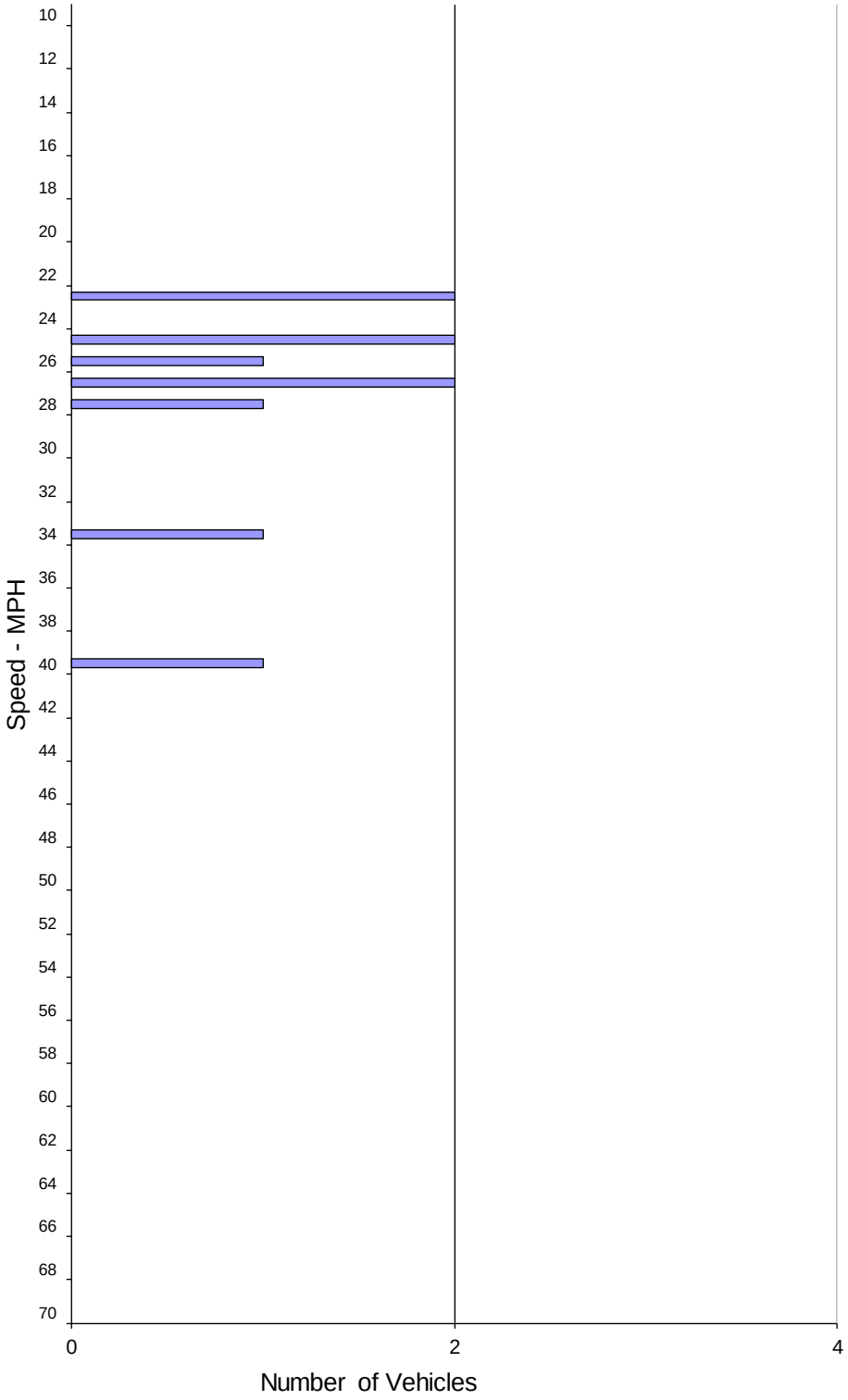

SPEED PARAMETERS

Class	Count	Range	50th Percentile	85th Percentile	10 MPH Pace	# in Pace	Percent in Pace	% / # Below Pace	% / # Above Pace
ALL	10	23 - 40	26 mph	34 mph	19 - 28	8	80%	0% / 0	20% / 2

City of Riverbank

Survey Time: 12:30 - 14:30 **Street Width:** 20 Ft
DATE: 3/17/2016 **Location:** California Street 400 feet west of Snedigar Street
DAY: Thursday **Posted Speed:** 25 MPH **Project #:** 16-7178-006

Eastbound & Westbound Spot Speeds

Speed mph	ALL Vehicles
<=10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	0
21	0
22	0
23	1
24	0
25	3
26	3
27	3
28	2
29	2
30	0
31	1
32	0
33	0
34	0
35	0
36	0
37	0
38	0
39	0
40	0
41	0
42	0
43	0
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54	0
55	0
56	0
57	0
58	0
59	0
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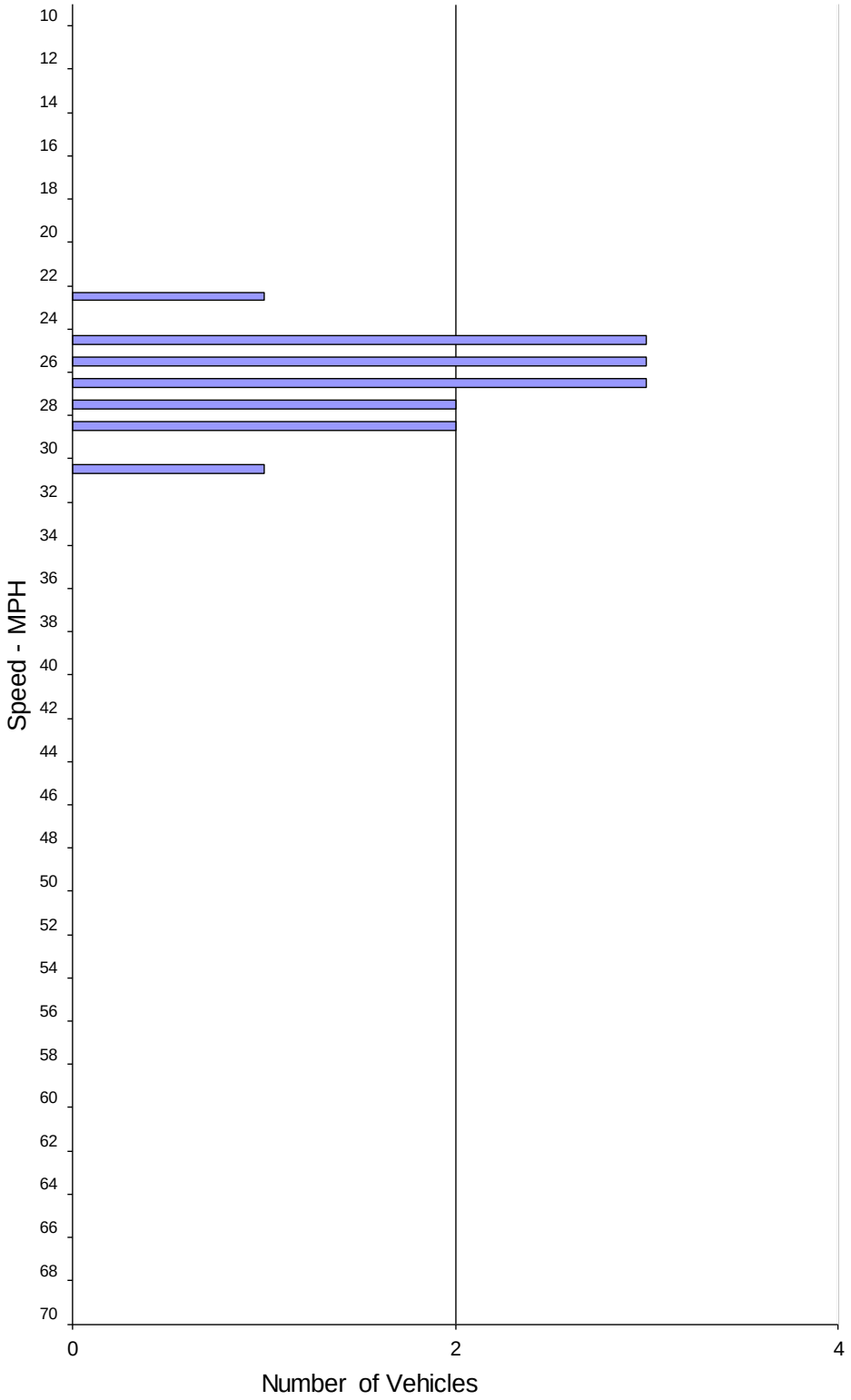
62	0
63	0
64	0
65	0
66	0
67	0
68	0
69	0
>=70	0



SPEED PARAMETERS									
Class	Count	Range	50th Percentile	85th Percentile	10 MPH Pace	# in Pace	Percent in Pace	%/ # Below Pace	%/ # Above Pace
ALL	15	23 - 31	27 mph	29 mph	22 - 31	15	100%	0% / 0	0% / 0

City of Riverbank

Survey Time: 12:30 - 14:30 **Street Width:** 20 Ft
DATE: 3/17/2016 **Location:** California Street 400 feet west of Snedigar Street
DAY: Thursday **Posted Speed:** 25 MPH **Project #:** 16-7178-006

Westbound Spot Speeds

Speed mph	ALL Vehicles
<=10	
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23	1
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25	1
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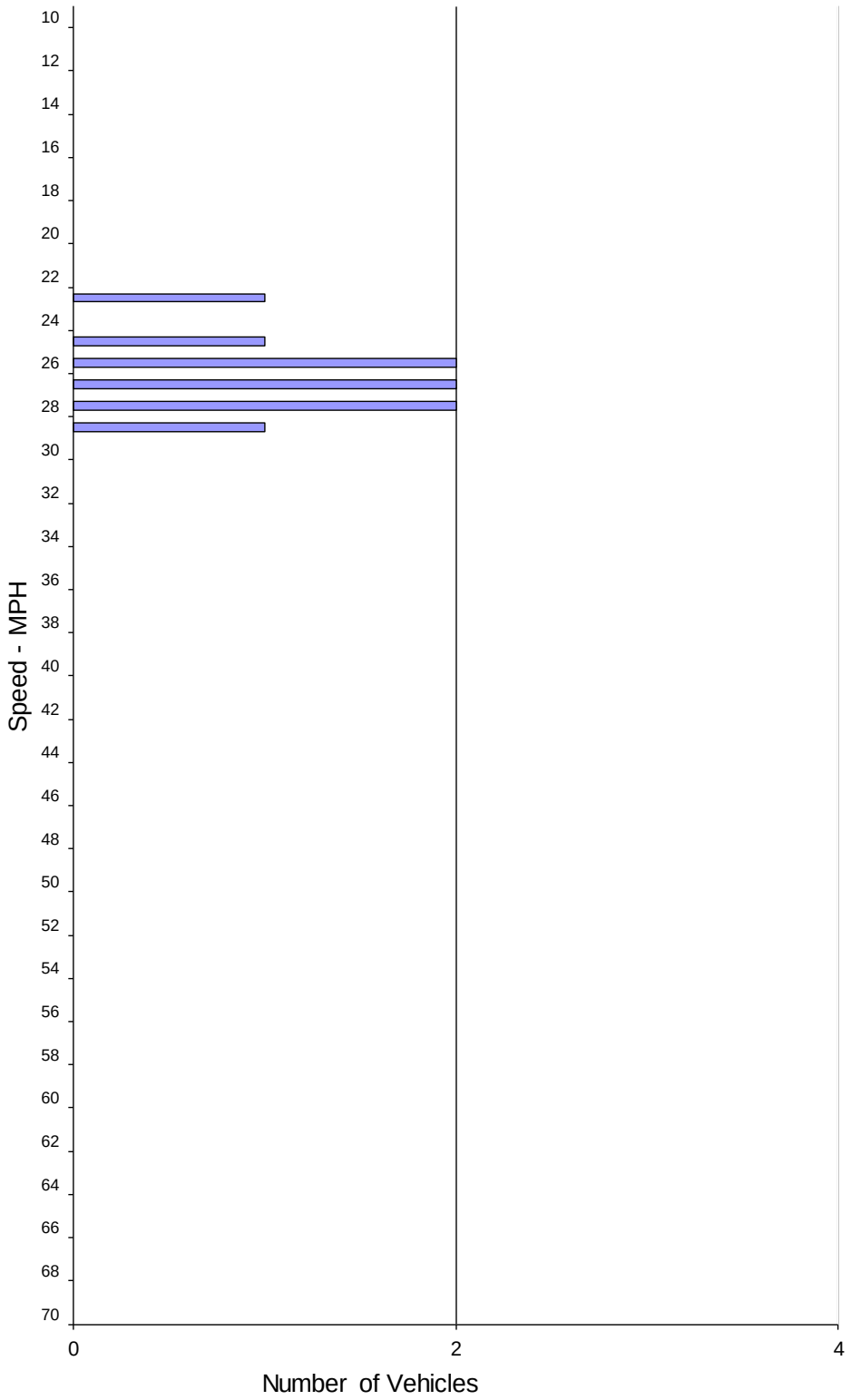

SPEED PARAMETERS

Class	Count	Range	50th Percentile	85th Percentile	10 MPH Pace	# in Pace	Percent in Pace	% / # Below Pace	% / # Above Pace
ALL	9	23 - 29	27 mph	28 mph	20 - 29	9	100%	0% / 0	0% / 0

City of Riverbank

Survey Time: 12:30 - 14:30 **Street Width:** 20 Ft
DATE: 3/17/2016 **Location:** California Street 400 feet west of Snedigar Street
DAY: Thursday **Posted Speed:** 25 MPH **Project #:** 16-7178-006

Eastbound Spot Speeds

Speed mph	ALL Vehicles
<=10	
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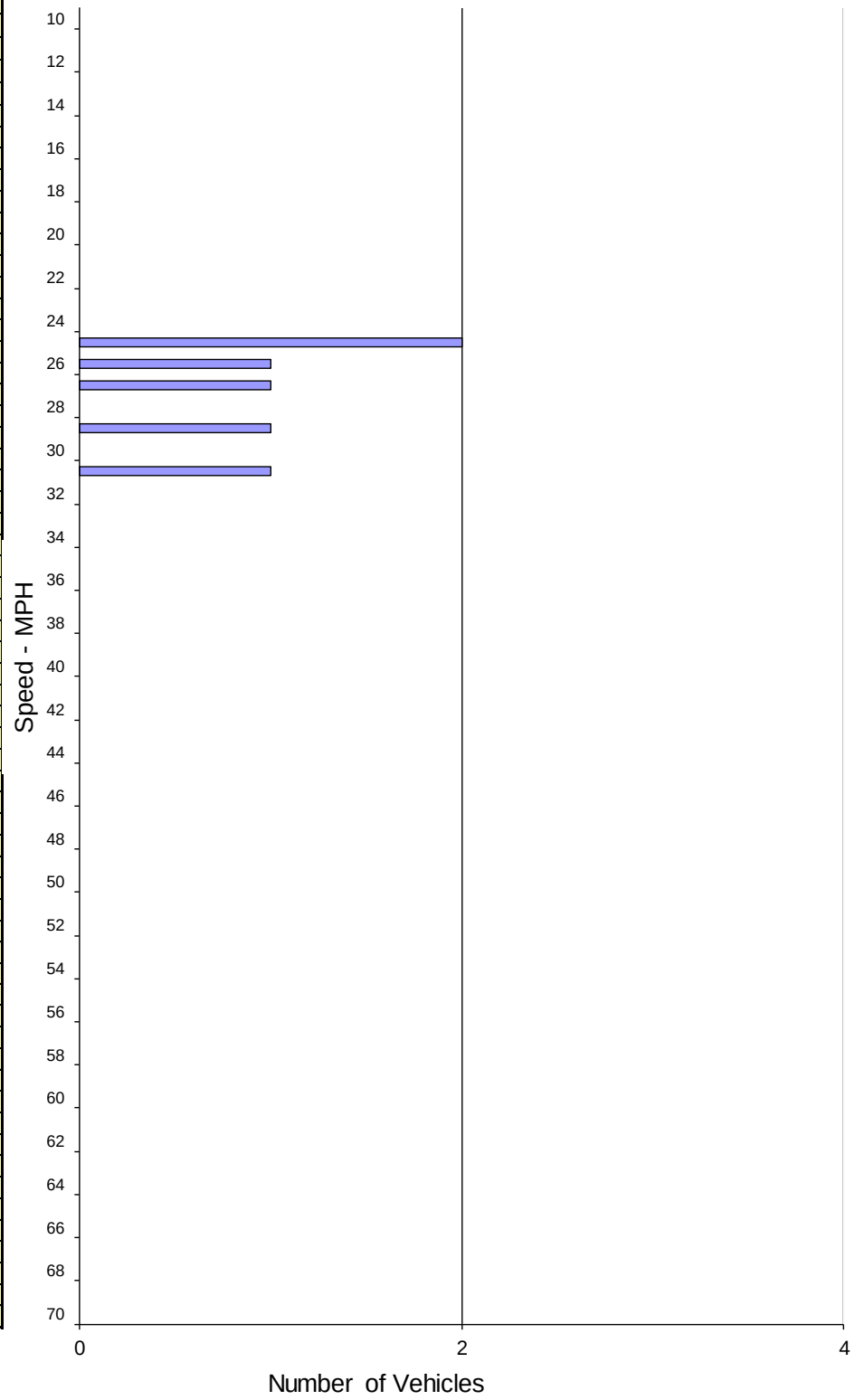

SPEED PARAMETERS

Class	Count	Range	50th Percentile	85th Percentile	10 MPH Pace	# in Pace	Percent in Pace	% / # Below Pace	% / # Above Pace
ALL	6	25 - 31	26 mph	31 mph	22 - 31	6	100%	0% / 0	0% / 0

RIVERBANK CITY COUNCIL AGENDA ITEM NO. 5.2

SECTION 5: PUBLIC HEARING

Meeting Date:	October 25, 2016
Subject:	A **Resolution** Adopting a 2.5% Consumer Price Index Increase in Rates for Solid Waste Disposal Services Pursuant to the 2014 Executed Franchise Agreement with Gilton Solid Waste, Inc.
From:	Marisela H. Garcia, Interim City Manager/Director of Finance

RECOMMENDATION

It is recommended that the City Council consider adopting a resolution approving a 2.5% Consumer Price Index (CPI) increase in rates for solid waste disposal services pursuant to the executed franchise agreement with Gilton Solid Waste, Inc.

SUMMARY

On October 28, 2014 the City Council adopted Resolution No. 2014-080 adopting revised rates for Solid Waste Disposal services after holding a Proposition 218 Protest Hearing and receiving a less than a majority protest. In addition, Resolution 2014-080 authorized the execution of a Franchise Agreement with Gilton Solid Waste, Inc. to provide said services. Section 9.1 *Rates* of the Franchise Agreement, the City will adjust the maximum charges made to Customers to reflect annual changes in the Consumer Price Index ("CPI") for All Urban Consumers published by the U.S. Department of Labor for San Francisco-Oakland-San Jose, CA statistical area. The proposed CPI adjustment is 2.5%.

BACKGROUND

Gilton Solid Waste Management (Gilton) has been providing waste management services to the residents and businesses of Riverbank for the past 38 years. The most recent Franchise Agreement negotiated with Gilton Solid Waste Management, Inc. began on November 1, 2014 and will expire on October 31, 2019. Said Franchise Agreement was approved following the Proposition 218 hearing held on October 28, 2014 where less than a majority protests were received with regards to increases in solid waste rates.

The revised rates adopted by the City Council provides our residents with the following services:

- 90 gallon trash pickup
- 90 gallon green/organic waste pickup
- Curbside Electronic Waste Program (2 times per year),
- Curbside Bulky Item Program (2 times per year),
- Illegal Dump Program
- Christmas Tree Pick-up Program

CONSUMER PRICE INDEX

Section 9.1 *Rates* of the franchise agreement stipulates that in year two, three, four and five of the Agreement Term, the City will adjust the maximum charges made to Customers under this Agreement to reflect annual changes in the Consumer Price Index for All Urban Consumers ("CPI") published by the U.S. Department of Labor for the San Francisco-Oakland-San Jose, CA statistical area. Such adjustments shall not exceed two and a half percent (2.5%) per year. The adjustment shall become effective on the anniversary of the Effective Date and be based on the previous twelve month index analysis from July to August.

As reflected in Attachment 1, the Consumer Price Index for July 2015-August 2016 was determined to be 3.1%. Based on the Franchise Agreement, rates shall not be adjusted by more than 2.5% per year. **Therefore a 2.5% increase is recommended.**

PROPOSED RATES:

The proposed solid waste services rates are as follows:

Rate Code	Rate Type	Current Monthly Rate	Rate Increase 2.5%	New Monthly Rate Effective 11/01/2016
501-GA01	RESIDENTIAL (90 Gal.)	$21.73	$0.54	$22.27
502-GA02	RESIDENTIAL (30 Gal.)	$19.12	$0.48	$19.59
503-GA03	RESIDENTIAL SENIOR DISCOUNT (90 Gal.)	$16.30	$0.41	$16.70
504-GA04	RESIDENTIAL SENIOR DISCOUNT (30 Gal.)	$14.34	$0.36	$14.70
505-GA05	BUSINESS NON-RESIDENTIAL (90 Gal.)	$21.73	$0.54	$22.27
506-GA06	BUSINESS NON-RESIDENTIAL (30 Gal.)	$19.12	$0.48	$19.59
507-GA07	COMMERCIAL 1 YD BIN P/U 1X	$52.98	$1.32	$54.31
508-GA08	COMMERCIAL 2 YD BIN P/U 1X	$84.16	$2.10	$86.27
509-GA09	COMMERCIAL 2 YD BIN P/U 2X	$153.50	$3.84	$157.34
510-GA10	COMMERCIAL 2 YD BIN P/U 3X	$222.98	$5.57	$228.55
511-GA11	COMMERCIAL 2 YD BIN P/U 4X	$271.74	$6.79	$278.53
512-GA12	COMMERCIAL 2YD BIN P/U 5X	$303.22	$7.58	$310.80
513-GA13	COMMERCIAL 3 YD BIN P/U 1X	$115.79	$2.89	$118.69
514-GA14	COMMERCIAL 3 YD BIN P/U 2X	$210.01	$5.25	$215.26

515-GA15	COMMERCIAL 3 YD BIN P/U 3X	$293.93	$7.35	$301.28
516-GA16	COMMERCIAL 3 YD BIN P/U 4X	$395.81	$9.90	$405.71
517-GA17	COMMERCIAL 3 YD BIN P/U 5X	$446.06	$11.15	$457.21
518-GA18	COMMERCIAL 4 YD BIN P/U 1X	$151.13	$3.78	$154.90
519-GA19	COMMERCIAL 4 YD BIN P/U 2X	$278.04	$6.95	$284.99
520-GA20	COMMERCIAL 4 YD BIN P/U 3X	$387.74	$9.69	$397.43
521-GA21	COMMERCIAL 4 YD BIN P/U 4X	$465.22	$11.63	$476.85
522-GA22	COMMERCIAL 4 YD BIN P/U 5X	$571.95	$14.30	$586.25
523-GA23	COMMERCIAL 4 YD BIN P/U 6X	$686.63	$17.17	$703.79
524-GA24	COMMERCIAL 6 YD BIN P/U 1X	$207.18	$5.18	$212.36
525-GA25	COMMERCIAL 6 YD BIN P/U 2X	$382.91	$9.57	$392.48
526-GA26	COMMERCIAL 6 YD BIN P/U 3X	$551.44	$13.79	$565.23
527-GA27	COMMERCIAL 6 YD BIN P/U 4X	$643.81	$16.10	$659.91
528-GA28	COMMERCIAL 6 YD BIN P/U 5X	$773.85	$19.35	$793.20
529-GA29	COMMERCIAL 6 YD BIN P/U 6X	$805.38	$20.13	$825.51
530-GA30	RESIDENTIAL (2-90 Gal.)	$28.65	$0.72	$29.36
531-GA31	BUSINESS NON-RESIDENTIAL (3-90 Gal.)	$35.57	$0.89	$36.46
532-GA32	BUSINESS NON-RESIDENTIAL (4-90 Gal.)	$42.49	$1.06	$43.55
533-GA33	RESIDENTIAL (3-90 Gal.)	$35.57	$0.89	$36.46
534-GA34	RESIDENTIAL (1 SR Rate, 1 Residential Rate)	$30.19	$0.75	$30.94
540-GA40	RESIDENTIAL SENIOR DISCOUNT (2-90 Gal.)	$22.63	$0.57	$23.20
541-GA41	BUSINESS NON-RESIDENTIAL (2-90 Gal.)	$28.65	$0.72	$29.36
542-GA42	COMMERCIAL 4 YD - RESIDENTIAL 2 90 Gal.	$201.00	$5.03	$206.03
543-GA43	COMM. (2-90 Gal.) & RESIDENTIAL (1-90 Gal.)	$50.38	$1.26	$51.64

The typical single-family residence will experience an annual increase of $6.48. Seniors eligible for the discounted rate will experience an annual increase of $4.32.

FINANCIAL IMPACT

Waste collection and disposal fees are paid by the customers that receive service, therefore residents and commercial customers will note the increase in rates in their January 2016 billing.

The City will collect additional franchise fees on the gross revenues generated which are placed in the General Fund.

STRATEGIC PLAN

This report has been prepared to accomplish the following Three-Year Goal established during the September 29, 2016 Strategic Planning Session:

ATTACHMENT

1. Consumer Price Index
2. Resolution
3. Exhibit A: November 1, 2016-October 31, 2017 Monthly Solid Waste Disposal Rates

Table 10. Consumer Price Index for All Urban Consumers (CPI-U): Selected areas, all items index

(1982-84=100, unless otherwise noted)

Area	Pricing schedule [1]	All items									
		Indexes				Percent change to Aug. 2016 from—			Percent change to July 2016 from—		
		May 2016	June 2016	July 2016	Aug. 2016	Aug. 2015	June 2016	July 2016	July 2015	May 2016	June 2016
U.S. city average	M	240.236	241.038	240.647	240.853	1.1	-0.1	0.1	0.8	0.2	-0.2
Region and area size[2]											
Northeast urban	M	255.021	255.532	255.449	255.605	1.1	.0	.1	.8	.2	.0
Size A - More than 1,500,000	M	258.004	258.565	258.429	258.633	1.2	.0	.1	1.0	.2	-.1
Size B/C - 50,000 to 1,500,000 [3]	M	150.261	150.491	150.528	150.545	.8	.0	.0	.3	.2	.0
Midwest urban	M	226.478	227.828	226.777	227.101	.6	-.3	.1	.4	.1	-.5
Size A - More than 1,500,000	M	226.853	228.343	227.149	227.570	.6	-.3	.2	.5	.1	-.5
Size B/C - 50,000 to 1,500,000 [3]	M	145.494	146.348	145.716	145.916	.6	-.3	.1	.2	.2	-.4
Size D - Nonmetropolitan (less than 50,000)	M	224.110	224.758	224.279	224.098	.5	-.3	-.1	.7	.1	-.2
South urban	M	232.906	233.838	233.287	233.508	1.0	-.1	.1	.7	.2	-.2
Size A - More than 1,500,000	M	235.767	236.797	236.518	236.610	1.3	-.1	.0	1.2	.3	-.1
Size B/C - 50,000 to 1,500,000 [3]	M	147.507	148.037	147.622	147.875	.8	-.1	.2	.4	.1	-.3
Size D - Nonmetropolitan (less than 50,000)	M	237.524	238.649	237.414	237.157	.3	-.6	-.1	.1	.0	-.5
West urban	M	247.885	248.267	248.412	248.537	1.6	.1	.1	1.4	.2	.1
Size A - More than 1,500,000	M	254.276	254.813	255.069	255.260	1.8	.2	.1	1.6	.3	.1
Size B/C - 50,000 to 1,500,000 [3]	M	145.942	145.866	145.850	145.826	.7	.0	.0	.6	-.1	.0
Size classes											
A [4]	M	220.378	221.153	220.902	221.099	1.3	.0	.1	1.1	.2	-.1
B/C [3]	M	147.156	147.594	147.277	147.434	.7	-.1	.1	.4	.1	-.2
D	M	235.726	236.607	235.900	235.769	.8	-.4	-.1	.8	.1	-.3
Selected local areas[5]											
Chicago-Gary-Kenosha, IL-IN-WI	M	229.257	230.307	228.415	228.918	-.3	-.6	.2	-.1	-.4	-.8
Los Angeles-Riverside-Orange County, CA	M	249.671	249.947	249.936	249.852	1.4	.0	.0	1.2	.1	.0
New York-Northern N.J.-Long Island, NY-NJ-CT-PA	M	263.310	264.022	263.868	264.306	1.1	.1	.2	1.0	.2	-.1
Boston-Brockton-Nashua, MA-NH-ME-CT	1	260.809	-	260.800	-	-	-	-	1.5	.0	-
Cleveland-Akron, OH	1	221.926	-	222.010	-	-	-	-	-.6	.0	-
Dallas-Fort Worth, TX	1	220.717	-	221.519	-	-	-	-	1.3	.4	-
Washington-Baltimore, DC-MD-VA-WV [6]	1	157.770	-	157.673	-	-	-	-	1.4	-.1	-
Atlanta, GA	2	-	226.724	-	227.858	1.3	.5	-	-	-	-
Detroit-Ann Arbor-Flint, MI	2	-	224.070	-	223.898	1.7	-.1	-	-	-	-
Houston-Galveston-Brazoria, TX	2	-	217.305	-	216.573	.9	-.3	-	-	-	-
Miami-Fort Lauderdale, FL	2	-	250.208	-	250.188	1.6	.0	-	-	-	-
Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD	2	-	245.980	-	245.367	.3	-.2	-	-	-	-
San Francisco-Oakland-San Jose, CA	2	-	266.041	-	267.864	3.1	.7	-	-	-	-
Seattle-Tacoma-Bremerton, WA	2	-	256.098	-	256.907	2.1	.3	-	-	-	-

[1] Foods, fuels, and several other items priced every month in all areas; most other goods and services priced as indicated:
M - Every month.
1 - January, March, May, July, September, and November.
2 - February, April, June, August, October, and December.

[2] Regions defined as the four Census regions. See map in technical notes.

[3] Indexes on a December 1996=100 base.

[4] Indexes on a December 1986=100 base.

[5] In addition, the following metropolitan areas are published semiannually and appear in Tables 34 and 39 of the January and July issues of the CPI Detailed Report: Anchorage, AK; Cincinnati-Hamilton, OH-KY-IN; Denver-Boulder-Greeley, CO; Honolulu, HI; Kansas City, MO-KS; Milwaukee-Racine, WI; Minneapolis-St. Paul, MN-WI; Phoenix-Mesa, AZ; Pittsburgh, PA; Portland-Salem, OR-WA; St. Louis, MO-IL; San Diego, CA; Tampa-St. Petersburg-Clearwater, FL.

[6] Indexes on a November 1996=100 base.

- Data not available.

NOTE: Local area indexes are byproducts of the national CPI program. Each local index has a smaller sample size than the national index and is, therefore, subject to substantially more sampling and other measurement error. As a result, local area indexes show greater volatility than the national index, although their long-term trends are similar. Therefore, the Bureau of Labor Statistics strongly urges users to consider adopting the national average CPI for use in their escalator clauses.

NOTE: Index applies to a month as a whole, not to any specific date.

CITY OF RIVERBANK

RESOLUTION

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RIVERBANK, CALIFORNIA, ADOPTING A 2.5% CONSUMER PRICE INDEX INCREASE IN RATES FOR SOLID WASTE DISPOSAL SERVICES PURSUANT TO THE EXECUTED FRANCHISE AGREEEMENT WITH GILTON SOLID WASTE, INC.

WHEREAS, on November 1, 2014 the City of Riverbank ("City") entered into a franchise agreement for the collection, transportation and disposal of solid waste, green waste and recyclables ("Franchise Agreement") with Gilton Solid Waste Management, Inc. ("Gilton"); and,

WHEREAS, the Solid Waste Rate Study, dated August 18, 2014, prepared by Bartle Wells Associates ("Rate Study"), found that the various rates proposed by Gilton and presented in **Exhibit A**, herein attached, are reasonably related to the cost of service; and,

WHEREAS, the City complied with Proposition 218 requirements in connection with the proposed rate increase and franchise agreement; and,

WHEREAS, pursuant to Section 9.1 *Rates* of the Franchise Agreement, the City will adjust the maximum charges made to Customers to reflect annual changes in the Consumer Price Index for All Urban Consumers ("CPI") published by the U.S. Department of Labor for San Francisco-Oakland-San Jose, CA statistical area attached herein as **Exhibit B**, and

WHEREAS, the CPI is to be based on the previous twelve month index analysis from July to August as calculated by the Department of Labor which was determined to be 2.6%, and

WHEREAS, the Franchise Agreement states that the adjustment shall not exceed 2.5% per year, and

WHEREAS, the revised rates reflecting a 2.5% increase are presented in **Exhibit A,** herein attached.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Riverbank hereby adopts the revised rates as presented in **Exhibit A**, and which may be amended from time to time based on the franchise agreement, for Solid Waste Disposal Services which will be made effective as of November 1, 2016.

PROPOSED

PASSED AND ADOPTED by the City Council of the City of Riverbank at a regular meeting held on the 25th day of October, 2016; motioned by Councilmember _____, seconded by Councilmember _____, and upon roll call was carried by the following vote of ___:

AYES:
NAYS:
ABSENT:
ABSTAIN:

ATTEST:	**APPROVED:**
_____	_____
Annabelle Aguilar, CMC	**Richard D. O'Brien**
City Clerk	**Mayor**

Attachments: Exhibit A – New Solid Waste Management Services Rates
Exhibit B – Consumer Price Index

PROPOSED

EXHIBIT A

CITY OF RIVERBANK MONTHLY SOLID WASTE DISPOSAL RATES (NOVEMBER 1, 2016 – OCTOBER 31, 2017)

Rate Code	Rate Type	Monthly Rate
501-GA01	RESIDENTIAL (90 Gal.)	$22.27
502-GA02	RESIDENTIAL (30 Gal.)	$19.59
503-GA03	RESIDENTIAL SENIOR DISCOUNT (90 Gal.)	$16.70
504-GA04	RESIDENTIAL SENIOR DISCOUNT (30 Gal.)	$14.70
505-GA05	BUSINESS NON-RESIDENTIAL (90 Gal.)	$22.27
506-GA06	BUSINESS NON-RESIDENTIAL (30 Gal.)	$19.59
507-GA07	COMMERCIAL 1 YD BIN P/U 1X	$54.31
508-GA08	COMMERCIAL 2 YD BIN P/U 1X	$86.27
509-GA09	COMMERCIAL 2 YD BIN P/U 2X	$157.34
510-GA10	COMMERCIAL 2 YD BIN P/U 3X	$228.55
511-GA11	COMMERCIAL 2 YD BIN P/U 4X	$278.53
512-GA12	COMMERCIAL 2YD BIN P/U 5X	$310.80
513-GA13	COMMERCIAL 3 YD BIN P/U 1X	$118.69
514-GA14	COMMERCIAL 3 YD BIN P/U 2X	$215.26
515-GA15	COMMERCIAL 3 YD BIN P/U 3X	$301.28
516-GA16	COMMERCIAL 3 YD BIN P/U 4X	$405.71
517-GA17	COMMERCIAL 3 YD BIN P/U 5X	$457.21
518-GA18	COMMERCIAL 4 YD BIN P/U 1X	$154.90
519-GA19	COMMERCIAL 4 YD BIN P/U 2X	$284.99
520-GA20	COMMERCIAL 4 YD BIN P/U 3X	$397.43
521-GA21	COMMERCIAL 4 YD BIN P/U 4X	$476.85
522-GA22	COMMERCIAL 4 YD BIN P/U 5X	$586.25
523-GA23	COMMERCIAL 4 YD BIN P/U 6X	$703.79
524-GA24	COMMERCIAL 6 YD BIN P/U 1X	$212.36
525-GA25	COMMERCIAL 6 YD BIN P/U 2X	$392.48
526-GA26	COMMERCIAL 6 YD BIN P/U 3X	$565.23
527-GA27	COMMERCIAL 6 YD BIN P/U 4X	$659.91
528-GA28	COMMERCIAL 6 YD BIN P/U 5X	$793.20
529-GA29	COMMERCIAL 6 YD BIN P/U 6X	$825.51
530-GA30	RESIDENTIAL (2-90 Gal.)	$29.36
531-GA31	BUSINESS NON-RESIDENTIAL (3-90 Gal.)	$36.46
532-GA32	BUSINESS NON-RESIDENTIAL (4-90 Gal.)	$43.55
533-GA33	RESIDENTIAL (3-90 Gal.)	$36.46
534-GA34	RESIDENTIAL (1 SR Rate, 1 Residential Rate)	$30.94
540-GA40	RESIDENTIAL SENIOR DISCOUNT (2-90 Gal.)	$23.20
541-GA41	BUSINESS NON-RESIDENTIAL (2-90 Gal.)	$29.36
542-GA42	COMMERCIAL 4 YD - RESIDENTIAL 2 90 Gal.	$206.03
543-GA43	COMM. (2-90 Gal.) & RESIDENTIAL (1-90 Gal.)	$51.64

Note: Rate codes 530-542 are calculated by standard monthly service charge plus the charge for an extra bin

- The Charge for an additional 90-gallon trash container is $6.75 per month per additional container.

RIVERBANK CITY COUNCIL AGENDA ITEM NO. 6.1

SECTION 6: NEW BUSINESS

Meeting Date:	October 25, 2016
Subject:	A **Resolution** Adopting the 2015 Updated Urban Water Management Plan
From:	Marisela H. Garcia, Interim City Manager/Director of Finance
Submitted by:	Michael Riddell, Public Works Superintendent

RECOMMENDATION:

Staff recommends the 2015 Public Draft Urban Water Management Plan (UWMP) be adopted with the revisions as noted at the public hearing held on October 11, 2016.

If approved, the Final (adopted) 2015 UWMP will be sent to the Department of Water Resources (DWR), The California State Library, Stanislaus County, and San Joaquin County within 30 days of the adoption by the City of Riverbank City Council as per California Water Code Section 10644 (a).

SUMMARY

The preparation of the Public Draft 2015 UWMP has included work with a consultant, Kjeldsen, Sinnock & Neudeck, Inc. At the October 11, 2016 City Council meeting the document was reviewed and commented on by City Council and the public.

The UWMP was reviewed by the City Council and general public during the public hearing meeting. There were no major revisions of concern to be addressed prior to adoption by the City Council. Once adopted by the City, UWMP shall be submitted to the Department of Water Resources (DWR) within 30 days for final approval by the State.

BACKGROUND

Pursuant to California Water Code Section 10644(a) an Urban Water Supplier (municipalities that supply water to more than 3,000 users) must adopt and implement an UWMP every 5 years in order to be eligible for State funding assistance on water and wastewater projects. This process began in 2005 and involves public review of the UWMP, any revisions, and adoption by the governing body of the agency. This process is in addition to local and/or regional Water Master Planning efforts and it is intended to

supply information to the State on various water use and planning information. The State typically issues a guidance document in July of years that end in 0 or 5, and plans are due by the end of the following year. Ultimately these documents are intended to serve as benchmarks in assessing if Urban Water Suppliers can meet the 20% potable water reduction by 2020 conservation mandates.

The UWMP document contains various sections of data and information regarding the City's production and uses of potable water, and its management. There are sections of information about ground water management, availability of ground water, and the conservation of ground water throughout the City. There are sections of information about landscape irrigation conservation and monitoring, as well as other conservation measures. There is also information on water shortage contingency planning requirements that are intended to address droughts and other emergencies such as earthquakes, so that at least the basic needs for water will be available at such times.

In order to ensure the City qualifies for all available State water funding opportunities the UWMP has been prepared to comply with the 2015 (and subsequent) State guidance policies so it can be adopted as soon as practical. It is expected that this document will be updated as necessary for the 2020 and any further plan submittal dates.

The changes from the 2010 UWMP Plan are as follows:

- Water loss reporting using the American Water Works Association method, which will be required annually for 2016 and thereafter.
- Adjust population and water use projections based on the 2010 Census data.
- Checking if interim water conservation goal was met.
- Reorganization of the Demand Management Measures (DMM).
- 2015 UWMP incorporated groundwater supply self-certification.

ATTACHMENTS:

1. Final 2015 Urban Water Management Plan
2. Resolution

City of Riverbank

2015 Urban Water Management Plan

Final | October 17, 2016

Prepared for:
The City of Riverbank

Prepared by:
Kjeldsen, Sinnock & Neudeck, Inc.

KSN inc.
KJELDSEN SINNOCK NEUDECK
CIVIL ENGINEERS & LAND SURVEYORS

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ENGINEER'S SIGNATURE PAGE

This Urban Water Management Plan was prepared for the City of Riverbank

Job No. 2249-0090

This Plan was prepared under the direct supervision of the following licensed professionals:

Neal Colwell, PE

Date: October 18, 2016

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Table of Contents

City of Riverbank 2015 Urban Water Management Plan

1.0 Introduction and Overview 1-1

1.1 Background and Purpose 1-1

1.2 Urban Water Management Planning and the California Water Code 1-1

1.2.1. Applicable Changes to the Water Code Since 2010 1-2

2.0 Plan Preparation 2-1

2.1 Basis for Preparing a Plan 2-1

2.2 Individual or Regional Planning and Compliance 2-1

2.3 Fiscal or Calendar Year and Units of Measure 2-2

2.4 Coordination and Outreach 2-2

2.4.1. Agency Coordination 2-2

2.4.2. Public Outreach 2-2

3.0 System Description 3-1

3.1 General Description 3-1

3.2 Climate 3-1

3.3 Service Area Population and Demographics 3-1

4.0 System Water Uses 4-1

4.1 Water Uses by Sector 4-1

4.2 Distribution System Water Losses 4-3

4.3 Estimating Future Water Savings 4-4

4.4 Water Use for Lower Income Households 4-5

5.0 SB X7-7 Baselines and Targets 5-1

5.1 Updating Calculations from 2010 UWMP 5-1

5.2 Baseline Periods 5-1

5.3 Service Area Population 5-2

5.4 Gross Water Use 5-3

5.5 Baseline Daily Per Capita Water Use 5-3

5.6 2015 and 2020 Targets 5-4

5.7 2015 Compliance GPCD 5-5

6.0 System Supplies 6-1
6.1 Description of Existing Facilities 6-1
6.2 Transfer and Exchange Opportunities 6-5
6.3 Water Quality 6-5
6.4 Current and Projected Normal Water Supplies 6-5
6.5 Future Water Supply Projects 6-5
6.5.1. Future Groundwater Extractions 6-6
6.5.2. Future Groundwater Extractions – Implementation Strategies 6-6
6.6 City of Riverbank Groundwater System 6-7
6.6.1. Well System 6-7
6.6.2. Hydrogeologic Setting 6-8
6.6.3. City of Riverbank Groundwater System and Usage 6-10
6.6.4. Modesto Subbasin Groundwater Storage and Budget 6-11
6.6.5. Groundwater Level Trends 6-11
6.6.6. Conclusions 6-17
6.7 Wastewater and Recycled Water 6-18
6.7.1. Water Reuse 6-20
6.7.2. Gray Water and Rainwater Harvesting 6-20
6.8 Desalinated Water Opportunities 6-20
7.0 Water Supply Reliability Assessment 7-1
7.1 Constraints on Water Sources 7-1
7.2 Reliability by Type of Year 7-1
7.3 Water Supply Versus Demand Comparisons 7-2
7.4 Regional Supply Reliability 7-3
8.0 Water Shortage Contingency Planning 8-1
8.1 Water Shortage Emergency Response 8-1
8.2 Preparation Actions for a Catastrophe 8-1
8.3 Supplemental Water Supplies 8-2
8.4 Long Term Additional Water Supply Options 8-2
8.5 Water Supply Reliability/Drought Contingency Ordinance/Resolution 8-2
8.5.1. Stages of Action 8-2
8.5.2. Priority by Use 8-4
8.5.3. Health and Safety Requirements 8-4
8.6 Mandatory Prohibitions on Water Wasting 8-4

8.7 Consumption Reduction Methods 8-5
8.8 Excessive Use Penalties 8-6
8.9 Revenue and Expenditure Impacts and Measures to Overcome Impacts 8-6
8.10 Mechanisms to Determine Reductions in Water Use 8-6
8.11 Minimum Supply Next Three Years 8-7
9.0 Demand Management Measures 9-1
9.1 Demand Management Measures 9-1
9.1.1. Water Waste Prevention Ordinances 9-2
9.1.2. Metering 9-4
9.1.3. Conservation Pricing 9-6
9.1.4. Public Education and Outreach 9-7
9.1.5. Programs to Assess and Manage Distribution System Real Loss 9-11
9.1.6. Water Conservation Program Coordination and Staffing Support 9-13
9.1.7. Other Demand Management Measures 9-14
10.0 Plan Adoption, Submittal, and Implementation 10-1
10.1 Notice of Public Hearing 10-1
10.1.1. Notice to the Public 10-1
10.2 Public Hearing and Adoption 10-1
10.3 UWMP Submittal 10-1
10.4 Amending an Adopted UWMP 10-2

Figures

Figure 1-1 Vicinity Map 3-3
Figure 1-2 Riverbank City Limits, Sphere of Influence, and General Plan Boundaries 3-4
Figure 6-1 Existing Water Supply Facilities 6-3
Figure 6-2 Planned Water Supply Facitlities 6-4
Figure 6-3 Location Map of City of Riverbank and the Modesto Groundwater Subbasin 6-9
Figure 6-4 Comparison of Average Rainfall (RF) and Depth to Groundwater in Modesto Irrigation District Monitoring Wells 6-13
Figure 6-5 Well Hydrographs 6-14
Figure 6-6 Well Hydrographs 6-14
Figure 6-7 Annual Depth to Water Measurements for CIty of Riverbank Wells 6-15
Figure 6-8 Example of Well Characteristics 6-16
Figure 6-9 Recent and Near-Term Projections of Depth to Static Groundwater Surface in Well No. 3 (feet bgs) 6-17

Tables

Table 2-1 (DWR Table 2-1) Public Water Systems 2-1
Table 2-2 (DWR Table 2-2) Plan Identification 2-1
Table 2-3 (DWR Table 2-3) Agency Identification 2-2
Table 3-1 (DWR Table 3-1) Population – Current and Projected 3-2
Table 4-1 (DWR Table 4-1) Demands for Potable and Raw Water – Actual 4-2
Table 4-2 (DWR Table 4-2) Demands for Potable and Raw Water - Projected 4-3
Table 4-3 (DWR Table 4-3) Total Water Demands 4-3
Table 4-4 (DWR Table 4-4) 12 Month Water Loss Audit Reporting 4-4
Table 4-5 Low-Income Projected Water Demands 4-5
Table 4-6 (DWR Table 4-5) Inclusion in Water Use Projections 4-5
Table 5-1 (DWR Table 5-1) Baselines and Targets Summary 5-5
Table 5-2 (DWR Table 5-2) 2015 Compliance 5-5
Table 6-1 Existing Groundwater Wells 6-2
Table 6-2 (DWR Table 6-1) Groundwater Volume Pumped 6-2
Table 6-3 (DWR Table 6-9) Water Supplies – Projected 6-5
Table 6-4 Future Water Supply Needs 6-6
Table 6-5 Groundwater Surface Levels at each Well 6-12
Table 6-6 (DWR Table 6-2) Wastewater Collected Within Service Area in 2015 6-19
Table 6-7 (DWR Table 6-3) Wastewater Treatment and Discharge Within Service Area in 2015 6-20
Table 7-1 (DWR Table 7-1) Basis of Water Year Data 7-2
Table 7-2 (DWR Table 7-2) Normal Year Supply and Demand Comparison 7-2
Table 7-3 (DWR Table 7-3) Single Dry Year Supply and Demand Comparison 7-3
Table 7-4 (DWR Table 7-4) Multiple Dry Years Supply and Demand Comparison 7-3
Table 8-1 (DWR Table 8-1) Stages of Water Shortage Contingency Plan 8-3
Table 8-2 Estimated Per Capita Health and Safety Water Consumption 8-4
Table 8-3 (DWR Table 8-2) Restrictions and Prohibitions on End Users 8-5
Table 8-4 (DWR Table 8-3) Stages of Water Shortage Contingency Plan - Consumption Reduction Methods 8-6
Table 8-5 (DWR Table 8-4) Minimum Supply Next Three Years 8-7
Table 9-1 2015 Domestic Water Billing Rates 9-4
Table 10-1 (DWR Table 10-1) Notification to Cities and Counties 10-1

Appendices

Appendix A: Resolution to Adopt the Urban Water Management Plan

Appendix B: Notice of Public Hearing

Appendix C: American Water Works Association (AWWA) Water Auditing Worksheet

Appendix D: City of Riverbank Water Ordinances

Appendix E: SB X7-7 Tables
Appendix F: City of Riverbank Well Data
Appendix G: Historical and Projected Depths to Static Groundwater Surface Measurements
Appendix H: Sample Resolution to Declare a Water Shortage Emergency
Appendix I: DMM Cost Benefit Analysis Data
Appendix J: DWR UWMP Checklist

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Chapter 1

Introduction and Overview

The City of Riverbank prepared this update of its Urban Water Management Plan (UWMP) during the summer of 2015. The updated plan was adopted by the City Council on October 25, 2016, and submitted as adopted to the California Department of Water Resources (DWR) on INSERT DATE. A copy of the signed resolution of plan adoption is included as Appendix A.

This plan includes information necessary to meet the requirements of the California Water Code (CWC) Division 6, Part 2.6: Urban Water Management Planning, and Division 6, Part 2.55: Water Conservation, with guidance from the CA Department of Water Resources guidance document, 2015 Guidebook for Urban Water Suppliers.

1.1 BACKGROUND AND PURPOSE

The City of Riverbank's Urban Water Management Plan (UWMP) is prepared in accordance with California Water Code Division 6, Part 2.6: Urban Water Management Planning (10610 et. seq.) and Division 6, Part 2.55: Water Conservation (10608 et. seq.). Through this legislation, the State of California is promoting the managed use of water for urban and municipal purposes. The UWMP Act requires municipalities, which supply water to more than 3,000 customers (or supplying more than 3,000 acre-feet annually) to prepare an UWMP. Under the Act, urban water suppliers are required to submit a complete plan to the DWR in years ending in zero (0) and (5). An UWMP is required in order for a water supplier to be eligible for State grants and loans associated with water system planning and capital improvement projects.

In November 2007, The Water Conservation Act of 2009, also known as SB X7-7, was signed into law as part a comprehensive water legislation package. The Water Conservation Act sets a goal to achieve a 20% reduction in urban per capita water use in California by December 31, 2020, and directs urban retail water suppliers to set interim (2015) and final (2020) water use targets to achieve this reduction.

The purpose of this plan is to describe and evaluate system water demands; sources of water supply; efficient uses of water; water conservation demand management measures; and implementation, strategy and schedule to meet the requirements of the Urban Water Management Planning and Water Conservation acts.

1.2 URBAN WATER MANAGEMENT PLANNING AND THE CALIFORNIA WATER CODE

This plan has been prepared in compliance with the CWC sections 10610 through 10656 of the UWMP Act, added in 1983 through AB 797.

1.2.1. APPLICABLE CHANGES TO THE WATER CODE SINCE 2010

Since the 2010 plans have been completed, several amendments have been made to the UWMP Act. Below is a summary of the applicable changes:

- AB 2067
  - CWC Section 10631 (f)(1) and (2): Demand Management Measures
    - Requires water suppliers to provide narratives describing their water demand management measures, as provided. Requires retail water suppliers to address the nature and extent of each water demand management measure implemented over the past 5 years and describe the water demand management measures that the supplier plans to implement to achieve its water use targets.
  - CWC Section 10621 (d): Submittal Date
    - Requires each urban water supplier to submit its 2015 plan to the Department of Water Resources by July 1, 2016.
- SB 1420
  - CWC Section 10644 (a)(2): Electronic Submittal
    - Requires the plan, or amendments to the plan, to be submitted electronically to the department.
  - CWC Section 10644 (a)(2): Standardized Forms
    - Requires the plan, or amendments to the plan, to include any standardized forms, tables, or displays specified by the department.
  - CWC Section 10631 (e)(1)(J) and (e)(3)(A) and (B): Water Loss
    - Requires a plan to quantify and report on distribution system water loss.
  - CWC Section 10631 (e)(4): Estimating Future Water Savings
    - Provides for water use projections to display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans, when that information is available and applicable to an urban water supplier.
- SB 1036
  - CWC Section 10631.2 (a) and (b): Voluntary Reporting of Energy Intensity
    - Provides for an urban water supplier to include certain energy related information, including, but not limited to, an estimate of the amount of

energy used to extract or divert water supplies.

- AB 2409
  - CWC Section 10632: Defining Water Features
    - Requires urban water suppliers to analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.

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Chapter 2

Plan Preparation

This chapter presents the basis for the preparation of the UWMP and coordination and outreach efforts.

2.1 BASIS FOR PREPARING A PLAN

The UWMP Act requires "urban water suppliers" to prepare a UWMP every five (5) years. An urban water supplier is defined as a supplier, either publically or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3000 acre-feet of water annually. As presented in Table 2-1, The City supplied 3,446 acre-ft (AF) of water to 6,743 municipal connections in 2015, requiring the preparation of a UWMP.

Table 2-1 (DWR Table 2-1)
Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015 (AF)
CA5010018	City of Riverbank	6,743	3,878
	TOTAL	6,743	3,878

2.2 INDIVIDUAL OR REGIONAL PLANNING AND COMPLIANCE

The City is not participating in a Regional UWMP, and is instead reporting on an individual basis for its own service area (See Table 2-2). The City has notified and coordinated with all appropriate regional agencies and constituents.

Table 2-2 (DWR Table 2-2)
Plan Identification

Select Only One	Type of Plan	Name of RUWMP or Regional Alliance *if applicable*
☑	**Individual UWMP**	
☐	**Regional Urban Water Management Plan (RUWMP)**	

2.3 FISCAL OR CALENDAR YEAR AND UNITS OF MEASURE

The City is a water retailer and has prepared this report on a calendar year basis, from January 1, 2015, to December 31, 2015. The reporting water volume units are in acre-feet (AF) unless otherwise specified. Table 2-3 summarizes the reporting methods for this UWMP.

Table 2-3 (DWR Table 2-3) Agency Identification
Agency Identification (DWR Table 2-3)

Type of Agency (select one or both)	
☐	Agency is a wholesaler
☑	Agency is a retailer
Fiscal or Calendar Year (select one)	
☑	UWMP Tables Are in Calendar Years
☐	UWMP Tables Are in Fiscal Years
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF

2.4 COORDINATION AND OUTREACH

The UWMP Act requires identification of the City's coordination with relevant public agencies and the general public.

2.4.1. AGENCY COORDINATION

The City of Riverbank is an independent water supplier and does not purchase from, nor wholesale water, to other agencies. The development of this UWMP was coordinated with City Development Services Department staff. Development Services is responsible for maintaining statistical data regarding water consumption and overseeing all development activities in the City. The Finance Department is responsible for utility billing.

On August 1, 2016, a notice of preparation was sent to surrounding public agencies to inform them of the preparation process of the City's 2015 UWMP and to solicit input and comments. The notice details the availability of the draft plan and the schedule, including the public hearing and expected adoption dates.

The notice of preparation letters are included in Appendix B.

2.4.2. PUBLIC OUTREACH

The City has actively encouraged community participation in its urban water management planning efforts. The City held a public meeting on October 11, 2016 for review and comments on the draft plan prior to adoption by the City Council. In accordance with Section 6066 of the

Government Code, notices of a public hearing were placed in the Riverbank News at least two weeks prior to the public hearing and the UWMP was made available to the public for review and comment before the City Council adoption (notice attached in Appendix B). Copies of the draft UWMP were available at City offices and the library. Additionally, community input was sought during the development of the City's Water Ordinances initially adopted in 1967 and subsequently amended.

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Chapter 3

System Description

This chapter provides a general description of the City's water supply system and service area, including facilities, climate, population, and housing.

3.1 GENERAL DESCRIPTION

The City of Riverbank is located adjacent and south of the Stanislaus River, approximately 4 miles to the southwest of the City of Oakdale, and just northeast of the City of Modesto as depicted in Figure 3-1. The City, and its General Plan area, is located within the Stanislaus and San Joaquin Basins of the Great Central Valley. The City supplies potable water to all the residential, commercial, and institutional / governmental water users within City limits. The City also supplies water to several residential locations and complexes outside of the city limits, but within the Sphere of Influence. Figure 2-2 portrays the City limits, Sphere of Influence, and General Plan boundary.

3.2 CLIMATE

The Riverbank area is considered semi-arid, characterized by hot, dry summers and mild, wet winters. Average winter temperatures range from the mid-40s to the high-60s and average summer temperatures from the 50s to the 90s. Per information from Western Regional Climate Center and CIMIS station observations the annual rainfall amounts range from 5.7 inches to 27.4 inches per year for the period between 1906 and 2015. In the region, average rainfall is approximately 12.21 inches per year.

3.3 SERVICE AREA POPULATION AND DEMOGRAPHICS

From 2005 to 2015, the population increased by approximately 3,495 residents per the State of California, Department of Finance (DOF). Growth rates have been as high as 5.9% between 2014-2015 and as low as 0.6% between 2011-2012. For purposes of this plan, the City has a future projected average population growth rate of 1.6% growth rate based on historical average growth data from 2005 through 2015. Table 2-2 summarizes the projected population growth of the City to the year 2035, including the projected build-out population based on the City's General Plan 2005-2025.

The City's current and estimated population is presented Table 3-1. The City's actual distribution area substantially overlapped with the City boundaries during the baseline years. As population and economic growth continue in the future, the actual distribution area will geographically expand into the General Plan build-out areas.

Table 3-1 (DWR Table 3-1)
Population – Current and Projected

Population Served	2015	2020	2025	2030	2035
	23,572	25,458	27,344	29,229	31,115

The City's current actual distribution area substantially overlaps the city limits as shown in Figure 3-2 The City provides water service to the developed areas within the sphere of influence, which consists of single-family and multifamily residential units; commercial establishments; and industrial, private, and governmental institutions. The City's sphere of influence will expand over time to serve the General Plan boundary area as a result of economic and population growth.

Figure 3-1
Vicinity Map

Source: City of Riverbank 2010 Urban Water Management Plan

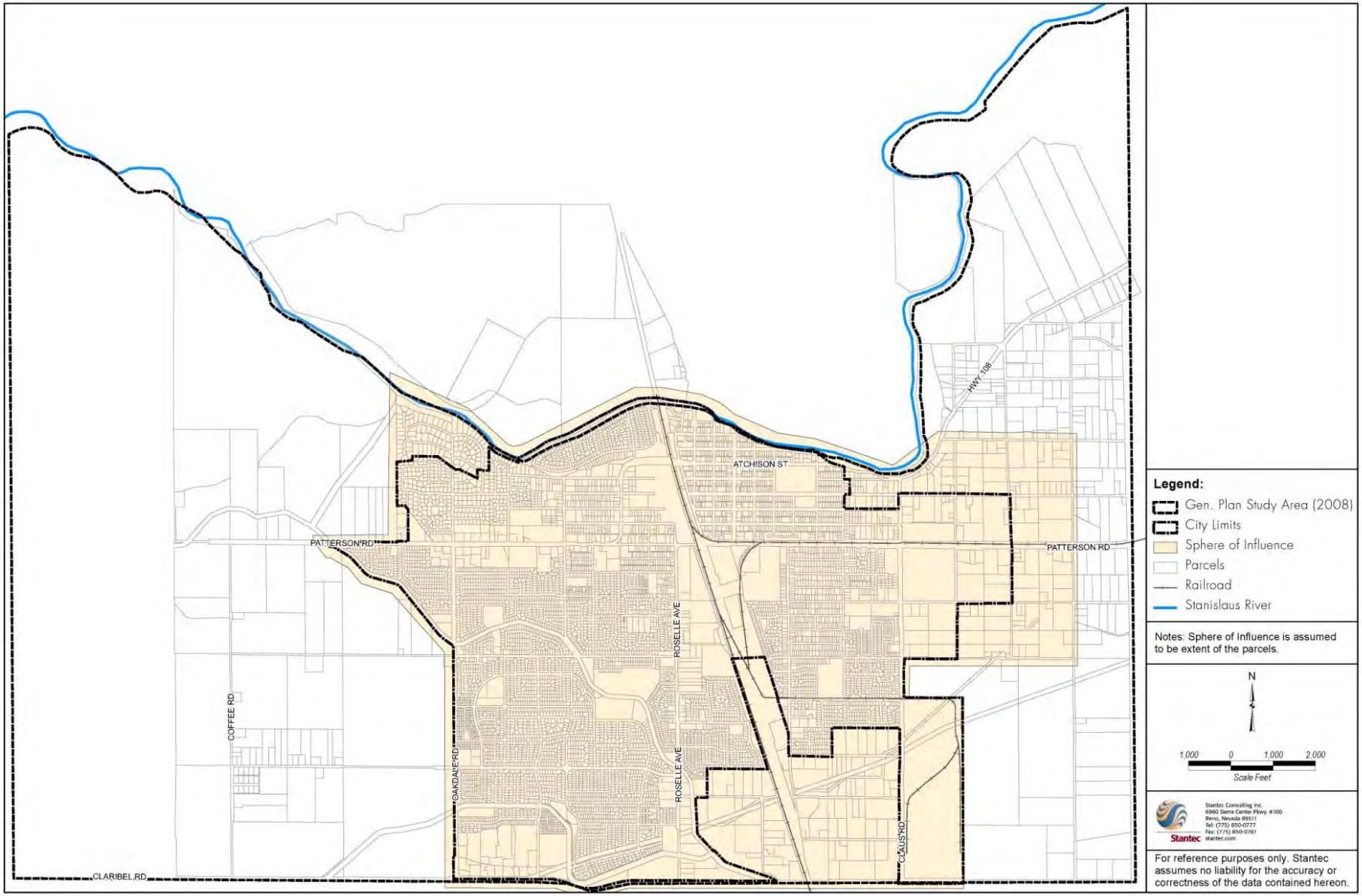

Figure 1-2
Riverbank City Limits, Sphere of Influence, and General Plan Boundaries

Source: City of Riverbank 2010 Urban Water Management Plan

Chapter 4

System Water Uses

This chapter describes the City's water system demands, including calculating its baseline (base daily per capita) water use and interim and urban water use targets. It quantifies the City's current water system demand by category and projects them over the planning horizon of the UWMP. The projections also include system water losses and water use target compliance.

When calculating future water demands, the projected demands were based on the assumed reduction in per capita daily use determined from planning for and implementing actions associated with the Water Conservation Bill of 2009.

This chapter also includes a description of how the City calculated its baseline and targets, following the technical methods and methodologies described in Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (For the Consistent Implementation of the Water Conservation Bill of 2009) (DWR 2010a).

4.1 WATER USES BY SECTOR

Table 4-1 below presents the City's current water use based on 2015 metered data. The City categorizes metered water use sectors by Single Family Residential, Commercial/Institutional/Governmental, Industrial, and Other.

Table 4-1 (DWR Table 4-1)
Demands for Potable and Raw Water – Actual

Use Type	2015 Actual	
	Level of Treatment When Delivered	Volume (AF)
Single Family	Drinking Water	3,102
Multi-Family	Drinking Water	
Commercial	Drinking Water	214
Institutional/Governmental	Drinking Water	
Industrial	Drinking Water	93
Landscape	Drinking Water	0
Agricultural irrigation	Drinking Water	0
Other	Drinking Water	61
Losses	Drinking Water	407
	TOTAL	3,878
NOTES: Multi-family water use is included with single family.		

DWR Tables 5 through 7 provide projected water demands for 2020, 2025, 2030 and 2035. In calculating the estimated number of accounts and water usage by sector, a straight-line projection with a 1.6% assumed water production growth was made from 2015 to 2035. This is consistent with the historical 2005 – 2015 population growth of 1.6% Based on 2015 metered data, residential usage represents approximately 90% of the total usage. The remaining 10% is for commercial/institutional, industrial and other use categories.

Weighting is proportional to the total projected average day demand at build-out for each residential land use type for the General Plan area plus the unbuilt MDR within the existing City limits.

An additional conservation factor was not assumed for planning purposes, since the 2015 water uses of 147 GPCD already meet the 2020 water use target of 165 GPCD, as discussed in Chapter 5.

Table 4-2 (DWR Table 4-2)
Demands for Potable and Raw Water - Projected

Use Type	Projected Water Use			
	2020	2025	2030	2035
Single Family	3,351	3,599	3,847	4,095
Multi-Family				
Commercial	208	226	243	260
Industrial	0	0	0	0
Institutional/Governmental	100	108	115	123
Landscape	0	0	0	0
Agricultural irrigation	0	0	0	0
Other	66	71	76	81
Losses	440	472	505	537
TOTAL	4,165	4,475	4,786	5,096
NOTES: Multi-family water use is included with single family. All Volumes are in AF.				

Total water demands are summarized in Table 4-3.

Table 4-3 (DWR Table 4-3)
Total Water Demands

	2015	2020	2025	2030	2035
Potable and Raw Water *From Tables 4-1 and 4-2*	3,878	4,165	4,475	4,786	5,096
Recycled Water Demand *From Table 6-4*	0	0	0	0	0
TOTAL WATER DEMAND	3,878	4,165	4,475	4,786	5,096
NOTES: All Volumes are in AF.					

4.2 DISTRIBUTION SYSTEM WATER LOSSES

Additional water use and losses are defined in Table 4-4. System losses could include system leaks, meter inaccuracies, construction water, distribution system flushing, and unauthorized connections. Water losses are estimated using the American Water Works Association (AWWA) Water Auditing Worksheet, attached in Appendix C.

Table 4-4 (DWR Table 4-4)
12 Month Water Loss Audit Reporting

Reporting Period Start Date (mm/yyyy)	Volume of Water Loss (AF)
01/2015	407

4.3 ESTIMATING FUTURE WATER SAVINGS

Section 10608.36 of the Water Code requires the City to provide an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions. Section 10631(e)(4) provides the option for the City to reflect on conservation efforts as part of the future demand projection. As a retail water supplier, the City is required to develop an implementation plan for compliance with the Water Conservation Bill of 2009. The plan provides a general description of how the City intends to reduce per capita water use to meet its urban water use target. In developing the plan, the City also needs to consider any potential economic impacts that may result from the water use reduction program. The City anticipates future water savings through this plan.

The City's plan to help achieve water use reductions include:

- Continued implementation of all cost effective Demand Management Measures (DMMs)
- Implementation of DMMs not currently being implemented or scheduled for implementation
- Develop DMM implementation tracking program to better be able to assess effectiveness of DMMs
- Describe steps necessary to properly implement the DMMs:
  - Marketing strategy for customer enrollment
  - Tracking of participation and results of participation
  - Schedule strategy
- Discuss potential revenue impacts associated with reduced system water use including potential impact to water rates ability to cover fixed costs:
  - Future rate analysis will include revenue and cost projections with projected reduced use and propose a rate/financing structure to ensure operational costs are adequately funded under such circumstances.
- Turf limitation and removal ordinances
- Model home ordinance

- Amend subdivision ordinance to mandate new homes not exceed per capita water use targets
- Enforce Green Building Code requirements including implementation of SB 407/Civil Code Sections 1101.1 - 1101.8 fixture retrofit requirements.

4.4 WATER USE FOR LOWER INCOME HOUSEHOLDS

The current UWMP requirement includes projections of lower income household water use projections. Table 4-5 provides these projections. These demands are included as part of DWR tables 5-8. The City of Riverbank's low income households make up 12.3% of the population based on economic and housing data for the City. This percentage of low income population was then applied to the residential water demand projections to estimate "low income water demand".

Table 4-5
Low-Income Projected Water Demands

Low Income Water Demands	Current Water Use	Projected Water Use			
	2015	2020	2025	2030	2035
Single Family Residential	382	412	443	473	504
NOTES: All Volumes are in AF.					

Table 4-6 below confirms that future water savings and lower income household demands have been included in water demand projections.

Table 4-6 (DWR Table 4-5)
Inclusion in Water Use Projections

Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook)	Yes
If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc… utilized in demand projections are found.	Appendix D
Are Lower Income Residential Demands Included In Projections?	Yes
NOTES: Future Water Savings are projected to keep water usage steady as opposed to decreasing water usage, due to future water use targets already being met.	

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Chapter 5

SB X7-7 Baselines and Targets

Beginning with the 2010 UWMPs, SBX7-7 (CWC §10608 (e)) requires each urban retail water supplier to include the following in its UWMP.

- **Baseline daily per capita water use** — how much water is used within an urban water supplier's distribution system area on a per capita basis. It is determined using water use and population estimates from a defined range of years.
- **Urban water use target** — how much water is planned to be delivered in 2020 to each resident within an urban water supplier's distribution system area, taking into account water conservation practices that currently are, and/or planned to be, implemented.
- **Interim urban water use target** — the planned daily per capita water use in 2015, a value halfway between the baseline daily per capita water use and the urban water use target.

In 2015 and 2020, each water supplier will also determine compliance daily per capita water use to assess progress toward meeting interim and 2020 urban water use targets. Determining and tracking use levels and targets will support the goal of reducing the state's per capita urban water consumption by 20 percent.

The steps required to calculate the City's urban water use targets include developing the gross water use, the current and estimated service area population, followed by calculating the baseline daily per capita water use. The SB X7-7 Verification Form used to calculate baselines and targets are included in Appendix E.

5.1 UPDATING CALCULATIONS FROM 2010 UWMP

Per CWC 10608.20 (g) the City has updated its 2020 urban water use target in this 2015 plan through the same target method that was used in 2010. As required by the 2015 DWR Guidebook, the City has updated its population calculations to reflect the 2010 U.S. Census data. The data from the 2010 Census was not available at the time of the 2010 UWMP developments, and must now be revised to cover discrepancies between projected populations and actual populations.

5.2 BASELINE PERIODS

The Water Code specifies two different base periods for calculating Base Daily Per Capita Water Use under Section 10608.20 and Section 10608.22:

- The first base period is a 10- to 15-year continuous period, and is used to calculate

baseline per capita water use per Section 10608.20.

- The second base period is a continuous five-year period, and is used to determine whether the 2020 per capita water use target meets the legislation's minimum water use reduction requirement per Section 10608.22.

Unless the urban retail water supplier's five year Base Daily Per Capita Water Use per Section 10608.12 (b) (3) is 100 gallons per capita per day (GPCD) or less, Base Daily Per Capita Water Use must be calculated for both baseline periods.

In determining the proper length of time to use for the first base period, the following criteria must be followed:

- If recycled water made up less than 10 percent of 2008 retail water delivery, use a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.
- If recycled water made up 10 percent or more of 2008 retail water delivery, use a continuous 10- to 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

Since the City does not used recycled water, a 10-year baseline period will be used. The base period ranges selected for calculating the baseline daily per capita water use are the following:

- 10-year baseline period: 1996-2005
- 5-year baseline period: 2003-2007

These periods are the same as those reported in the City's 2010 UWMP. SB X7-7 Table 1 in Appendix E lists these baseline periods.

DWR Table 14 presents the calculated base daily per capita water use for the 10-year and 5-year ranges. The maximum allowable 2020 per capita water use target is the lower of either: 95% of the 5-year baseline daily per capita water use, or the target determined by one of the DWR target methods discussed in the following section.

5.3 SERVICE AREA POPULATION

Section 10608.20(f) of the Water Code indicates that when calculating per capita values for the purposes of this section, an urban retail water supplier shall determine population using federal, state, and local population reports and projections. To obtain an accurate estimate of daily per capita water use, water suppliers must estimate population of the areas that they actually serve, which may or may not coincide with either their jurisdictional boundaries or with the boundaries of cities. Customers may be in the distribution area with a wholly private supply during the baseline and compliance years, and new areas may be annexed into a water supplier's distribution system over time. The area used for calculating Service Area Population shall be the same as the distribution system area used in calculating the gross water use.

Since the service area is substantially the same as the City boundary, it is appropriate to use population estimates directly from the Department of Finance. The population estimates are presented in SB X7-7 Table 3 in Appendix E.

5.4 GROSS WATER USE

Gross water use is a measure of water supplied to the distribution system over 12 months and adjusted for changes in distribution system storage and deliveries to other water suppliers that pass through the distribution system. Recycled water deliveries are to be excluded from the calculation of Gross Water Use. Water delivered through the distribution system for agricultural use may be excluded from the calculation of Gross Water Use.

Section 10608.12(g) of the Water Code defines "Gross Water Use" as:

The total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:

(1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier

(2) The net volume of water that the urban retail water supplier places into long-term storage

(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier

(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24

The historical annual metered groundwater production for the City's water system for the chosen baseline periods is presented in SB X7-7 Table 4 of Appendix E. Per Methodology 1: Gross Water Use in the DWR guidance, the City's gross water use is equivalent to the annual groundwater production as there is no import/export of water and no recycled water use within the system.

5.5 BASELINE DAILY PER CAPITA WATER USE

Baseline per capita water use must be calculated for a water system to define their 2015 interim and 2020 water use targets. Base Daily Per Capita Water Use is defined as average gross water use, expressed in GPCD, for a continuous, multiyear base period. From the 2010 UWMP, these values have been adjusted according to the population estimate update. The calculated Base Daily Per Capita Water Use for each baseline period is as follows:

- 10-year baseline period (1996-2005)
    - 198 GPCD
- 5-year baseline period (2003-2007)

- 218 GPCD

The current, 2015 water use is 147 GPCD. These values are summarized in SB X7-7 Table 6 in Appendix E.

5.6 2015 AND 2020 TARGETS

The City must set a 2020 water use target and a 2015 interim target using one of four methods. Three of these are defined in Section 10608.20(a)(1), with the fourth developed by DWR. The 2020 water use target will be calculated using one of the following four methods:

- **Method 1**: 80% of the water supplier's baseline per capita water use.
- **Method 2**: Per capita daily water use estimated using the sum of performance standards applied to indoor residential use; landscaped area water use; and commercial, industrial, and institutional uses.
- **Method 3**: 95% of the applicable state hydrologic region target as stated in the State's April 30, 2009, draft 20x2020 Water Conservation Plan. The Modesto Groundwater Subbasin is located in the San Joaquin River Hydrologic Region. This region has a year 2015 conservation target of 211 GPCD and a year 2020 target of 174 GPCD. A reduction to 95% for this region makes the urban water target 165 GPCD.
- **Method 4**: This is a method developed by DWR to account for climate and population density and differences in regions related to levels of per capita water use according to plant water needs and levels of commercial, industrial, and institutional water use. Water savings are calculated using a BMP Calculator tool provided by DWR.

The Water Code directs that water suppliers must compare their actual water use in 2020 with their calculated targets to assess compliance. In addition, water suppliers will report interim compliance in 2015 as compared to an interim target (generally halfway between the baseline water use and the 2020 target level). The years 2015 and 2020 are referred to in the methodologies as compliance years. All baseline, target, and compliance-year water use estimates must be calculated and reported in GPCD.

The City of Riverbank has selected Method 3 for establishing their interim 2015 and final 2020 urban water use targets. Method calculations, as well as the 2020 target confirmation of at least a 5% reduction from the 5-year baseline GPCD, are shown in SB X7-7 Tables 7, 7E, 7F, and 8 in Appendix E. Based on this, the City's targets are as follows:

- Final 2020 Target = 165 GPCD
- Interim 2015 = 182 GPCD

Table 5-1 summarizes the baseline periods and target GPCDs.

Table 5-1 (DWR Table 5-1)
Baselines and Targets Summary

Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	*1996*	*2005*	*198*	*182*	*165*
5 Year	*2003*	*2007*	*218*		
*All values are in Gallons per Capita per Day (GPCD)					

The target may need to be adjusted further to achieve a minimum reduction in water use regardless if the 95% of the 5-year baseline range defined above is greater than the selected urban water use target. Since this is not true, the target does not need to be adjusted.

5.7 2015 COMPLIANCE GPCD

CWC Section 10608.24 requires the City must meet its interim target water use by the end of 2015. As calculated by Method 3, the City's actual 2015 daily per capita use was 147 GPCD, which is below the 2015 interim target of 182 GPCD. Therefore, the City has met its interim target use and already meets the 2020 target.

Table 5-2 (DWR Table 5-2)
2015 Compliance

Actual 2015 GPCD*	2015 Interim Target GPCD*	**Optional Adjustments to 2015 GPCD**		2015 GPCD* *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		TOTAL Adjustments*	Adjusted 2015 GPCD*		
147	182	0	147	147	Yes
**All values are in Gallons per Capita per Day (GPCD)*					

The DWR *Methodologies* document allows additional adjustments to be made to the City's gross water use in 2015 for extraordinary events, land use changes, and unusual weather. The City has chosen not to make any adjustments as they are not required to comply with SB X7-7.

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Chapter 6

System Supplies

This chapter describes the City's sources of water. It includes a description of City's groundwater source(s), source limitations (physical or political), water quality, and water exchange opportunities. Also included is a short discussion regarding planned future water supply projects to meet future water system demands. A detailed analysis of the City's groundwater supply and supply reliability issues are discussed in Chapter 7 of this UWMP.

6.1 DESCRIPTION OF EXISTING FACILITIES

The City relies exclusively on groundwater as a potable water supply. Surface water applications are limited to natural recharge to the groundwater supply. An urban recycled wastewater program is not planned at this time.

The City supplies potable water through a pressurized distribution system. The City water supply and distribution system is comprised of ten wells with pumps, two 1 million gallon (MG) storage tanks with booster pumping stations, and over 44 miles of pipeline 8 inches to 12 inches in diameter. There are also several miles of 4-inch and 6-inch diameter pipelines.

An eleventh well, Well No. 11 has been designed and is planned for the south side of Santa Fe Street, east of Central Avenue in rural northeastern Riverbank. The locations of existing and planned water supply wells are shown in Figures 6-1 and 6-2. A summary of the production capacity of the existing groundwater wells 2-10 and 12, including pertinent well characteristics, is presented in Table 6-1. A summary of the amount of groundwater pumped in the previous years is provided in Table 6-2.

Table 6-1
Existing Groundwater Wells

Well No.	Well Name	Pumping Capacity (gpm)	Date Constructed	Depth to Intake (ft bgs)	Depth to Uppermost Screen (ft bgs)	Total Production Calendar Yr 2015 (AF)
2	8th St	660	1956	*112**	*130**	237
3	Chief Tucker	625	1965	*112**	*130**	1,296
4	Cross-roads	900	1972	145	132	240
5	Heartland	900	1978	*112**	130	191
6	Jackson	1,000	1981	*178**	225	270
7	Novi	1,200	1990	150	209	328
8	Pioneer	1,200	2001	178	210	211
9	Prospectors	1,300	2004	130	148	213
10	River Heights	1,500	2010	185	165	729
12	Whorton	1,500	2010	260	240	163
	Total	**10,785**				

* Assumed values based on characteristics of other wells.

Table 6-2 (DWR Table 6-1)
Groundwater Volume Pumped

Groundwater Type	Location or Basin Name	2011	2012	2013	2014	2015
Alluvial Basin	Modesto Ground Water Subbasin	4,869	4,222	3,978	4,035	3,878
NOTES: All Volumes are in AF.						

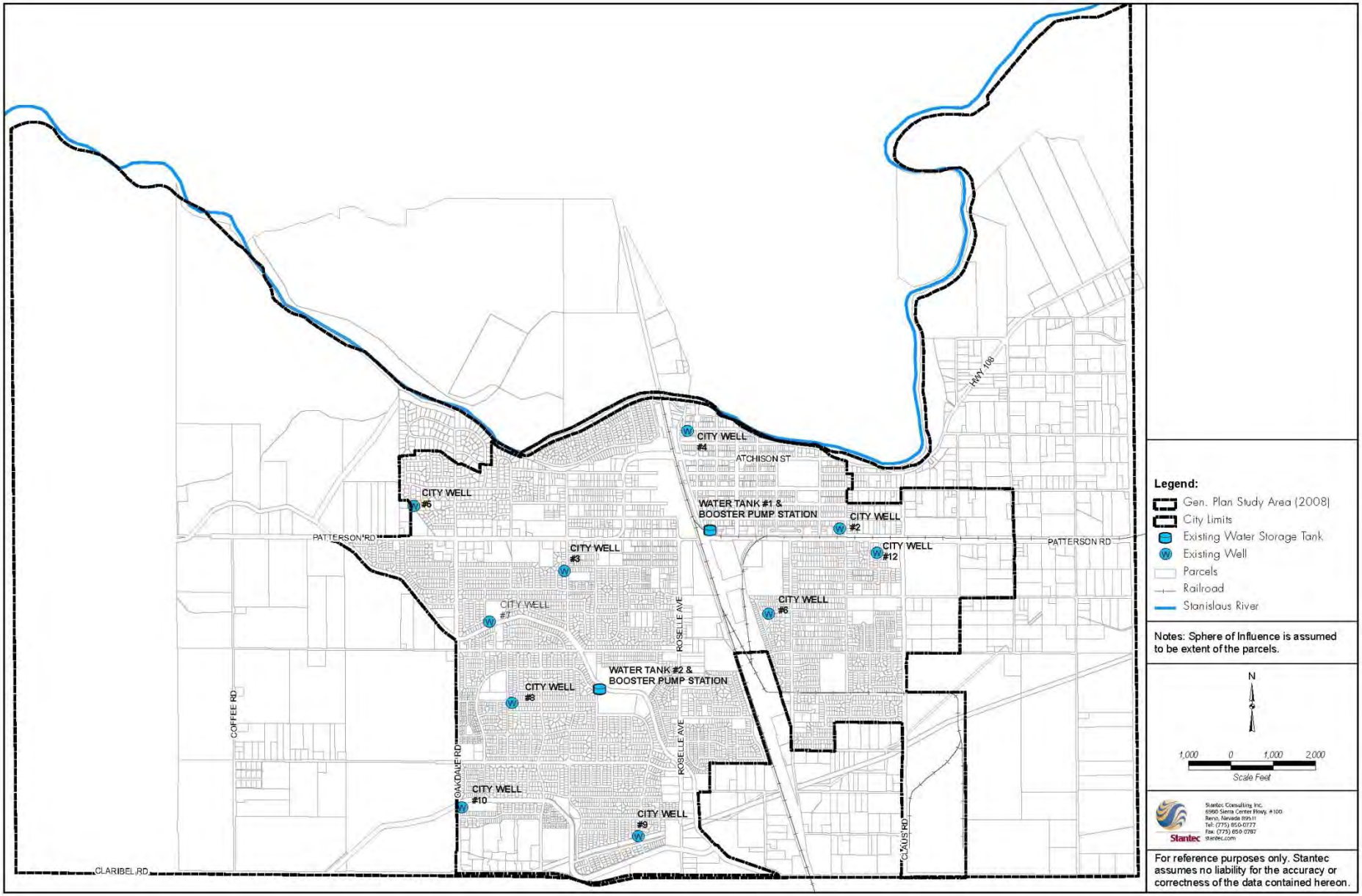

Figure 6-1
Existing Water Supply Facilities

Source: City of Riverbank 2010 Urban Water Management Plan

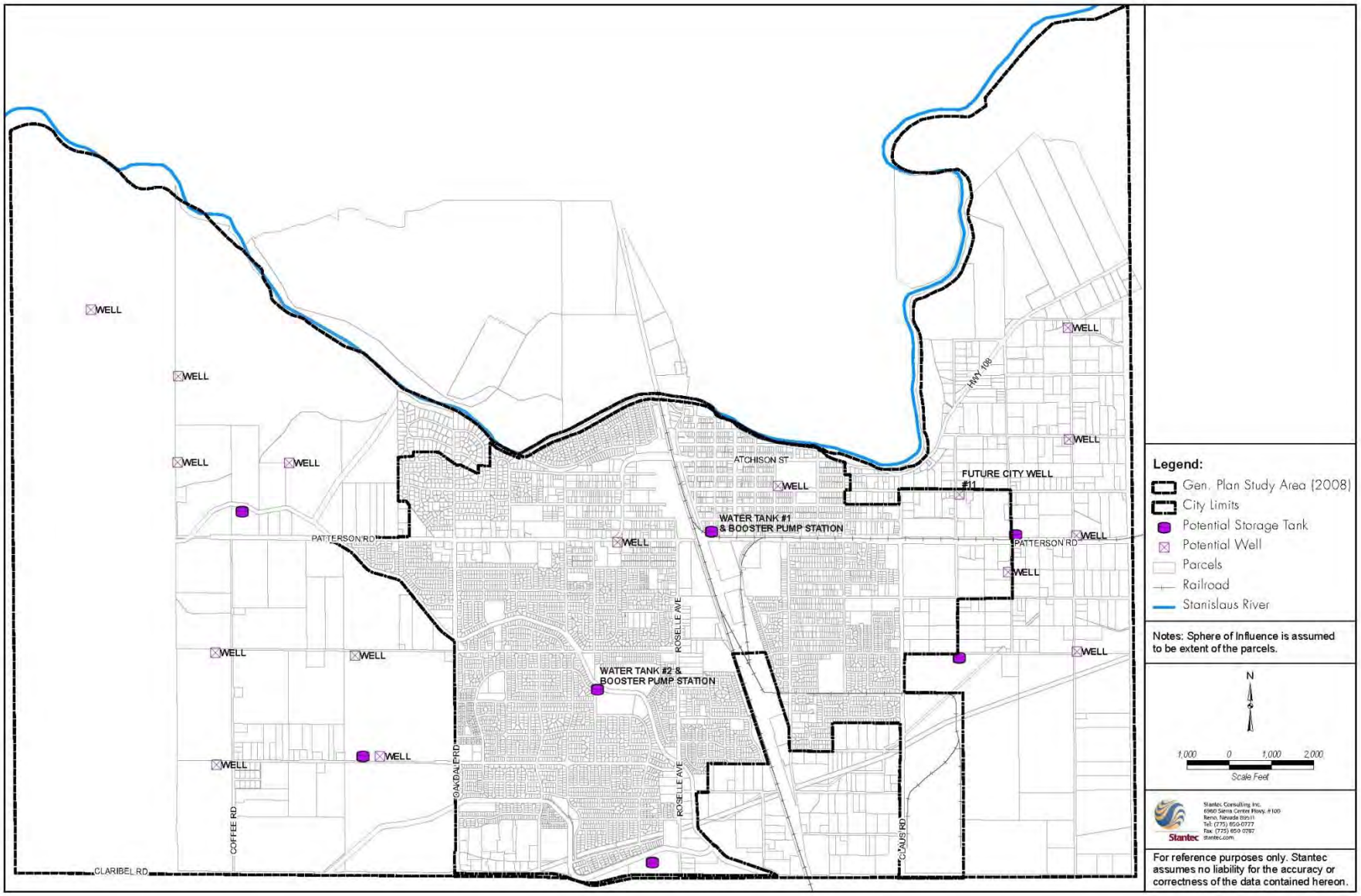

Figure 6-2
Planned Water Supply Facitlities

Source: City of Riverbank 2010 Urban Water Management Plan

6.2 TRANSFER AND EXCHANGE OPPORTUNITIES

Proposed water supply strategies for the City do not consider the use of surface water from the Stanislaus River. At present, conjunctive (surface water) uses are limited to natural groundwater recharge from surface water. Should Oakdale Irrigation District embark on a program of supplying treated surface water for municipal uses, opportunities to purchase water may become available.

6.3 WATER QUALITY

Regional water quality is generally good, with total dissolved solids, nitrate, and DBCP (a soil fumigant) being the only potential concerns. There are a number of possible contaminating activities within the Riverbank General Plan area, including the Thunderbolt Wood Processing facility and the Riverbank Army Ammunitions Plant. Neither of these, or any other potential contaminating activities, has shown a water quality impact to the City's production wells.

Historically, water quality at the City's wells has been excellent, with no Safe Drinking Water Act violations to date. There are no projected water supply changes due to water quality for the duration of the current UWMP planning horizon.

6.4 CURRENT AND PROJECTED NORMAL WATER SUPPLIES

The City's current (2015) and projected water supplies are provided in Table 6-3. As mentioned previously, the City relies exclusively on groundwater for their water supply. The City does not anticipate using a wholesale supply source to meet future needs. The projected water supplies are based on the total water use defined in Chapter 4 of this UWMP.

Table 6-3 (DWR Table 6-9)
Water Supplies – Projected

Water Supply	Additional Detail on Water Supply	Projected Water Supply *Report To the Extent Practicable*			
		2020	**2025**	**2030**	**2035**
		Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume
Groundwater		4,165	4,475	4,786	5,096
	Total	4,165	4,475	4,786	5,096
NOTES: All Volumes are in AF.					

6.5 FUTURE WATER SUPPLY PROJECTS

The City prepared their Water Supply Study and Water Master Plan in 2007 to ensure the required infrastructure will be in place to provide a reliable water source for existing and future City residents. The following summary includes a description of the build-out facilities.

Development within the General Plan study area is anticipated to occur over an extended period of time (in excess of 20-30 years). Figure 4-2 highlights the proposed water supply wells and tanks as shown in the master plan.

The City has no future water supply projects planned at this time so City will not be completing DWR Table 6-10. The 2016 Supply Reliability Certification analysis suggests that existing water supplies are more than adequate to satisfy existing system demands. Future water supplies will be brought on as necessary to satisfy specific development needs as discussed below.

6.5.1. Future Groundwater Extractions

The ten existing City wells (Well No. 2-10, 12) have an approximate total capacity of 10,785 gpm as summarized previously in Table 6-1. In order to meet future water demands, the City's master plan suggested the addition of sixteen new groundwater wells (including Well No. 11), with a capacity of 1,500 gpm each, to meet 20% reserve capacity provisions and maximum day demands, as well as emergency storage requirements at build-out conditions.

Besides Well No. 11, which will be located within the City's current sphere of influence, most of these new water supply wells will be located outside of the City's current sphere of influence and within the General Plan areas east and west of the current City limits. A summary of the anticipated wells by area is presented in Table 6-4.

Table 6-4
Future Water Supply Needs

Buildout Area[1]	Existing Wells	Total Wells Needed	New Wells Needed
West Riverbank	0	8	8
Central Riverbank	9	11	2
East Riverbank	0	6	6
Total	9	25	16

1 Central Riverbank includes the City's current sphere of influence. East and West Riverbank include the General Plan build-out areas.

6.5.2. Future Groundwater Extractions – Implementation Strategies

As noted, sixteen new municipal wells are proposed to meet build-out water demands. Planning, design, construction, and startup of these wells will require a collaborative effort between City staff and development interests. Timing of well construction is critical to ensure that water supply facilities are on-line well in advance of increased demands. For this to occur, the City has initiated the following implementation strategy:

1. A water supply master plan has been prepared including a recommended phasing plan for capital facilities. The phasing plan establishes priorities based on likely development scenarios and provides a framework for City-developer financing of proposed wells through impact fees.

2. Siting and design criteria have been established for new municipal wells. The criteria allows for early-on identification of superior well sites, particularly in areas proposed for development. The City expectation is that property developers will reserve well sites based on the approved criteria as part of the entitlement process.

3. Triggers for new well construction will be established based on an annual review of well production versus water demands. Master plan recommendations will be updated on a bi-annual basis to reflect current demand trends and development plans. Where a specific development triggers the need for additional wells, the development agreement between the property owner and the City will include provisions for financing and construction of required wells. Development will not be allowed to proceed without consideration of water supply facilities.

6.6 CITY OF RIVERBANK GROUNDWATER SYSTEM

This section describes the Modesto groundwater subbasin from which the City's groundwater sources are located. The City is part of the Stanislaus and Tuolumne Rivers Groundwater Basin Association and was a part of the development of Integrated Regional Groundwater Management Plan (IRGMP) for the Modesto Subbasin in 2005. The IRGMP provides a framework for coordinating groundwater and surface water management activities in order to enable the efficient use of groundwater and surface water and protect water quality. The IRGMP can be found online at: http://www.mid.org/water/irgmp/default.html.

Based on the IRGMP for the Modesto Subbasin, and various groundwater investigations performed on groundwater availability in the subbasin, including the Self-certification of Supply Reliability of Potable Water[1] (2016), this section provides the supporting information in determining the reliability of the City's groundwater sources during normal, single dry, and multiple dry year events.

6.6.1. WELL SYSTEM

The City of Riverbank is located within the San Joaquin Valley and the Modesto Ground Water Subbasin (see Figure 6-3). The subbasin lies between the Stanislaus River to the north and the Tuolumne River to the south, and between the San Joaquin River on the west and crystalline basement rock of the Sierra Nevada foothills on the east (source: California Bulletin 118, updated 2/27/04).

The City's water supply is provided by ten production wells. As shown in Appendix F, the wells range in depth from 240 feet to 830 feet and average 440 feet deep. Yields from the wells range from 620 gallons per minute (gpm) at Well No. 2, to 1,500 gpm at Wells No. 10 and 12. The average yield per well is about 1,000 gpm, while the total available yield from all wells is 10,785 gpm. Based on pumping test performed by Dunn Environmental (2007), the minimum specific capacity of the wells ranges from a low of about 25 gallons per minute per foot of drawdown

[1] Self-Certification of Supply Reliability for Three Additional Years of Drought pursuant Section 864.5 of Article 22.5 of the California Code of Regulations as required by the State Water Resources Control Board

(gpm/ft) at Well No. 3, to more than 120 gpm/ft at Well No. 6. The average of the minimum specific capacities for all wells is about 60 gpm/ft.

However, an analysis of historical records maintained by the City of Riverbank of measured depths to groundwater surface from 1999-2015[2] suggests that typical specific capacity ranged from about 41 gpm/ft of drawdown at Well No. 4, to 94 gpm/ft of drawdown at Well No. 5. The average specific capacity is approximately 71 gpm/ft of drawdown.

6.6.2. HYDROGEOLOGIC SETTING

Groundwater in the Modesto subbasin is produced from several sedimentary units that are Pleistocene to Miocene in age. The younger formations, known as the Turlock Lake, Riverbank, Modesto and Laguna Formations, are typically unconsolidated deposits of poorly-sorted gravel, sand, silt and clay. The units host predominantly unconfined to semi-confined aquifers that support high yielding wells. Transmissivities range from 60,000 to 280,000 gpd/ft, while storage coefficients range from 7 to 17 percent (source: California Bulletin 118, updated 2/27/04).

Underlying these formations is the older Mehrten Formation, which is comprised of semi-consolidated claystone, siltstone, sandstone, and agglomerate. The Mehrten is also an important aquifer and supports high-yielding wells. The Mehrten Formation surfaces in the eastern part of the Basin and dips to the southwest at a slope of about 0.006 (Burow, 2004). Transmissivities for the Mehrten Formation range between 28,000 and 250,000 gpd/ft while storage coefficients range from 1x10-4 to 1x10-6. The Mehrten Formation is underlain by the Valley Springs and Ione Formations. Because these deep formations may contain saline water, they are typically not a source of groundwater.

Most of the City of Riverbank wells are completed in the upper unconsolidated aquifers, although the deepest wells penetrate the Mehrten Formation.

[2] City of Riverbank records of measured depths to static and pumping groundwater surface below ground surface (bgs), 1999-2015.

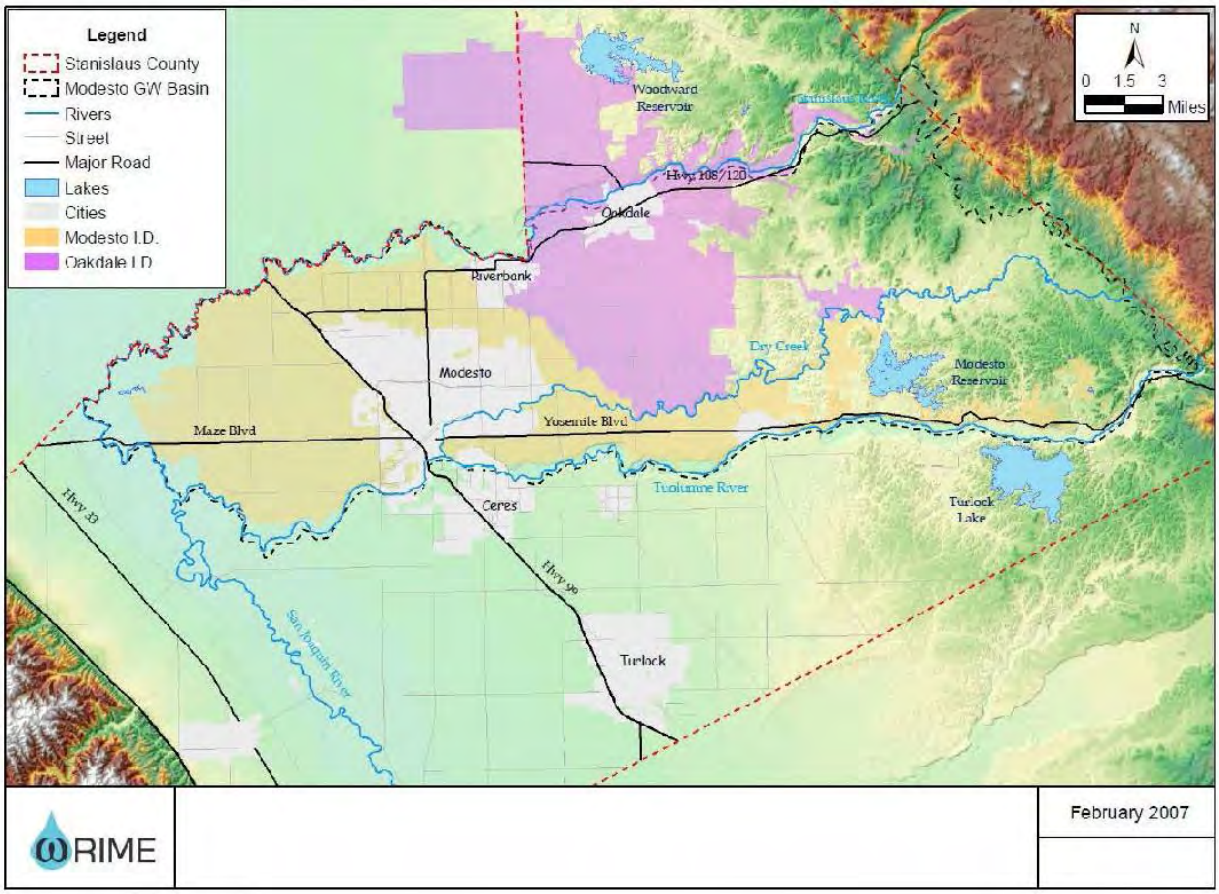

Figure 6-3
Location Map of City of Riverbank and the Modesto Groundwater Subbasin[3]

6.6.2.1. Pumping Test Data

Dunn Environmental (2007) completed pumping tests on two City of Riverbank wells, No. 7 and No. 9. The testing included both step tests and 10-hour constant discharge tests, and utilized other nearby wells as monitoring wells. Dunn Environmental also completed a pumping test on Well No. 12 in 2009 which included a 24-hour constant discharge test.

At Well No. 7, the step tests were completed at rates of 240 gpm, 650 gpm and 1,300 gpm. The specific capacity at each rate was 74 gpm/ft. At Well No. 9, the step tests were completed at rates of 1,000 gpm, 1,750 gpm and 2,400 gpm. The well was slightly less efficient and the specific capacity ranged from 50 to 47 gpm/ft of drawdown. At Well No. 12, the step tests were completed at rates of 1,000 gpm, 1,700 gpm, and 2,700 gpm with a specific capacity at each rate of approximately 43 gpm/ft. These values are similar to the average specific capacity value

[3] Water Resources & Information Management Engineering, Inc. Memo entitled: Recharge Characterization for Stanislaus and Tuolumne Rivers Groundwater Basin Association. Available online at: http://gis.stancounty.com/wateratlas/pdf/Stanislaus%20and%20Tuolumne%20River%20Groundwater%20Basin%20Assoc%20Recharge%20Anaylsis.pdf

of 56 gpm/ft reported by Burow (2004) for wells in the unconfined aquifer above and east of the Corcoran Clay (p. 31). All Riverbank wells are located east of the Corcoran Clay.

For the constant-discharge tests, Well No. 7 was pumped at 1,500 gpm, well No. 9 was pumped at 2,400 gpm, and Well No. 12 was pumped at 2,500 gpm. For Well No. 7, Dunn Environmental calculated the transmissivity at 530,000 to 588,000 gpd/ft, while for Well No. 9, it ranged between 290,000 gpd/ft and 313,000 (using recovery data). Well No. 12 transmissivity ranged from 93,000 to 123,000 gpd/ft. Storage coefficients for the wells were calculated to be in the range of 1x10-3 and 7x10-4, indicating semi-confined conditions.

These specific capacity values, and others previously reported for the remaining City of Riverbank wells are provided in Appendix F, and can be used to estimate the maximum pumping rate that can be attained without dewatering the aquifer to the top of the well screen or the depth of the pump bowls. In the case of Well No. 7, the well drillers report indicated that a seal was set at 216 feet bgs, and that most groundwater was produced from sand, gravel and cobbles located between that depth and 314 feet bgs. At the above specific capacity, and with a maximum drought-year depth to static water level of about 66 feet bgs, the well should be able to produce significantly more than its rated capacity of 1,200 gpm (potentially up to 150 ft times 74 gpm/ft) without drawing water levels below the depth of the well seal. Other infrastructure likely constrains the output.

In the case of Well No. 9, the well drillers report indicated that a seal was set to 148 feet bgs, and that most groundwater was produced from coarse sand located between 152 and 174 feet, 293 and 307 feet, and 382 and 392 feet bgs. At the above specific capacity of 47 gpm/ft, and with a maximum drought-year depth to static water level of about 66 feet bgs, this well should also be able to produce significantly more than its rated capacity of 1,300 gpm (potentially up to 82 ft times 47 gpm/ft) without drawing water levels below the depth of the well seal.

Calculations for the other city wells are attached as Appendix F. As shown, using the maximum dry year depth to water, all of the City wells should be easily able to provide water at their maximum pumping rates without drawing water levels below the reported depth of the pump bowls or the top of the well screen (base of the seal) with the exception of Well No. 2 which has a shallow seal and is open hole below 25 feet bgs.

6.6.3. City of Riverbank Groundwater System and Usage

As shown in the well data in Appendix F, for the year 2015, the City produced about 3,878 acre-feet (AF) of groundwater from the nine active wells (Well No. 1 has been removed from service). Appendix F shows the annual production for each well and how production has steadily increased over the past twenty years through 2007, which was the maximum groundwater pumped by the City at 5,187 ac-ft. From 2007 through 2013, the City has seen a noticeable decrease in annual pumping, even though there has been a steady population increase within the City's sphere of influence.

City staff believes the reduction in annual pumping is due to conservation efforts and the effect of the economic downturn.

The maximum daily use typically occurs in July or August. The largest monthly volume pumped was in July 2007, when 720 ac-ft of ground water was produced. This is equal to about 23 ac-ft/day or 5,260 gpm (7.6 million gallons per day).

It is estimated that at full build-out, for the entire plan area (i.e. future demand within the City limits and General Plan areas), the projected water demand will be 14,610 acre-feet per year (AFY), or 3.4 times the 2010 production. Suggested facilities in the area Master Plan include the addition of sixteen new groundwater wells (including Well No. 11), each at a capacity of 1,500 gpm, to meet 20% reserve capacity provisions and maximum daily demands, as well as emergency storage requirements at buildout conditions.[4]

6.6.4. Modesto Subbasin Groundwater Storage and Budget

According to California's Groundwater Bulletin 118, updated 2/27/04, the estimated specific yield for the Modesto Subbasin is 8.8 percent. The estimated storage capacity to a depth of 300 feet is approximately 6,500,000 acre-feet. The annual water demand for the basin was estimated at 590,000 AF in 2000. Groundwater accounted for 206,500 AF of the total supply (Nolte Engineers, 2008). Total annual recharge to the basin was estimated at 310,000 acre-feet, the largest component of which is from irrigation followed by precipitation.

Assuming no recharge, the current City of Riverbank groundwater usage of 3,878 AFY (in 2015) is less than 1% of the total annual subbasin withdrawals, and less than 0.1% of the total estimated storage capacity of the basin.

At full build-out, it is anticipated that the City of Riverbank annual groundwater requirements will be 3.4 times the current volume. It is uncertain when the full build-out scenario would occur, but the anticipated groundwater requirements would amount to less than 0.2% of the total amount of subbasin groundwater storage and less than 5% of the total annual basin recharge.

6.6.5. Groundwater Level Trends

According to California's Groundwater Bulletin 118, updated 2/27/04, groundwater levels in the subbasin "declined nearly 15 feet from 1970 through 2000. The period 1970 through 1978 showed steep declines totaling about 12 feet. The six-year period from 1978 through 1984 saw stabilization and rebound of about 7 feet. 1984 through 1995 again showed steep declines, bottoming out in 1995 at nearly 20 feet below the 1970 level. Water levels then rose about 5 feet from 1996 to 2000. Water level declines have been more severe in the eastern portion of the subbasin, but have risen faster in the eastern subbasin between 1996 and 2000 than in any other portion of the subbasin".

As shown in Figure 6-4, in addition to water level declines from increasing pumping, there is also a positive correlation between water levels and annual precipitation in Modesto Irrigation District wells. A known drought occurred between the years 1987 and 1992, and water levels

[4] Nolte Associates, Inc., 2007: City of Riverbank, SB 610 Water Supply Assessment Report for 2007 General Plan September 2007 Update. Unpublished report prepared for the City of Riverbank, dated November 2007.

dropped significantly during that period. Above average precipitation and groundwater recharge then occurred in 1993, 1996 and 1998, and groundwater levels rebounded almost to the pre-drought elevations, although there is somewhat of a lag period in the response of the aquifer to precipitation. Precipitation was also less than normal in 2002 and 2003, and regional ground water levels again declined, although not as severely as during the earlier drought period. The smaller decline is likely the result of the use of surface water as discussed below.

Recovery of the aquifer was enhanced by the opening of the Modesto Irrigation District's surface water treatment plant in 1994, as use of surface water from the Tuolumne River has allowed the City of Modesto to reduce pumping from its water supply wells. In addition, recent conservation efforts, in addition to the SBx7-7[5] (20x2020 Plan), have encouraged an increase in static groundwater elevations ranging from 3 ft to 14 ft from 2015 to 2016. A summary of increases in groundwater surface levels is summarized in table 6-5.

Table 6-5
Groundwater Surface Levels at each Well

Well No.	2015-2016 Increase in Static GW Level (ft)
2	14.7
3	3.3
4	4.5
5	3.8
6	6.2
7	2.2
8	3.7
9	16.2
10	3.0
12	14.2

6.6.5.2. Riverbank Wells

Hydrographs for Riverbank area monitoring wells, obtained online from the California Division of Water Resources, Water Data Library, are provided in Figures 6-5 and 6-6. Most hydrographs show a relatively small, but steady decline in water levels beginning in the 1950's, which accelerated somewhat through the mid-1980s. Similar to the MID wells in Figure 6-4, the most severe period of aquifer drawdown occurred during the drought years of 1987 to 1992. During this period, more than 20 feet of additional drawdown occurred in many area wells and a portion of the ground water storage within the basin was depleted. Although the data sets are incomplete, a strong rebound in water levels is again associated with years of increased precipitation, or more recently, conservation efforts.

In general, Dunn Environmental (2007) believed that wells further from the Stanislaus River

[5] State Water Resources Control Board. *Chapter 2 Statewide Targets (pg. 27)*. 20X2020 Water Conservation Plan. February 2010.

experienced larger drawdown than wells closer to the river, as a result of aquifer recharge to shallow aquifers from river infiltration, as the river near Riverbank is a losing stream. However, the amount of drawdown in a given monitoring location is likely related to the depth of the well, the aquifer from which it produces, and the proximity of the well to other large municipal or irrigation wells.

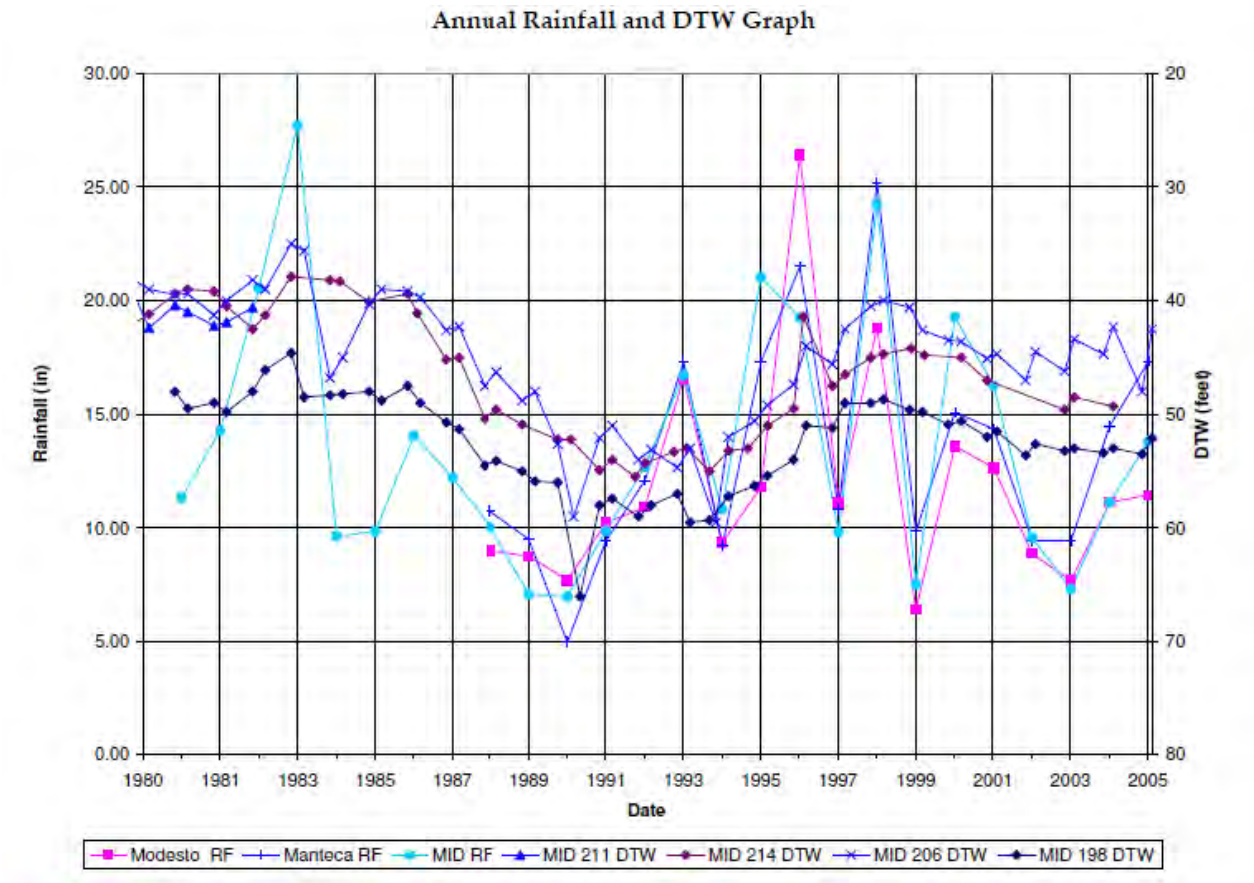

Figure 6-4
Comparison of Average Rainfall (RF) and Depth to Groundwater in Modesto Irrigation District Monitoring Wells[6]

[6] Dunn Environmental, Inc., 2007: Source Sufficiency Report for the City of Riverbank General Plan Update. Unpublished report prepared for the City of Riverbank, dated June 2007. 63 pages.

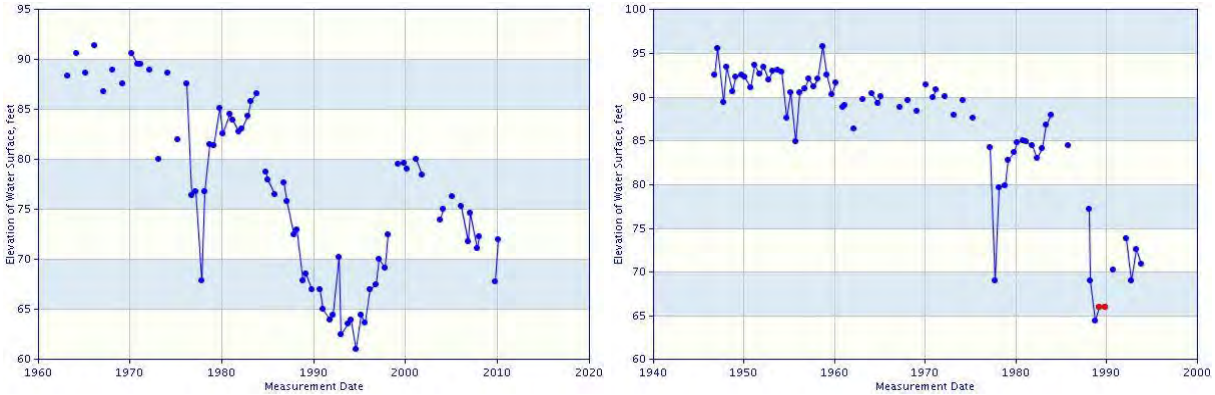

Figure 6-5
Well Hydrographs

Left - Hydrograph of a well located in Township 02 South, Range 09 East, Section 36. This well is located about 1.5 miles south of downtown Riverbank just east of City Well No. 9. Ground surface elevation 125 ft amsl. Right - Hydrograph of a well located in Township 02 South, Range 9 East, Section 25. This well is located about 0.5 miles southeast of downtown Riverbank, southeast of City Well No. 2. Ground surface elevation 142 ft amsl.

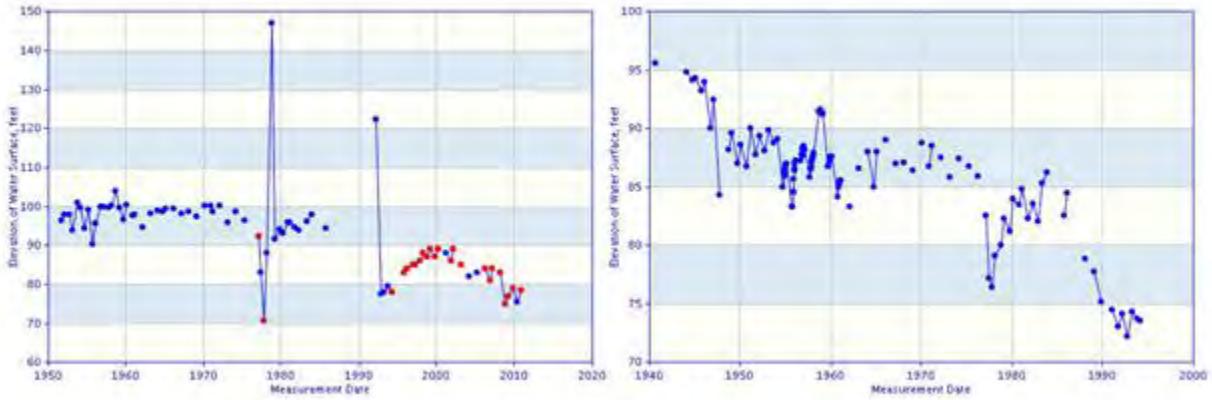

Figure 6-6
Well Hydrographs

Left - Hydrograph of a well located in Township 02 South, Range 10 East, Section 29. This well is located about 1.5 miles east of downtown Riverbank. Right - Hydrograph of a well located in Township 02 South, Range 10 East, Section 30. This well is located about 0.5 miles east of downtown Riverbank, east of City Well No. 2. Ground surface elevation 143 ft amsl.

Dunn Environmental (2007) prepared a chart of available water level data for City of Riverbank production wells during the period from 1989 to 1998 (see Figure 6-7). This data set only includes the latter part of the five-year drought that occurred between 1987 and 1992. In general, water levels in the City of Riverbank wells range from 60 to 65 feet bgs, which is similar to, or a few feet higher than, the depths to water for nearby monitoring wells indicated in Figures 6-5 and 6-6.

During the drought years of 1989 to 1992, most wells show relatively small water level declines of a few feet in that period, similar to the declines shown in Figure 6-4for the MID wells. Water levels reached their lowest point in 1994 and then began to rebound during the following years of above average precipitation. This rebound occurred despite an increase in groundwater pumping during the period shown in Appendix F. As previously described, a portion of the recovery is also likely due to the opening of the Modesto Irrigation District's surface water treatment plant in 1994 and their subsequent decrease in groundwater usage.

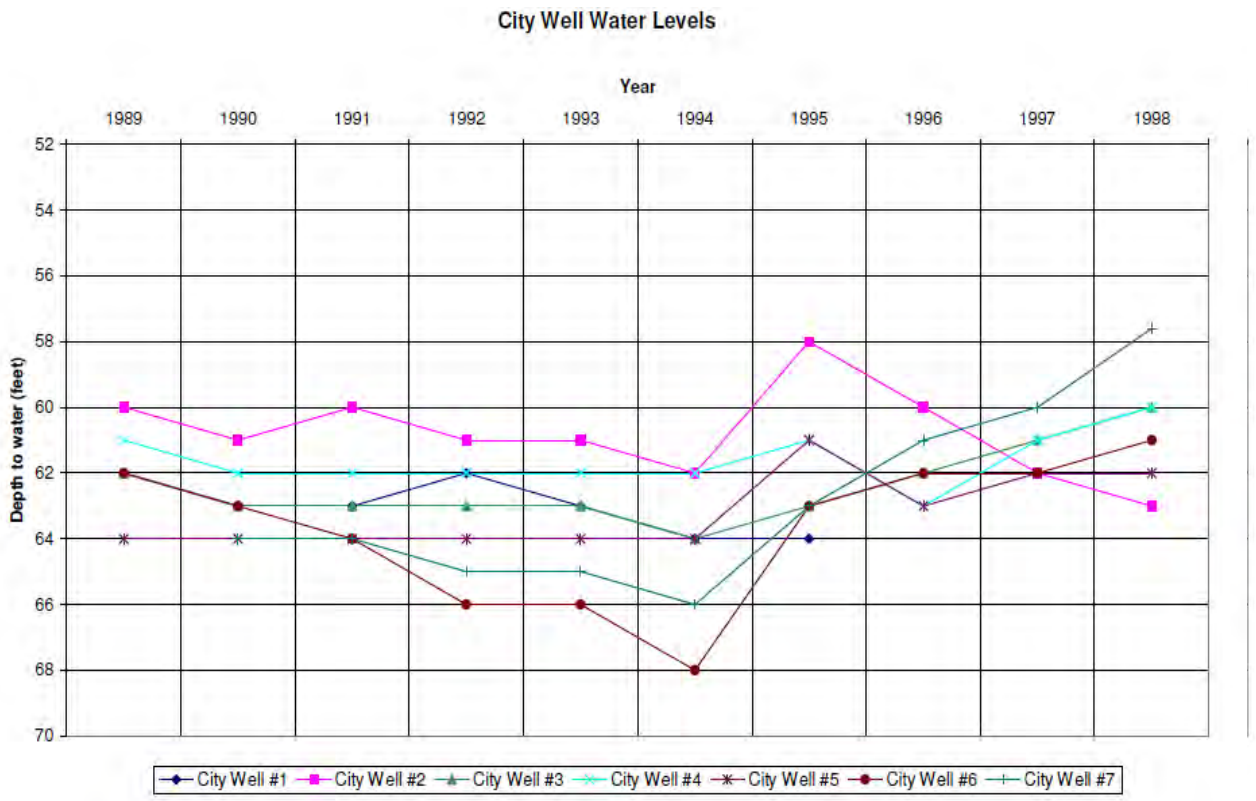

Figure 6-7
Annual Depth to Water Measurements for CIty of Riverbank Wells

The data in the chart from 1989 to 1994 represent the lowest known water levels for City wells after both the five year drought period and prior to use of surface water by the City of Modesto. As previously discussed in Section 6.6.2.1, the pumping test data from the wells and the specific capacity calculations, coupled with the well construction information, indicates that all of the City wells should easily be able to provide water at their maximum pumping rates without drawing water levels below the reported depth of the pump bowls or the top of the well screen (base of the seal) with the exception of Well No. 2 which has a shallow seal and is open hole below 25 feet bgs.

In 2016, the City of Riverbank conducted an analysis to complete the Self-Certification of Supply Reliability for Three Additional Years of Drought pursuant Section 864.5 of Article 22.5 of the California Code of Regulations as required by the State Water Resources Control Board. The

self-certification required water suppliers to identify and report the water supply available for potable use assuming three additional years of drought (2016-17, 2017-18, and 2018-19) and identify and report the level of conservation, if any, necessary to assure that demands do not exceed projected supply at that time.

Typical well operating criteria were used to assess the potential for the City's wells to continue to produce consistent with historical trends. The criteria used in this analysis include:

1. Recommended static and pumping groundwater levels approximately 8-10 ft. or more above the pump intake as shown in Figure 1; and

2. Static and pumping groundwater levels above the uppermost screened interval in order to avoid cascading water and associated pumping issues such as pump cavitation as shown in Figure 6-8.

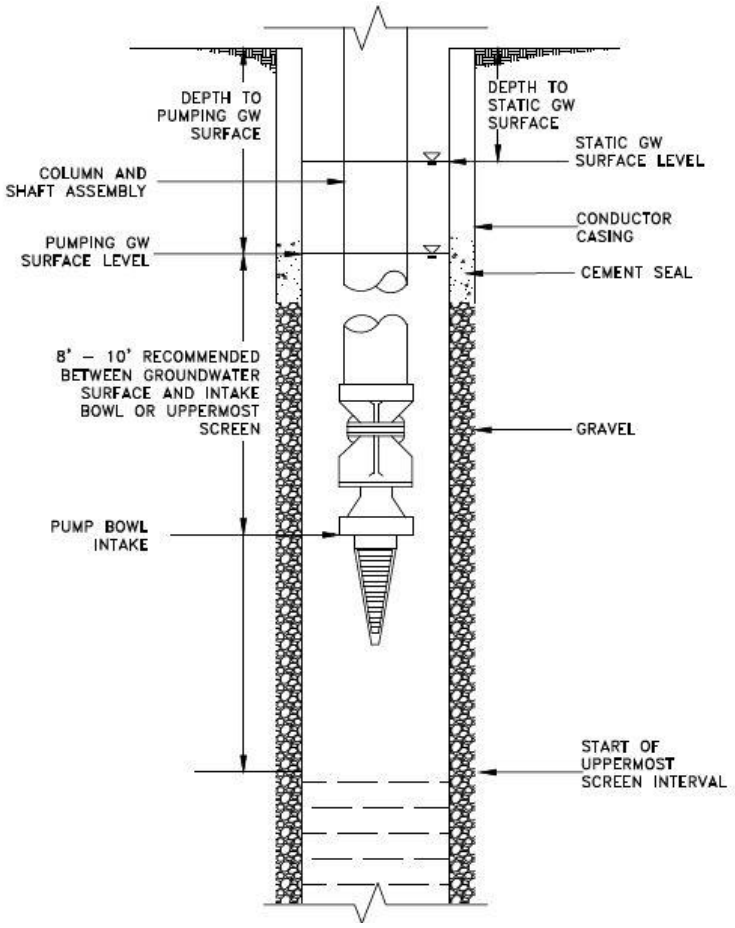

Figure 6-8
Example of Well Characteristics

All of the City's wells exhibited a decline in groundwater levels up to around 2015, after which an upward trend was observed from 2015 to 2016, possibly as a result of the City's successful water conservation efforts and reduced pumping from the aquifer for this period. For the

purpose of the analysis, a near-term projection over the next three years assumes that the historical downward trend will continue, but that the rate of declines will be based on the depth to groundwater recorded in 2016[7] (see Appendix G for historical and projected depth to groundwater levels for all wells). An example of the method of projection is depicted in Figure 6-9 for Well No. 3.

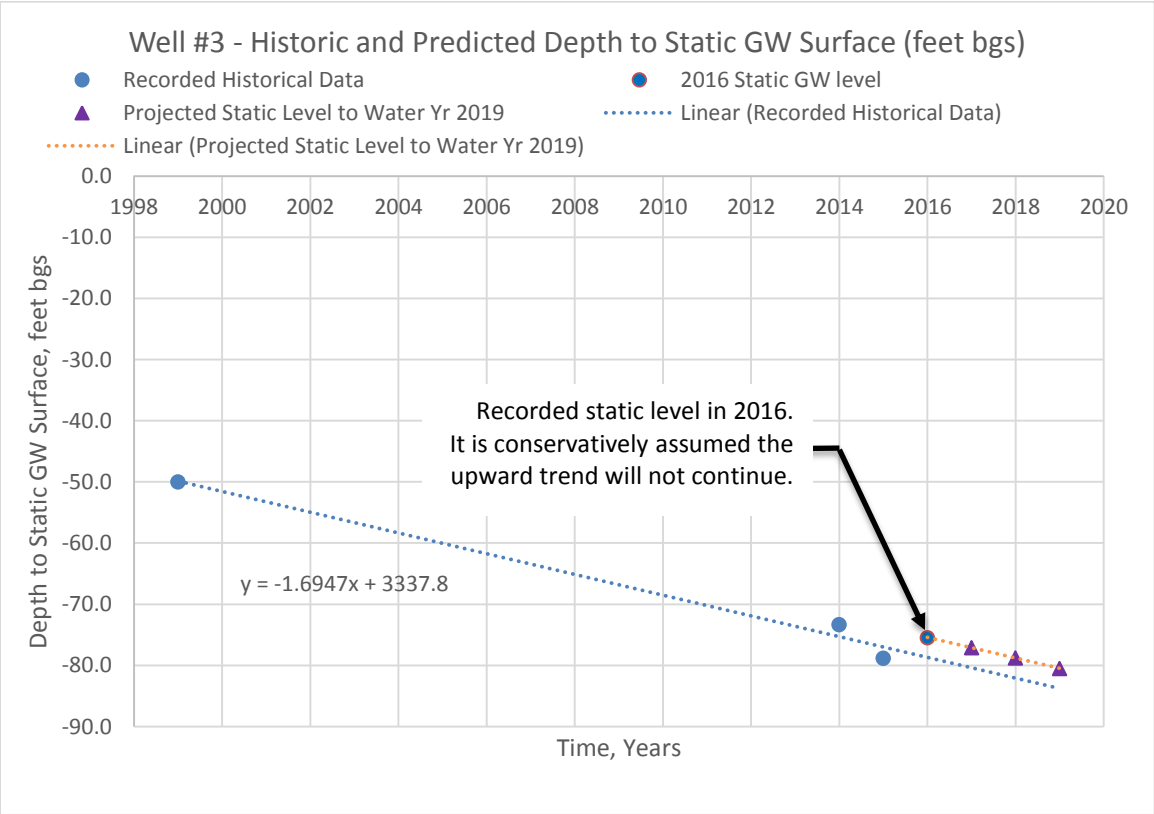

Figure 6-9
Recent and Near-Term Projections of Depth to Static Groundwater Surface in Well No. 3 (feet bgs)

The City's recent historical depths to static groundwater surface indicate a mild decline of static groundwater levels (relative decline in groundwater elevation) ranging from 1.1 ft per year to 3 ft per year, with the exception of Wells 9 and Wells 12 which exhibit declines of 7.5 ft per year and 5.5 ft per year respectively (from 2014-2015). However, all wells exhibit an increase in static groundwater elevations ranging from 3 ft to 14 ft from 2015 to 2016 (changes in static groundwater levels are summarized in Table 6-5).

6.6.6. Conclusions

Long-term pumping has impacted the aquifer in the Modesto subbasin and in the vicinity of the City of Riverbank. During the extended drought years from 1987 to 1992, water levels dropped

[7] This basis was confirmed to be required by the Regulation by the State Water Resources Control Board during an informational teleconference dated June 6, 2016.

up to 30 feet, when compared to water levels that existed in the 1950's. However, increases in annual precipitation, coupled with reduction of groundwater pumping by, has allowed water levels to recover somewhat up into 2013 and again from 2015 to 2016.

Considering the near future (2016-17 through 2018-19), the data, historical trends, and projected static and pumping levels in the City's wells, suggest that the City will not experience a decline in water availability and that the existing wells will have sufficient capacity to continue to meet existing and near-term projected demands.

Even at the water levels that existed at the end of the drought period and prior to implementation of Modesto's surface water facility, the City of Riverbank wells and the aquifer had the capacity to supply additional production. Only a small percentage of the storage capacity in the upper 300 feet of the aquifer is tapped and it appears that properly spaced wells will be able to provide the required capacity at full build out.

6.7 WASTEWATER AND RECYCLED WATER

The City owns and operates a wastewater treatment plant (WWTP) on the north bank of the Stanislaus River. The WWTP consists of a headworks facility equipped with a mechanical screen, a screenings compactor, a flow metering device, a parallel channel for overflow protection and a future additional screen, four mechanically aerated treatment ponds, and seven evaporation/percolation ponds. The City WWTP receives wastewater from residential, commercial, and industrial sources.

Influent flows to the WWTP were analyzed and summarized in the 2006 Annual Report for the City of Riverbank. The 2006 monthly average was 1.82 mgd.

The City WWTP is subject to Waste Discharge Requirements Order No. 94-100 (WDR) adopted by the Regional Board in April 1994. The WDR permitted the WWTP for flows up to 7.9 mgd.

In April 2001, the, Regional Board issued Cleanup and Abatement Order No. 5-01-703 (C&A) for the City WWTP. The City has subsequently implemented all operational and facility improvements ordered in the C&A, including completion of the pond expansion project, berm remediation work, and other physical improvements.

Following a Regional Board staff inspection of the facility, the City was determined to be in violation of its WDR and was subsequently issued a Notice of Violation (NOV) in March 2003. As part of its commitment to address sludge management at the WWTP and satisfy requirements of the NOV, the City has constructed lined treatment ponds and essentially reconfigured the plant layout. The plan, which was approved by the Regional Board, significantly upgraded the plant and provided increased treatment capabilities and environmental protection. Phase 1 of the project converted Ponds P-1 and P-2 to treatment ponds through deepening and installing a dual liner system of 1-ft compacted clay and a 60 mil HDPE geomembrane liner system, which is protected by a 2-ft layer of soil on the pond bottoms. The project was constructed according to a Construction Quality Assurance Plan as required by the Regional Board and with geotechnical reports confirming the construction details of the liner.

Phase 1 also included new piping, control gates, inlet and outlet structures, and a new pipeline from the existing headworks structure to the new treatment ponds; relocation of six 75 hp aerators to each pond; and construction of a new parallel headwords structure to increase the inflow capacity and prevent potential spillage during peak flows coupled with rain events. The new ponds operate in series and the treated wastewater flows through Pond T-4 to the percolation ponds. This provides more thorough treatment and control of the sludge generated in the lined ponds. Phase 2 included sludge removal from Pond P-2. Phase 2 was completed in the Summer of 2008. As required by the Regional Board, two new monitoring wells have been constructed near the new lined treatment ponds.

In 2015, the six aerators in each pond were replaced by a fine bubble aeration system in an effort to decrease energy consumption at the treatment plant. Observation of low dissolved oxygen (D.O.) levels in both treatment ponds has resulted in violations of the City's WDRs. The City is currently investigating options to control dwindling D.O. levels.

The City continues to expend considerable time and resources in its on-going efforts to operate and maintain the WWTP in compliance with the current WDR.

Table 6-6 and Table 6-7 summarize information on the collection and disposal of wastewater in the City's service area. There are no new permit developments (as of February 2014).

Table 6-6 (DWR Table 6-2)
Wastewater Collected Within Service Area in 2015

Wastewater Collection			Recipient of Collected Wastewater		
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected from UWMP Service Area 2015 (AF)	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area?
City of Riverbank	Metered	1,691	City of Riverbank	Riverbank Wastewater Treatment Plant	Yes
Total Wastewater Collected from Service Area in 2015:		1,691			

Table 6-7 (DWR Table 6-3)
Wastewater Treatment and Discharge Within Service Area in 2015

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Method of Disposal	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level	2015 volumes			
						Wastewater Treated (AF)	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
Riverbank Wastewater Treatment Plant	N/A	Percolation Ponds	Percolation ponds	No	Secondary, Undisinfected	1,691	1,691	0	0
					Total	1,691	1,691	0	0

6.7.1. WATER REUSE

In an effort to implement the City's General Plan policy on recycled water, the City of Riverbank General Plan 2005-2025, Conservation Element, Policy CONS-6.6 directs 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."

The City WWTP incorporates secondary treatment through a pond system. Effluent disposal occurs through a series of percolation ponds. The plant is not currently configured for the production of recycled wastewater. An urban recycled wastewater program is not implemented or planned at this time, and the City will not complete DWR Tables 6-4 through 6-7. No salinity management plans, as would be required for large water reuse implementation, have been performed.

6.7.2. GRAY WATER AND RAINWATER HARVESTING

The City may consider gray and rainwater collection and reuse in larger, new development areas in the future.

6.8 DESALINATED WATER OPPORTUNITIES

The City is not considering the use of desalinated water as a long-term water supply, as the City is not located near seawater, nor is the groundwater underneath the City brackish in nature. Therefore, there is no opportunity for the City to incorporate desalinated water into the City's water supplies.

Chapter 7

Water Supply Reliability Assessment

This chapter discusses the long term reliability of the City's water supplies. Short term reliability is addressed in Chapter 8.

7.1 CONSTRAINTS ON WATER SOURCES

The water source at Riverbank has been consistent in both source production levels and levels of water use. In the foreseeable future, there are no environmental or legal factors that are expected to affect water supplies.

Regional water quality is generally very good, with total dissolved solids, nitrate, and DBCP (a soil fumigant) being the only potential concerns. There are a number of possible contaminating activities within the Riverbank General Plan area, including the Thunderbolt Wood Processing facility and the Riverbank Army Ammunitions Plant. Neither of these, or any other potential contaminating activities, has shown a water quality impact to the City's production wells. Historically, water quality at the City's wells has been excellent, with no Safe Drinking Water Act violations to date. There are no projected water supply changes due to water quality for the duration of the current UWMP planning horizon.

7.2 RELIABILITY BY TYPE OF YEAR

The average/normal water year groundwater supply is based on the reliable expected water supply from the City's existing 10 wells, which provide a reliable pumping capacity of 10,785 gpm, or approximately 17,400 acre feet per year (AFY). Based on the groundwater basin discussion presented in Chapter 6 of this UWMP, it was concluded that the City's water supply is firm and would not see a reduction in available pumping capacity during single and multiple dry year conditions. Table 7-1 provides the basis of water year data for defining average, single dry and multiple dry water years to develop water supply reliability.

Table 7-1 (DWR Table 7-1)
Basis of Water Year Data

Year Type	Base Year	Available Supplies if Year Type Repeats	
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location _____
		☑	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available (AF)	**% of Average Supply**
Average Year	2008	17400	100%
Single-Dry Year	1977	17400	100%
Multiple-Dry Years 1st Year	1989	17400	100%
Multiple-Dry Years 2nd Year	1990	17400	100%
Multiple-Dry Years 3rd Year	1991	17400	100%
Multiple-Dry Years 4th Year	1992	17400	100%

7.3 WATER SUPPLY VERSUS DEMAND COMPARISONS

This section provides an assessment of the reliability of the City's water service to its customers during normal, dry, and multiple dry water years. The supply totals are based on Table 6-9 in the groundwater supply discussion in Chapter 6 of this UWMP. Demand totals are detailed in Chapter 4 of this UWMP. In projecting future water use for the City, interim and final urban water use targets were applied. Table 7-2, 7-3, and 7-4 provide the City's water supply and demand comparisons for normal, single dry, and multiple dry year scenarios. The City concludes that its water system is adequate to meet demand with supply.

Table 7-2 (DWR Table 7-2)
Normal Year Supply and Demand Comparison

	2020	2025	2030	2035	2040 *(Opt)*
Supply totals *(autofill from Table 6-9)*	4,165	4,475	4,786	5,096	0
Demand totals *(autofill from Table 4-3)*	4,165	4,475	4,786	5,096	0
Difference	0	0	0	0	0
NOTES: All Volumes are in AF.					

Table 7-3 (DWR Table 7-3)
Single Dry Year Supply and Demand Comparison

	2020	2025	2030	2035
Supply totals	17,400	17,400	17,400	17,400
Demand totals	4,165	4,475	4,786	5,096
Difference	13,235	12,925	12,614	12,304
NOTES: Supply values are based off Table 7-1. All volumes are in AF.				

Table 7-4 (DWR Table 7-4)
Multiple Dry Years Supply and Demand Comparison

		2020	2025	2030	2035
First year	Supply totals	17,400	17,400	17,400	17,400
	Demand totals	4,165	4,475	4,786	5,096
	Difference	13,235	12,925	12,614	12,304
Second year	Supply totals	17,400	17,400	17,400	17,400
	Demand totals	4,165	4,475	4,786	5,096
	Difference	13,235	12,925	12,614	12,304
Third year	Supply totals	17,400	17,400	17,400	17,400
	Demand totals	4,165	4,475	4,786	5,096
	Difference	13,235	12,925	12,614	12,304
NOTES: Supply values are based off Table 7-1. All volumes are in AF.					

7.4 REGIONAL SUPPLY RELIABILITY

The City uses its own local groundwater supply and does not rely on imported water use to satisfy system demands. The City completed their most recent update to the Water Supply Study and Water Master Plan in 2007. This plan outlines the projected water demands within the existing City sphere of influence as well as the City's 2005-2025 General Plan area. The plan evaluates the current and future water demands for the City based on projected growth within the existing service area and future General Plan build-out area. The plan was prepared

by the City to identify: needed water system improvements to the existing infrastructure; expansion necessary to accommodate anticipated growth; and methods to maximize available resources and minimize the need to import water.

The City has also prepared a number of reports addressing the reliability of the City's groundwater supply, including a Source Sufficiency Report for the City of Riverbank General Plan Update, 2007.

In a continuing effort to provide a safe and reliable supply of water to the City now and into the future, the water master plan will be updated in 2016.

Chapter 8

Water Shortage Contingency Planning

This section describes the City's water shortage contingency planning and efforts.

In accordance with the City of Riverbank's emergency response procedures, the City has developed a comprehensive water shortage contingency plan. The plan is consistent with the provisions of the City's emergency response procedures to implement during an interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster. A sample resolution to declare a water shortage emergency is included in Appendix H.

8.1 WATER SHORTAGE EMERGENCY RESPONSE

The City of Riverbank has two water storage tanks totaling 2 million gallons of system storage. Each of the storage tanks is equipped with a booster pumping station with backup power. These tanks will supply water for essential needs in the case of emergencies. The City has chlorination pumps at each well site that may be put into operation when needed. Seven of the City's wells have diesel engine electric generators with enough fuel to run 12 to 24 hours without refueling.

The City can contact bottled water companies in cases of emergencies. Canals containing non-portable water traverse the community. Local trucking firms can transport water along with the City's fire tanker trucks. Residents would need to boil or disinfect non-potable water.

The City recognizes the importance of water demand management measures in reducing water demand and will continue to implement these measures. Also, the City would increase media attention to the water supply situation during a shortage and would step up public water education programs.

When a water shortage appears imminent, a City water shortage response team would be activated by the City Council, City Manager, and Director of Development Services. The team includes the City Manager's Office, Development Services Department, Public Safety Department (Emergency Services and Sheriff), and Finance Department.

8.2 PREPARATION ACTIONS FOR A CATASTROPHE

Below is an example of actions the City would undertake if a catastrophe were imminent or declared.

1. Determine extent of water shortage
2. Activate the water shortage response team
3. Monitor existing storage

4. Obtain additional water supplies
5. Develop alternative water supplies
6. Determine where immediate funding will come from
7. Contact and coordinate with other agencies
8. Put employees and contractors on-call
9. Communicate with the public

8.3 SUPPLEMENTAL WATER SUPPLIES

To offset future potential water shortages due to a drought or disaster, the City will keep communication open with adjacent communities, Modesto Irrigation District, and Oakdale Irrigation District to deliver additional water, if needed.

8.4 LONG TERM ADDITIONAL WATER SUPPLY OPTIONS

To meet future long-term water demand beyond 2020, the City will continue working on the possibility of bringing in surface water to supplement groundwater. Recycled water opportunities will also be studied further.

8.5 WATER SUPPLY RELIABILITY/DROUGHT CONTINGENCY ORDINANCE/RESOLUTION

The Water Code requires a water supplier to develop a water supply reliability/drought contingency plan to identify the thresholds for implementation of various actions to support conservation during water supply shortages. The City adopted a no waste ordinance in 1991, which is currently being revised to meet new guidelines. Along with the Water Shortage Contingency Plan, a draft resolution to declare a Water Shortage Emergency will be presented to council for adoption.

8.5.1. STAGES OF ACTION

The City has developed a four-stage action plan (Table 8-1) to invoke during a declared water shortage. The plan includes voluntary and mandatory rationing, depending on the causes, severity, and anticipated duration of water supply shortages, if known. Action stages may be triggered by a shortage at any time of the year. If it appears that it may be a dry year, mainly due to insufficient precipitation and further dropping of the groundwater table, the City can take action in advance of a crisis. Any combination of at least three of the criteria per stage will institute the Stage actions.

Table 8-1 (DWR Table 8-1)
Stages of Water Shortage Contingency Plan

Action Stage	Percent Supply Reduction	Water Supply Condition
1 - Minimal	15%	• Below average rainfall in the previous 12-24 months • 10% or more of City wells out of service due to noncompliance with drinking water standards or drop in static ground water levels • Irrigation allotments by local irrigation districts reduced by 15% • Extended warm weather patterns typical of summer
2 - Moderate	25%	• Below average rainfall in the previous 24-36 months • Prolonged periods of low water pressure • 10% or more of City wells out of service due to noncompliance with drinking water standards or drop in static ground water levels • Irrigation allotments by local irrigation districts reduced by 25% • Extended warm weather patterns typical of summer
3 - Severe	35%	• Below average rainfall in the previous 36-48 months • Prolonged periods of low water pressure • 10% or more of City wells out of service due to noncompliance with drinking water standards or drop in static ground water levels • Irrigation allotments by local irrigation districts reduced by 35% • Extended warm weather patterns typical of summer
4 - Critical	50%	• Below average rainfall in the previous 48-60 months • Prolonged periods of low water pressure • 10% or more of City wells out of service due to noncompliance with drinking water standards or drop in static ground water levels • Irrigation allotments by local irrigation districts reduced by 50% • Extended warm weather patterns typical of summer

8.5.2. PRIORITY BY USE

Priorities for use of available water during shortages are listed below according to ranking.

1. Minimum health and safety allocations - for interior residential needs (includes single family, multifamily, mobile homes and convalescent facilities); and firefighting and public safety needs;
2. Commercial, industrial, institutional/governmental operations - for maintaining economic base of community;
3. Existing landscaping - trees and shrubs;
4. New demand - proposed construction projects.

8.5.3. HEALTH AND SAFETY REQUIREMENTS

Based on information provided by the California Department of Water Resources, commonly accepted estimates of interior residential water use in the United States are presented in Table 6.8. These water use estimates indicate per capita health and safety water requirements for various appliances and fixtures. A health and safety allotment of 68 gallons per capita per day (GPCD) is essential for basic interior water use with no habit or plumbing fixture change. However, if there is prolonged water shortage or a disaster, then customers would be required to make changes in their interior water use habits (for instance, not flushing toilets unless necessary or taking less frequent showers). These reductions will be reinforced through a public awareness campaign during periods of threatened water supply.

Table 8-2
Estimated Per Capita Health and Safety Water Consumption

	Non-Conserving Fixtures			Habit Changes			Conserving Fixtures[2]		
Unit	Daily Use	Unit Use	Gal/day	Daily Use	Unit Use	Gal/day	Daily Use	Unit Use	Gal/day
Toilets	5 flushes	5.5 gpf	27.5	3 flushes	5.5 GPCD	16.5	5 flushes	1.5 gpf	7.5
Shower	5 min	4.0 gpm	20.0	4 min	3.0 gpm	12.0	5 min	2.0 gpm	10.0
Washer[1]	12.5 GPCD		12.5	11.5 GPCD		11.5	11.5 GPCD		11.5
Kitchen	4 GPCD		4.0	4 GPCD		4.0	4 GPCD		4.0
Other	4 GPCD		4.0	4 GPCD		4.0	4 GPCD		4.0
Total (GPCD)			68.0			48.0			37.0
				Reduction (%)		*29.4*			*22.9*

1 Reduced washer use results from larger loads.
2 Fixtures include ULF 1.6 gpf toilets, 2.0 gpm showerheads, and efficient clothes washers.

8.6 MANDATORY PROHIBITIONS ON WATER WASTING

As previously mentioned, a no waste ordinance has been in effect. The City Water Shortage Contingency Plan will prohibit various wasteful water uses identified in Table 8-3 below. Warnings and penalties are levied for infractions to the ordinance. The full details of prohibitions

are listed in the City's Water Ordinances included in Appendix D.

Table 8-3 (DWR Table 8-2)
Restrictions and Prohibitions on End Users

Stage	Restrictions and Prohibitions on End Users	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement?
1	Other - Require automatic shut of hoses		Yes
1	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner		Yes
2	Other - Prohibit use of potable water for washing hard surfaces	Sidewalk/Street Cleaning	Yes
2	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water		Yes
4	Landscape - Other landscape restriction or prohibition		Yes
4	Other - Prohibit use of potable water for washing hard surfaces		Yes
4	Landscape - Limit landscape irrigation to specific times		Yes
4	Landscape - Limit landscape irrigation to specific days		Yes
4	Other	No new service connections	Yes

8.7 CONSUMPTION REDUCTION METHODS

Table 8-4 includes examples of consumption reduction methods that could be instituted during a drought period. Water shortage pricing is not considered feasible due to Proposition 218 requirements.

Table 8-4 (DWR Table 8-3)
Stages of Water Shortage Contingency Plan - Consumption Reduction Methods

Stage	Consumption Reduction Methods by Water Supplier	Additional Explanation or Reference *(optional)*
All Stages	Other	Use prohibitions; additional water conservation enforcement; voluntary rationing, mandatory rationing; reduction of water pressure in water lines where feasible; flow restrictions; installation of water kits, plumbing fixture replacements; restriction on building permits; and installation of pool covers
All Stages	Reduce System Water Loss	Expansion of leak and repair programs

8.8 EXCESSIVE USE PENALTIES

Any customer violating the regulations and restrictions on water use set forth in the City's no waste ordinance shall receive a fine of $35 for the first such violation. Upon a second violation, the customer shall receive a fine of $200. A third violation triggers the levy of a $300 fine. A fourth violation triggers a $400 fine, and fifth and subsequent violations trigger a $500 fine each.

8.9 REVENUE AND EXPENDITURE IMPACTS AND MEASURES TO OVERCOME IMPACTS

Water rates need to be set up to enable water suppliers to cover the costs in pumping, storing, treating, and delivering water. Revenues need to be collected to build reserves for future water system repairs, maintenance, and replacement. Water shortages increase costs to the water supplier by increasing expenses for public educational campaigns, stricter conservation efforts, and facility development. Likewise, water shortages impact the operations cash flow as water use falls. Other costs for repairs, maintenance, and replacement are fixed.

8.10 MECHANISMS TO DETERMINE REDUCTIONS IN WATER USE

With normal water supply conditions, water production is recorded daily at each wellhead. Totals are reported weekly to the Water Services Supervisor, and monthly to the Director of Municipal Utilities.

Reporting escalates with advanced stages of water shortages. During water emergency shortages, production figures would be reported to the Domestic Water Supervisor hourly, and to the Development Services Director and City Manager daily. Reports would also be provided to the City Council and the Public Safety Department. If reduction goals are not met, the City Council would be notified so that additional action may be taken (water shortage emergency).

8.11 MINIMUM SUPPLY NEXT THREE YEARS

As stated in Section 7, the City's water supply is very reliable through multiple dry years, and there is no expectation of a drop in water supply. Table 8-5 shows that the City anticipates for the water supply to meet the projected water demands at the very minimum. These demands are calculated as described in Section 4.1.

Table 8-5 (DWR Table 8-4)
Minimum Supply Next Three Years

	2016	2017	2018
Available Water Supply (AF)	3,940	4,002	4,064

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Chapter 9

Demand Management Measures

The City of Riverbank is committed to the implementation of the most feasible water conservation measures appropriate for the City to produce the greatest reduction in water use practicable. The City of Riverbank is not signatory to the Memorandum of Understanding regarding Urban Water Conservation in California (MOU) and is therefore not a member of the California Urban Water Conservation Council (CUWCC).

Water Code Section 10631(f) requires the City to implement to the extent practicable Demand Management Measures (DMMs) intended to lessen demands on the State's water resources through increased conservation and efficient water use, including water waste prevention ordinances, metering, conservation pricing, public education and outreach, programs to assess and manage distribution system loss, water conservation program coordination and staffing support, and other DMMs. This section presents the City's program to implement and monitor the practicable DMMs; as well as the required cost benefit analyses (CBAs) for those that are not currently feasible to be implemented, or scheduled to be implemented.

9.1 DEMAND MANAGEMENT MEASURES

The City is committed to providing safe and reliable water to its customers in the most efficient and cost-effective manner; therefore, in response to the Water Code, the City will address the required DMMs to the extent feasible.

In general, feasibility is based primarily on a cost benefit analysis comparing the value of the water saved versus the costs to implement the DMM. Certain costs have been determined which applies to multiple DMM cost benefit analyses (CBA) which are summarized as follows:

Cost of incremental water supplied: This is the electrical cost for pumping and chemical costs per AF of water delivered. It does not include fixed operational costs. Data (rounded to the next highest $25) from a 1.5 year period are utilized as follows:

Beginning of period	8/16/2012
End of period	2/6/2014
Total Energy	$551,000
Total Chemical Costs	$4,000
Total Water delivered	5,600 AF
Incremental Cost per AF	$100
Incremental cost per million gallons	$325

Cost of City Staff: This is the approximate cost per hour for City staff to administer and/or conduct field audits or outreach programs. For the CBA it is assumed the costs would be limited to staff that would cost $50/hour, including benefits.

Cost of Vehicle Use: For the CBA it is assumed the costs would be at least $0.60/mile, including depreciation, registration, insurance, maintenance, and fuel.

Number of Residences built before 1993: Greater water savings can be attained in older houses that were completed before 1993 when water conserving fixtures were mandated in the building code. It is presumed of the 6,614 residences currently served, less than 3,000 are older than 1993.

Water Use Per household: Current population is reported to be 23,572, which averages to 3.5 persons per household. Although recent water use averages about 147 GPCD, for water savings CBA, a value of 200 GPCD (closer to historic average), or 700 gallons per household per day is utilized as a conservative estimate.

For each DMM, an overall outline of the City's schedule for DMM implementation is provided with a means of tracking and evaluating DMM implementation and effectiveness. Specific tasks will be summarized and reported in UWMP updates for each DMM; therefore, a reporting period is defined as the five-year period between UWMP updates.

9.1.1. Water Waste Prevention Ordinances

The most visible forms of wasteful practices occur during residential irrigation and outdoor water use. To combat wasteful use, water waste prohibition in the form of an ordinance informs the customer that water waste is prohibited.

DMM Description

Section 52.34 of the City of Riverbank Code of Ordinances outlines restricted water use during peak periods. The Code of Ordinances states, "These provisions shall apply to all persons using water in the City regardless of whether any person using water shall have a contract for water service with the City. Failure to comply with any provision, requirement, rules or regulation under this chapter shall be unlawful and punishable as an infraction".

Schedule and Steps for Implementation

The City has permanently incorporated implementation of this DMM into their ordinances. The policy indicates as follows:

1. Washing cars, without the use of a quick-acting positive shut-off nozzle on the hose.
    a. Furthermore, there shall be no washing of building exteriors, mobile home exteriors, recreational vehicle exteriors, sidewalks, patios, driveways, gutters or other exterior surfaces, unless permitted by the Public Works Director and

done with the use of a quick-acting positive shut-off nozzle on the hose.

2. Outdoor water use in violation of the following schedules:

    a. Summer (Limited to watering two (2) days per week):

        - No outdoor water use will be allowed between 10:00 a.m. and 7:00 p.m.
        - Dwellings or establishments with odd-numbered street addresses shall water only on Wednesdays and Sundays subject to the time restrictions set forth above.
        - Dwellings or establishments with even-numbered street addresses shall water only on Tuesdays and Saturdays subject to the time restrictions set forth above.
        - Landscape irrigation is prohibited at all times on Mondays, Thursdays, and Fridays.
        - Landscape irrigation is prohibited within (48) hours after a measureable rainfall event ends, regardless of the permitted aforementioned summer watering schedule.
        - Drip or micro-spray irrigation systems are exempt from the restrictions.

    b. Winter (Limited to watering one (1) day per week):

        - No outdoor water use will be allowed between 10:00 a.m. and 4:00 p.m.
        - Dwellings or establishments with odd-numbered street addresses shall water only on Sundays subject to the time restrictions set forth above.
        - Dwellings or establishments with even-numbered street addresses shall water only on Saturdays subject to the time restrictions set forth above.
        - Landscape irrigation is prohibited at all times Monday through Friday.
        - Landscape irrigation is prohibited within (48) hours after a measureable rainfall event ends, regardless of the permitted aforementioned summer watering schedule.
        - Drip or micro-spray irrigation systems are exempt from the restrictions.

3. Violations. All fines are payable with the next water bill.
    a. First violation - $35 fine
    b. Second violation - $200 fine
    c. Third violation - $300 fine
    d. Fourth violation - $400 fine
    e. Fifth violation and each violation thereafter - $500 fine

Evaluation of Effectiveness of DMM

The City will collect the following information to determine the effectiveness of this DMM:

1. Number of customers cited for repeat water waste violations

Estimate of Current Conservation Savings

The City has no method to determine conservation savings associated with this DMM. However the City has Tracking Information (number of citations issued), with 385 citations issued between June 10, 2015 through December 31, 2015.

9.1.2. METERING

All new and existing water service connections are metered and billed by volume of use in the City. The City completed a meter replacement program and increased the water accountability to 92% in 2006. In 2016, the City will be completing another round of meter replacement that will increase water accountability to nearly 100%. Therefore, the City does not need to retrofit any existing connections. The use of water meters allows for better tracking and monitoring of water conservation data.

The 2015 billing rate for domestic water use is presented in Table 9-1.

Table 9-1
2015 Domestic Water Billing Rates

	Effective Date				
Meter Size	**Nov. 21, 2015**	**July 1, 2016**	**July 1, 2017**	**July 1, 2018**	**July 1, 2019**
1.5” and smaller	$19.77	$22.73	$24.55	$25.78	$27.07
2”	$31.63	$36.37	$39.29	$41.24	$43.31
3”	$63.27	$72.74	$78.57	$82.49	$86.62
4” and above	$98.85	$113.65	$122.77	$128.89	$135.34
Variable Charge (Water Usage per gallon)	$0.000614	$0.000706	$0.000762	$0.000800	$0.000840
Drought Surcharge (per gallon)[1]	$0.00	$0.000092	$0.000211	$0.000377	$0.000396

1 Only charged during periods when the State of California has declared an Emergency Drought.

DMM Description

For consistency with California Water Code (Section 525b), this DMM refers to potable water systems. A water meter is defined as a device that measures the actual volume of water delivered to an account in conformance with the guidelines of the American Water Works Association.

Schedule and Steps for Implementation

The City will continue to install and read meters on all new services, and will continue to conduct its meter calibration and replacement program.

Implementation shall consist of at least the following actions:

1. Require meters for all new service connections.
2. Establish a program for retrofitting existing unmetered service connections when identified.
3. Read meters and bill customers by volume of use.
    a. Establish and maintain billing intervals that are no greater than bi-monthly (every two months) for all customers.
    b. For each metered connection, perform at least five actual meter readings (including remotely sensed) per twelve month period.
4. Prepare a written plan, policy or program that includes:
    a. A census of all meters, by size, type, year installed, customer class served and manufacturer's warranty accuracy when new;
    b. A currently approved schedule of meter testing and repair, by size, type and customer class;
    c. A currently approved schedule of meter replacement, by size, type, and customer class; and
5. Identifying intra- and inter-agency disincentives or barriers to retrofitting mixed use commercial accounts with dedicated landscape meters, and conducting a feasibility study(s) to assess the merits of a program to provide incentives to switch mixed use accounts to dedicated landscape meters.

Tracking and Documentation

This DMM allows the City to track use on a per account basis, and analyze savings for each sector and the City as a whole. Additionally this data will allow the City to perform full-scale water audits. This section outlines the recommended minimum use data necessary for tracking sector, seasonal and annual water use and describes how each relates to the proposed DMMs.

1. Confirmation that all new service connections are metered and are being billed by volume of use and provide:
    a. Number of metered accounts;
    b. Number of metered accounts read;
    c. Number of metered accounts billed by volume of use;
    d. Frequency of billing (i.e. six or twelve times per year) by type of metered customer (e.g. single family residential, multiple family residential, commercial, industrial, and landscape irrigation); and
    e. Number of estimated bills per year by type of metered customer (e.g. single family residential, multiple family residential, commercial, industrial, and landscape irrigation) vs. actual meter readings.
2. Estimated number of commercial/industrical/institutional (CII) accounts with mixed-use meters
3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period

Estimate of Current Conservation Savings

As the City of Riverbank is 100% metered and bills all customers by volume of use, no further reduction of demand is expected. Further reductions may be seen in conjunction with water audits.

9.1.3. Conservation Pricing

DMM Description

This DMM promotes water conserving retail water rate structures. When creating a rate case, professional judgments are made to determine whether costs are accounted to a variable or fixed cost center by the staff of the agency. The final water rate case is an accumulation of all the decisions and judgments made by staff and supplemented by the financial projections leading an agency to establish its final water rate recommendation.

In a water, sewer or refuse collection rate increase case, the final rates as recommended by staff must go through ballot approval at a Proposition 218 hearing. Proposition 218 contains requirements for the imposition of a fee or charge for property related services. Procedures for fees and charges are contained in Section 6 of Article XIII D and must be implemented during a rate increase. Paragraph (b) describes the requirements for new, existing, or increased fees and charges, as:

1. Revenues from fees or charges shall not exceed the funds required to provide the service.

2. Revenues from fees or charges shall not be used for any other purpose.
3. The amount of the fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.
4. No fee or charge may be imposed unless the service is actually used by or immediately available to the owner of the property in question.
5. No fee or charge shall be imposed for general governmental services, i.e., police, ambulance, library, where the service is available to the public at large in substantially the same manner as it is to the property owners.

This DMM is not intended to supplant this rate setting process, but rather to reinforce the need to establish a strong nexus between volume-related system costs and volumetric commodity rates. Conservation pricing requires volumetric rate(s). The goal of this DMM is to recover the maximum amount of water sales revenue from volumetric rates that is consistent with utility costs (which may include utility long-run marginal costs), financial stability, revenue sufficiency, and customer equity.

The City's water customers are billed based on their metered water use. Water fees and charges are established by Section 52.61 of the City of Riverbank Code of Ordinances. A summary of the rates is provided in Table 9-1.

Schedule and Steps for Implementation

The City will adjust rates periodically as deemed necessary.

9.1.4. Public Education and Outreach

9.1.4.3. Public Information Program

A public information program is a powerful channel of communication between the public and the message the City delivers. The key goal to a public information program is to educate the public: on the necessity of conservation; the benefits of conservation; and actions needed to achieve water conservation goals. Secondary benefit is the ability to convey specific DMM information and if possible conduct business through certain channels such as a processing a rebate application on the City website. There is a variety of medium available to choose from to keep the public informed; however, at a minimum, a conservation webpage should be made available to promote conservation and support DMM activities.

DMM Description

An informed public tends to be more responsive to City services and more understanding to the needs of rate adjustments when warranted. This DMM includes communication with the public through various means as described below to promote water conservation, involvement in the UWMP update process, and general awareness of water use and conservation. This program includes development of outreach materials for each targeted DMM effort, providing educational sessions for interested parties, and providing conservation displays and information via

community events, bill stuffers and other forms of communication.

Schedule and Steps for Implementation

The City currently implements the following public information programs:

1. Bi-monthly City newsletters are provided with customers' bills
2. The City maintains an internet website that posts public information to promote water conservation practices
3. Annual consumer confidence reports are distributed to the City's water customers and contain water conservation information
4. The City Water Conservation Coordinator, or other assigned City staff attends public events, such as Beyond Earth Day

The City will continue to implement similar programs over the next five years. One area that may be considered is information regarding water softeners that during regeneration, discharge solids back into the sewer system. This practice can contribute to increases in total dissolved solids (salt) concentrations in wastewater which in turn may be regulated in the future by the Regional Water Quality Control Board (Regional Board).

Implementation shall consist of at least the following actions:

Tracking and Documentation

The City will set up a database to include the following:

1. Number of public speaking and media events relating to conservation during reporting period.
2. Number of paid or public service announcements relating to conservation produced or sponsored during reporting period.
3. Types of information relating to conservation provided to customers.

Annual budget for public information programs directly related to conservation. Currently the City spends approximately $1,000 per year on coloring books, brochures, and water conservation information for distribution at this event and other venues, such as the Farmers' Market.

Beyond Earth Day Outreach Event

Evaluation of Effectiveness of DMM

As a customer calls, e-mails, or comes in to the City offices and inquiries about a water conservation program, the person receiving the inquiry should ask how the customer heard about the program. This information should be noted for use in evaluating the communication effectiveness of this DMM. This will allow the City the ability to evaluate which forms of communication are most prevalent.

Estimate of Current Conservation Savings

No specific method of evaluating the effectiveness of this DMM has been identified by the City.

9.1.4.4. School Education Programs

Education programs inform younger generations on the life cycle of water and benefits of

conservation. Implementing an ongoing education campaign on the K-12 grade level using educational materials (which meet education standards) allows children to learn methods of conservation to apply at home and to reinforce behavioral changes within the household.

Additionally, learning about conservation leaves a long lasting impression on the students with the potential of improving their conservation awareness as an adult.

DMM Description

The School Education Programs DMM consists of developing and presenting water conservation materials to K-12 grade classes in the City. This DMM would be coordinated with other related DMMs and would be implemented according to the steps described below.

Schedule and Steps for Implementation

The City has implemented school education programs in the past, providing educational videos and associated curriculum to local schools to teach children about the importance of water and water conservation practices, but due to budgetary considerations it intends to focus on broader public education initiatives (DMM G) and does not intend to implement this DMM.

Programs would include working with school districts and private schools in the water suppliers' service area to provide instructional assistance, educational materials, and classroom presentations that identify urban, agricultural, and environmental issues and conditions in the local watershed. Educational materials shall meet the state education framework requirements and grade-appropriate materials shall be distributed.

Tracking and Documentation

At minimum, the City would report on the following:

1. Curriculum materials developed and/or provided by agency (including confirmation that materials meet state education framework requirements and are grade-level appropriate)
2. Number and type of materials developed and/or provided by the City
3. Number of students reached
4. Annual budget for school education program
5. Description of all other water supplier education programs

Evaluation of Effectiveness of DMM

There are no methods of measuring effectiveness for this DMM.

Estimate of Current Conservation Savings

No specific method of evaluating the effectiveness of this DMM has been identified by the City.

Cost Benefit Analysis

Details of the CBA are included in Appendix I and summarized as follows:

Cost Effectiveness Summary	
Total Annual Costs	$7,900
Total Benefits	Not Available
Discount Rate Time	N/A
Horizon	5 years
Cost of Water ($ per AF)	100
Water Savings (AFY)	N/A

9.1.5. Programs to Assess and Manage Distribution System Real Loss

The goals of modern water loss control methods include both an increase in water use efficiency in the utility operations and proper economic valuation of water losses to support water loss control activities. In May 2009 the American Water Works Association (AWWA) published the 3rd Edition M36 Manual Water Audits and Loss Control Programs. BMP 1.2 will incorporate these new water loss management procedures and apply them in California. Agencies are expected to use the AWWA Free Water Audit Software ("AWWA Software") to complete their standard water audit and water balance.

The City currently evaluates consumption reports for extreme variations. If a variation is noted, the City checks the meter for leaks. If a leak is detected, the City notifies the consumer and the leak is repaired. The City will maintain water audit books on an annual basis to help estimate system losses.

DMM Description

The System Water Audit, Leak Detection, and Repair DMM will consist of the following with implementation as described below:

- System tracking of water production and use, and an assessment of water losses as a percentage of production

Schedule and Steps for Implementation

If the annual prescreening audit indicates that unaccounted water is greater than 10 percent, the City will complete a water audit of its distribution system using methodology consistent with that described in *Water Audit and Leak Detection Guidebook* by the AWWA.

Implementation shall consist of at least the following actions:

1. Annually (April) complete a prescreening system audit to determine the need for a full-scale system audit. The prescreening system audit shall be calculated as follows:

a. Determine total metered sales for previous year;

b. Determine other verifiable water uses from previous year, e.g., construction water, hydrant flushing, fire suppression uses, etc.;

c. Determine total annual production into the distribution system;

d. Divide metered sales plus other verifiable uses by total supply into the system. If this quantity is less than 0.9, a full scale system audit is indicated.

2. When indicated by the above analysis, the City will perform a complete water audit of the distribution system using methodology consistent with that described in AWWA M36: Water Audit and Leak Detection.

3. Advise customers whenever it appears possible that leaks exist on the customer's side of the meter.

Tracking and Documentation

To assess the progress of the DMM the following information should be gathered. This information will be summarized in the UWMP updates.

1. The completed AWWA Standard Water Audit and Water Balance worksheets.

2. City shall maintain in-house records of audit results, methodologies, and worksheets for each completed audit period.

3. City keeps records of each component analysis performed, and incorporates results into future annual standard water balances.

4. City, for the purpose of setting the Benchmark:

    a. Keeps records of intervention(s) performed, including standardized reports on leak repairs, pressure reduction undertaken for loss reduction, infrastructure rehabilitation and renewal, volumes of water saved, and costs of intervention(s); and

    b. Prepares a yearly summary of this information for use in tracking DMM effectiveness.

Method to Evaluate Effectiveness

The City will collect the following information to track the effectiveness of this DMM:

1. Prescreening audit results and supporting documentation

2. Maintain in-house records of audit results or the completed American Water Works Association (AWWA) Audit Worksheets for each completed audit period

Effectiveness of this DMM is verified by maintaining unaccounted water losses to less than 10%

as indicated by the prescreened water audits.

Estimate of Current Conservation Savings

Estimate of water conservation savings will be calculated based on the reduction of unaccounted for water losses as data becomes available.

9.1.6. Water Conservation Program Coordination and Staffing Support

DMM Description

To actively manage the DMM measures outlined in this Section, a water conservation coordinator (WCC) and supporting staff must be identified. The WCC will be charged with overseeing and developing the strategies and procedures of all steps and procedures listed in each DMM. This person must be personable and maintain a friendly and professional image as a representative of the City as the WCC will be in direct contact with the public. Additionally, the WCC must be able to communicate effectively by relaying complex concepts to upper management and City Council as the administrator of the Water Conservation Program.

Schedule and Steps for Implementation

DMM implementation activities are to be distributed among a variety of City employees. The currently designated water conservation coordinator is:

Kathleen Cleek, Senior Administrative Analyst
6707 Third Street
Riverbank, CA 95367
(209) 863-7120

Implementation shall consist of at least the following actions:

1. Designation of a water conservation coordinator and support staff (if necessary), whose duties shall include the following:
    a. Coordination and oversight of conservation programs and DMM implementation;
    b. Compilation of data necessary for preparation of the DMM Implementation Status Report to be included in UWMP updates; and
    c. Communication and promotion of water conservation issues to agency senior management; coordination of agency conservation programs with operations and planning staff; preparation of annual conservation budget; and preparation of the conservation elements of the agency's Urban Water Management Plan.

Evaluation of Effectiveness of DMM

Evaluation of effectiveness will consider the goals met under each DMM implementation and schedule and ultimately the overall volume of water savings produced by the active management of the program by the coordinator.

The duties of water conservation coordinator require approximately 80 hours per year. Other staff time to implement water conservation programs require approximately 100 hours per year.

Estimate of Current Conservation Savings

The City has no method to determine conservation savings associated with this DMM.

9.1.7. OTHER DEMAND MANAGEMENT MEASURES

In addition to the above DMMs, the City has evaluated other programs to improve water conservation.

9.1.7.5. Water Survey Programs for Single-Family Residential and Multi-Family Residential Customers

Many residential customers unknowingly use water inefficiently and take for granted this limited resource. Additionally, many customers do not understand the amount of water wasted by overwatering their landscape. A water survey program is intended to educate City customers on efficient landscape water use, test fixtures for leaks, provide information on other services available to them (other DMMs) such as rebates and free water efficient fixtures and as such requires City staff and transportation costs as well as costs for rebates or water saving fixtures if offered.

DMM Description

The Water Survey Program for Single-Family Residential and Multi-Family Residential Customers consists of the following actions:

- Define the funding source and allocate appropriate funds for this DMM
- Assign Water Conservation staff
- Target high use customers and market water use surveys to single-family residential and multi-family residential customers through the following actions.
    - On an annual basis, compile single-family and multi-family residential user account information and water use data. This information will be analyzed to prioritize the marketing efforts described below. High volume water use customers as identified as being the top five percent (5%) highest water consumers will be the focus for initial marketing efforts followed by the remaining 15 percent (15%) as determined by water use ranking priority to make up the target 20 percent (20%) marketing effort as outlined in this measure.
- Develop or identify marketing material to be used for initial contact, during surveys and follow-up to surveys.
    - Compile DMM specific materials/equipment such as educational materials, tools for minor irrigation system repair, flow and measurement equipment, replacement sprinkler equipment and other applicable materials and equipment.

- Directly contact via letter or telephone, not less than 1% of single-family residential customers and 1% of multi-family residential customers each year with an offer to conduct a water survey.
    - Priority in contact shall be given to those high volume use customers identified above.

Telephone followed by letter contact shall be conducted for users identified above as high volume use customers.

- Letter correspondence and telephone contact shall include information on other DMM services available to the customer such as high efficient toilets, high efficient washing machines, and free water conserving retrofit devices.

- Conduct surveys of all positive respondents to survey offer and other interested customers becoming aware of the survey through DMM 7. Surveys shall include indoor and outdoor components, and at minimum shall have the following elements:

Indoor

- Check for leaks, including toilets, faucets, and water meter;
- Check showerhead flow rates, aerator flow rates, and offer to replace (see DMM B) or recommend replacement, as necessary;
- Check toilet flushing rating and recommend installation of displacement device or direct customer to HET rebate program, as necessary; replace leaking toilet flapper, as necessary;
- Check and document any other water use appliances that may exist in the residence such as dishwasher, evaporative cooler, spa and so on.

Outdoor

- Check irrigation system for leaks, use of irrigation timers, and proper irrigation times;
- Review or develop customer irrigation schedule.

- Provide customer with evaluation results and water saving recommendations; leave information packet with customer.

- For those customers who are reluctant to having staff conduct an onsite survey, offer a self survey kit. The self survey kit will include the City forms and a description to walk the customer through the water audit process. The form enclosed in the kit will allow the customer to record their fixture flow rates for comparison to currently available low water use fixtures and allow the customer to return the completed form for a free water conservation kit distributed under DMM B. The self survey kit will include the following:

- Toilet tabs to detect toilet leaks,
- Shower flow rate detector bag,
- Self Water Audit instructions and forms,
- Educational material such as water savings tips, the significance of the EPA Water Sense certification, and
- Promotional material for incentives and rebates the City provides.

- Maintain survey information and track monthly customer use and information to ensure accuracy and for use in evaluating DMM effectiveness.

Schedule and Steps for Implementation

The City currently does offer educational materials to households as part of its education and outreach program but has no plans to implement a formal water survey program at this time as the costs would be a burden on current City finances and the costs far exceed the benefits expected. The required CBA summary table follows, with calculation details provided in Appendix I:

Cost Effectiveness Summary	
Total Annual Costs	$64,400
Total Annual Benefits	$2,600
Discount Rate	N/A
Time Horizon	5 years
Cost of Water ($ /AF)	100
Water Savings (AF/Y)	26.0

A summary of the non-economic factors affecting the Water Survey Program and taken into consideration in this Cost-Benefit analysis is provided in the following paragraphs.

Environmental

The environmental effects of implementing a Water Survey Program in the City would be minimal. As stated previously, the City uses groundwater wells as its potable water source. Surface waters would not be measurably affected by implementing or not implementing the program.

There would be an environmental benefit to implementing the program in the form of reduced electrical power consumption for the production, treatment and distribution of water.

Social

There is a societal benefit in implementing the Water Survey Program. A reduction in the amount of water produced and distributed means a reduction in the amount of money spent on

its production. The publicly owned system would see a reduction in power required to pump, treat, and distribute the water.

Implementing the program would also convey to the water users the message that the City is working to conserve water. The extent to which the program would be socially beneficial is not quantifiable, however.

Health

There are no measurable health benefits to either implementing or not implementing the Water Survey Program.

Customer Impact

Water customers that participate in the Water Survey Program would be educated on sources of potential leaks in their system and will know how to prevent them or fix them. They may also be better informed of irrigation practices and landscaping options to reduce their water consumption. Participants may also talk with friends and neighbors about what they have learned, which may have an effect on how they manage water at their own homes.

Technological Factors

There are several technological advances in residential irrigation practices that are available to the average homeowner to reduce the amount of water used. Automatic sprinkling and drip irrigation systems can be equipped with timers. Soil moisture probes and rain sensors can be used to adjust irrigation schedules. Internet websites are devoted to appropriate landscaping plant choices given sun exposure, soil types, and climate. All of this information can be provided as part of a Water Survey Program. It is also available to anyone with internet access that is interested in conserving water, even without the Program.

Conclusion

While there are some non-economic benefits to implementing a Water Survey Program, the costs of the Program are too excessive to justify it at this time. At a minimum a City employee (assumed ½ time) and vehicle would have to be dedicated to properly running the program. There would also be advertising and material costs associated with the Program. The sum of these costs makes implementing the Program prohibitive given current City budget constraints.

9.1.7.6. Large Landscape Conservation Programs and Incentives

The City does not currently perform large landscape water use surveys or assign evapotranspiration water use budgets and a formal program and incentives are not feasible at this time. However, as the City grows and more parks are developed, the City will consider certifying staff to perform large landscape audits.

As required by the Water Conservation in Landscaping Act of 2006, the City has adopted DWR's model ordinance, Model Water Efficient Landscape Ordinance. Use of this model ordinance will help the City meet their urban water management goals by limiting the water use per acre for

large landscape accounts.

Irrigation accounts for a large portion of urban water use in California. Irrigation water use varies dramatically depending on water pricing and availability, plant choice, geographic locations, seasonal conditions, and the level of commitment to sound water efficiency practices. The goal of this DMM is that irrigators, with assistance from the City, will achieve a higher level of water use efficiency consistent with the actual irrigation needs of the plant materials. Reaching this goal would reduce overall demands for water, reduce demands during the peak summer months, and still result in a healthy and vibrant landscape for the City.

DMM Description

This DMM consists of developing, tracking, and accounting for irrigation water use at these large landscape accounts through on site surveys with follow-up visits. Water conservation is achieved through this DMM by increasing irrigation efficiency at large landscape accounts and reducing water waste.

Schedule and Steps for Implementation

Implementation of large landscape conservation program shall consist of at least the following actions:

1. Promoting the use of the Model Water Efficient Landscape Ordinance
2. Maintain and distribute the list of suggested plants and efficient irrigation systems
3. Maintain and distribute City Standard Plans for landscape irrigation plans
4. Continue to work with large landscape irrigation users on water conservation measures

Tracking and Documentation

To assess the progress of the DMM the following information should be gathered. This information will be summarized in the UWMP updates.

1. Number of dedicated irrigation meter accounts.
2. Number of surveys offered.
3. Number of surveys accepted.
4. Estimated annual water savings by customers receiving surveys and implementing recommendations.

Evaluation of Effectiveness of DMM

As a means of evaluating the effectiveness of this measure, large landscape meter records will be reviewed on an annual basis for the peak irrigation month water use. A database will be developed showing peak month landscape irrigation water use for the major landscape irrigation

connections and will indicate which have existing budgets and will indicate the last survey date.

Water Savings Assumptions

Assuming fully implementing large landscape BMPs will result in a 15%-20% reduction in demand for landscape irrigation by affected accounts. In 2010 the total water consumed by all non- residential accounts was approximately 400 AF/year. Assuming 50% of that water involves landscape irrigation the total water that may be saved by fully implementing this program with current users totals less than 40 AF/yr. Most of those savings will occur just by implementing the water efficient ordinance. Additional savings by site surveys and incentives are likely to be less than 25% of the total possible savings or 10 AF/yr, over a five year time horizon.

Cost Benefit Analysis

Costs to fully implement the program for City staff time, transportation, and incentive costs are estimated to be require about 10% of those incurred to implement DMM 9.1.7.1 (assumes 1/20 of a full time employee) and would be approximately $6,400/year with a potential benefit of approximately $200/yr as summarized in the table below:

Cost Effectiveness Summary	
Total Annual Costs	$6,400
Total Annual Benefits	$200
Discount Rate	N/A
Time Horizon	5 years
Cost of Water ($ /AF)	100
Water Savings (AF/Y)	2.0

9.1.7.7. High Efficiency Washing Machine Rebate Program

Washing machines make up 21.7% of the total indoor residential water use (Mayer et al, 1999). Replacing conventional top load high volume washing machines with horizontal axis front loading washing machines have been found to conserve water by as much as 38% per load (Vickers, 2001). Although high efficiency washing machines save the consumer more money over the life of the appliance when compared to conventional washing machines, initial sticker price and unfamiliarity tend to be main barriers withholding consumer from purchasing High Efficiency Washing Machines (HEWMs). Because of the sticker price rebates must be substantial (i.e.; $100) to be effective. Due to the high costs this program is not currently feasible at this time.

DMM Description

This DMM is based on providing a financial incentive for customers in the City's utility service area to switch to HEWMs. The incentive would allow customers to upgrade existing conventional washing machines to high efficient washing machines to benefit both the customer and utility through reduced water use.

Schedule and Steps for Implementation

PG&E currently offers rebates on energy efficient appliances to their customers. The City does not currently provide additional rebates for HEWMs but supports the use of high-efficiency washing machines and will support local, state, and federal legislation to improve efficiency standards for washing machines. The City will also advertise the PG&E rebate program to its customers through its website. The City will re-evaluate implementation of this program in the 2015 UWMP.

Tracking and Documentation

The City will track the installation of HEWMs to customers within their service territory through the PG&E rebate program.

Estimate of Current Conservation Savings

The City will develop a database to track the installation of high-efficiency washing machines based on the PG&E rebate program. With this information, the City will have the ability to track if there is a measurable decrease in metered water usage.

Cost Benefit Analysis

The CBA for this DMM is detailed in Appendix I and costs are limited to rebate costs only: administrative costs would be in addition to those presented.

Cost Effectiveness Summary	
Total Annual Costs	$26,500
Total Annual Benefits	$688
Discount Rate	N/A
Time Horizon	5 years
Cost of Water ($ /AF)	100
Water Savings (AF/Y)	6.9

9.1.7.8. High Efficiency Toilet Replacement

All new toilets sold in California after January 1, 1994 must be ultra low-flush toilets, which use a maximum of 1.6 gallons per flush (gpf). These ultra low-flush toilets (ULFT) save approximately 60% to 75% of water when compared to their high water use counterparts at 3.5 and 5.0 gpf. In this measure, older 3.5 and 5.0 (gpf) toilet fixtures in residences are replaced with 1.6 gpf fixtures. Implementation of this DMM is intended to accelerate the replacement of non-conserving toilets at a faster pace than “natural replacement”.

DMM Description

This DMM is based on implementing a financial incentive program for customers in the City’s utility service area for replacement of higher water use toilets with ULFTs. The incentive will allow customers to upgrade existing high water use toilets to high efficient toilets to benefit both the customer and utility through reduced water use.

Schedule and Steps for Implementation

Due to the City's current budget constraints, a financial incentive for toilet replacement is not offered. The City will continue to consider offering a rebate for installation of ULFTs as budget allows. The City will, through its public education program, continue to encourage the installation of ULFTs.

Cost benefit Analysis

The details of the CBA are presented in Appendix I and presume this program will focus on the pre-1993 households and includes rebate costs of $100 per household. Administrative costs are not included. The CBA is summarized in the following table:

Cost Effectiveness Summary	
Total Annual Costs	$12,500
Total Annual Benefits	$917
Discount Rate	N/A
Time Horizon	5 years
Cost of Water ($ /AF)	100
Water Savings (AF/Y)	9.2

9.1.7.9. Residential Plumbing Retrofit

This DMM replaces high water use fixtures with low-volume retrofit plumbing devices. These devices range from toilet water displacement bags to faucet aerators. The devices are typically installed during a water survey; however, are available to the public upon request.

The City adopted the 2013 California Green Building Standards Code, and the 2013 California Plumbing Code, which will conform to the legal requirements for maximum water usage for fixture retrofits and replacements for residential uses, including 1.28 gallon water closets and 0.5 gallon urinals. In addition the City will conform to the requirements SB 407/Civil Code Sections

1101.1 - 1101.8 which require the eventual retrofit of residential (and commercial) non-compliant fixtures by 2019.

However the City has no plans to implement a fixture retrofit incentive program (i.e.; offer rebates) to residences constructed before 1994, as the costs to fund and administer such a program is not cost effective for much the same reasons as a high efficiency toilet replacement program is not cost effective (Reference DMM 9.1.7.4). A general fixture retrofit program may provide somewhat more water savings than toilet replacements alone (i.e.; 15%, Reference American Water Works Association Research Foundation, Residential End Uses of Water, 1999, Table 5.4); however, even without associated additional rebate costs, the costs far exceed the value of water savings reasonably attainable.

The below table uses the same participation assumptions as stated in DMM 9.1.7.4 and assumes an additional 15% savings in water as a general fixture rebate program would include

faucet and showerhead replacements in addition to low flow toilet rebates and incentives.

Cost Effectiveness Summary	
Total yearly Costs	$12,500
Total Yearly Benefits	$1,060
Discount Rate	N/A
Time Horizon	5 years
Cost of Water ($ per AF)	100
Water Savings (AFY)	10.6

9.1.7.10. Conservation Programs for Commercial, Industrial, and Institutional Accounts

This DMM establishes conservation programs implemented on the Commercial, Industrial, and Institutional (CII) sectors.

DMM Description

Conservation programs should be established for CII accounts and will parallel residential measures in such that surveys (indoor/outdoor), and incentive programs may be made available for the CII sector and will be the focus of this measure. Some CII customers may maintain landscaped areas, which require a more exhaustive outdoor survey therefore; in those instances, the survey effort will be coordinated with DMM E Large Landscape Conservation Programs.

Schedule and Steps for Implementation

However, for the same rationale as presented in DMM A, the City does not intend to implement a staffed conservation program for commercial and industrial users for the foreseeable future because the cost of such a program cannot be justified by the potential water savings. Commercial and Industrial accounts account for approximately 6% of the total City water use and with about the 3 % of connections. This indicates there is no significant difference in the CBA from that presented in DMM A except for a proportionate reduction in cost of 3% and benefit of 6%, with the following adjustments: The cost of the program is approximately 5% of that presented in DMM A (which is probably low given the generally higher costs of commercial fixtures), and the potential water savings for those that participate is twice as great as assumed for DMM A (26% instead of 13%). The result summarized in the table below show that the program would not be cost effective.

Cost Effectiveness Summary	
Total yearly Costs	$3,220
Total Yearly Benefits	$200
Discount Rate	N/A
Time Horizon	5 years
Cost of Water ($ per AF)	100
Water Savings (AFY)	2.0

Chapter 10

Plan Adoption, Submittal, and Implementation

This section addresses the CWC requirements for a public hearing, the adoption and submittal process, plan implementation, and UWMP amendment process.

10.1 NOTICE OF PUBLIC HEARING

The City has provided a 60-day notice of preparation of its 2015 UWMP, and notice of the UWMP public hearing as required by CWC Section 10621 and 10642 to the City and Counties listed below in Table 10-1.

Table 110-1 (DWR Table 10-1)
Notification to Cities and Counties

City Name	60 Day Notice	Notice of Public Hearing
City of Riverbank	☑	☑
County Name	**60 Day Notice**	**Notice of Public Hearing**
San Joaquin County	☑	☑
Stanislaus County	☑	☑

10.1.1. NOTICE TO THE PUBLIC

As mentioned in Section 2.4.2, a public notice was prepared and published at least two weeks prior to the public hearing. The notice is attached in Appendix B.

10.2 PUBLIC HEARING AND ADOPTION

A public hearing for considering the adoption of the 2015 allowed the public to provide input to the UWMP and ask questions about the City's plans for ensuring a safe and reliable water supply. This UWMP was formally adopted by the City Council on October 25. 2016. A copy of the signed resolution of plan adoption is included as Appendix A.

10.3 UWMP SUBMITTAL

The updated plan was submitted electronically through WUEdata to DWR within 30 days as

mentioned in Section 1. A CD or hardcopy of the adopted plan was also submitted to the California State Library.

A copy of the adopted plan and the Water Shortage Contingency Plan will also be provided to the cities and counties listed in Table 10-1 within 30 days of adoption.

A public copy of this UWMP is available at City Hall.

10.4 AMENDING AN ADOPTED UWMP

If the adopted 2015 UWMP is amended, the City will provide copies to DWR, the California State Library, and the cities and counties listed in Table 10-1 within 30 days of the adoption of the amendments.

Appendix A:

Resolution to Adopt the Urban Water Management Plan

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Appendix B:

Notice of Public Hearing

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City of Riverbank
Public Works Department
2901 High Street
Riverbank, CA 95367
(209) 869-7128 Ph.

NOTICE

August 1, 2016

Mr. Kris Balaji
Director of Public Works
San Joaquin County
1810 E. Hazelton Avenue
Stockton, CA 95205

SUBJECT: 2015 Urban Water Management Plan Update

The City of Riverbank (City) is currently in the process of updating its Urban Water Management Plan (UWMP) to 2015, as required by the California Water Code section 10610 et seq. The UWMP will evaluate the City's current water supply and uses and present a long-term plan to ensure supply reliability and quality. **NOTICE IS HEREBY GIVEN** that the City has planned to conduct a public hearing to review the draft UWMP. The hearing will be part of a regularly scheduled City Council meeting on **October 11, 2016 at 6:00 P.M.** in Riverbank City Hall, 6707 3rd Street, Suite B, Riverbank, CA 95367.

Following the public review, the City plans to conduct another public hearing to adopt the final 2015 UWMP document at the following City Council meeting on **October 25, 2016 at 6:00 P.M.**

We anticipate a draft of the 2015 UWMP to be available for public review beginning approximately September 26, 2016, on the City website, www.riverbank.org. A hard copy of the document will also be available for review at City Hall. Written comments on the draft 2015 UWMP may be submitted before or during the October 11 draft review hearing to the City Clerk's Office: 6707 3rd Street, Suite A, Riverbank, CA 95367.

If you have any questions or comments during the update process, please contact Michael Riddell at (209) 869-7128 or mriddell@riverbank.org.

Sincerely,

Michael Riddell
Public Works Superintendent

City of Riverbank
Public Works Department
2901 High Street
Riverbank, CA 95367
(209) 869-7128 Ph.

NOTICE

August 1, 2016

Mr. Matthew J. Machado, P.E., L.S.
Director of Public Works
Stanislaus County
1716 Morgan Road
Modesto, CA 95358

SUBJECT: 2015 Urban Water Management Plan Update

The City of Riverbank (City) is currently in the process of updating its Urban Water Management Plan (UWMP) to 2015, as required by the California Water Code section 10610 et seq. The UWMP will evaluate the City's current water supply and uses and present a long-term plan to ensure supply reliability and quality. **NOTICE IS HEREBY GIVEN** that the City has planned to conduct a public hearing to review the draft UWMP. The hearing will be part of a regularly scheduled City Council meeting on **October 11, 2016 at 6:00 P.M.** in Riverbank City Hall, 6707 3rd Street, Suite B, Riverbank, CA 95367.

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If you have any questions or comments during the update process, please contact Michael Riddell at (209) 869-7128 or mriddell@riverbank.org.

Sincerely,

Michael Riddell
Public Works Superintendent

PROOF OF PUBLICATION

(2015.5 C. C. P.)

STATE OF CALIFORNIA,

County of Stanislaus

I am a citizen of the United States and a resident of the county aforesaid; I am over the age of twenty-one years, and not a party to or interested in the above entitled matter. I am the principal clerk of THE RIVERBANK NEWS, 122 South Third Ave, Oakdale, California, a newspaper of general circulation, published in Riverbank, California in the City of Riverbank, County of Stanislaus, and which newspaper has been adjudged a Newspaper of general circulation, by the Superior Court of the County of Stanislaus, State of California. That the Notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

September 28, in the year 2016.

I certify or declare under penalty of perjury that the Foregoing is true and correct.

Dated at Riverbank, California

This 28th day of September 2016.

Signature

This space is for the County Clerk's Filing Stamp

Proof of Publication of

PUBLIC NOTICE
URBAN WATER MANAGEMENT PLAN (UWMP)

PUBLIC NOTICE
NOTICE OF PUBLIC HEARING
City of Riverbank City Council

NOTICE IS HEREBY GIVEN that the City Council of the City of Riverbank will hold a public hearing on Tuesday, October 11, 2016, in the City Hall Council Chambers, 6707 Third Street, Suite B, Riverbank, California, at 6:00 p.m. or soon thereafter to consider and review the following matter: The City of Riverbank's Draft 2015 Update of the Urban Water Management Plan (UWMP) DESCRIPTION: The California Water Code section 10610 et seq. requires every urban supplier that either supplies water to more than 3,000 customers or more than 3,000 acre-ft of water annually to prepare and update a UWMP every five years. The UWMP evaluates the City's current water supply and uses and presents a long-term plan to ensure supply reliability and quality for existing and future demands. AVAILABILITY FOR REVIEW: A draft of the 2015 UWMP will be made available beginning October 4th, 2016, on the City website, www.riverbank.org. A hard copy of the document will also be available for review at City Hall. ALL INTERESTED PARTIES are invited to attend the public hearing on October 11, 2016, at the time and place specified above to express opinions or submit evidence for or against the subject matter being considered. Written comments submitted via e-mail to cityclerk@riverbank.org, or by USPS, or hand delivered to 6707 Third Street, Suite A, Riverbank, California, 95367, will be accepted by the City Clerk up to 5:00 p.m. on said date. After 5:00 p.m. written comments may be handed to the City Clerk at the meeting up until the close of the public hearing. All written comments received will be distributed to the City Council for consideration. Oral comments will be received by the City Council prior to the close of the Public Hearing on the subject matter being considered. The City Council will receive all testimony prior to taking action. Testimony cannot be given over the telephone. If you challenge the City's action on these matters in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice or in written correspondence delivered to the City at, or prior to, the public hearing. Any public materials pertaining to the presentation of the subject matter will be made available for review at the City Clerk's office 6707 Third Street, Suite A, Riverbank, and (when technologically possible) at www.riverbank.org upon distribution to a majority of the City Council, (typically 72 hours prior to the meeting). In compliance with ADA, 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 72 hours prior to the meeting. For questions regarding the proposed subject matter contact Michael Riddell, Public Works Superintendent at (209) 869-7128 or mriddle@riverbank.org, or contact the City Clerk at (209) 863-7198. Published this 28th day of September, 2016

/s/ Annabelle H. Aguilar, CMC, City Clerk, City of Riverbank

September 28, 2016
RN #16-126

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Appendix C:

American Water Works Association (AWWA) Water Auditing Worksheet

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AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

American Water Works Association.
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? Click to access definition
+ Click to add a comment

Water Audit Report for: City of Riverbank (CA5010018)
Reporting Year: 2015 | 1/2015 - 12/2015

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: ACRE-FEET PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

<---------- Enter grading in column 'E' and 'J' ---------->

Master Meter and Supply Error Adjustments

WATER SUPPLIED

					Pcnt:	Value:	
Volume from own sources:	5	3,878.000	acre-ft/yr	4			acre-ft/yr
Water imported:	n/a	0.000	acre-ft/yr				acre-ft/yr
Water exported:	n/a	0.000	acre-ft/yr				acre-ft/yr
WATER SUPPLIED:		**3,878.000**	acre-ft/yr				

Enter negative % or value for under-registration
Enter positive % or value for over-registration

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	7	3,422.528	acre-ft/yr			
Billed unmetered:	n/a	0.000	acre-ft/yr			
Unbilled metered:	n/a	0.000	acre-ft/yr			
Unbilled unmetered:		48.475	acre-ft/yr	1.25%		acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

AUTHORIZED CONSUMPTION: ? **3,471.003** acre-ft/yr

Use buttons to select percentage of water supplied **OR** value

WATER LOSSES (Water Supplied - Authorized Consumption)

406.997 acre-ft/yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		9.695	acre-ft/yr	0.25%		acre-ft/yr
Customer metering inaccuracies:	3	0.000	acre-ft/yr			acre-ft/yr
Systematic data handling errors:		8.556	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: ? **18.251** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: ? **388.746** acre-ft/yr

WATER LOSSES: **406.997** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: ? **455.472** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	3	66.0	miles
Number of active AND inactive service connections:	3	6,783	
Service connection density:		103	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure: 5 60.0 psi

COST DATA

Total annual cost of operating water system:	3	$2,302,700	$/Year
Customer retail unit cost (applied to Apparent Losses):	9	$0.35	$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	3	$178.14	$/acre-ft

☐ Use Customer Retail Unit Cost to value real losses

Retail costs are less than (or equal to) production costs; please review and correct if necessary

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 51 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Volume from own sources
2: Customer metering inaccuracies
3: Total annual cost of operating water system

AWWA Free Water Audit Software:
System Attributes and Performance Indicators

WAS v5.0

American Water Works Association.
Copyright © 2014, All Rights Reserved.

Water Audit Report for: City of Riverbank (CA5010018)
Reporting Year: 2015 | 1/2015 - 12/2015

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 51 out of 100 ***

System Attributes:

Apparent Losses:	18.251	acre-ft/yr
+ Real Losses:	388.746	acre-ft/yr
= Water Losses:	406.997	acre-ft/yr
? Unavoidable Annual Real Losses (UARL):	92.38	acre-ft/yr
Annual cost of Apparent Losses:	$2,783	
Annual cost of Real Losses:	$69,251	Valued at Variable Production Cost

Return to Reporting Worksheet to change this assumpiton

Performance Indicators:

Financial:	Non-revenue water as percent by volume of Water Supplied:	11.7%	
	Non-revenue water as percent by cost of operating system:	3.5%	Real Losses valued at Variable Production Cost
Operational Efficiency:	Apparent Losses per service connection per day:	2.40	gallons/connection/day
	Real Losses per service connection per day:	51.16	gallons/connection/day
	Real Losses per length of main per day*:	N/A	
	Real Losses per service connection per day per psi pressure:	0.85	gallons/connection/day/psi

From Above, Real Losses = Current Annual Real Losses (CARL):	388.75	acre-feet/year
? Infrastructure Leakage Index (ILI) [CARL/UARL]:	4.21	

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

Appendix D

City of Riverbank Water Ordinances

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Print

Riverbank, California Code of Ordinances

CHAPTER 52: WATER

Section

General Provisions

52.01 Definitions

52.02 City to own and operate water system

52.03 Installation at owner's expense

52.04 Application for service

52.05 When city will or will not furnish water

52.06 Equipment property of city; maintenance of lines

52.07 Easements on private property

52.08 Unauthorized turn-on

52.09 Damage to system

52.10 Tampering with fire hydrants

52.11 Multiple users

52.12 Maintenance of fixtures and boilers; new plumbing

52.13 Standby fire protection service

52.14 Wells

52.15 New subdivisions

52.16 Falsifying information

52.17 Pre-metered water usage

Water Use Regulations

52.30 Responsibility of users

52.31 Use of water by other than supplied person

52.32 Irrigating

52.33 Prohibited acts

52.34 Restricted water use during peak periods

52.35 Backflow and cross-connection control

Meters

52.45 Use of meters required

52.46 Installation of meters

52.47 Damaging or interfering with meters

52.48 Meter failures; testing

52.49 Change of meter location or meter size

Rates and Charges

52.60 Water Fund

52.61 Fees and charges established by ordinance

52.62 When charges due

52.63 Water charges as a lien

52.64 Payment of bills

52.65 Deposits

52.66 Disconnection for late payment

Administration

52.75 Management of system

52.76 Access to be provided to city

52.77 Right of entry

52.78 Right to shut off water mains

52.79 Termination of service

52.80 Correction of violation

52.81 Violation an infraction

Cross-reference:

Systems Development Fees, see § 150.30 through 150.36

GENERAL PROVISIONS

§ 52.01 DEFINITIONS.

For the purpose of this chapter, the following definitions shall apply:

APPLICANT. An individual or agency applying for utility service.

COMMERCIAL SERVICE. Provision of water to premises where the customer is engaged in trade.

CROSS-CONNECTION. When used herein, all applicable sections of the City Code shall apply.

CUSTOMER, CONSUMER. An individual or agency of record receiving utility service from the utility.

DEVELOPER. A person or corporation requesting water service from the city regardless of the number of services.

DEVELOPMENT. The improving of developed and/or undeveloped land to more fully use the available land and/or structures. A development may be a subdivision.

DOMESTIC SERVICE. Provisions of water for household residential purposes, including water for sprinkling lawns, gardens and shrubbery, watering livestock, washing vehicles and other similar and customary purposes.

EMPLOYEE. Any person designated by the City Manager or the Director of Public Works to perform work and labor for the utility department, excluding contractors and their employees.

FIRE PROTECTION SERVICE. Provision of water to premises for automatic fire protection.

FLAT RATE. A fixed periodic charge for an unmetered service.

FLAT RATE SERVICE. Provision of water in unmeasured quantities.

IDLER. That piece of pipe used to conduct water in place of a meter in flat rate service.

INDUSTRIAL SERVICE. Provision of water to a customer for use in manufacturing, processing activities, or other uses as described in the Zoning Ordinance.

IRRIGATION SERVICE. Provision of water for commercial, agricultural, floricultural or horticultural use.

MAINS. Distribution pipelines located in streets, highways, public ways, or public utility easements which are used to serve the general public.

METER. The device used to measure water consumption, such as, water meter.

METER RATE SERVICE. Provision of water in measured quantities.

MUNICIPAL or ***PUBLIC USE.*** Provision of water to a municipality or other public body.

PRE-METERED WATER USAGE. Use of city water prior to city water meters being installed by the property owner.

RENTABLE UNIT. A rentable unit is any building or portion thereof that can be used as a completely independent unit.

SERVICE CONNECTIONS. The pipe, valves, and other facilities by which means the utility conducts water from its distribution mains to and through the meter; or, to the curb-stop or shut-off valve on an unmetered service connection.

SENIOR CITIZEN. All persons who have reached the age of 65 years and classed as "head of household" and who earn not over $7,000 annually.

SUBDIVIDER. A person, firm, corporation, partnership, or association who proposes to divide, divides, or causes to be divided real property into a subdivision for himself or for others, except that employees and consultants of such persons or entities acting in such capacity are not "subdividers".

SUBDIVISION. The division, by any subdivider, of any unit or units of improved or unimproved land, or any portion thereof, shown on the latest equalized county assessment roll as a parcel or as contiguous parcels.

TEMPORARY SERVICE. A service for circuses, bazaars, fairs, construction work, irrigation of vacant property, and similar uses, that because of their nature will not be used steadily or permanently.

UTILITY. The public utility or publicly owned utility named herein.

UTILITY SERVICE. Includes water and/or sewer and/or refuse service.

WATER WASTING. The use of water in such a manner that excess water is used and not effectively utilized for the lawfully intended purpose. Water wasting includes, but is not limited to the following:

(1) Watering lawns or gardens such that excess water leaves property or area being watered.

(2) Washing vehicles, equipment or boats in driveways or streets using open hose.

(3) Having leaky faucets or plumbing fixtures on premises.

(`67 Code, § 4-6-1) (Am. Ord. 2000-09, passed 12-11-00)

§ 52.02 CITY TO OWN AND OPERATE WATER SYSTEM.

The city shall own and operate a water system serving designated areas within and without the corporate limits of the city and may purchase existing systems or construct new works as may be necessary to supply to the people within the areas an adequate and safe domestic water supply. The City Council shall designate the area within and without the corporate limits of the city which shall receive water service from the city water system. The city shall endeavor to supply safe, potable, continuous and sufficient water at proper pressure to all consumers at all times.

(`67 Code, § 4-6-2)

§ 52.03 INSTALLATION AT OWNER'S EXPENSE.

All on-site and off-site water lines, connections, valves, plumbing and accessory water facilities shall be constructed and installed at the owner's expense, and shall be to city standards and approved by the city prior to water service turn-on.

(`67 Code, § 4-6-6)

§ 52.04 APPLICATION FOR SERVICE.

(A) All applications for water service shall be made on the forms furnished by the city. Every customer obtaining water service shall sign an application. In addition to any other information required, such application shall show a true and accurate description of the area served, purpose for which water shall be used, and the applicant's interest in the property served.

(B) Owners of property will be held responsible for water used on their premises, although payments will be accepted from tenants. In case tenants do not pay, the service may be disconnected and shall not be restored until the delinquent water charges, including the cost of water delivered as well as the cost of reconnection services, have been paid.

(`67 Code, § 4-6-7)

§ 52.05 WHEN CITY WILL OR WILL NOT FURNISH WATER.

(A) When laterals are in place or within a reasonable distance from a particular parcel, the city will furnish water service from such line to the back of the curbline if the pipeline is located in the street or to the back of the sidewalk if a sidewalk is in place (except when there is a parkway between the curb and sidewalk) or to the property line if the pipeline is located in an easement, or alley.

(`67 Code, § 4-6-8)

(B) Water will not be furnished where there are defective or leaking faucets, closets, or other fixtures, or where there are water closets or urinals without self-closing valves, or tanks without self-acting float valves, and when such may be discovered the supply may be shut off.

(`67 Code, § 4-6-9)

§ 52.06 EQUIPMENT PROPERTY OF CITY; MAINTENANCE OF LINES.

(A) All pipelines and appurtenant facilities constructed in or under city streets, easements, or alleys shall become the property of the city upon completion of the installation, and upon final inspection and acceptance of the lines by the Director of Public Works.

(`67 Code, § 4-6-16)

(B) The city will maintain all mains, laterals, and appurtenances within the city right-of-way, on city property or easements. It shall be the responsibility of all water users to maintain the water service line from, but not including the water meter, to the outlets of the line, inclusive of city easements.

(`67 Code, § 4-6-18)

§ 52.07 EASEMENTS ON PRIVATE PROPERTY.

When a line is to be constructed across private property to serve one or more parcels of land, a utility easement shall be granted to the city and the easement line, size and installation approved by the Director of Public Works.

(`67 Code, § 4-6-17)

§ 52.08 UNAUTHORIZED TURN-ON.

No person or water user shall turn on or reconnect a water meter or water connection that has been turned off or disconnected by the city.

(`67 Code, § 4-6-20) Penalty, see § 10.99

§ 52.09 DAMAGE TO SYSTEM.

Any person, including a public utility, who damages any city water line or fire hydrant, shall immediately report the location and extent of damage to the city. The city shall thereupon repair the damage and charge the cost of such repair to the person or utility who caused the damage.

(`67 Code, § 4-6-22)

§ 52.10 TAMPERING WITH FIRE HYDRANTS.

It is unlawful for any person to operate, alter, change, remove, disconnect, connect with, or interfere in any manner with any fire hydrant owned or used by the city without first obtaining written permission from the Chief of the Fire Department or his designated officer in charge.

(`67 Code, § 4-6-29) Penalty, see § 10.99

§ 52.11 MULTIPLE USERS.

If more than one consumer is served from one service connection, the owner of the property or his agent shall be required to sign for and guarantee payment for water service thereat, and the owner shall be liable for all water served through such connection.

(`67 Code, § 4-6-23)

§ 52.12 MAINTENANCE OF FIXTURES AND BOILERS; NEW PLUMBING.

(A) The city shall not be liable for any damage to the property of the consumer or others caused by broken, damaged, or leaky fixtures upon the premises of the consumer. The city may charge for all water supplied the consumer through a meter, even though the water is wasted because of broken, damaged, leaky or open fixtures. The city shall in no case be liable for damages occasioned by water running from open fixtures in or on premises to which it has turned on the water. All consumers having an arrangement for hot water shall have a tank from which to feed the boiler. The city shall not be responsible for the safety of boilers on the premises of any consumer.

(`67 Code, § 4-6-24)

(B) When old plumbing is being repaired or remodeled, or new plumbing is being installed, the owner shall install a stopcock or valve on the pipe between the property line and the first fixture on his premises. Unless such stopcock or valve is installed, the city shall not be required to turn on the water or to install a service connection.

(`67 Code, § 4-6-25)

(C) No plumber or other person will be allowed to make any alteration to any conduit, pipe, or other fixture connecting with the city mains, or to connect pipes when they have been disconnected, or to turn water off or on at the premises without the permission from the city.

(`67 Code, § 4-6-26)

§ 52.13 STANDBY FIRE PROTECTION SERVICE.

Whenever fire protection water service on a standby basis is furnished to a customer, a charge of $2 per month per each inch of standby service shall be made and billed bi-monthly while such service is being furnished. Check valves are required and shall be tested and certified for correct operation annually at owner's expense.

(`67 Code, § 4-6-32)

§ 52.14 WELLS.

(A) No person may drill, dig, install or operate a water well within the city for any purpose without the consent of the City Council.

(`67 Code, § 4-6-34) (Ord. 83-1, passed 3-28-83)

(B) No person owning or operating an existing well within the city may furnish water for sale or gift.

(C) If a request is received to connect the city water system from an owner having a well on his property, that well shall be properly abandoned in accordance with city standards, or an approved backflow prevention device shall be installed before the connection can be made.

(`67 Code, § 4-6-35) (Ord. 83-1, passed 3-28-83) Penalty, see § 10.99

§ 52.15 NEW SUBDIVISIONS.

Any new subdivision or development which will receive water service from the city water system shall, at the subdivider's expense, install and construct the necessary main lines, laterals, meter boxes, service connections, and fire hydrants in accordance with city specifications. The subdivider or developer shall convey ownership thereof to the city and pay to the city connection fees for each lot or parcel to be served in the subdivision or development. The mains shall extend to the farthest limits of the subdivision or development as approved by the City Engineer. Water mains shall be looped unless otherwise approved by the City Engineer.

(`67 Code, § 4-6-37) (Ord. 83-1, passed 3-28-83)

§ 52.16 FALSIFYING INFORMATION.

No person shall knowingly make any false statement, representation, record, report, plan or other document filed with, or to be filed with or taken by, the city.

(`67 Code, § 4-6-44) Penalty, see § 10.99

§ 52.17 PRE-METERED WATER USAGE.

(A) Any land owner using pre-metered water as defined in § 52.01 shall be required to pay a fee equal to the minimum monthly rate for metered water as established from time to time by the City Council. The pre-metered water usage fee shall be paid at the time of the issuance of a building permit. The minimum fee collected shall be a two month billing cycle of the established minimum metered rate. The pre-metered rate shall continue until the land owner installs an approved water meter. Failure to cause the installation of a water meter may result in disconnection of water service.

(B) The City Council finds that this section is enacted in order to off-set the loss of water revenue and to establish city criteria in the regulation of pre-metered water usage.

(Ord. 2000-09, passed 12-11-00)

WATER USE REGULATIONS

§ 52.30 RESPONSIBILITY OF USERS.

It shall be the responsibility of all water users to prevent contamination of or damage to water meters or water systems by reason of their operation of the water outlets and water equipment, and if required by the city, the water users shall install, at their expense, check valves, surge tanks, backflow prevention devices, or other devices as prescribed by the Director of Public works in order to avoid damage to or contamination of the meters or systems. Check valves and back flow prevention devices must be tested when installed and annually thereafter at customer's expense.

(`67 Code, § 4-6-5)

§ 52.31 USE OF WATER BY OTHER THAN SUPPLIED PERSON.

No water user using water supplied by the city, shall supply any other person with such water or allow any other person the use of such water from the water user's water connection or permit a further connection to be made to the water user's connection on his or any other premises unless authorized by the city.

(`67 Code, § 4-6-21) Penalty, see § 10.99

§ 52.32 IRRIGATING.

No water shall be used for irrigation purposes by means of an open hose without a sprinkler, and no water shall be wasted or used except for some useful and necessary purpose.

(`67 Code, § 4-6-27)

§ 52.33 PROHIBITED ACTS.

(A) No person shall make connection with the system without first obtaining a permit from the city.

(B) No unauthorized person shall turn on or off or otherwise interfere with any water line or appurtenant facility.

(C) No person shall waste water.

(D) No person shall install or maintain any pipe, faucet, hose bib, fixture or appliance connected to the water system in such condition or state of disrepair that water may be or is lost or wasted.

(E) No person shall supply city water to anyone without city authorization. The city shall have the right, upon five days' written notice to cease, to disconnect the water service for the person supplying the water.

(F) No person shall construct a bypass around any meter or service.

(`67 Code, § 4-6-36) (Ord. 83-1, passed 3-28-83) Penalty, see § 10.99

§ 52.34 RESTRICTED WATER USE DURING PEAK PERIODS.

In addition to all other provisions and requirements of this chapter, the following additional rules and regulations for the use of water are hereby established. These provisions shall apply to all persons using water in the city regardless of whether any person using water shall have a contract for water service with the city. Failure to comply with any provision, requirement, rules or regulation under this chapter shall be unlawful and punishable as an infraction.

(A) Washing cars, without the use of a quick-acting positive shut-off nozzle on the hose. Furthermore, there shall be no washing of building exteriors, mobile home exteriors, recreational vehicle exteriors, sidewalks, patios, driveways, gutters or other exterior surfaces, unless permitted by the Public Works Director and done with the use of a quick-acting positive shut-off nozzle on the hose.

(B) Outdoor water use in violation of the following schedule:

(1) No outdoor water use will be allowed between 12:00 p.m. and 7:00 p.m.

(2) Dwellings or establishments with odd-numbered street addresses shall water only on Mondays, Wednesdays and Fridays subject to the time restrictions set forth above.

(3) Dwellings or establishments with even-numbered street addresses shall water only on Tuesdays, Thursdays and Saturdays subject to the time restrictions set forth above.

(4) Anyone may water on Sundays subject to the time restrictions set forth above.

(C) Violations. All fines are payable with the next water bill.

(1) First violation - Warning.

(2) Second violation - $20 fine.

(3) Third violation - $50 fine.

(4) Fourth violation - $100 fine.

(5) Fifth violation and each violation thereafter - $200 fine.

(`67 Code, § 4-6-48) (Ord. 91-03, passed 3-11-91)

§ 52.35 BACKFLOW AND CROSS-CONNECTION CONTROL.

(A) *Public water supply protection required.* In accordance with the requirements of 17 Cal. Code of Regs. §§ 7583 through 7622 and Cal. Health & Safety Code §§ 116800 *et seq.*, no water service connection to any premises shall be installed or maintained by the city unless the public water supply is protected as required by state regulations and the requirements stated below. This section supplements and does not supersede local plumbing regulations, codes or ordinances or state Department of Public Health Regulations relating to water supply.

(B) *Where protection is required*. In general, backflow prevention devices shall be installed on the service connection to any premises having:

(1) Any service connection having an auxiliary water supply, or internal systems containing water of deteriorating quality.

(2) Any service connection to any sewage treatment plant, sewage pumping station, or any premises which handle or transport sewage;

(3) Any service connection where any substance is handled under pressure in such fashion as to permit entry into the water system;

(4) Any service connection where material dangerous to health or toxic substance that might possibly be introduced into the water system;

(5) Any premises which is served by more than one meter connection.

(6) Any service where lawn or garden sprinkling systems are present shall have a backflow prevention device installed on the lawn or garden sprinkler supply line.

(7) The type of protection required for each type of premises shall be as stipulated in the city standards.

(C) *Private wells prohibited.* No person may drill, dig, install or operate a water well within the city for any purpose without the consent of the city.

(D) *Existing wells.* No person owning or operating an existing well within the city may furnish water for sale or gift to any other premises. If request is received to connect to the city water system, from an owner having a well on his property, that well shall be properly abandoned in accordance with state and city standards, or an approved reduced pressure principle backflow prevention device shall be installed before the connection can be made.

(E) *Responsibility for installation, inspection and maintenance.* Backflow prevention devices required herein shall be installed in accordance with city standards at the expense of the customer.

(1) All backflow preventers shall be inspected, tested, and maintained by a certified backflow prevention device tester, on a regular basis and a report of such activity shall be submitted to the city on forms provided by the city.

(2) In general, the backflow prevention device shall be inspected and tested at time of installation and thereafter according to the following schedule:

Type of Device	***Frequency of Test***
Air Gap	Annually
Reduced Pressure Principle	Annually
Double Check Valve	Annually

(3) All inspections, testing, maintenance and reporting shall be done at the expense of the customer.

(F) *Discontinuance of service.* The city may shut off service to any premises and may physically disconnect the customer's piping from the city's water distribution system if a backflow prevention device required by this section is not installed, tested, and maintained as required, or if any defect is found in an installed backflow prevention device, or if it is found that a backflow prevention device has been removed or bypassed, or if unprotected cross-connection exist on the premises; and service will not be restored until such conditions or defects are corrected.

(`67 Code, § 4-6-47) (Ord. 85-03, passed 6-24-85)

METERS

§ 52.45 USE OF METERS REQUIRED.

The quantity of water furnished by the city to all water users shall be determined and ascertained by a meter.

(`67 Code, § 4-6-10)

§ 52.46 INSTALLATION OF METERS.

All water meters shall be installed adjacent to and on the property owner's side of the curbline if installed along a street, and on the property line if installed in an alley.

(`67 Code, § 4-6-11)

§ 52.47 DAMAGING OR INTERFERING WITH METERS.

(A) Water meters and meter boxes are the property of the city and it shall be unlawful to damage or interfere with them or to place dirt, trash, or other obstructions on or over the meter boxes.

(`67 Code, § 4-6-12)

(B) If a meter or appurtenances are damaged by the carelessness or negligence of the owner or occupant of the premises, the Public Works Department will repair the meter and the cost of such repairs shall be charged against the owner of the property, and if not paid within 30 days, shall become a lien against said property.

(`67 Code, § 4-6-15)

§ 52.48 METER FAILURES; TESTING.

(A) In the event any meter fails to operate properly or to correctly register the water used, the charge for the period during which the meter fails to operate properly or fails to register water, shall be based upon the average daily consumption for the same period of the prior year by the same user. If such a reading is not available, the city shall estimate the amount of such consumption from all information available and the consumer shall be charged on the basis of such estimate for water consumed.

(`67 Code, § 4-6-13)

(B) When any water consumer makes a complaint that the bill for any particular period is excessive, the Public Works Department will, upon request, have such meter re-read and the service inspected for leaks. Should such consumer then desire that the meter be tested, he will be required to make a deposit of $10 to cover the cost of making such test. The meter will then be changed or tested. Should the meter be found to register over 3% more water than actually passes

through it, another meter will be substituted therefor, and the fee of $10 shall be refunded to the person making the request. If the meter is found to register not over 3% the $10 deposit shall be forfeited to the city and the water bill paid as rendered.

(`67 Code, § 4-6-14)

§ 52.49 CHANGE OF METER LOCATION OR METER SIZE.

Any person desiring to change the location or size of a service that has already been installed shall make an application to the city, and, upon payment in advance of the cost as determined by the city, the city may cause said change to be made. No such change will be made unless such change is determined to be feasible and can be done at a reasonable cost.

(`67 Code, § 4-6-19)

RATES AND CHARGES

§ 52.60 WATER FUND.

(A) The Director of Finance shall collect all monies that shall become due to the city for water services, connection fees, payments for extensions, and all other costs, charges, penalties, and fees as provided herein and shall pay them into the city treasury and account for them in the same manner as the Director of Finance pays into the city treasury and accounts for all other sums received in his official capacity.

(B) All monies so collected shall be placed in a special fund to be known as the Water Fund and such money shall thereafter be expended for the administration, engineering, operation, maintenance and expansion, including the purchase of land and/or easements, of the city water system.

(`67 Code, § 4-6-4)

§ 52.61 FEES AND CHARGES ESTABLISHED BY ORDINANCE.

The amounts of all charges provided for herein, including but not limited to, water rates, connection fees, deposits, turn-on charges, penalties, and reconnection fees, shall be established from time to time by ordinance of the City Council. The failure to pay any fee or charge established by ordinance adopted pursuant to this chapter shall constitute a violation of this code and shall be subject to fines and penalties set forth in the city code.

(`67 Code, § 4-6-38)

(A) *Water service charges.* The bimonthly rates for water service are as follows:

(1) The minimum bimonthly charge to all water users, by water meter size for up to 1,000 cubic feet of water, is established as follows:

	October 1, 2015	July 1, 2016	July 1, 2017	July 1, 2018	July 1, 2019
1.5" & below	$39.54	$45.46	$49.10	$51.56	$54.14
2"	$63.26	$72.74	$78.58	$82.48	$86.62
3"	$126.54	$145.48	$157.14	$164.98	$173.24
4" & above	$197.70	$227.30	$245.54	$257.78	$270.68

(2) Quantity rates for all water users exceeding the 1,000 cubic foot minimum charge for the particular meter size shall be:

	October 1, 2015	July 1, 2016	July 1, 2017	July 1, 2018	July 1, 2019
Base	$0.46	$0.53	$0.57	$0.60	$0.63
Drought Surcharge *	- -	$0.07*	$0.16*	$0.28*	$0.30*
Total Variable Charge*	$0.46	$0.60	$0.73	$0.88	$0.92

All rates expressed in the table are on a per 100 cubic feet basis

* Drought surcharges will be applied only during billing periods in which conservation mandates are in effect due to ongoing drought conditions, as required by the state or under the city's Urban Water Management Plan.

(B) *Connection fees.* Connection fees for water service for properties in the city shall be as follows:

(1) Connection fees in subdivisions shall be determined at the time of recording the final map.

(2) Connection fees for parcels not in subdivisions (infill) shall be as follows:

	Rate
Residential - with no existing stubout	$1,700.00
Residential - with existing stubout	$800.00
Commercial/Industrial - with no existing stubout	$1,700.00
Commercial/Industrial - with existing stubout	$800.00

(C) *Inspection fee.* A $75 water meter inspection fee will be required per inspection.

(D) *Well destruction permit.* Any property owner seeking to abandon their well must first obtain a well destruction permit from the City of Riverbank Public Works Department. The fee for the permit shall be $75.

(Ord. 83-1, passed 3-28-83; Am. Ord. 2005-005, passed 4-25-05; Am. Ord. 2005-008, passed 5-9-05; Am. Ord. 2005-012, passed 7-11-05; Am. Ord. 2006-010, passed 7-10-06; Am. Ord. 2007-003, passed 7-9-07; Am. Ord. 2008-007, passed 7-14-08; Am. Ord. 2010-001, passed 6-28-10; Am. Ord. 2015-015, passed 10-13-15)

§ 52.62 WHEN CHARGES DUE.

All water charges, fees and deposits shall be paid at the time service is requested. No building, plumbing or electrical permit shall be issued until said water charges, fees and deposits are paid.

(`67 Code, § 4-6-39) (Ord. 83-1, passed 3-28-83)

§ 52.63 WATER CHARGES AS A LIEN.

Each charge levied by or pursuant to this chapter or any resolution adopted pursuant to this chapter, is hereby made a lien upon the property which received the benefit of the service or facility for which the charge was made, and any steps authorized by law may be taken by the city to enforce payment of such lien.

(`67 Code, § 4-6-40) (Ord. 83-1, passed 3-28-83)

§ 52.64 PAYMENT OF BILLS.

(A) Water bills shall be rendered on a bimonthly basis and are due and payable on the first day of the month following the billing period, and shall be delinquent on the last day of the month if not paid by that date.

(B) Any bill which is not paid on or before the delinquent date shall be subject to a 10% penalty. If the bill is not paid within ten days after it becomes delinquent, the water service may be discontinued and an additional charge for the subsequent turn-on shall be paid by the consumer.

(C) When a service is discontinued due to nonpayment of bills, service shall not be resumed until all charges and penalties are paid pursuant to the procedures set forth in § 52.66 herein. All charges and penalties which are not paid shall become a lien on the property. Termination of service shall not be effective to a residential dwelling for nonpayment while an investigation of a customer dispute or complaint is pending or in progress by the city. Termination of water service shall not be effected on any Saturday, Sunday, legal holiday, or at any time during which the business offices of the city are not open to the public.

(`67 Code, § 4-6-41) (Ord. 83-1, passed 3-28-83; Am. Ord. 93-06, passed 11-22-93; Am. Ord. 2005-012, passed 7-11-05)

§ 52.65 DEPOSITS.

(A) A deposit of $60 will be required for all new consumers as a guarantee for the payment of future bills.

(B) If a consumer who has made a cash deposit fails to pay a bill for metered service, the Water Department may apply the deposit insofar as necessary to liquidate the bill and may require that the deposit be restored to its original amount before the next bill is due.

(C) After a cash deposit to guarantee payment for metered or measured service has stood unimpaired for 12 months, such deposit shall be applied to the depositor's current account balance. Upon closing any account, the balance of any deposit remaining, after the closing bill for service has been paid, shall be returned promptly to the depositor.

(`67 Code, § 4-6-42) (Ord. 83-1, passed 3-28-83; Am. Ord. 2000-04, passed 4-10-00; Am. Ord. 2005-005, passed 4-25-05)

§ 52.66 DISCONNECTION FOR LATE PAYMENT.

(A) It is the policy of the city to discontinue utility service to customers by reason of nonpayment of bills only after notice and a meaningful opportunity to be heard on disputed bills. The city's form for application for utility service and all bills shall contain, in addition to the title, address, room number, and telephone number of the official in charge of billing, clearly visible and easily readable provisions to the effect:

(1) That all bills are due and payable on or before the date set forth on the bill; and

(2) That if any bill is not paid by or before that date, a second bill will be mailed containing a cutoff notice that if the bill is not paid within ten days of the mailing of the second bill, service will be discontinued for nonpayment; and

(3) That any customer disputing the correctness of his bill shall have a right to a hearing at which time he may be represented in person and by counsel or any other person of his choosing and may present orally or in writing his complaint and contentions to the city official in charge of utility billing. This official shall be authorized to order that the customer's service not be discontinued and shall have the authority to make a final determination of the customer's complaint.

(B) Requests for delays or waiver of payment will not be entertained; only questions of proper and correct billing will be considered. In the absence of payment of the bill rendered or resort to the hearing procedure provided herein, service will be discontinued at the time specified, but in no event until the charges have been due and unpaid for at least 30 days.

(C) When it becomes necessary for the city to discontinue utility service to a customer for nonpayment of bills, service will be reinstated only after all bills for service then due have been paid, along with a turn-on charge, the amount of which shall be set by ordinance of the City Council.

ADMINISTRATION

§ 52.75 MANAGEMENT OF SYSTEM.

The management, control and care of the city water system shall be vested in the City Manager under the direction of the City Council.

(`67 Code, § 4-6-3)

§ 52.76 ACCESS TO BE PROVIDED TO CITY.

Access to service connections, turn-off valves and meters must be provided for the city at all times.

(`67 Code, § 4-6-28)

§ 52.77 RIGHT OF ENTRY.

Any authorized agent of the city shall have the right at all times during reasonable hours to enter any premises being supplied with water for the purpose of examining the condition of water pipes, water closets, and other plumbing, and in case a leak is found, to shut off the water until the leak is repaired by the consumer.

(`67 Code, § 4-6-30)

§ 52.78 RIGHT TO SHUT OFF WATER MAINS.

The city shall have the right at any time to shut off, ration, or apportion water by reason of an emergency, shortage or water supply, or for making repairs, modifications, changes or other work in city water service facilities.

(`67 Code, § 4-6-31)

§ 52.79 TERMINATION OF SERVICE.

Whenever the Water Department receives a written request from any property owner to terminate or discontinue water service to any property for the reason that the property is unoccupied and does not require such service, the Water Department shall terminate water and sewer services as of the date such notice is received, and shall make no further charges for water or sewer services until the owner requests resumption of service. Until such request is received, all such charges as provided shall be due and payable.

(`67 Code, § 4-6-33)

§ 52.80 CORRECTION OF VIOLATION.

In order to enforce the provisions of this chapter, the city may correct any violation of this chapter. The cost of such correction, including attorney's fees, may be added to any water service charge payable by the person occupying the property upon which the violation occurred, and the city shall have such remedies for the collection of such costs as it has for the collection of water service charges.

(`67 Code, § 4-6-43)

§ 52.81 VIOLATION AN INFRACTION.

Any person violating the provisions of this chapter is guilty of an infraction.

(`67 Code, § 4-6-46) (Ord. 83-1, passed 3-28-83)

CITY OF RIVERBANK

RESOLUTION NO. 2016-026

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RIVERBANK, CALIFORNIA, ESTABLISHING THE CITY'S OUTDOOR WATER USE POLICY

WHEREAS, on January 17, 2014, Governor Brown issued a Proclamation declaring a State of Emergency due to severe drought conditions calling for the reduction of water use by 20%, which was extended on April 25, 2014; and

WHEREAS, Governor Brown, issued Executive Order B-29-15, mandating that the State Water Resources Control Board ("Water Board") impose restrictions to achieve a statewide 25% reduction in potable urban water use through February 28, 2016; and

WHEREAS, the Water Board adopted regulations on May 5, 2015, requiring local urban water suppliers such as the City of Riverbank ("City") to achieve conservation standards based on conservation tiers, which required the City to reduce water use by 32% as compared to the same month's water production in the year 2013; and

WHEREAS, due to the inability of the City to meet the required 32% water use reduction, the Water Board issued a Notice of Violation and Information Order to the City on August 7, 2015, in order to determine what actions the City had taken to comply with the mandated water conservation standard, and on October 21, 2015, City staff met with the Water Board to further discuss the City's water conservation program and areas of potential water use savings; and

WHEREAS, the City made strong modifications to its policy on outdoor water use in accordance with the City's adopted Urban Water Management Plan to meet the 32% conservation standard by adoption of Resolution No. 2015-096 in November 24, 2015, implementing landscape watering restrictions for the winter period of December 1, 2015 to May 1, 2016; and

WHEREAS, on December 17, 2015, the Water Board's Office of Enforcement issued a Conservation Order directing the City of Riverbank to immediately take further action to meet the mandated water conservation target of 32% or be subject to a civil liability of up to $500 per day for each day the violation continued; and

WHEREAS, the City Council adopted Ordinance No. 2016-004 amending Sections of the Riverbank Municipal Code, Chapter 53, to further implement water use restrictions and regulations, and to have the ability to change outdoor water use policy as swiftly as conditions change by the adoption of a City Council resolution; and

WHEREAS, the analysis of the current outdoor water use policy and processes, in conjunction with the changing weather conditions, has led the City to refine its water restrictions and regulations by introducing a new Outdoor Water Use Policy; and

WHEREAS, due to the current winter water use schedule ending May 1, 2016, the newly adopted Outdoor Water Use Policy would begin the summer schedule on May 1, 2016, for this year only, and thereafter begin on April 1 of each year.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Riverbank, does hereby declare, authorize, and order the implementation of the following Outdoor Water Use Policy:

1. Landscape Irrigation Schedule

(A) ***SUMMER SCHEDULE:*** Is the period from April 1st through October 31st.

(B) ***Summer Restrictions (Limited to watering two (2) days per week):***

(1) No landscape irrigating between **10:00 a.m. and 7:00 p.m.**

(2) ***Odd-numbered addresses:*** Irrigation is allowed only on Wednesdays and Sundays before 10:00 a.m. and after 7:00 p.m.

(3) ***Even-numbered addresses:*** Irrigation is allowed only on Tuesdays and Saturdays before 10:00 a.m. and after 7:00 p.m.

(4) Landscape irrigation is prohibited at all times on Mondays, Thursdays, and Fridays.

(5) Landscape irrigation is prohibited within (48) hours after a measurable rainfall event ends, regardless of the permitted aforementioned summer watering schedule.

(6) Drip or micro-spray irrigation systems are exempt from the restrictions.

(C) ***WINTER SCHEDULE:*** Is the period from November 1st through March 31st.

(D) ***Winter Restrictions (Limited to watering one (1) day per week):***

(1) No landscape irrigating between **10:00 a.m. and 4:00 p.m.**

(2) ***Odd-numbered addresses:*** Irrigation is allowed only on Sundays before 10:00 a.m. and after 4:00 p.m.

(3) ***Even-numbered addresses:*** Irrigation is allowed only on Saturdays before 10:00 a.m. and after 4:00 p.m.

(4) Landscape irrigation is prohibited at all times Monday through Friday.

(5) Landscape irrigation is prohibited within (48) hours after a measurable rainfall event ends, regardless of the permitted aforementioned winter watering schedule.

(6) Drip or micro-spray irrigation systems are exempt from the restrictions.

(A) ***No Excessive Water Flow or Runoff.*** Watering or irrigating any lawn, landscape or other vegetated area in a manner that causes or allows excessive water flow or runoff onto an adjoining street, alley, gutter or ditch is prohibited.

(B) ***Obligation to Fix Leaks, Breaks or Malfunctions.*** Excessive use, loss or escape of water through breaks, leaks or other malfunctions is prohibited and should be immediately corrected to stop the waste of water.

2. Other Outdoor Water Use

(A) ***Vehicle Washing.*** The washing of commercial and noncommercial privately owned automobiles, trucks, trailers, motor homes, boats, buses, and other types of vehicles is restricted to the use of a hand-held bucket and quick rinses using a hose with a quick-acting positive shut-off nozzle.

(1) Vehicle washing is limited to one (1) washing per car, per week.

(B) ***Washing Exterior Surfaces.*** There shall be no washing of building exteriors, mobile home exteriors, sidewalks, patios, driveways, gutters or other exterior surfaces, unless it is done for health and safety reasons (e.g., to wash animal waste, mold, etc.) and done with the use of a quick-acting positive shut-off nozzle on the hose.

3. Temporary Waiver

The City may grant or conditionally grant a temporary waiver of the restrictions for existing potable water use otherwise prohibited under the policy, if it is determined that failure to grant such a waiver would cause an emergency condition adversely affecting the health, sanitation, and fire protection of the public or person requesting the waiver.

A temporary waiver may also be granted for one time outdoor activities that require the use of water, such as power washing to prepare for painting, the establishment of new landscape, new concrete work, etc.

(A) Persons requesting a waiver from the provisions of the outdoor water use policy requirements shall file a temporary waiver application with the Public Works Superintendent or his/her designee.

(1) *Application.* The application form to file for a temporary waiver shall be provided by the City of Riverbank, and must be submitted to the Public Works Superintendent, or his/her designee.

(2) *Supporting Documentation.* The application may be accompanied by photographs, maps, drawings, or other relevant information.

(B) Waivers granted by the City shall be for a short period of time and shall expire at the end of the period granted by the Public Works Superintendent or his/her designee. New applications for waivers must be filed for each reoccurrence.

(C) No waiver shall be retroactive or otherwise apply to any previous violation and/or subsequent penalties of this policy that occurred prior to the issuance of the waiver.

(D) *Approval Authority.* The Public Works Superintendent or his/her designee shall act upon any completed application for a temporary waiver no later than seven (7) business days after submittal. The request for a waiver may be approved, conditionally approved, or denied. The applicant shall be promptly notified in writing of any action taken. The decision made by the Public Works Superintendent or his/her designee shall be final.

4. <u>Hardship Exemption</u>

An exemption of the water use policy may be granted or conditionally granted by the City Manager or his/her designee due to extreme extenuating circumstances that would result in undue hardship to a person using water or to a property upon which water is used.

(A) Persons requesting an exemption from the provisions of the outdoor water use policy restrictions shall file an application for exemption with the Public Works Superintendent or his/her designee.

(1) *Application.* The application form to file for an exemption shall be provided by the City of Riverbank, and must be submitted to the Public Works Superintendent, or his/her designee.

(2) *Supporting Documentation.* The application must be accompanied by photographs, maps, drawings, or other relevant information, including a written statement by the applicant indicating reasons why an exemption is sought.

(3) *Required Finding.* An application for an exemption shall be denied unless the City Manager, or his/her designee, finds, based on the information provided in the application and supporting documents, all of the following:

(a) That due to extreme extenuating circumstances a specific requirement would result in undue hardship;
(b) That the exemption does not constitute a grant of special privilege inconsistent with the limitations upon other residents and businesses;

(c) That because of the special circumstances applicable to the property or its use, the strict application of this policy would have a disproportionate impact on the property or use that exceeds the impacts to residents and businesses generally;

(d) That the authorization of such exemption will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the City of Riverbank to execute the purpose of this policy, and will not be detrimental to the public interest; and

(e) That the condition or situation of the subject property or the intended use of the property for which the exemption is sought is not common, recurrent or general in nature.

(B) A granted or conditional granted exemption provides relief from the regulations for up to one year to the person and related property indicated on the application, which is subject for review at any time by the City. The exemption shall expire at the end of one year. The application process must be completed to request continued exemption relief.

(C) *Approval Authority.* The City Manager or his/her designee shall act upon any completed application for exemption no later than ten (10) business days after submittal. The request for exemption may be approved, conditionally approved, or denied. The applicant shall be promptly notified in writing of any action taken. The decision made by the City Manager or his/her designee shall be final.

5. Penalties

(A) Penalties for noncompliance with the outdoor water use policy as set by City Council resolution in accordance with the Riverbank Municipal Code Sections of Chapter 52, under Title V, are established as follows:

(1) The fine for the first (1st) violation is thirty-five dollars ($35).

(2) The fine for the second (2nd) violation is two hundred dollars ($200).

(3) The fine for the third (3rd) violation is three hundred dollars ($300).

(4) The fine for the fourth (4th) violation is four hundred dollars ($400).

(5) The fine for the fifth (5th) violation and each subsequent violation thereafter is five hundred dollars ($500).

(B) Pursuant to Riverbank Municipal Code, Section 52.34 (E)(2), an administrative citation may be reduced to a formal written warning and the related citation fines waived, or the citation may be entirely cancelled after review of the findings by the Public Works Superintendent or his/her designee.

(C) *Payment of Fines.* Fines shall be placed on the customer's water bill and paid in accordance with Section 52.64 of the Riverbank Municipal Code.

6. Administrative Appeal

(A) *Citation Appeal Hearing.* Appeal hearings shall be conducted in accordance with the Water, Chapter 52, Section 52.34(G), under Title V of the Riverbank Municipal Code.

(1) A citation appeal request form must be filed with the City Clerk within fifteen (15) days from the date the citation was issued, along with an administrative processing fee of $25, which may be refundable.

AND, THEREFORE, BE IT FURTHER RESOLVED that the City Council of the City of Riverbank hereby rescinds Resolution No. 2015-096, effective May 1, 2016, and approves the implementation of the aforementioned Outdoor Water Use Policy in accordance with Riverbank's Urban Water Management Plan and Riverbank Municipal Code, Ordinance No. 2016-004.

PASSED AND ADOPTED by the City Council of the City of Riverbank at a regular meeting held on the 26th day of April, 2016; motioned by Councilmember Leanne Jones Cruz, seconded by Councilmember Darlene Barber-Martinez, and upon roll call was carried by the following City Council vote of 4-0:

AYES: **Barber-Martinez, Campbell, Jones Cruz, and Vice Mayor Tucker**
NAYS: **None**
ABSENT: **Mayor O'Brien**
ABSTAINED: **None**

ATTEST:

Annabelle H. Aguilar, CMC
City Clerk

APPROVED:

Jeanine Tucker
Vice Mayor

Appendix E:

SB X7-7 Tables

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SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries	5,044	Acre Feet
	2008 total volume of delivered recycled water	-	Acre Feet
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	1996	
	Year ending baseline period range[3]	2005	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2003	
	Year ending baseline period range[4]	2007	

[1]If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period. [2] The Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.

[3]The ending year must be between December 31, 2004 and December 31, 2010.

[4]The ending year must be between December 31, 2007 and December 31, 2010.

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☑	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☐	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	1996	14,033
Year 2	1997	14,635
Year 3	1998	15,143
Year 4	1999	15,470
Year 5	2000	15,726
Year 6	2001	16,193
Year 7	2002	17,107
Year 8	2003	17,388
Year 9	2004	18,386
Year 10	2005	20,077
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2003	17,388
Year 2	2004	18,386
Year 3	2005	20,077
Year 4	2006	21,271
Year 5	2007	21,575
2015 Compliance Year Population		
2015		23,572

SB X7-7 Table 4: Annual Gross Water Use *								
Baseline Year *Fm SB X7-7 Table 3*		**Volume Into Distribution System** *This column will remain blank until SB X7-7 Table 4-A is completed.*	**Deductions**					**Annual Gross Water Use**
			Exported Water	**Change in Dist. System Storage (+/-)**	**Indirect Recycled Water** *This column will remain blank until SB X7-7 Table 4-B is completed.*	**Water Delivered for Agricultural Use**	**Process Water** *This column will remain blank until SB X7-7 Table 4-D is completed.*	
10 to 15 Year Baseline - Gross Water Use								
Year 1	1996	3,582			-		-	3,582
Year 2	1997	3,485			-		-	3,485
Year 3	1998	2,976			-		-	2,976
Year 4	1999	3,291			-		-	3,291
Year 5	2000	3,299			-		-	3,299
Year 6	2001	3,383			-		-	3,383
Year 7	2002	3,778			-		-	3,778
Year 8	2003	3,842			-		-	3,842
Year 9	2004	4,168			-		-	4,168
Year 10	2005	4,664			-		-	4,664
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								**3,647**
5 Year Baseline - Gross Water Use								
Year 1	2003	3,842			-		-	3,842
Year 2	2004	4,168			-		-	4,168
Year 3	2005	4,664			-		-	4,664
Year 4	2006	6,350			-		-	6,350
Year 5	2007	5,187			-		-	5,187
5 year baseline average gross water use								**4,842**
2015 Compliance Year - Gross Water Use								
2015		3,878	-		-		-	**3,878**

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source	Groundwater
This water source is:	
☐	The supplier's own water source
☐	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment * *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1996	3,582		3,582
Year 2	1997	3,485		3,485
Year 3	1998	2,976		2,976
Year 4	1999	3,291		3,291
Year 5	2000	3,299		3,299
Year 6	2001	3,383		3,383
Year 7	2002	3,778		3,778
Year 8	2003	3,842		3,842
Year 9	2004	4,168		4,168
Year 10	2005	4,664		4,664
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
5 Year Baseline - Water into Distribution System				
Year 1	2003	3,842		3,842
Year 2	2004	4,168		4,168
Year 3	2005	4,664		4,664
Year 4	2006	6,350		6,350
Year 5	2007	5,187		5,187
2015 Compliance Year - Water into Distribution System				
2015		3,878		3,878

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1996	14,033	3,582	228
Year 2	1997	14,635	3,485	213
Year 3	1998	15,143	2,976	175
Year 4	1999	15,470	3,291	190
Year 5	2000	15,726	3,299	187
Year 6	2001	16,193	3,383	187
Year 7	2002	17,107	3,778	197
Year 8	2003	17,388	3,842	197
Year 9	2004	18,386	4,168	202
Year 10	2005	20,077	4,664	207
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**198**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2003	17,388	3,842	197
Year 2	2004	18,386	4,168	202
Year 3	2005	20,077	4,664	207
Year 4	2006	21,271	6,350	267
Year 5	2007	21,575	5,187	215
5 Year Average Baseline GPCD				**218**
2015 Compliance Year GPCD				
2015		23,572	3,878	**147**

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	198
5 Year Baseline GPCD	218
2015 Compliance Year GPCD	147

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		Supporting Documentation
	Method 1	SB X7-7 Table 7A
	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
	Method 3	SB X7-7 Table 7-E
	Method 4	Method 4 Calculator

SB X7-7 Table 7-E: Target Method 3				
Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
		North Coast	137	130
		North Lahontan	173	164
		Sacramento River	176	167
		San Francisco Bay	131	124
	100%	San Joaquin River	174	165
		Central Coast	123	117
		Tulare Lake	188	179
		South Lahontan	170	162
		South Coast	149	142
		Colorado River	211	200
Target *(If more than one region is selected, this value is calculated.)*				**165**

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target[1]	Calculated 2020 Target[2]	**Confirmed 2020 Target**
218	207	165	**165**

[1] Maximum 2020 Target is 95% of the 5 Year Baseline GPCD except for suppliers at or below 100 GPCD.

[2] 2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	**2015 Interim Target GPCD**
165	198	**182**

SB X7-7 Table 9: 2015 Compliance								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)* Enter "0" if Adjustment Not Used			TOTAL Adjustments	Adjusted 2015 GPCD	2015 GPCD *(Adjusted if applicable)*	**Did Supplier Achieve Targeted Reduction for 2015?**
		Extraordinary Events	Weather Normalization	Economic Adjustment				
147	182	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	-	147	147	**YES**

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Appendix F:

City of Riverbank Well Data

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City of Riverbank Well Construction Data

Well No.	8th St (Well No. 2)		Jackson (Well No. 3)		Pioneer (Well No. 4)		River Hghts (Well No. 5)		Whorton (Well No. 6)		Crossroads (Well No. 7)		Novi (Well No. 8)		Prospector (Well No. 9)		Oakdale Rd (Well No. 10)		Chief Tucker Ave (Well No. 12)	
Date Constructed	1956		1965		1972		1978		1981		1990		2001		2004		2007		2010	
Boring Depth	375		420		436		503		608		537		265		600		845		560	
Completed Depth	240		420		436		385		560		NA		260		392		830		602	
	From	**To**	**From**	**To**	**From**	**To**	**From**	**To**	**From**	**To**	**From**	**To**	**From**	**To**	**From**	**To**	**From**	**To**	**From**	**To**
Well Seal	0	25	NA		0	92	0	50	0	65	0	216	0	200	0	148	0	145	0	180
Gravel pack		None		None	0	92	0	220	0	560		None	200	265	148	392	145	360	180	350
					92	436											520	845		
Open hole		135		0		None		165		None		None		None		None		None		None
Approx. Sand and Gravel thickness in open hole		NA		0		0		15		0		0		0		0				0
Well Screen		NA		NA	132	160	130	220	225	315	209	341	210	250	152	174	164	184	239	259
					175	250		225	315	345					293	307	210	230	299	319
					275	431			345	495					382	392	255	265	339	389
									495	555							300	330	409	419
																	595	605	489	499
																	740	760	529	549
																	810	820		
Total screen length		NA		NA		259		315		270		132		40		46		120		130
Approx. gravel and sand thickness @ screened intervals (feet)		NA		NA		201		31		76		66		40		56				315
Well Capacity (GPM)		660		625		900		900		1000		1200		1200		1300		1500		1500
Depth to bowls		unk		unk		145		unk		unk		150		178		130				130
Well Specific Capacity Range (GPM/ft drawdown)	45	47	24	35		74	56	81		122		75		unk		50				43

City of Riverbank Well Construction Data (cont.)

Well No.	8th St (Well No. 2)		Jackson (Well No. 3)		Pioneer (Well No. 4)		River Hghts (Well No. 5)		Whorton (Well No. 6)		Crossroads (Well No. 7)		Novi (Well No. 8)		Prospector (Well No. 9)		Oakdale Rd (Well No. 10)		Chief Tucker Ave (Well No. 12)	
Minimum Specific Capacity (GPM/ft Drawdown)		45		24		74		56		122		75		24		50				43
Historic Max Static DTW (Date/DTW)	1956	70	1994	64	1996	63	1978/ 2005	74	1994	68	1994	66	2005	66	2004	63		unk	2009	85
Historic Min Static DTW (Date/DTW)	1968	52	1972	50	1998	60	1995	61	1981/ 2005	57	1998	57.6	2006	66	2006	61		unk		unk
Estimated Drawdown (feet) at Max Production = (Capacity / Minimum Specific Capacity)		15		26		12		16		8		16		50		26				35
Estimated Pumping Level (feet bgs) at Max Production and Max Static DTW		85		90		75		90		76		82		116		89				120
Height of Max pumping level above pump bowls or the top of well screen (for wells without reported pump depth).		-60		35		57		40		149		68		62		41				10

Source: Dunn Environmental, 2007 and 2009; and Nolte Associates, Inc., 2008. NA = Not available. Unk = unknown.

City of Riverbank Historical Groundwater Pumping by Month (ac-ft/month)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Totals, ac-ft/yr
1980	60	61	68	91	119	146	165	158	136	118	78	55	1,254
1984	67	66	88	131	178	215	222	219	193	99	66	67	1,611
1985	68	71	77	120	181	215	218	199	150	110	61	58	1,528
1986	64	61	71	107	178	230	242	212	160	86	86	71	1,568
1988	60	78	141	100	159	210	201	219	183	152	83	64	1,650
1989	70	70	96	130	198	219	215	220	98	120	95	70	1,601
1991	132	104	92	160	218	242	298	264	258	218	138	138	2,262
1992	126	126	126	196	282	285	298	328	295	255	169	117	2,602
1993	114	135	160	187	255	261	322	316	307	224	172	138	2,590
1995	124	133	153	161	247	350	375	382	334	287	194	149	2,889
1996	166	197	230	232	319	385	434	507	502	290	184	137	3,582
1997	122	129	241	299	378	393	442	415	380	318	210	158	3,485
1998	156	146	192	217	250	350	443	385	300	212	126	199	2,976
1999	156	146	170	234	353	432	488	460	377	344	249	208	3,618
2002	179	162	190	320	386	443	546	449	392	325	195	191	3,777
2003	164	157	227	236	357	463	572	437	468	372	188	201	3,842
2004	182	172	269	335	494	504	551	506	396	324	232	199	4,166
2005	206	177	214	289	461	510	643	718	483	419	312	232	4,664
2006	228	223	231	220	528	626	716	663	516	395	302	240	4,890
2007	240	215	311	438	536	618	720	640	479	382	349	270	5,187
2008	217	230	331	460	491	589	635	611	525	429	308	209	5,044

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Totals, ac-ft/yr
2009	198	201	264	303	541	560	681	529	537	370	344	212	4,740
2010	229	191	298	312	385	362	481	556	563	549	258	167	4,351
2011	234	226	244	324	525	484	523	611	466	30	285	268	4,220
2012	241	254	257	291	453	425	650	561	419	381	191	207	4,220
2013	113	211	314	398	381	517	542	371	490	376	231	150	4,094
2014	184	153	218	116	448	531	449	524	468	468	266	209	4,035
2015	204	192	284	259	366	442	480	473	382	353	238	206	3,878

City of Riverbank Historical Production Data by Well (ac-ft/year)

Years	8th Street (Well 2)	Jackson (Well 3)	Pioneer (Well 4)	River Heights (Well 5)	Whorton (Well 6)	Crossroads (Well 7)	Novi (Well 8)	Prospector (Well 9)	Heartland (Well 10)	Chief Tucker (Well 12)	Totals, AFY	Ave. GPM
2002	444	50	508	171	1,393	305	906	-			3,777	2,341
2003	230	258	527	532	1,178	357	760	-			3.842	2,382
2004	438	161	1,184	103	1,169	366	744	-			4,166	2,583
2005	430	104	824	394	735	140	826	1,120			4,664	2,892
2006	505	97	895	352	321	184	622	1,914			4,890	3,032
2007	302	156	972	499	887	372	855	1,155			5,187	3,222
2008	498	110	718	626	959	409	337	832	533		5,044	3,127
2009	284	130	678	437	816	886	174	684	689		4,740	2,938
2010	157	233	302	338	479	247	926	117	1000	554	4,351	2,697
2011	271	46	831	128	262	763	924	182	449	1008	4,864	3,016
2012	433	310	32	85	358	170	35	506	717	157	2,803	1,738
2013	226	196	442	616	495	238	83	374	368	1054	4,092	2,537
2014	448	1,322	382	132	287	74	580	298	348	164	4,035	2,502
2015	237	1,296	240	191	270	328	211	213	729	163	3,878	2,404

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Appendix G:

Historical and Projected Depths to Static Groundwater Surface Measurements

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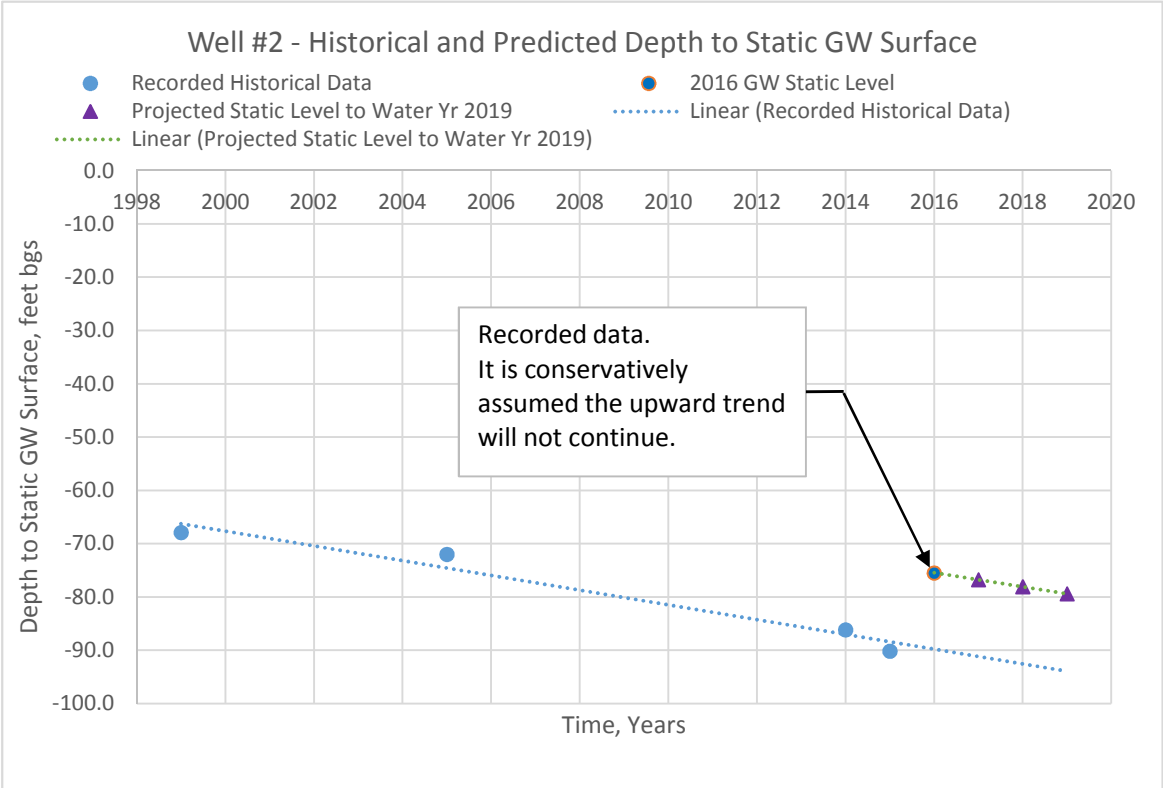
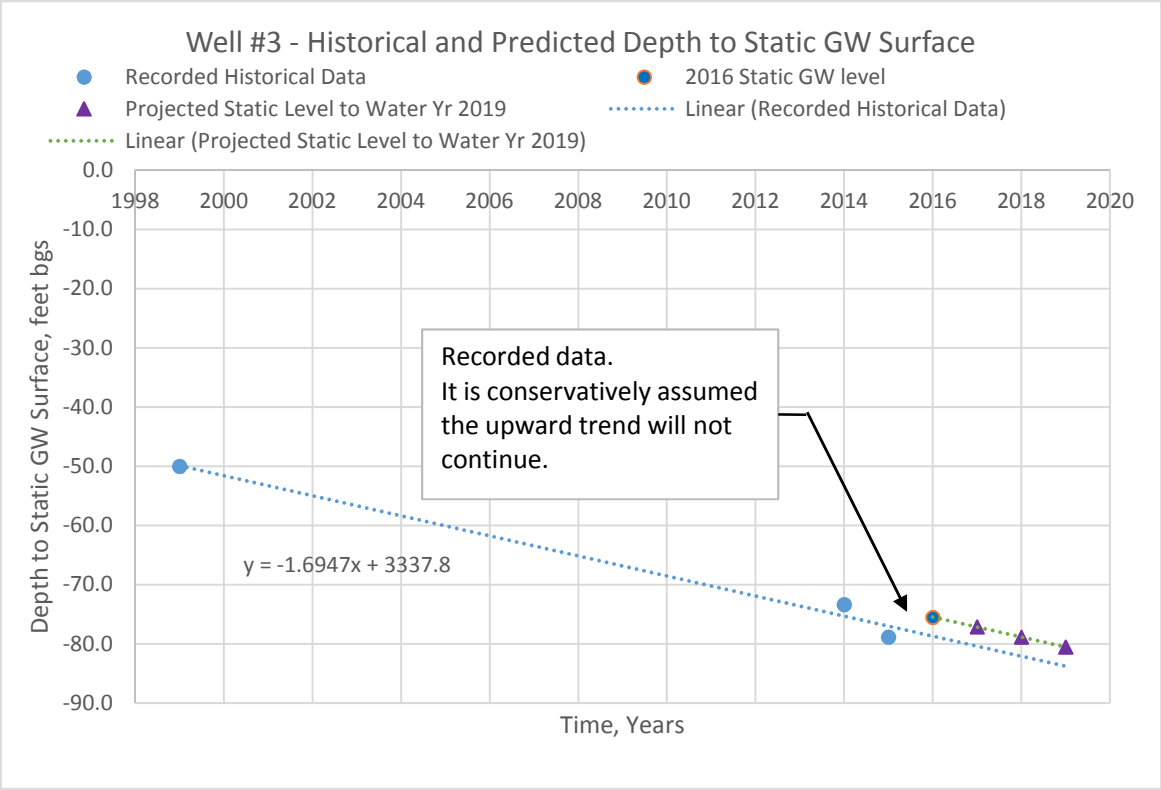
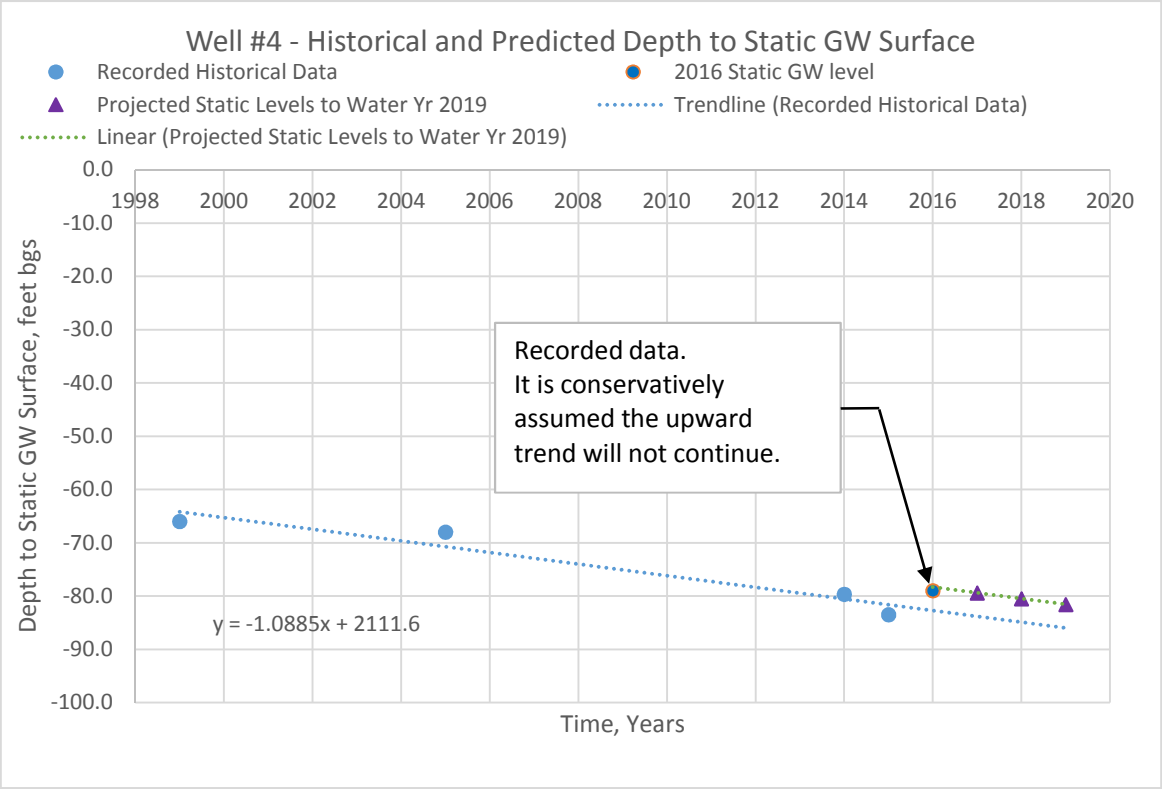
Historical and Projected Depths to Static GW Surface Figures

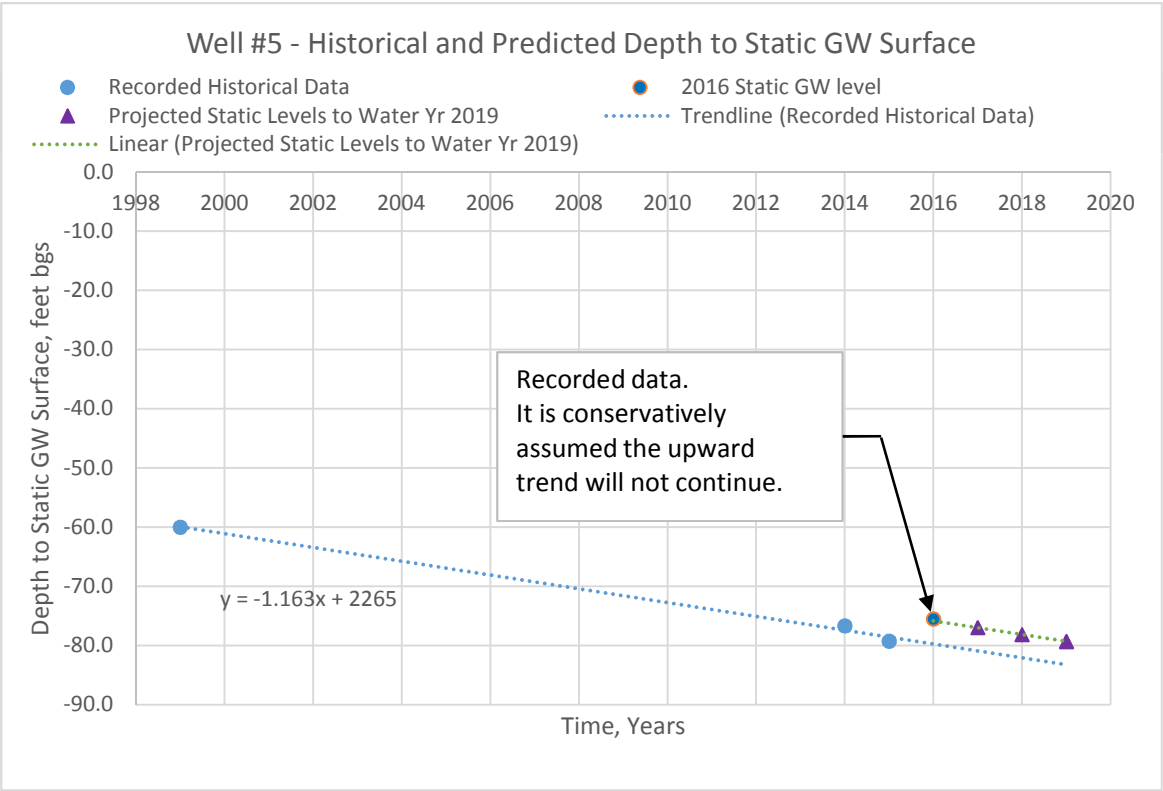




Source: Developed using City of Riverbank Data

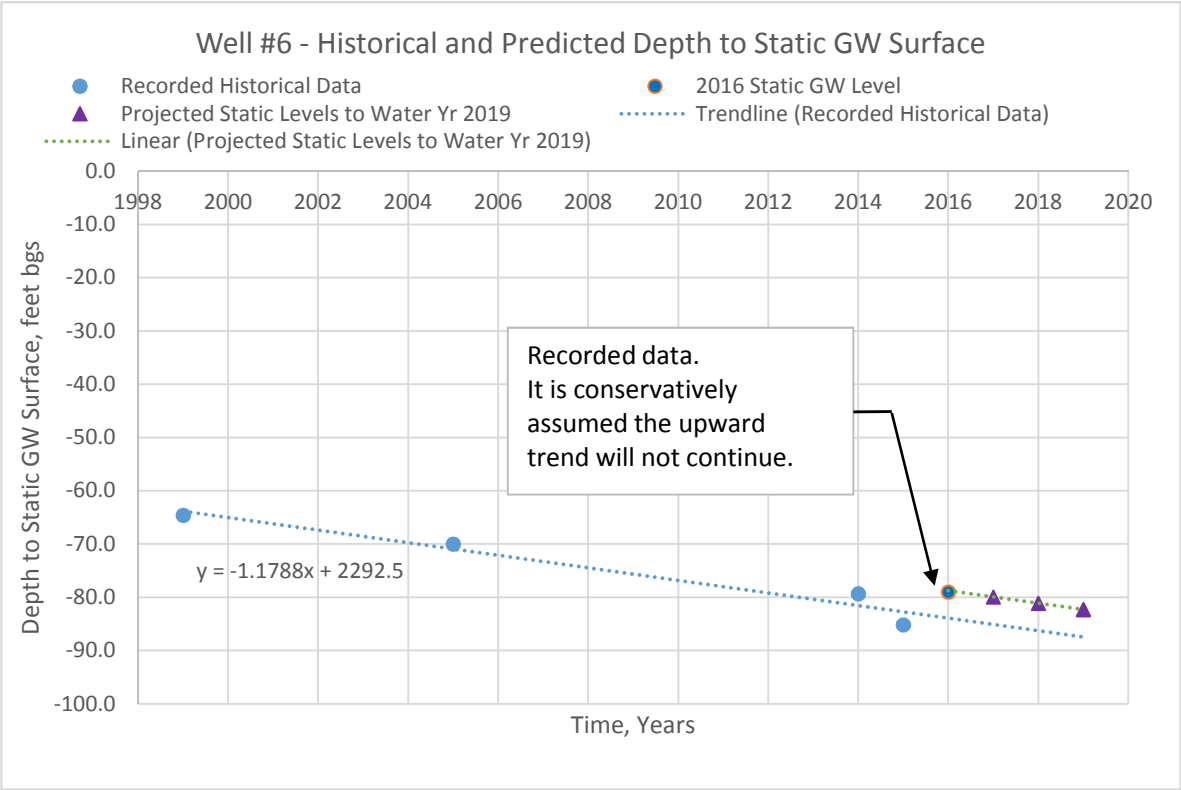
Historical and Projected Depths to Static GW Surface Figures

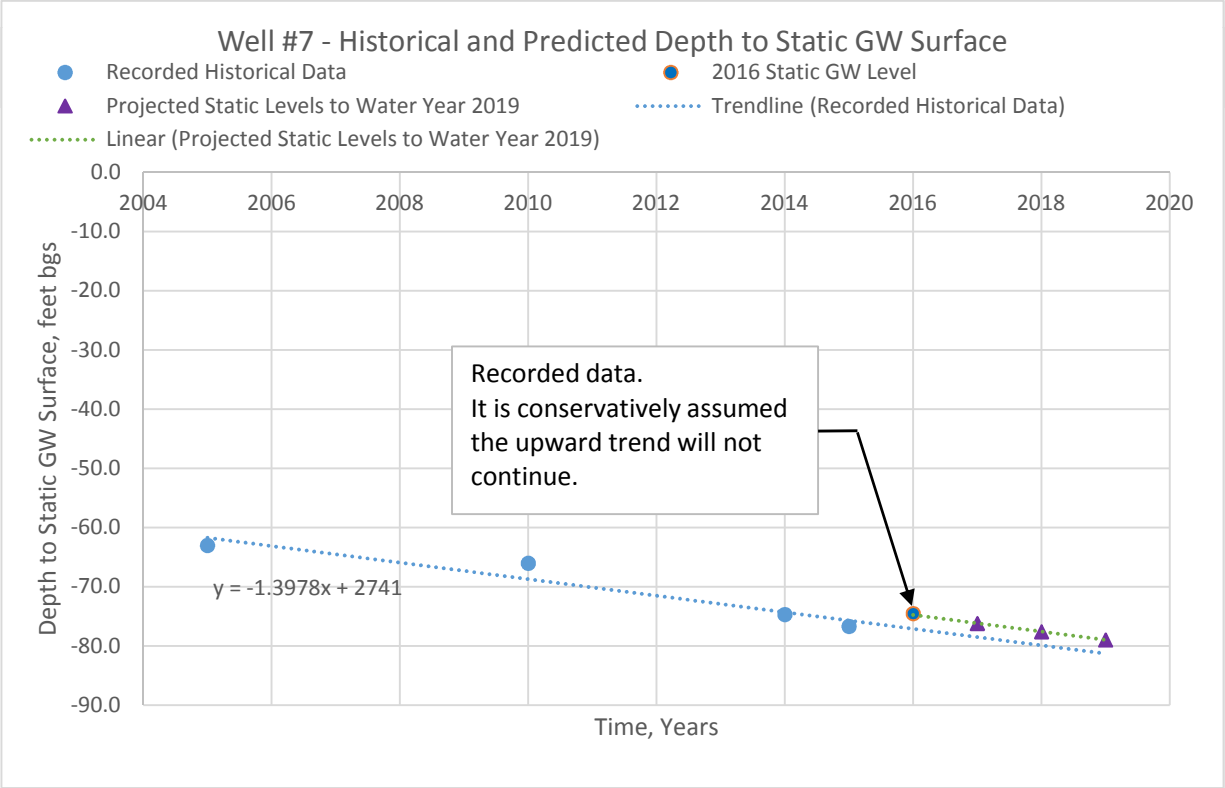




Source: Developed using City of Riverbank Data

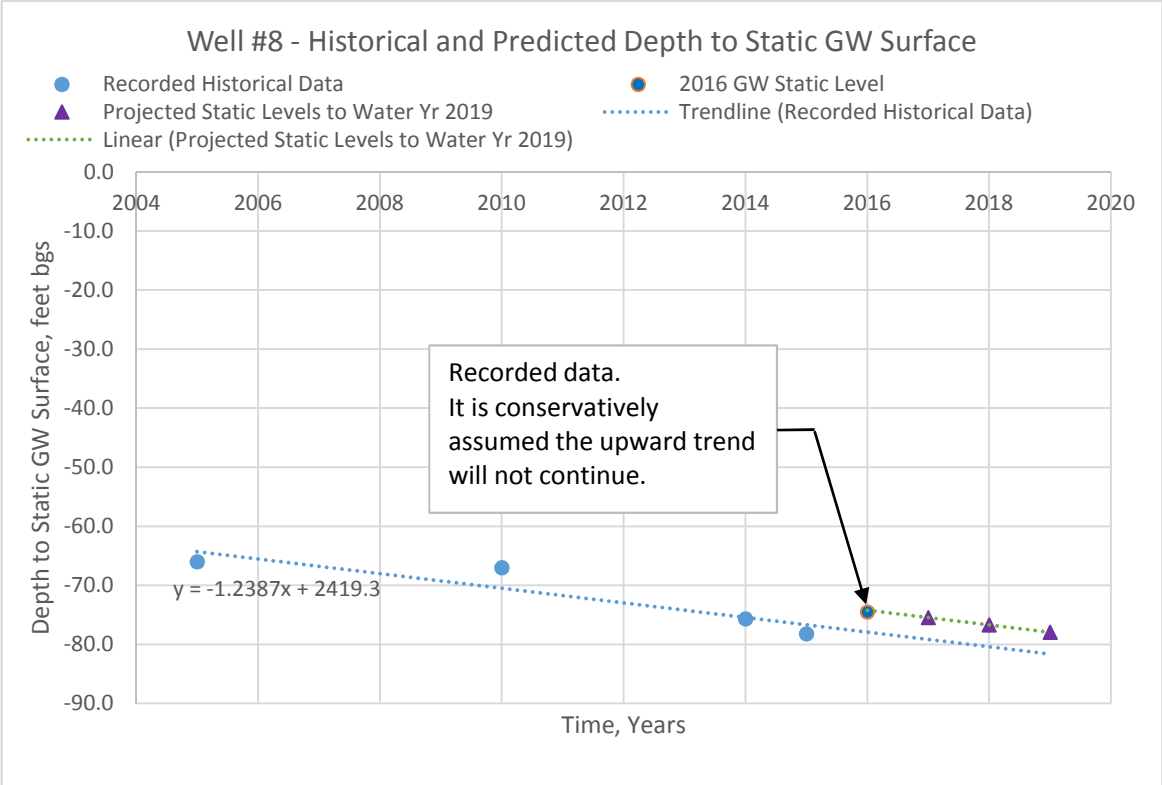
Historical and Projected Depths to Static GW Surface Figures

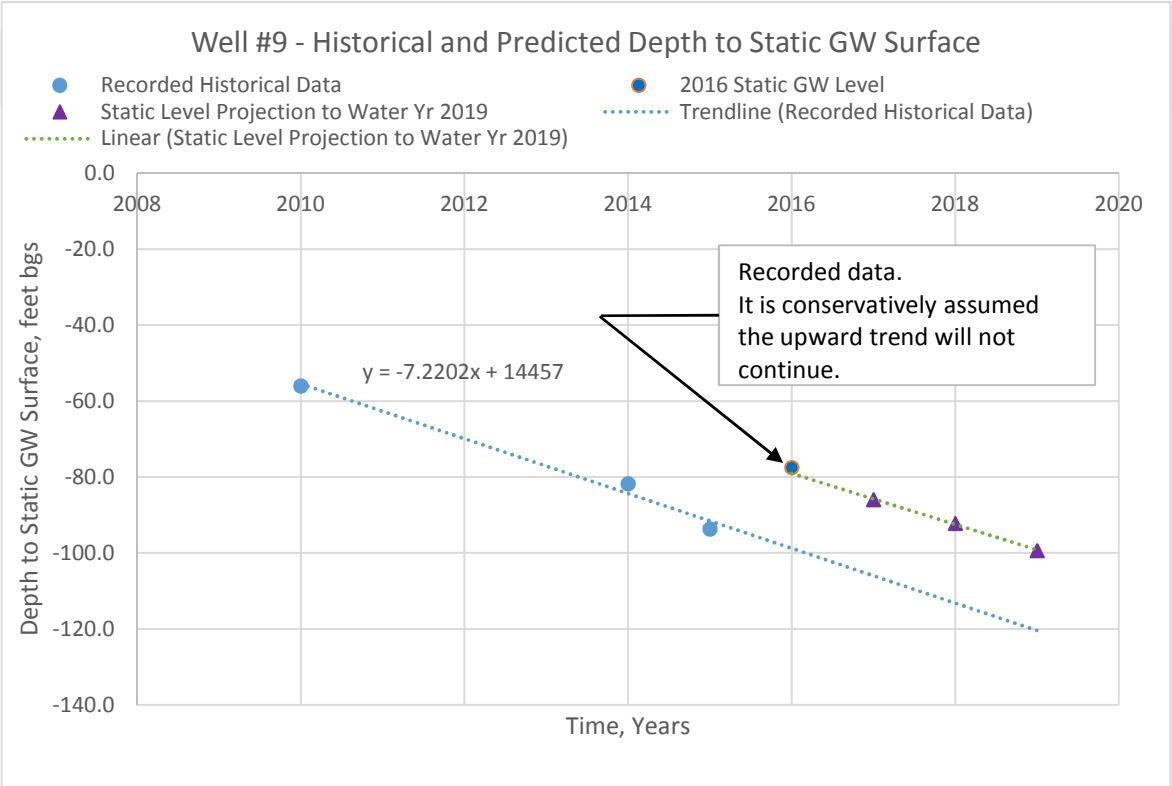




Source: Developed using City of Riverbank Data

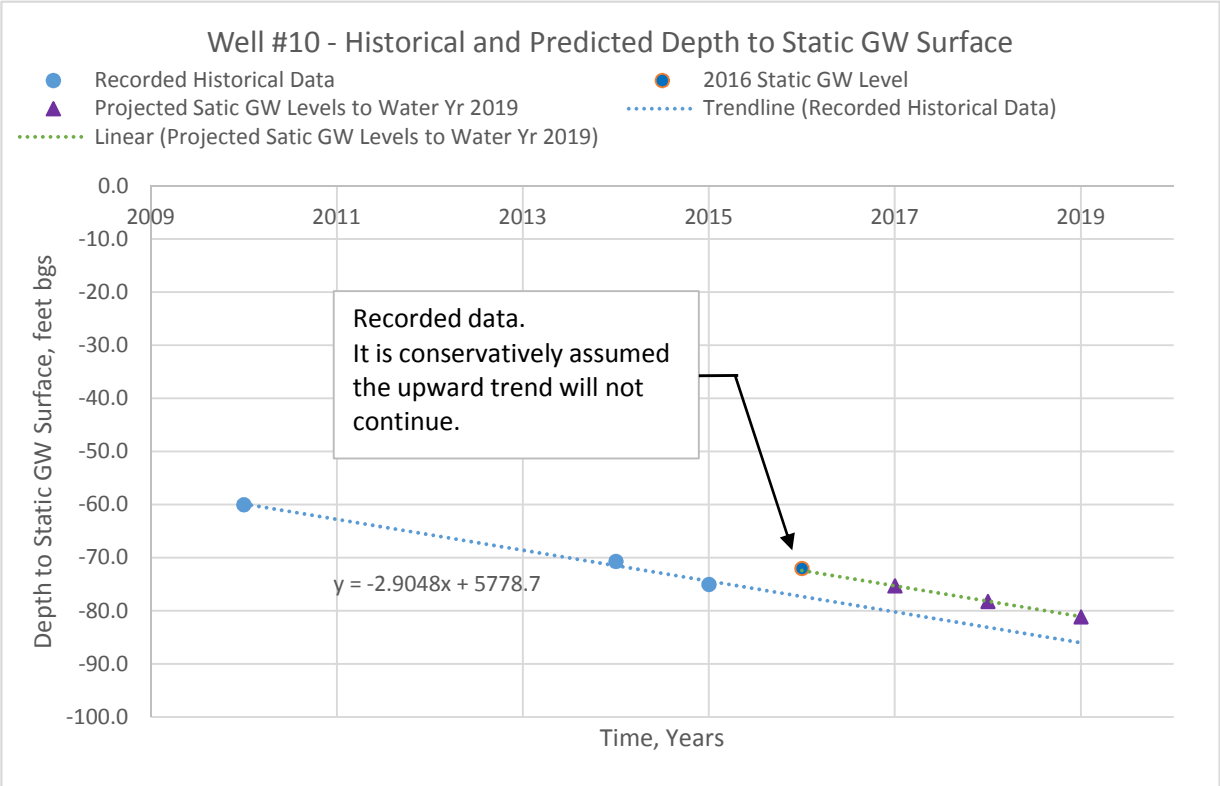
Historical and Projected Depths to Static GW Surface Figures

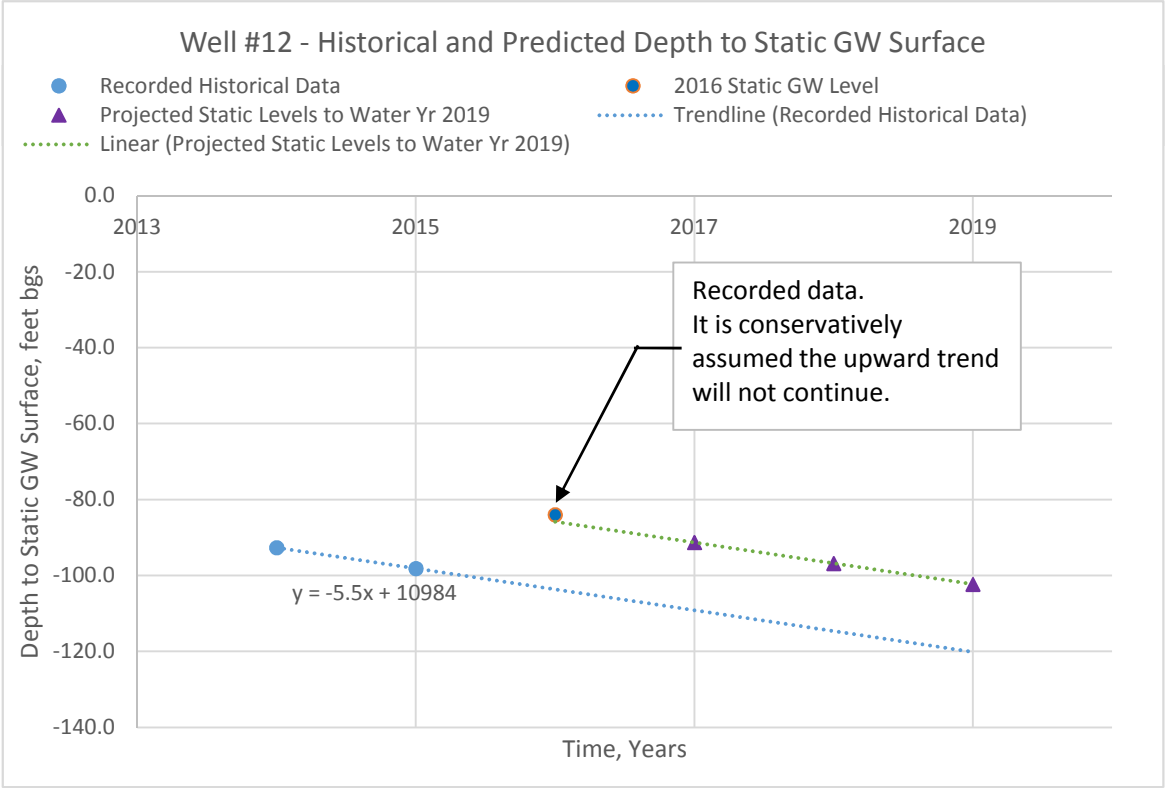




Source: Developed using City of Riverbank Data

Historical and Projected Depths to Static GW Surface Figures





Source: Developed using City of Riverbank Data

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Appendix H:

Sample Resolution to Declare a Water Shortage Emergency

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RESOLUTION NO.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RIVERBANK DECLARING AN EMERGENCY AND AN IMMEDIATE NEED TO CURTAIL ALL NON-ESSENTIAL WATER USE

WHEREAS, on [DATE/TIME], there was an event [to be specified] resulting sudden and unexpected impact to the community water system that has [or will] limit the ability of the City to obtain and distribute the customary amount of water to [all/some] of our citizens; and

WHEREAS, City staff's attempts to mitigate the effect of [specified event] have been unsuccessful, and City staff advises that there is an immediate need to limit all non-essential water use to mitigate the loss or impairment of public health, safety, property, and essential public services.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Riverbank finds:

1. The above-referenced recitals are true and correct and incorporated herein by reference.

2. That the public interest and necessity demand the immediate curtailment of non-essential water usage including but not limited to: [specify, ie street washing, landscape/yard irrigation, fountain or water feature use, vehicle washing, pool use…]

3. That the City Manager or his designee is authorized to expend an amount not to exceed $to facilitate notification of the affected citizens and

enforcement and monitoring compliance with this resolution.

4. Violation of this ordinance is considered a waste of water as specified by City Code 52.33.

5. That the City Council shall review the emergency action at its next regular meeting scheduled for _ to determine whether the emergency situation has

been eliminated and whether there is a need to take further action as a result of the emergency.

PASSED AND ADOPTED on this _ day of _ , 20_ by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Mayor

Attest:

_____

City Clerk

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Appendix I:

DMM Cost Benefit Analysis Data

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City of Riverbank
2010 Urban Water Management Plan

Demand Management Measure Cost-Benefit Analysis

DMM A - Water Survey Programs for Single-Family and Multi-Family Residential Customers

Unit Cost of Water	325	$/MG[a]
	100	$/AF

Cost

Employee	$	50.00	per hour[b]
(Salary and Benefits)	$	52,000	per year (half time)
Vehicle Cost	$	6,000	per year[c]
(capital depreciation, insurance, fuel, etc.)			
Materials	$	6,000	per year[d]
(faucets aerators, shower heads, etc.)			
Advertisement	$	400	per year
(flyers, web page development, etc.)			
Sub-Total of Annual Cost of Program	**$**	**64,400**	

Benefit

Single-Family Residence

Number of Single Family Residences	6,614	Units[e]
Number of Persons/Residence	3.5	Persons[f]
Per Capita Daily Water Consumption	200	gallons[g]
Estimated Water Savings per Residence	13	%[h]
Estimated Water Savings per Residence	33,200	gallons

	Predicted Participation		Water Savings	
year 1[i]	8	%	17,567,000	gallons
year 2	7	%	15,371,000	gallons
year 3	3	%	6,588,000	gallons
year 4	1	%	2,196,000	gallons
year 5	1	%	2,196,000	gallons

Sub-Total of Predicted Water Savings	43,918,000	gallons
(Water Savings expected over the 5-year horizon window)	130	acre*feet

Sub-Total of Cost Savings (5-year Horizon)	$	13,000
Average Annual Cost Savings	$	2,600

Total Predicted (5 year) Water Savings	130	acre*feet

Total of Cost Savings (5-year Horizon)	$	13,000
Average Annual Cost Savings	**$**	**2,600**
Annual Program Budget (Deficit)	**$**	**(61,800)**

Footnotes to DMM A Calculations Worksheet

a. Unit Cost of Water: $325/Million Gallons

b. City Employee Compensation: $50/hour
Based on an estimated $37/hour + 33% of hourly wage for fringe benefits

c. Annual Vehicle Cost: $ 6,000 per year
Presumes 10,000 miles per year

d. Materials Cost: $ 6,000 per year
Annual budget set aside for purchasing and providing faucet aerators and low-flow shower heads to program participants.

Cost of facet aerator:	$ 10	
Cost of shower head:	$ 15	
No. of participating houses:	1200	(total no. of houses over time horizon)
Time horizon	5	years
Annual materials cost:	$ 6,000	

e. Single-family Residences: 6614

f. Number of Persons per residence: 3.5

g. Water Consumtion: 200 gallons per capita per day

h. Estimated Water Savings: 13% per residence
Assumed typical value based off data provided in City of San Diego's Residential Water Survey Program. Water savings for single-family residences are expected to be larger than multi-family residences due to the large portion of water use dedicated to exterior irrigation.

i. Program Time Horizon: 5 years
A 5-year time horizon is considered in this study, which coincides with the period between UWMP updates. It is assumed that the maximum program participation during this 5-year period is 20%. All calculations of program costs and water savings are based on a 20% participation rate.

Demand Management Measure Cost-Benefit Analysis

DMM F - High Efficiency Washing Machine Rebate Program

Unit Cost of Water 325 $/MG[a]
100 $/AF

Washing machine cash rebate: $ 100

Number of residences	6400	
Number of persons per residence	3.5	
Average water use in washer	15	gallons per day per capita[b]
High-efficiency machine water use	6.75	gallons per day per capita[c]
Water savings	8.25	gallons per capita per day

Program participation

Time horizon **5 years**

Predicted Participation		Water Use (Normal)	Water Use (High Efficency)	Water Saved
Year 1	260 res.	13650 gpd	7508 gpd	6143 gpd
Year 2	260 res.	13650 gpd	7508 gpd	6143 gpd
Year 3	260 res.	13650 gpd	7508 gpd	6143 gpd
Year 4	260 res.	13650 gpd	7508 gpd	6143 gpd
Year 5	260 res.	13650 gpd	7508 gpd	6143 gpd

Total water saved: 6143 gpd
2,242,000 gallons per year
6.9 AF per year

Annual cost savings: **$ 688**

Cost

Time horizon **5 years**

Predicted Participation		Rebate (Individual)	Rebate (Annual)	Other Costs (Disposal fees, advertisement, administrative, etc.)
Year 1	260 res.	$ 100	$ 26,000	$ 500
Year 2	260 res.	$ 100	$ 26,000	$ 500
Year 3	260 res.	$ 100	$ 26,000	$ 500
Year 4	260 res.	$ 100	$ 26,000	$ 500
Year 5	260 res.	$ 100	$ 26,000	$ 500

Expected annual cost: **$ 26,500**

Footnotes

a. Unit Cost of Water

b. Average Water Use — Amercian Water Works Association Research Foundation, *Residential End Uses of Water* , 1999, pp 104 -7

c. High-efficiency machine use — Based on an average per load reduction in water use of 40%

Demand Management Measure Cost-Benefit Analysis

DMM H - School Education Programs

Unit Cost of Water 325 $/MG[a]
100 $/AF

Program Participation

School	**Enrollment**
Elementary	1618
Middle	556
High	537
Total	2711

Cost

Brochure creation	$	2,500	
Reproduction/distribution	$	2	per pamphlet
	$	5,400	total distribution
Total Annual Cost	**$**	**7,900**	

Benefit

There is no quantifiable benefit to the program

Footnotes

a. Unit Cost of Water

Demand Management Measure Cost-Benefit Analysis

DMM N - Residential Ultra-Low-Flush Toilet Replacement Program

Unit Cost of Water 325 $/MG[a]
100 $/AF

Ultra-Low-Flush Toilet Rebate $ 100

Number of eligible residences	3000	
Number of persons per residence	3.5	
Average number of flushes per person	5	per day[b]
Volumer per flush, standard toilet	5.5	gallons
Volumer per flush, ULF toilet	1.6	gallons
Water savings	3.9	gallons per flush

Program participation

Time horizon **5 years**

Predicted Participation		Water Use (Normal)	Water Use (High Efficency)	Water Saved
Year 1	120 res.	11550 gpd	3360 gpd	8190 gpd
Year 2	120 res.	11550 gpd	3360 gpd	8190 gpd
Year 3	120 res.	11550 gpd	3360 gpd	8190 gpd
Year 4	120 res.	11550 gpd	3360 gpd	8190 gpd
Year 5	120 res.	11550 gpd	3360 gpd	8190 gpd

Total water saved: 8190 gpd
2,989,000 gallons per year
9.2 AF per year

Annual cost savings: **$ 917**

Cost

Time horizon **5 years**

Predicted Participation		Rebate (Individual)	Rebate (Annual)	Other Costs (Disposal fees, advertisement, administrative, etc.)
Year 1	120 res.	$ 100	$ 12,000	$ 500
Year 2	120 res.	$ 100	$ 12,000	$ 500
Year 3	120 res.	$ 100	$ 12,000	$ 500
Year 4	120 res.	$ 100	$ 12,000	$ 500
Year 5	120 res.	$ 100	$ 12,000	$ 500

Expected annual cost: **$ 12,500**

Footnotes

a. Unit Cost of Water

b. Average Water Use — Amercian Water Works Association Research Foundation, *Residential End Uses of Water* , 1999, pp 96 -7

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Appendix J:

DWR UWMP Checklist

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CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency*
10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.1	**Section 2.1**
10620(d)(2)	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	Plan Preparation	Section 2.5.2	**Section 2.4**
10642	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	Plan Preparation	Section 2.5.2	**Section 2.4**
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	**Section 3.1**
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	**Section 3.2**
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4	**Section 3.3**
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	**Section 3.3**
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	**Sections 3.4 and 5.3**
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	**Section 4.1**
10631(e)(3)(A)	Report the distribution system water loss for the most recent 12-month period available.	System Water Use	Section 4.3	**Section 4.2**
10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.5	**Section 4.4**

10608.20(b)	Retail suppliers shall adopt a 2020 water use target using one of four methods.	Baselines and Targets	Section 5.7 and App E	**Section 5.5 and App E**
10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Chapter 5 and App E	**Chapter 5 and App E**
10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.7.2	**Section 5.5**
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E	**Section 5.7 and App E**
10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.8.2	**Section 5.7**
10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	Section 5.1	**N/A**
10608.40	Retail suppliers shall report on their progress in meeting their water use targets. The data shall be reported using a standardized form.	Baselines and Targets	Section 5.8 and App E	**Section 5.7 and App E**
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6	**Chapter 6**
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	**Section 6.1**
10631(b)(1)	Indicate whether a groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.2.2	**Section 6.6**
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 6.2.1	**Section 6.6**

10631(b)(2)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2.2	**Section 6.6**
10631(b)(2)	For unadjudicated basins, indicate whether or not the department has identified the basin as overdrafted, or projected to become overdrafted. Describe efforts by the supplier to eliminate the long-term overdraft condition.	System Supplies	Section 6.2.3	**Section 6.6**
10631(b)(3)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 6.2.4	**Section 6.6**
10631(b)(4)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Sections 6.2 and 6.9	**Section 6.4**
10631(d)	Describe the opportunities for exchanges or transfers of water on a short-term or long- term basis.	System Supplies	Section 6.7	**Section 6.2**
10631(g)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years.	System Supplies	Section 6.8	**Section 6.5**
10631(h)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	**Section 6.8**
10631(j)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) – if any - with water use projections from that source.	System Supplies	Section 2.5.1	**N/A**
10631(j)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	Section 2.5.1	**N/A**
10633	For wastewater and recycled water, coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.1	**Section 6.7**

10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	System Supplies (Recycled Water)	Section 6.5.2	**Section 6.7**
10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.5.2.2	**Section 6.7**
10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.3 and 6.5.4	**Section 6.7**
10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.5.4	**Section 6.7**
10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 6.5.4	**Section 6.7**
10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 6.5.5	**Section 6.7**
10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.5	**Section 6.7**
10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.4	**Section 7.4**
10631(c)(1)	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Section 7.1	**Section 7.1**
10631(c)(1)	Provide data for an average water year, a single dry water year, and multiple dry water years	Water Supply Reliability Assessment	Section 7.2	**Section 7.2**
10631(c)(2)	For any water source that may not be available at a consistent level of use, describe plans to supplement or replace that source.	Water Supply Reliability Assessment	Section 7.1	**Section 7.1**

10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.1	**Section 7.1**
10635(a)	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7.3	**Section 7.3**
10632(a) and 10632(a)(1)	Provide an urban water shortage contingency analysis that specifies stages of action and an outline of specific water supply conditions at each stage.	Water Shortage Contingency Planning	Section 8.1	**Section 8.5**
10632(a)(2)	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three- year historic sequence for the agency.	Water Shortage Contingency Planning	Section 8.9	**Section 8.11**
10632(a)(3)	Identify actions to be undertaken by the urban water supplier in case of a catastrophic interruption of water supplies.	Water Shortage Contingency Planning	Section 8.8	**Section 8.2**
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2	**Section 8.6**
10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4	**Section 8.7**
10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3	**Section 8.8**
10632(a)(7)	Provide an analysis of the impacts of each of the actions and conditions in the water shortage contingency analysis on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts.	Water Shortage Contingency Planning	Section 8.6	**Section 8.9**
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7	**App G**
10632(a)(9)	Indicate a mechanism for determining actual reductions in water use pursuant to the water shortage contingency analysis.	Water Shortage Contingency Planning	Section 8.5	**Section 8.10**

10631(f)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Sections 9.2 and 9.3	**Section 9.1**
10631(f)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	Sections 9.1 and 9.3	**N/A**
10631(i)	CUWCC members may submit their 2013-2014 CUWCC BMP annual reports in lieu of, or in addition to, describing the DMM implementation in their UWMPs. This option is only allowable if the supplier has been found to be in full compliance with the CUWCC MOU.	Demand Management Measures	Section 9.5	**N/A**
10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets.	Plan Adoption, Submittal, and Implementation	Section 10.3	**Section 10.2**
10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.	Plan Adoption, Submittal, and Implementation	Section 10.2.1	**Section 2.4 and 10.1**
10621(d)	Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.	Plan Adoption, Submittal, and Implementation	Sections 10.3.1 and 10.4	**Section 10.3**
10635(b)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than	Plan Adoption, Submittal, and Implementation	Section 10.4.4	**Section 10.3**
10642	Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan.	Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5	**Sections 10.1, 10.2, and 10.3**
10642	The water supplier is to provide the time and place of the hearing to any city or county within which the	Plan Adoption, Submittal, and Implementation	Sections 10.2.1	**Sections 2.4 and 10.2**

10642	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1	**App A**
10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4.3	**Section 10.3**
10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	**Section 10.3**
10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2	**Section 10.3**
10645	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5	**Section 10.3**

CITY OF RIVERBANK

RESOLUTION

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF RIVERBANK ADOPTING THE 2015 UPDATED URBAN WATER MANAGEMENT PLAN

WHEREAS, the State of California requires an Urban Water Management Plan (UWMP) be prepared per California Water Code Section 10620(e); and,

WHEREAS, Kjeldsen, Sinnock & Neudeck, Inc. have prepared the 2015 UWMP update in accordance with State requirements; and,

WHEREAS, the City Council conducted a public hearing on October 11, 2016 for review, comments, or changes; and

WHEREAS, the City Council directs minor changes to be made prior to submission of the UWMP to the State Department of Water Resources (DWR) as discussed at the public hearing.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Riverbank hereby adopts and approves the 2015 updated UWMP, subject to minor changes as may be necessary.

PASSED AND ADOPTED by the City Council of the City of Riverbank at a regular meeting held on the 25th day of October 2016; motioned by Councilmember _____, seconded by Councilmember _____, and upon roll call was carried by the following City Council vote of ___:

AYES:
NAYS:
ABSENT:
ABSTAINED:

ATTEST:	**APPROVED:**
_____	_____
Annabelle Aguilar, CMC **City Clerk**	**Richard D. O'Brien** **Mayor**

Attachments: 2015 Final UWMP

PROPOSED