REGULAR MEETING
OF THE MADERA CITY COUNCIL

205 W. 4th Street, Madera, California 93637

NOTICE AND AGENDA

Wednesday, April 5, 2017
6:00 p.m.

Council Chambers
City Hall

CALL TO ORDER

ROLL CALL: **Mayor Andrew J. Medellin**
Mayor Pro Tem Cece Foley Gallegos, District 1
Council Member Jose Rodriguez, District 2
Council Member Donald E. Holley, District 6
Council Member Derek O. Robinson Sr., District 4
Council Member William Oliver, District 3
Council Member Charles F. Rigby, District 5

INVOCATION: Pastor Tim Echevarria, New Harvest Christian Fellowship

PLEDGE OF ALLEGIANCE:

PUBLIC COMMENT:

The first fifteen minutes of the meeting are reserved for members of the public to address the Council on items which are within the subject matter jurisdiction of the Council. Speakers shall be limited to three minutes. Speakers will be asked to identify themselves and state the subject of their comment. If the subject is an item on the Agenda, the Mayor has the option of asking the speaker to hold the comment until that item is called. Comments on items listed as a Public Hearing on the Agenda should be held until the hearing is opened. The Council is prohibited by law from taking any action on matters discussed that are not on the Agenda, and no adverse conclusions should be drawn if the Council does not respond to public comment at this time.

PRESENTATIONS Recognition of the Madera High School Girls Varsity Basketball Team Central Section Division Championship

INTRODUCTIONS

1. Robert Holt, Assistant Planner
2. Jesus Orozco, Assistant Planner

A. WORKSHOP

A-1 Workshop on Proposition 64 (Report by Steve Frazier)

B. CONSENT CALENDAR

B-1 Minutes – 8/17/16

B-2 Information Only – Warrant Disbursement Report

B-3 Bi-Weekly Water Conservation Report for 3/13/17 – 3/26/17 (Report by Dave Randall)

B-4 Consideration of a Minute Order Accepting the Installation of a New Compressed Gas (CNG) Compressor Federal Project No. CML 5157 (085) City Project No. CNG 11-01 and Authorizing the Recording of a Notice of Completion (Report by Keith Helmuth)

B-5 Consideration of a Minute Order Accepting the Laurel Street Bike Path Sunset Avenue to Fresno River Trail Federal Project No. CML 5157 (097), SJVAPCD Project No. C-28159-A, City of Madera Project No. PK 12 and Authorizing the Recording of the Notice of Completion (Report by Keith Helmuth)

B-6 Consideration of a Resolution Approving Agreement for Outside of City Water Service for Property Located at 28120 Mono Street, Approving Covenant to Annex, Authorizing the Mayor to Execute the Agreement and Covenant on Behalf of the City and Directing Staff to Record the Agreement and Covenant (Report by Keith Helmuth)

B-7 Request to Schedule Public Hearing for an Appeal of a Planning Commission Decision (Report by Chris Boyle)

B-8 Consideration of a Resolution Approving a Facility Use Agreement with Fresno County Office of Education (FCOE) for Use of Scout Island Outdoor Education Center and Authorizing the Mayor to Execute the Agreement on Behalf of the City (Report by Mary Anne Seay)

B-9 Proclamation Declaring April 24-28, 2017 as the Week of the Young Child

B-10 Consideration of a Resolution Approving Modifications to the Funding for Projects Under the Congestion Mitigation and Air Quality (CMAQ) Program to be Submitted as an Amendment to the 2017 Federal Transportation Improvement Program (Report by Keith Helmuth)

B-11 Consideration of a Resolution Authorizing the Mayor to Sign a Letter Supporting Legislation Addressing Theft of Recyclable Materials from the Waste Stream (Report by Dave Randall)

C. HEARINGS, PETITIONS, BIDS, RESOLUTIONS, ORDINANCES, AND AGREEMENTS

C-1 Public Hearing to Consider the Community Development Block Grant Review and Advisory Committee Recommendations and Request for Council to Make Tentative Allocations for the 2017/2018 Action Plan (Report by Ivette Iraheta)

C-2 Noticed Public Hearing and Consideration of a Resolution Adopting the City of Madera 2015 Urban Water Management Plan (Report by Dave Randall)

D. WRITTEN COMMUNICATIONS

There are no items for this section.

E. ADMINISTRATIVE REPORTS

E-1 Consideration of a Minute Order Accepting a Report on the Status of the Proposed Projects in the Capital Improvement Program for FY 2017/18 to FY 2021/22 and Authorizing Submission of the Proposed Capital Improvement Program for FY 2017/18 to FY 2021/22 to the Planning Commission for Determination of Conformity to the City General Plan (Report by Keith Helmuth)

E-2 Presentation of the Preliminary City of Madera Capital Budgets for Fiscal Year 2017/2018 (Report by Tim Przybyla)

F. COUNCIL REPORTS

G. CLOSED SESSION

G-1 Closed Session Announcement – City Attorney

G-2 Conference with Legal Counsel – Anticipated Litigation. Initiation of litigation pursuant to Government Code §54956.9(d)(4): 1 case

G-3 Conference with Legal Counsel – Existing Litigation. Subdivision (d)(1) of Government Code §54956.9

One case: Junaid Lateef v. City of Madera
MCV 072672

G-4 Conference with Legal Counsel – Existing Litigation. Subdivision (d)(1) of Government Code §54956.9

One case: Junaid Lateef v. City of Madera et al
1:16-at-00828

G-5 Closed Session Report – City Attorney

ADJOURNMENT – Next regular meeting April 19, 2017

[continued on next page]

- Please silence or turn off cell phones and electronic devices while the meeting is in session.
- Regular meetings of the Madera City Council are held the 1st and 3rd Wednesday of each month at 6:00 p.m. in the Council Chambers at City Hall.
- Any writing related to an agenda item for the open session of this meeting distributed to the City Council less than 72 hours before this meeting is available for inspection at the City of Madera Office of the City Clerk, 205 W. 4th Street, Madera, California 93637 during normal business hours.
- The meeting room is accessible to the physically disabled, and the services of a translator can be made available. Request for additional accommodations for the disabled, signers, assistive listening devices, or translators needed to assist participation in this public meeting should be made at least seventy two (72) hours prior to the meeting. Please call the Human Resources Office at (559) 661-5401. Those who are hearing impaired may call 711 or 1-800-735-2929 for TTY Relay Service.
- Questions regarding the meeting agenda or conduct of the meeting, please contact the City Clerk's office at (559) 661-5405.
- Para asistencia en Español sobre este aviso, por favor llame al (559) 661-5405.

I, Sonia Alvarez, City Clerk for the City of Madera, declare under penalty of perjury that I posted the above agenda for the regular meeting of the Madera City Council for April 5, 2017, near the front entrances of City Hall at 3:00 p.m. on March 31, 2017.

Sonia Alvarez

Sonia Alvarez, City Clerk

Proposition 64

Adult Use of Marijuana Act

Acronyms

- AUMA
  - Adult Use Marijuana Act
- MCRSA
  - Medical Cannabis Regulation and Safety Act

Prop 64, An Overview

- Took effect November 9, 2016. HOWEVER: the AUMA requires a state license to engage in commercial non-medical marijuana activity. Licensing authorities are required to begin issuing licenses by January 1, 2018.
- Immediately legalized the personal possession of small amounts of marijuana and most felony and misdemeanor penalties for marijuana offenses—specifically, Health and Safety Code §§ 11357, 11358, 11359, and 11360 are all amended by the measure.
- Important to Note: The actual penalty imposed depends whether the defendant is an adult aged 21 and over, an adult between 18 and 20 years old, or a juvenile under 18 years old.

Offense (21+)	Before Prop. 64	After Prop. 64
Possession of <1 oc of cannabis	$100 fine	Legal
Possession of <8 grams of concentrate	Misdemeanor (1 year and/or $500)	Legal
Cultivation < 6 plants	Felony (16 months / 2-3 years)	Legal Ages 18-20 = $100 fine
Cultivation > 6 plants	Felony (16 months / 2-3 years)	Misdemeanor (6 months and/or $500)
Possession of cannabis for sale	Felony (16 months / 2-3 years)	Misdemeanor (6 months and/or $500)
Transportation of Marijuana for Sale	Felony (16 months / 2 - 3 years)	Misdemeanor (6 months and/or $500)
Third or aggravated offense: cultivation > 6 marijuana plants	Felony (16 months / 2 - 3 years)	Wobbler
Third or aggravated offense: possession for sale	Felony (16 months / 2 - 3 years)	Wobbler

18 > Offenders under Prop 64

- Prop. 64 regards youth under the age of 18 differently than adults. For marijuana offenses contained within Health and Safety Code §§ 11357-11360, youth may *only* be charged with non-monetary infractions. There are no misdemeanor or felony penalties for youth under Prop. 64, including for sales and possession with intent to sell of marijuana.

- Juveniles will be required to attend drug awareness education, counseling, and/or be required to complete community service. Prop. 64 mandates that the drug education will be free to participants and based on science and evidence-based principles and practices.

Homegrows

- Prop 64 immediately legalized the personal indoor cultivation of marijuana (home grows). However, a landlord can ban the cultivation/ smoking of marijuana on the property (Health & Safety §§ 11362.45(g) and (h).)
- Prop 64 provides that local governments can reasonably regulate, but cannot ban, the personal indoor cultivation of up to six non-medical marijuana plants per private residence. A “residence” is defined as a house, an apartment unit, a mobile home, or other similar dwelling (Health & Safety § 11362.2(b)(3) .
- Local governments can regulate or ban all personal outdoor cultivation unless marijuana becomes lawful under federal law.

Landlord Rights Under Prop 64

- An individual or private entity may prohibit or restrict personal possession, smoking, and cultivation of marijuana on the individual's or entity's privately owned property.
- A state or local government agency also may prohibit or restrict such activities on property owned, leased, or occupied by the state or local government.
- A city cannot prohibit personal indoor cultivation of marijuana in all leased or multi-unit residences within the city.

Licensing: MCRSA v. AUMA

- The MCRSA established dual licensing of medical marijuana businesses, requiring both local land use approval, and a state license in order for a business to operate legally. MCRSA requires applicants to provide the relevant state licensing entity with documentation proving their compliance with local ordinances and regulations.

- The AUMA has no affirmative requirement for the applicant to provide documentation of local approval. Instead, it directs state licensing authorities not to approve an application that is in violation of local ordinances. But it explicitly states that applicants for recreational marijuana business licenses are not required to produce evidence of local approval upon submitting their application to the state licensing entity.

Suitability for Licensure

- The AUMA provides that the licensing entity may deny an application for licensure or renewal of a state license if an applicant has a conviction for any of the following:
- A violent felony conviction;
- A serious felony conviction;
- A felony conviction involving fraud, deceit, or embezzlement;
- A felony conviction for hiring, employing or using a minor to transport, carry, sell, furnish or peddle a controlled substance to another minor;
- The AUMA states that a prior conviction for the possession, possession for sale, sale, manufacture, transportation, or cultivation of any controlled substance shall not be the sole ground for the denial of a license.

Local Control

- What if there is no ordinance covering recreational marijuana?
- If a city has enacted ordinances governing medical marijuana only, that city will be precluded from arguing that an application to establish a recreational marijuana business within the city limits is in violation of a local ordinance.
- Bans: B&P section 26200 allows local governments to completely prohibit the establishment or operation of one or more types of businesses licensed under this division within the local jurisdiction.

Delivery

- Cities that have enacted bans will not, however, have the ability to prevent transport through their jurisdiction using public roads, so long as the transport originates from and ends in a location outside the jurisdiction.

Public Use of Marijuana Prohibitions

- Smoking or ingesting in any public place

Possession in a Vehicle

- If a person possesses an open container or open package of marijuana or marijuana products while driving, operating , or riding in the passenger seat, aircraft, or other vehicle used for transportation, a citation shall be issued for a violation of Health and Safety Code Section 11362.4(b), an infraction.

- Problem: no definition of “open container” of marijuana!

Driving under the influence

- No standard, prop 64 language indicated would address this issue when passed
- Colorado standard 5 Nano grams of THC per milliliter of whole blood
  - Scientifically not substantiated as a valid indicator of intoxication, must be accompanied by other factors of impairment such as driving or failed SFST

Complexity of Marijuana Legislation

Colorado Legislative changes in 2016

- There were 44 legislative bills introduced
- There were 22 legislative bills that passed
- Bill changes caused 124 rule or statute changes in one year
- Public safety issues were 90% of changes introduced into law

California will experience similar situations as it progresses through the rule making process

- Look how Proposition 64 has already undermined some of the compromises made under MCRSA (Type 5 Permit)


COLORADO
CANNABIS
TOURS

Madera's Ordinance – Right Now.

City's ordinance adopted in response to Medical Marijuana Regulation and Safety Act.

Approved by Planning Commission in December 2015.

Approved by City Council in January of 2016.

Became law in February 2016.

Madera's Ordinance – Right Now.

§4-15.02 PROHIBITION.

A. Commercial cannabis activities of all types are expressly prohibited in all zones and all specific plan areas in the City of Madera. No person shall establish, operate, conduct or allow a commercial cannabis activity anywhere within the City.

B. To the extent not already covered by subsection A above, all deliveries of medical cannabis are expressly prohibited within the City of Madera. No person shall conduct any deliveries that either originate or terminate within the City.

C. This section is meant to prohibit all activities for which a State license is required. Accordingly, the City shall not issue any permit, license or other entitlement for any activity for which a State license is required under the MMRSA.

D. Cultivation of cannabis for non-commercial purposes, including cultivation by a qualified patient or a primary caregiver, is expressly prohibited in all zones and all specific plan areas in the City of Madera. No person, including a qualified patient or primary caregiver, shall cultivate any amount of cannabis in the City, even for medical purposes.

Sell, Cultivate, Distribute, Transport

Madera's Ordinance – Right Now.

Current Ordinance does not perfectly align with AUMA.

Close, . . . But no cigar.

Only one surprise.

AUMA allows six (6) plants, grown indoors, for personal consumption only.

City ordinance is, PROHIBITION.

Madera's Ordinance – Future?

Other Agencies?

Survey of Cannabis Ordinances

Alphabetically by Jurisdiction

Jurisdiction	Commercial Cultivating / Manufacturing	Medical Retail
Alameda County	Banned/Approval Pending	Approved
Alpine County	Banned	Banned
Amador County	Banned	Banned
Butte County	Banned	Banned
Calaveras County	Approval Pending	Approved
Colusa County	Banned	Banned
Contra Costa County	Banned	Banned
Del Norte County	Banned	Banned
El Dorado County	Banned	Approved
Fresno County	Banned	Banned
Glenn County	Banned	Banned
Humboldt County	Approved	Approved
Imperial County	Banned	Banned
Inyo County	Banned	Banned
Kern County	Banned	Approved
Kings County	Banned	Banned
Lake County	Banned	Approved
Lassen County	Banned	Banned
Los Angeles County	Banned	Banned
Madera County	Banned	Banned
Marin County	Banned	Approved
Mariposa County	Banned	Banned
Mendocino County	Banned	Approved
Merced County	Banned	Banned
Modoc County	Banned	Banned
Mono County	Banned	Banned
Monterey County	Approved	Approved
Napa County	Banned	Banned
Nevada County	Banned	Banned
Orange County	Banned	Banned
Placer County	Banned	Banned
Plumas County	Banned	Banned
Riverside County	Banned	Banned
Sacramento County	Banned	Banned
San Benito County	Banned	Banned
San Bernardino County	Banned	Banned
San Diego County	Banned	Banned
San Francisco County	Pending Approval	Approved
San Joaquin County	Banned	Banned
San Luis Obispo County	Banned	Approved
San Mateo County	Banned	Approved
Santa Barbara County	Banned	Approved
Santa Clara County	Banned	Banned
Santa Cruz County	Pending	Approved
Shasta County	Banned	Banned
Sierra County	Banned	Banned
Siskiyou County	Banned	Approved
Solano County	Banned	Banned
Sonoma County	Pending Approval	Approved
Stanislaus County	Banned	Banned
Sutter County	Banned	Banned
Tehama County	Banned	Banned
Trinity County	Banned	Banned
Tulare County	Banned	Approved
Tuolumne County	Banned	Banned
Ventura County	Banned	Banned
Yolo County	Banned	Banned
Yuba County	Banned	Approved

Land Use Issues.

Police Dept. has done a great job of summarizing issues across all topics. Zoning is one issue that would need clarification with changes to the City law.

Monterey County determined that as medical cannabis businesses are tied to zoning, land use permits would be appropriate. In addition to adding uses allowed in certain zoning districts, the ordinances amended the Monterey County Code, which contains regulations specific to each type of medical cannabis activity. Zoning limits and land use standards are used to direct commercial medical cannabis activities to areas that already accommodate uses of similar character.

Per the county's new rules, dispensaries are permitted in the Light Commercial or Heavy Commercial zoning districts, similar to the way a pharmacy or liquor store is permitted under the current zoning regulations. Commercial manufacturing activities are permitted only within the Heavy Commercial, Light Industrial, and Agricultural Industrial zoning districts. Manufacturing involving volatile processes or chemicals are solely permitted in the Heavy Industrial zoning district.

Time, Place and Manner

Land Use Issues.

Issues that would need to be addressed include, but are not limited to, . . .

- Use Schedule
- Operational Characteristics
- Business Constraints
- Water / Wastewater
- Separation Requirements
- Background Checks
- Security Plans
- Screening / Visibility
- Insurance / Indemnification
- Dual Licensure with State
- Taxes / Fees . . .

Time, Place and Manner

Taxation and Revenue.

AUMA:

State levies a production tax of $9.25/ ounce of flowers

plus,

an additional 15% excise tax on retail sales of marijuana both adult-use and medical, effective Jan. 1 2018.

Essentially, State taxes the front and the back of the industry- both the production and the sale.

Questionable as to what is left in terms of tax revenue.

Alternative Taxation Approaches.

Tax

On November 8, 2016, Monterey County voters approved a tax on cannabis businesses in Monterey County (Measure Y). Pursuant to Chapter 7.100 of the Monterey County Code, commercial cannabis businesses (medical or adult/recreational) will be required to pay taxes as of January 1, 2017, as detailed below. Paying the cannabis tax does not permit a cannabis business operation under state law or the Monterey County Code. Tax rates within Chapter 7.100 are summarized below. These rates are subject to change through action by the Board of Supervisors but maximum tax rates cannot be exceeded without voter approval.

County Cannabis Business Tax

	Cultivation	Nurseries	All Other Cannabis Businesses
Year 1 (1/1/2017)	$15/square foot	$2/square foot	5% of Gross Receipts
Year 2 (7/1/2018)	$15/square foot	$2/square foot	5% of Gross Receipts
Year 3 (7/1/2019)	$15/square foot	$2/square foot	5% of Gross Receipts
Year 4 (7/1/2020)	$20/square foot	$3.50/square foot	7.5% of Gross Receipts
Year 5 (7/1/2021)	$25/square foot	$5/square foot	10% of Gross Receipts
Year 6 (7/1/2022)	$25/square foot + CPI	$5/square foot + CPI	10% of Gross Receipts (No CPI)
Year 7 Onward	Prior Year + CPI	Prior Year + CPI	10% of Gross Receipts (No CPI)

Taxation and Revenue

Moving Forward or Staying Put.

AUMA:

State licensure, the dual licensure component of the AUMA, does not become effective until Jan. 1, 2018.

Waiting to see how licensure works, or doesn't, is a strategy many municipalities are taking in order to accurately gauge the potential benefits of a revised ordinance.

Hanford Pirelli Plant

Staff recommendations - Conclusions

- Inconsistent with the City's values
- Inconsistent with citizens values
  - Madera City Vote 57% opposed to 43% approved
- Too many unknowns at this time
- Questionable funding potential
- Remains a felony under Federal Laws
- A proverbial pain in the butt

Return to Agenda

Item:	B-1
Minutes for:	08/17/16
Adopted:	04/05/17

MINUTES OF A REGULAR MEETING OF THE MADERA CITY COUNCIL CITY OF MADERA, CALIFORNIA

August 17, 2016
6:00 p.m.

Council Chambers
City Hall

CALL TO ORDER

The regular meeting for 08/17/16 was called to order by Mayor Poythress at 6:00 p.m.

ROLL CALL:

Present: **Mayor Robert L. Poythress**
Mayor Pro Tem Charles F. Rigby
Council Member Andrew J. Medellin
Council Member Donald E. Holley
Council Member Derek O. Robinson Sr.
Council Member William Oliver
Council Member Cece Foley Gallegos

Others present were City Administrator David Tooley, City Attorney Brent Richardson, City Clerk Sonia Alvarez, City Engineer Keith Helmuth, Director of Human Resources Wendy Silva, Planning Manager Chris Boyle, Director of Financial Services Tim Przybyla, Battalion Chief Jim Forga, Chief of Police Steve Frazier, Parks & Community Services Director Mary Anne Seay, Public Works Operations Director David Randall, Community Development Director David Merchen, Grants Administrator Ivette Iraheta, Chief Building Official Steve Woodworth and Police Commander Dino Lawson.

INVOCATION: Pastor Tim Echevarria, New Harvest Christian Fellowship

PLEDGE OF ALLEGIANCE: Mayor Poythress led in the Pledge of Allegiance.

PUBLIC COMMENT

The first fifteen minutes of the meeting are reserved for members of the public to address the Council on items which are within the subject matter jurisdiction of the Council. Speakers shall be limited to three minutes. Speakers will be asked to identify themselves and state the subject of their comment. If the subject is an item on the Agenda, the Mayor has the option of asking the speaker to hold the comment until that item is called. Comments on items listed as a Public Hearing on the Agenda should be held until the hearing is opened. The Council is prohibited by law from taking any action on matters discussed that are not on the Agenda, and no adverse conclusions should be drawn if the Council does not respond to public comment at this time.

Mayor Poythress asked if there were any members of the public who wished to address the Council. No comments were offered.

A. WORKSHOP

There are no items for this section.

B. CONSENT CALENDAR

B-1 Minutes – 11/4/15, 5/18/16

B-2 Information Only – Warrant Disbursement Report

B-3 Consideration of a Resolution Adopting Standards for Sidewalk, Curb and Repair Thresholds and Methods (Report by Dave Randall)

B-4 Consideration of a Resolution Approving an Attorney-Client Fee Contract with the Law Offices of Gregory L. Myers and Authorizing the Mayor to Execute the Contract on Behalf of the City (Report by Brent Richardson)

B-5 Consideration of a Minute Order Rejecting a Claim filed by Junaid Lateef (Report by Wendy Silva)

B-6 Consideration of a Minute Order Rejecting a Claim filed by Mirella Chavez (Report by Wendy Silva)

B-7 Consideration of a Minute Order Rejecting a Claim filed by Christina Alvarez (Report by Wendy Silva)

B-8 Consideration of a Resolution by the City Council of the City of Madera Accepting Easement Deed for Cul-de-Sac Right-of-Way on South 'H' Street at the Silva Ford Property (Report by Keith Helmuth)

B-9 Consideration of a Minute Order Accepting the Sanitary Sewer and Storm Drain Improvements-Various Locations, Bid Package 2, Project No. S 10-01, CDBG-2014-2217-5072, and Authorizing the Recording of the Notice of Completion (Report by Keith Helmuth)

B-10 Consideration of a Resolution Amending the City of Madera Classification Plan (Report by Wendy Silva)

B-11 Consideration of a Written Request by the Madera South High School Seeking Council Approval to Waive Permit Fees and Cover the Cost of Police and Public Works Efforts in Association with their Homecoming Parade and Request for the City to Pay $1,200 Towards the Rental of Barricades (Report by Steve Frazier)

B-12 Consideration of a Resolution Allowing for the Gating of the South End of the Alley Between Flume and Lake Streets and 4th and 5th Streets (Report by Dave Randall)

B-13 Consideration of a Resolution Approving a Reimbursement Agreement with Century 21 M&M and Associates for Sidewalk Repair at 2000 N. Schnoor Ave. and Authorizing the Mayor to Execute the Agreement on Behalf of the City (Report by Dave Randall)

B-14 Weekly Water Conservation Report 8/1/16-8/7/16 (Report by Dave Randall)

B-15 Consideration of a Resolution Appointing Tim Riche to the City of Madera ADA Advisory Council (Report by Wendy Silva)

Mayor Poythress asked if there were any items on the Consent Calendar that a Council Member would like to have pulled for further discussion. Mayor Pro Tem Rigby asked that Item B-12 be pulled for further discussion.

ON MOTION BY COUNCIL MEMBER OLIVER, AND SECONDED BY COUNCIL MEMBER HOLLEY, THE CONSENT CALENDER, EXCLUDING ITEM B-12 WAS ADOPTED UNANIMOUSLY BY A VOTE OF 7-0.

RES. NO. 16-128 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA, ADOPTING STANDARDS FOR SIDEWALK REPAIR THRESHOLDS AND METHODS**

RES. NO. 16-129 **RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA APPROVING AN ATTORNEY-CLIENT FEE CONTRACT WITH THE LAW OFFICES OF GREGORY L. MYERS AND AUTHORIZING THE MAYOR TO EXECUTE THE CONTRACT ON BEHALF OF THE CITY**

RES. NO. 16-130 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, ACCEPTING EASEMENT DEED FOR CUL-DE-SAC RIGHT-OF-WAY ON SOUTH 'H' STREET AT THE SILVA FORD PROPERTY**

RES. NO. 16-131 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA AMENDING THE EMPLOYEE CLASSIFICATION PLAN ADOPTED BY RESOLUTION No. 00-13**

RES. NO. 16-133 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA, APPROVING A REIMBURSEMENT AGREEMENT WITH CENTURY 21 M&M AND ASSOCIATES FOR SIDEWALK REPAIR AT 2000 NORTH SCHNOOR AVE AND AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT ON BEHALF OF THE CITY**

RES. NO. 16-134 **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA APPOINTING TIM RICHE TO THE MADERA ADA ADVISORY COUNCIL**

B-12 Consideration of a Resolution Allowing for the Gating of the South End of the Alley Between Flume and Lake Streets and 4th and 5th Streets (Report by Dave Randall)

Mayor Pro Tem Rigby asked that Chris Boyle, Planning Manager address the Council before proceeding with his thoughts.

Chris Boyle, Planning Manager stated that Item B-12 is a culmination of efforts that began with the closure of Flume Street and culminate now with the closure or gating of the alley between 4th Street and Flume Street.

Mr. Boyle stated that with the closure of Flume Street an enhanced number of vehicles were observed utilizing the alley as a primary drive aisle. Staff collaborated with concerned citizens in looking for resolution to that problem. Mr. Boyle stated that some heavy lifting was done by the Engineering, Public Works and Parks Departments. The Planning Department acted as an assistant throughout that process and in the end the item and the resolution before the Council tonight would provide for the installation of a gate.

Mr. Boyle stated it was a pleasure joining the Neighborhood Watch meeting last Thursday night with Councilman Medellin, Mayor Pro Tem Rigby and the neighbors and there was unanimous consent with the proposal to install the gate. Mr. Boyle asked if there were any questions.

Mayor Poythress asked if the Council had any questions or comments.

Mayor Pro Tem Rigby stated that he would just piggyback off of what Mr. Boyle put before them. Mayor Pro Tem Rigby stated this is sort of the final phase of the closing of Flume Street. Mayor Pro Tem Rigby

stated that no way did they have any full knowledge of the type of traffic they would be getting going in and out of that alley way connecting 5th Street to Flume Street.

Mayor Pro Tem Rigby stated he is really proud of the process that this took. Mayor Pro Tem Rigby thanked his colleague Council Member Medellin as well as Neighborhood Revitalization (they are not here tonight) for working hand in hand with the citizens of the John Wells Neighborhood Watch group. Mayor Pro Tem Rigby also thanked the Engineering Department, Mr. Boyle for being proactive on this and Mary Anne Seay, Parks & Community Services Director for her input.

Mayor Pro Tem Rigby stated that neighborhood responded the correct way. Mayor Pro Tem Rigby stated the City has been reaching out trying to allow neighborhoods to share their concerns with the Council. Mayor Pro Tem Rigby stated it was a minor oversight; the City did not know that by closing Flume Street so much traffic would go through that alley way. Mayor Pro Tem Rigby stated that after talking with the Fire and Police Departments, this gate is going to serve its purpose.

Mayor Pro Tem Rigby stated he doesn't see them in the crowd tonight but he just wants to commend Mary Lou Canu and Peter Gallegos for their work in that neighborhood and a job well done.

Mayor Pro Tem Rigby thanked Mr. Boyle.

Council Member Medellin stated he echoes those comments. Council Member Medellin stated this is a perfect example of neighborhoods working together with City staff and electeds and coming to that decision.

Council Member Medellin stated that as Mayor Pro Tem Rigby said, that by closing Flume Street the City thought that was going to be the fix-all to mitigating traffic that Mary Anne Seay, Parks & Community Services Director witnessed almost every day kind of that Indy car take the turn and all it did was create another problem but as was said they came together as a neighborhood, there were quite a few people there, and they basically reached out and asked what could be done.

Council Member Medellin stated he too thanked staff and Mr. Boyle for being out there and Ms. Seay; that was her second maybe third or fourth meeting that afternoon for sticking around and fielding some questions. Council Member Medellin stated it was a fantastic job by all and thanked them.

ON MOTION BY MAYOR PRO TEM RIGBY, AND SECONDED BY COUNCIL MEMBER MEDELLIN, ITEM B-12, RES. NO. 16-132 WAS ADOPTED UNANIMOUSLY BY A VOTE OF 7-0.

RES. NO. 16-132 A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA, AUTHORIZING GATING THE SOUTH END OF THE ALLEY BETWEEN FLUME AND LAKE STREETS AND 4TH AND 5TH STREETS

C. HEARINGS, PETITIONS, BIDS, RESOLUTIONS, ORDINANCES, AND AGREEMENTS

C-1 Public Hearing and Consideration of a Resolution Approving the Formation of a Groundwater Sustainability Agency under the Sustainable Groundwater Management Act (Report by David Merchen)

Dave Merchen, Community Development Director stated that a GSA, Groundwater Sustainability Agency is a requirement of the State legislation that was adopted by the Legislature in 2014.

Mr. Merchen stated that City Council has taken action on a couple of different instances in support of the GSA formation. In December of last year, Council voted in support of a GSA structure where the City and each local agency in the Madera Groundwater Sub-basin would form an independent GSA and then those independent GSAs would work together on a coordinated GSP, Groundwater Sustainability Plan. Mr. Merchen stated they call that a Multi-GSA Single GSP Structure.

Mr. Merchen stated that in May of this year, a few months after that initial statement of preference on the structure, the City Council entered into an agreement with MID [Madera Irrigation District] to collaborate on the boundaries of the independent GSAs with the cities to be formed and he thinks MID's had just been formed at that point so the two agencies, City and MID, have already agreed to collaborate on boundaries.

Mr. Merchen stated he sees something like that as being within the realm of possibility as to the County as well and he has already approached their staff as to some standard language and they are looking at that right now so that's a possibility in the coming months.

Mr. Merchen stated the question at this point before the Council is whether they want to adopt the resolution to elect to become a GSA; it is consistent with the prior direction but the Council is not bound by doing so. Mr. Merchen stated that if Council does adopt the resolution electing to establish that City GSA staff would follow-up by submitting a notice to the State Department of Water Resources; there are some special requirements in the legislation to what would be included in that notice. Mr. Merchen stated staff would also maintain a list of parties that would or could be interested in participating in activities of the GSA and in the preparation of that Groundwater Sustainability Plan. Mr. Merchen stated the Plan itself is a requirement for the year 2020. Mr. Merchen stated those are the course of activities that have been done and the things that would be required in the future.

Mr. Merchen stated that noted in the staff report, they had a request from the Madera Valley Water Company to consider expanding the City's boundaries for the City GSA to encompass that service area of the mutual water company north of the City limits. Staff did look at that and staff held off bringing this item to Council while staff investigated that.

Mr. Merchen stated that while his opinion is that it would not be legally precluded from doing so; he believes there is wiggle room in legislation but it probably doesn't make sense for a couple of different reasons. Mr. Merchen stated it is not clearly consistent with the legislation and he thinks it raises some questions about governance and service area conflicts as well as how the City is going to be ultimately enforcing the requirements of the City's Groundwater Sustainability Plan into the future. Mr. Merchen stated that while they considered it; it was a worthwhile item to take a look at, it's staff's recommendation to proceed with a City limit only GSA.

Mr. Merchen stated there is a public hearing required as mentioned. Mr. Merchen stated that concluded his presentation unless the Council had any questions.

Mayor Poythress asked if there were any questions for Mr. Merchen before they open the public hearing. No comments were offered. Public hearing was opened. No comments were offered and public hearing was closed.

ON MOTION BY COUNCIL MEMBER OLIVER, AND SECONDED BY COUNCIL MEMBER MEDELLIN, ITEM C-1 WAS ADOPTED UNANIMOUSLY BY A VOTE OF 7-0.

RES. NO. 16-135 RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA APPROVING THE FORMATION OF A GROUNDWATER SUSTAINABILITY AGENCY UNDER THE SUSTAINABLE GROUNDWATER MANAGEMENT ACT

C-2 Second Reading and Consideration of Adoption of an Ordinance of the City of Madera Enacting a Transactions and Use Tax to be Administered by the State Board of Equalization, Upon Adoption by the Voters (Report by Brent Richardson)

Brent Richardson, City Attorney stated that at the last meeting Council might recall that they adopted a resolution directing that a tax measure be put on the November ballot for consideration by the voters. Mr. Richardson stated that as part of that resolution, also introduced at that meeting was the ordinance before the Council for a second reading. Mr. Richardson stated that the ordinance like any other ordinance

requires a first reading, second reading and adoption even though the actual effective date of the ordinance would not occur until after an approval of the voters at the general election.

Mayor Poythress asked if there were any questions or clarifications necessary. No comments were offered.

Mayor Poythress asked that title be read.

The ordinance was read by title by the City Clerk.

ON MOTION BY MAYOR PRO TEM RIGBY, AND SECONDED BY COUNCIL MEMBER OLIVER, FURTHER READING WAS WAIVED AND, ITEM C-2, ORDINANCE NO. 935 C.S. WAS ADOPTED UNANIMOUSLY BY A VOTE OF 7-0.

ORD. NO. 935 C.S. AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA ENACTING A TRANSACTIONS AND USE TAX TO BE ADMINISTERED BY THE STATE BOARD OF EQUALIZATION, UPON ADOPTION BY THE VOTERS

C-3 Second Reading and Consideration of Adoption of an Ordinance Amending Certain Sections of the Madera Municipal Code Pertaining to Water Regulations (Report by Dave Randall)

Dave Randall, Public Works Director stated this is a second reading of the ordinance. Mr. Randall stated that Council held a public hearing and listened to the description of the regulation changes at the last meeting. Mr. Randall stated that in general they are all housekeeping minor procedural issues and if Council liked he would go over them again or if the Council would like to introduce and adopt, they would be quite happy. Mr. Randall asked if there were any questions.

Mr. Richardson, City Attorney stated he thought Mr. Randall meant just to adopt.

Mayor Poythress asked if there were any questions for Mr. Randall. No questions were asked.

Mayor Poythress asked that title be read.

The ordinance was read by title by the City Clerk.

ON MOTION BY COUNCIL MEMBER MEDELLIN AND SECONDED BY MAYOR PRO TEM RIGBY, FURTHER READING WAS WAIVED AND, ITEM C-3, ORDINANCE NO. 936 C.S. WAS ADOPTED UNANIMOUSLY BY A VOTE OF 7-0.

ORD. NO. 936 C.S. AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MADERA AMENDING PORTIONS OF CHAPTER 9 OF TITLE I AND CHAPTER 5, OF TITLE V OF THE MADERA MUNICIPAL CODE RELATING TO WATER REGULATIONS

D. WRITTEN COMMUNICATIONS

There are no items for this section.

E. ADMINISTRATIVE REPORTS

There are no items for this section.

F. COUNCIL REPORTS

Mayor Poythress stated he would open up with Council Reports.

Mayor Poythress welcomed the City's friends from the Sister City delegation. Mayor Poythress stated they had members of the musical group [Formosa Melody Center] that was simply outstanding and the Mayor of Yilan, the first time ever that the Mayor of our Sister City has visited, Mayor Curtis Tsung-Yuan Chiang, always popular and crowd favorite Conductor Vincent Chien-Hsing Li and then four members of the Sister City staff, Jerry Chin-Chi Chen, Eric Yi-Chun Chang, Anderson Ming-Sien Ho and Stanley Shun-Chin Chou.

Mayor Poythress stated he was going to give the Mayor of Yilan an opportunity to address the City but he wanted to acknowledge all those who made this possible. Mayor Poythress stated they had a wonderful trip; they started out with an outstanding tour of City of Hall on Monday morning. Mayor Poythress stated that Sonia Alvarez, City Clerk worked hard to help organize that and then everybody involved in this particular building really pitched in and did a great job. Mayor Poythress stated that Tim Przybyla, Finance Director did a wonderful job of taking pictures, recording and really had a nice presentation, as well as everybody else. Mayor Poythress stated staff really made our friends feel very, very welcome.

Mayor Poythress stated that yesterday afternoon, their friends had an opportunity to tour the Police Station and Gino Chiaramonte, Police Lieutenant did a great job with that. Mayor Poythress stated that he thinks that if they'd had an opportunity, they would have stayed and of course, the Mayor of Yilan got arrested; he was in the back of one of the cars and had the bars up and everything. Mayor Poythress stated Mayor Chiang also had a chance to wear some of the protective gear as well as take a picture with some of the guns and others. Mayor Poythress stated they didn't have a chance to see everything as they still had other things to do; that was a lot of fun.

Mayor Poythress gave a special thanks to the Sister City organization. Chris Simonian, President of the Sister City organization did an outstanding job of getting everything coordinated. Mayor Poythress stated that Krystle Kidwell did a great job interpreting and so forth. Mayor Poythress stated they also had Julie, Mike Chen and others who couldn't make it here this evening but it was a great team effort and it was really wonderful to have that time.

Mayor Poythress stated that first of all he'd like to give the microphone to someone from the Sister City Committee who might like to say a few words and asked if Ms. Simonian would like to say a few words.

Chris Simonian thanked everyone and stated it has been a great time and they've had a lot of fun. Ms. Simonian stated it's been a fast and furious four days and she couldn't have done it without all the help from everyone. Ms. Simonian stated this is 22 years of a Sister City relationship and they really appreciate the Madera City Council for being supportive and helping them.

Ms. Simonian stated that next year they are hoping to take a delegation to Taiwan and they are going to start working on that now with the Major General. Ms. Simonian stated they are going to coordinate with him and if anyone is interested to please let her know as they would like to take a great delegation. Ms. Simonian thanked everyone.

Mayor Poythress thanked his colleagues on City Council for all the great work they did and participating. Mayor Poythress stated he knew everybody really enjoyed it. Mayor Poythress stated it seemed Council Member Robinson was a crowd favorite; they would all be there and everybody would be gathered around Council Member Robinson for some reason. Mayor Poythress stated he didn't know what was up with that but that was really good.

Mayor Poythress invited Mayor Curtis Chiang from Yilan to come up and say a few words and maybe somebody could help out with translation. Mayor Poythress asked if Mayor Chiang wanted Conductor Li or Anderson or……

Krystle Kidwell stated that Mayor Chiang brought Anderson Ming-Hsien Ho who is English support staff and he is just too shy. Ms. Kidwell stated he is afraid he will translate wrong so she's going to help him; she is going to let Mr. Ho do his job.

Mayor Poythress stated that Mr. Ho is very good by the way.

Anderson Ming-Hsien Ho translated for Mayor Curtis Tsung-Yuan Chiang as follows:

Mayor Chiang stated that first of all his translator told him that he shouldn't say too much because he won't be able to translate.

Mayor Chiang stated he would like to thank Mayor Poythress, Deputy Mayor, all the Council Members and distinguished guests here attending this meeting. Mayor Chiang stated it's a great honor and he is very glad to be here and attend this meeting and learn from all of them.

Mayor Chiang stated that before he was a Mayor he worked as a County Council Member. Mayor Chiang stated that in Taiwan a City Mayor is at a higher level than a County Council Member and that when he knew Mayor Poythress was going to be a County Supervisor he was kind of surprised.

Mayor Chiang stated that he also has many friends who don't know the difference between County Council Member and a City Mayor. Mayor Chiang stated that he told them in Taiwan that if they were a County Council Member they don't need to be responsible for their remarks but if you are a City Mayor you need to keep your promises. Mayor Chiang stated that things might be different here but he just wants to learn from all of you. Mayor Chiang thanked the Council for having them.

Mayor Poythress stated that Mr. Ho had done a great job.

Mayor Poythress advised Mayor Chiang that things are quite a bit the same in their City [in Taiwan] as well as theirs [Madera] in regards to jurisdictions.

Mayor Poythress stated that Council Member Foley Gallegos had reminded him that one of the main attractions were the musicians and he'd like to ask their friends the musicians to talk about their time in Madera. Mayor Poythress asked Nini Yi-Ting Hsiao and the other musicians to approach the podium.

Nini Yi-Ting Hsiao stated she loved everybody, everybody is very nice, she loves it here and she wants to stay here.

Female Musician #2 didn't identify herself but stated the food is grateful and she like Nini, wants to live here too.

Female Musician #3 didn't identify herself but stated that everybody is friendly and she is so happy she's here. She stated she has a performance for everybody so she is very glad to meet everybody.

Yu-Liang Tsai stated he loves everybody.

Ms. Kidwell stated that Mr. Tsai is very nervous but it's ok. She told him to say anything he wanted and she translated as follows:

Mr. Tsai stated he didn't know what to say. He is too happy to talk right now. He is very excited to have the pleasure to be here. He's very happy to have the opportunity to be with everybody here. He stated he wants to thank his host family. They really take a lot of time to make them feel comfortable here.

Ms. Kidwell asked him if he is comfortable living here and he said yes.

Ms. Kidwell stated that Mr. Tsai is the youngest member of the group. Ms. Kidwell stated he is 17 years old and he is still in college as a music major.

Michael Hsun-Chi Cheng greeted everyone and stated he had a good experience here and he enjoyed everything. Mr. Cheng stated they had five performances here and he got a favorite yesterday. Mr. Cheng stated their performances are very hard and he hopes they liked his music and the performance. Mr. Cheng thanked everybody.

Female Musician who didn't identify herself stated she wanted to express her team's thanks to everybody in Madera and to the Major and their Yilan City's Mayor and their Teacher Li to give them the chance to come here [Madera] because it is the first time to come here to the USA. It is their first time to come here to perform because the music that us together was enjoy it. She thanked everybody.

Mayor Poythress stated "Xie Xie" [Thank you].

OTHER COUNCIL REPORTS

Council Member Robinson stated he attended the Fresno State Harambee. Council Member Robinson stated it was a student retreat and he started on Sunday and it lasted until today. Council Member Robinson stated that what it does is help African American freshmen students get situated in college. Council Member Robinson stated they had community leaders speak [at the event] and they were able to follow them on campus and give them the knowledge and teach them skills to graduate in four or five years. Council Member Robinson stated it was real nice. Council Member Robinson stated the best part was that they served soul food.

Mayor Poythress asked if Council Member Robinson had some Sunday night.

Council Member Robinson replied affirmatively.

Council Member Foley Gallegos stated she's been busy this week asking people to be appointed on her commissions and she thanked her colleague, Tim Riche for accepting the ADA [Committee] appointment. Council Member Foley Gallegos stated he will be a great asset to that group of people.

Council Member Foley Gallegos stated she has been busy selling tickets for the OLIVE Foundation that is going to have an event for the City's Police Department on August 28th and that stands for Overwhelming Limitations Intervention Value and Empowerment and that is what that program is for. Council Member Foley Gallegos stated that if they are available Saturday the 28th, tickets are $30; it's a dinner/dance at the San Joaquin Winery.

Mayor Pro Tem Rigby stated he'd like to continue to report that the City's Curb Stripe Initiative is going well; a second phase is going to be taking off momentarily. Mayor Pro Tem Rigby stated many of them would have gotten an email today from Ms. Christina Herrera from Neighborhood Revitalization. Mayor Pro Tem Rigby stated that close to 100 to 150 new neighbors will have their blue stripe insignia on their curb; Mayor Pro Tem Rigby addressed Dave Randall, Public Works Director and stated hopefully by the end of the next couple of weeks.

Mayor Pro Tem Rigby stated he'd also like to again congratulate those that are going to be receiving Lifetime Achievement Awards tomorrow evening from the Chamber of Commerce. Mayor Pro Tem Rigby stated there are two in particular that he is excited about and they are Pastor Roger Leach who signs his checks and the City's own Jim Taubert who is going to be receiving an award long overdue but definitely not under appreciated.

Council Member Holley thanked the group from Taiwan for being there. Council Member Holley stated he really enjoyed the music. Council Member Holley stated he heard the group came out a couple of years

ago but they didn't sound like this group tonight; they [musicians] really lit them up so he thinks they had a good time.

Council Member Holley thanked Ms. Simonian for hosting the event the other night. Council Member Holley stated his wife really enjoyed it; she doesn't get to go to a lot of places but she really enjoyed sitting around and just being comfortable in a nice area. Council Member Holley thanked Ms. Simonian for allowing them to be there.

Council Member Holley stated that as this week goes on as they know, he will be there another four years.

Council Member Medellin congratulated Council Member Holley.

Council Member Holley stated that as school has started again, he is back to doing his thing at Big Brothers Big Sisters and also with the Boy Scouts.

Council Member Holley stated that next week there is a soccer thing going on at the Millview [Sports] Complex so he's asking all to bring their kids out. Council Member Holley stated it's a soccer clinic put on by Big Brothers Big Sisters; it's free from ages 5 to 15 and [asked that they] bring the kids out and have a joyful time. Council Member Holley thanked them.

Council Member Medellin stated that he too would like to thank their family from Yilan Sister City. Council Member Medellin stated it was a pleasure meeting everybody, Conductor Li, the Mayor of Yilan, his staff and the wonderful performances they got to hear yesterday and the past few days. Council Member Medellin stated they arrived friends and are leaving family and he certainly hopes they can put a delegation soon to return the favor and visit them in their home town. Council Member Medellin thanked them.

Council Member Oliver stated he would love to visit their home town although he doesn't bring the talents they do so it might be a little disappointing in that regard.

Mayor Pro Tem Rigby asked if Council Member Oliver would Zumba for Taiwan.

Council Member Oliver stated he would Zumba for Taiwan.

Council Member Oliver stated he really enjoyed the show last night and everyone just rocked out and the whole group in that audience appreciated it. Council Member Oliver thanked the Sister City delegates for sharing a little bit about their City and their community with them and as Council Member Medellin stated they are leaving here as family and they [Council] appreciate them making this trip; and obviously for the organizers here locally for making this a possibility. Council Member Oliver stated he looks forward to hopefully one of those delegations in the years to come.

Council Member Oliver stated he'd like to take a quick opportunity to talk about a group that's up and coming here in Madera; he's shared it with several staff members. Council Member Oliver stated that he and a few others including Mayor Pro Tem Rigby have organized a Young Professional Group in the City. Council Member Oliver stated it's really for an opportunity to take inventory of the young people that are working here and provide for networking opportunities for a career in professional development as well as channel that into community service. Council Member Oliver stated it is modeled after a similar group that exists in Fresno that he's been a member of.

Council Member Oliver stated that at their first networking mixer they had over 65 people in attendance; many that were very interested in getting more involved in the community.

Council Member Oliver stated their next mixer is going to be at Tijuana's Bar & Grill so it also serves as an opportunity to showcase many of the businesses throughout the City and different organizations. It will be on Thursday, September 1st at 5:45 p.m. and asked that they share the word with staff and other folks that

might be interested. Council Member Oliver stated it's something they are very excited about and hopefully it will be a success.

Mayor Poythress stated great job and that it was a great thing.

Mayor Poythress congratulated his colleagues Council Member Robinson, Council Member Holley and Council Member Medellin; they passed the filing deadline without any opposition for their positions. Mayor Poythress stated two will continue on as Council Members and Council Member Medellin will be their next Mayor.

Mayor Poythress stated that in honor of Virginia Rose there is going to be a groundbreaking ceremony tomorrow for a new school to be named after her; it's going to be at 9:00 a.m.

Mayor Poythress stated that something she used to do is that every year she'd come around to their Council meeting and she'd sell them tickets to the Southeast Garden Club. Mayor Poythress stated that many of them might remember that. Mayor Poythress stated she's such a gracious woman you couldn't turn her down. Mayor Poythress stated that in her honor he bought six tickets to pass out to his colleagues and it's actually at the same time as the OLIVE Foundation dinner but if they can't go, then to feel free to give the tickets to somebody. Mayor Poythress passed the tickets down to the Council. Mayor Poythress stated he knew he had to do this in her honor and he could see her coming up there and encouraging them. Mayor Poythress stated that whoever could make it to the groundbreaking tomorrow would be really wonderful.

G. CLOSED SESSION

There are no items for this section.

ADJOURNMENT

The meeting was adjourned by Mayor Poythress at 6:38 p.m.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN

Approval of the minutes is not addressed in the vision or action plans; the requested action is also not in conflict with any of the actions or goals contained in that plan.

_____ _____

SONIA ALVAREZ, City Clerk ANDREW J. MEDELLIN, Mayor

_____

Prepared by:
ZELDA LEÓN, Deputy City Clerk

Return to Agenda

City of Madera

Council Meeting Of April 5th, 2017
Agenda Item No. B-2

Memorandum To: The Honorable Mayor,
City Council and City Administrator

From: Office of the Director of Finance

Subject: Listing of Warrants Issued

Date: 04/05/2017

Attached, for your information, is the register of the warrants for the City of Madera covering obligations paid during the period of:

March 7th, 2017 to March 20th, 2017

Each demand has been audited and I hereby certify to their accuracy and that there were sufficient funds for their payment.

General Warrant:	12414-12603	$	643,915.85
Wire Transfer	Union Bank Payroll and Taxes	$	646,679.58
Wire Transfer	SDI	$	2,019.14
Wire Transfer	Cal Pers	$	171,321.80

Respectfully submitted,

Tim Przybyla
Financial Services Director

CITY OF MADERA
REGISTER OF AUDITED DEMANDS FOR BANK #1-UNION BANK GENERAL ACCOUNT
March 20th, 2017

CHECK	PAY DATE	ISSUED TO	DESCRIPTION	AMOUNT
12414	03/10/2017	AT&T	11/16 CALNET 3 SVS 9391026398	391.68
12415	03/10/2017	AT&T	12/16 CALNET 3 SVS 9391031571	1,108.72
12416	03/10/2017	AT&T	12/16 CALNET 3 SVS 9391031572	3,191.77
12417	03/10/2017	AT&T	12/16 CALNET 3 SVS 9391031576	4,561.68
12418	03/10/2017	AT&T	12/16 CALNET 3 SVS 9391031573	2,067.59
12419	03/10/2017	EUROFINS EATON ANALYTICAL, INC.	WATER SAMPLES	726.00
12420	03/10/2017	MADERA COUNTY AUDITOR	Previous PO #8050 -ANIMAL SHELTERING SVS 15-16	14,583.33
12421	03/10/2017	TESEI PETROLEUM INC.	FUEL CHARGES 01/21/17-01/31/17	48,823.29
12422	03/10/2017	ADMINISTRATIVE SOLUTIONS INC.	FUNDS ON DEPOSIT FOR MEDICAL CLAIMS	40,000.00
12423	03/10/2017	ALL VALLEY ADMINISTRATORS	MEDICAL AND CHILD CARE EXP ACCT 3/10/17 PAYROL	731.16
12424	03/10/2017	AMERICAN MOBILE SHREDDING	DOCUMENT DESTUCTION	280.00
12425	03/10/2017	AT&T	01/17 CALNET3 SVS 9391026408	763.84
12426	03/10/2017	GARCIA JORGE	PERMIT #20162002 CANCELLED	420.49
12427	03/10/2017	MERCED CO COMMUNITY ACTION PARTNERSHIP	BUILDING PERMIT REFUND	31.71
12428	03/10/2017	SUNRUN	PERMIT REFUND	177.34
12429	03/10/2017	BUSHONG, JASON	MILEAGE REIMBURSEMENT TO WWTP 2/22/17	14.79
12430	03/10/2017	CALIFORNIA CLIMATE CONTROL, INC.	HVAC MAINT	1,248.27
12431	03/10/2017	CEDAR VETERINARY HOSPITAL, INC	VETERINARIAN VISIT FOR GUNS	153.15
12432	03/10/2017	CITY OF MADERA	INTRMODAL WATER SEWER METER	557.29
12433	03/10/2017	CITY OF MADERA	MISAPPLIED PAYMENT TO 1060-8659/MEANT FOR AR 04152	4,870.00
12434	03/10/2017	CITY OF MADERA	DISHWASHER REBATE APPLY TO 9918616	50.00
12435	03/10/2017	CLEAN CUT LANDSCAPING	Prj No. PK-15-02, MAIS PO 8312	14,607.33
12436	03/10/2017	COLONIAL LIFE & ACCIDENT INSURANCE CO	#E700482-3 FOR 3/10/17 PAYROLL	1,080.04
12437	03/10/2017	COMCAST	02/05/17 SVS 8155500320092096	126.71
12438	03/10/2017	CORELOGIC INFORMATION SOLUTIONS INC	METRO SCAN 02/17	150.00
12439	03/10/2017	DATAPROSE, LLC	FEB BILLING	9,658.59
12440	03/10/2017	DIAMOND COMMUNICATIONS	YOUTH CENTER ALARM SERVICES	586.00
12441	03/10/2017	MEGA TRENCHES, INC	BOND RELEASE/BROKEN PG&E BOX RELATED TO PER #4934	7,500.00
12442	03/10/2017	ENTENMANN-ROVIN CO	BADGES	671.51
12443	03/10/2017	FRESNO BEE, THE	RECRUITMENT ADS - HR TECH II / ACCT TECH II	1,362.10
12444	03/10/2017	FRESNO MADERA AREA AGENCY ON AGING	UNSERVED MEALS	176.00
12445	03/10/2017	GOVERNMENT STAFFING SERVICES, INC.	PW Dept Admin Asst. temp staff - INVOICES 127060	1,145.50
12446	03/10/2017	GUARDIAN WESTERN SWEEPING INC.	MONTHLY POWER SWEEPING/FUEL RECOVERY FEE	537.00
12447	03/10/2017	KAISER FOUNDATION HEALTH PLAN	RECRUITMENT	13.00
12448	03/10/2017	LANGUAGE LINE SERVICES, INC.	OVER THE PHONE INTERPRETATIONS	13.28
12449	03/10/2017	LAW & ASSOCIATES	LAW ENFORCEMENT EMPLOYMENT BACKGROUND	700.00
12450	03/10/2017	M P O A	REIMBURSEMENT FOR OATH OF OFFICE CEREMONY	542.03
12451	03/10/2017	MADERA HONDA SUZUKI	MOUNT AND BALANCE FRONT AND REAR TIRES	662.60
12452	03/10/2017	MADERA RADIO DISPATCH, INC.	TOWER RENT 5% ANNUAL INCREASE	1,272.27
12453	03/10/2017	MADERA TRIBUNE	4416 CONSTRUCTION SUNSET	238.32
12454	03/10/2017	N.P.C.-ORCHARD TRUST COMPANY	PLAN #340227-01 FOR 3/10/17 PAYROLL	8,092.08
12455	03/10/2017	N.P.C.-ORCHARD TRUST COMPANY	PLAN #340227-02 FOR 3/10/17 PAYROLL	2,335.36
12456	03/10/2017	OFFICE DEPOT	OFFICE CHAIR	344.80
12457	03/10/2017	DAISY MANRIQUEZ	CITE SIGN OFF COULD NOT BE DONE	10.00
12458	03/10/2017	P G AND E	02/17 SVS 3642526071-2	1,797.91
12459	03/10/2017	ERICA SEGURA	FACILITY DEPOSIT REFUND	300.00
12460	03/10/2017	JAIME ARCE	FACILITY DEPOSIT REFUND	100.00
12461	03/10/2017	JORGE BARRAGAN	PARK DEPOSIT REFUND	165.00
12462	03/10/2017	JOSELINA NERI	PARK DEPOSIT REFUND	50.00
12463	03/10/2017	LETICIA GUERRERO	FACILITY DEPOSIT REFUND	100.00
12464	03/10/2017	LILLY LOPEZ	PARKS DEPOSIT REFUND	50.00
12465	03/10/2017	LORENA CASTILLO	PARKS DEPOSIT REFUND	50.00
12466	03/10/2017	MARIA HERNANDEZ	PARK DEPOSIT REFUND	50.00
12467	03/10/2017	MARTHA SOLIS	PARKS DEPOSIT REFUND	50.00
12468	03/10/2017	MARY MENDEZ	FACILITY DEPOSIT REFUND	100.00
12469	03/10/2017	MARYANN MCCASKILL	PARK DEPOSIT REFUND	50.00
12470	03/10/2017	MIGUEL DIAZ	FACILITY DEPOSIT REFUND	100.00
12471	03/10/2017	OLGA RODRIGUEZ	PARKS DEPOSIT REFUND	50.00
12472	03/10/2017	PECK'S PRINTERY	BUSINESS CARDS	120.68
12473	03/10/2017	PIERCE CONSTRUCTION	REMOVE AND REPLACE DAMAGED ASP	8,173.93
12474	03/10/2017	PITNEY BOWES GLOBAL FINANCIAL SERVICES	QUARTERLY EQUIP RENTAL 12/30/16 - 3/29/17	367.68
12475	03/10/2017	PRESORT CENTER OF FRESNO, LLC.	Advertising Other	2,111.74
12476	03/10/2017	PURCHASE POWER	LATE FEE-POSTAGE RELOAD YOUTH CENTER	37.99
12477	03/10/2017	ROBINSON, DEREK	LOCC DIVISION EXECUTIVE MTG	71.58
12478	03/10/2017	SUNEDISON, LLC	WWTP ELECTIC UTILITIES	10,637.04
12479	03/10/2017	THE ARC FRESNO	CITY CAN ORDERS	1,476.44

12480	03/10/2017	UNITED RENTALS, INC	MISC. EQUIPMENT RENTAL	483.05
12481	03/10/2017	VANTAGEPOINT TRANSFER AGENTS-457	PLAN 302351 CONTRIBS FOR 3/10/17 PAYROLL	23,108.53
12482	03/10/2017	VERIZON WIRELESS	PD AIRCARDS JAN 11 - FEB 10	88.95
12483	03/16/2017	ADMINISTRATIVE SOLUTIONS INC.	MONTHLY ADMINISTRATIVE FEE MARCH 2017	4,558.00
12484	03/16/2017	ARNOLD, JOSIAH	PER DIEM ASSET FORFEITURE UPDATE	185.00
12485	03/16/2017	BSK ASSOCIATES	MATERIAL INSPECTION AND LABOR APR - JUNE 2016	3,903.40
12486	03/16/2017	BURNS, THOMAS	PER DIEM BASIC POLICE MOTORCYCLE TRAINING	318.86
12487	03/16/2017	CALIFORNIA SURVEYING AND DRAFTING SUPPLY	WIDE FORMAT PAPER	63.19
12488	03/16/2017	CHIARAMONTE, GIACHINO	PER DIEM ROLE OF THE CHIEF	333.00
12489	03/16/2017	CHICAGO TITLE	POLICY OF INS. OF RECORD TITLE - 1692 CARDWELL ST	100.00
12490	03/16/2017	CITY OF MADERA	03/17 UTILITY SVS 322 W 6TH ST	152.94
12491	03/16/2017	CITY OF MADERA	03/17 UTILITIES ACCT# 003040421-6	297.60
12492	03/16/2017	CITY OF MADERA	03/17 UTILITIES 703 SHERWOOD WAY	172.43
12493	03/16/2017	CONCENTRA MEDICAL CENTERS	DOT TESTING	128.50
12494	03/16/2017	CORELOGIC INFORMATION SOLUTIONS INC	REALQUEST 02/17	175.00
12495	03/16/2017	CPS HR CONSULTING	BILINGUAL EXAM SOCIAL SERVICES	1,255.50
12496	03/16/2017	FIRST TRANSIT INC.	FIRST TRANSIT FEBRUARY 2017	75,860.04
12497	03/16/2017	FRESNO COUNTY ECONOMIC OPPTY. COMMISSION	FEBRUARY 2017 SENIOR SITE SUPPLIES	540.73
12498	03/16/2017	GEIL ENTERPRISES, INC.	AUTOSCRUB THE BREEZEWAY 2/28/17	25.00
12499	03/16/2017	GOVERNMENT STAFFING SERVICES, INC.	PW Dept Admin Asst. temp staff - invoice 127088	5,216.88
12500	03/16/2017	LEGACY K9 INC.	K9 TRAINING DRUG DETECTION	3,800.00
12501	03/16/2017	MADERA CLEANERS AND LAUNDRY INC.	YOUTH CENTER MAT SERVICE	32.30
12502	03/16/2017	MADERA PUMPS, INC.	WELL #23 REPAIRS	640.00
12503	03/16/2017	MADERA RADIO DISPATCH, INC.	TOWER RENT	200.00
12504	03/16/2017	MADERA TRIBUNE	TIRE AMNESTY	1,215.00
12505	03/16/2017	LAW OFFICES OF GREGORY L. MYERS	LATEEF V. CITY OF MADERA (FEDERAL) NO. 000531002	2,517.50
12506	03/16/2017	OLIVER, WILL	PER DIEM LOCC POLICY COMMITTEE MTG TRANSPORTATION	156.22
12507	03/16/2017	OMNI-MEANS, LTD	PROFESSIONAL PROJECT DEVELOPMENT	2,770.97
12508	03/16/2017	ONTRAC	OVERNIGHT SHIPPING	3.59
12509	03/16/2017	HAIDER, AHMAD	REIMBURSE OVERPAYMENT OF CITE #2016-01053-2-1	100.00
12510	03/16/2017	JAMISON, ALBERT	REFUND INCORRECTLY GARNISHED FROM STATE	305.50
12511	03/16/2017	PACIFIC GAS & ELECTRIC	02/17 SVS 3499945233-6	550.88
12512	03/16/2017	PIERCE CONSTRUCTION	REMOVE AND REPLACE DAMAGED ASPHALT	35,547.50
12513	03/16/2017	PRAXAIR DISTRIBUTION, INC.	CYLINDER DEMURRAGE RENTAL	510.57
12514	03/16/2017	PRICE PAIGE AND COMPANY	COMPLETION OF FINANCIAL STATEMENT AUDIT 6/30/16	7,530.00
12515	03/16/2017	PROVOST & PRITCHARD CONSULTING GROUP	PROFESSIONAL ENGINEERING DESIGN	6,242.43
12516	03/16/2017	RNL DESIGN	PROFESSIONAL ARCHITECTURAL & ENGINEERING SVS	20,527.50
12517	03/16/2017	SEAL RITE PAVING	THOMAS JEFFERSON MIDDLE SCHOOL SAFE ROUTES	125,450.03
12518	03/16/2017	SILVA AUTO GROUP	2017 Ford C-Max Hybrid	47,518.64
12519	03/16/2017	SMITH, JOHNNIE	PER DIEM BACKGROUND INVESTIGATIONS COURSE	569.75
12520	03/16/2017	TAG/AMS, INC.	DOT TESTING	296.50
12521	03/16/2017	TAMARACK PEST CONTROL	MARCH 2017 PEST CONTROL SVS	685.00
12522	03/16/2017	TESEI PETROLEUM, INC.	FUEL	506.78
12523	03/16/2017	THYSSENKRUPP ELEVATOR CORPORATION	YOUTH CENTER ELEVATOR SERVICE	250.32
12524	03/16/2017	TRUXELL & VALENTINO	CENTENNIAL PARK PLAYGROUND PROJECT	17,765.42
12525	03/16/2017	VASQUEZ, RYAN	PER DIEM ASSET FORFEITURE UPDATE	185.00
12526	03/16/2017	WEST VALLEY CONSTRUCTION CO., INC.	REIMB. FOR CLEVELAND/ D ST HYDRANT RELOCATION	36,650.00
12527	03/16/2017	WILLDAN FINANCIAL SERVICES	CFD FEES FOR MARCH 2017	792.16
12528	03/17/2017	3RD GENERATIONAL LLC LAS PALMAS MANAGEMENT	Utility Billing Credit Refund	149.47
12529	03/17/2017	ALCARAZ DANIEL C	Utility Billing Deposit Refund	34.63
12530	03/17/2017	ALLEN ROBERT	Utility Billing Credit Refund	39.85
12531	03/17/2017	AMBRIS JOSEPH OR CITY OF MADERA	Utility Billing Credit Refund	150.52
12532	03/17/2017	ARMSTRONG MELVIN	Utility Billing Deposit Refund	94.95
12533	03/17/2017	ASHBURN JAIMEE	Utility Billing Deposit Refund	56.66
12534	03/17/2017	BAEZA SUZETTE F	Utility Billing Credit Refund	173.58
12535	03/17/2017	BANK OF AMERICA	Utility Billing Credit Refund	162.68
12536	03/17/2017	BARRERA LUZ MARIA	Utility Billing Credit Refund	85.83
12537	03/17/2017	BENZ MICHAEL CRAIG AND PEREZSANDRA DIANE OR CITY O	Utility Billing Credit Refund	171.64
12538	03/17/2017	BOLZ GARRY R	Utility Billing Credit Refund	114.85
12539	03/17/2017	BORGES TONY C/O NEWTON PROPERTY MANAGEMENT	Utility Billing Deposit Refund	103.56
12540	03/17/2017	BRAR HOLDINGS INC	Utility Billing Deposit Refund	40.60
12541	03/17/2017	BROCKMAN D STEVEN C/O ROYAL MANAGEMENT ATTN:BRENT	Utility Billing Deposit Refund	67.41
12542	03/17/2017	CARRINGTON REAL ESTATE SERVICES	Utility Billing Deposit Refund	76.91
12543	03/17/2017	CASTRO GILBERT OR CITY OF MADERA	Utility Billing Credit Refund	150.55
12544	03/17/2017	CHEN CARL	Utility Billing Credit Refund	381.54
12545	03/17/2017	CITY OF MADERA OR JAMES MITZI	Utility Billing Credit Refund	82.17
12546	03/17/2017	CITY OF MADERA OR MENDOZA JOSE	Utility Billing Credit Refund	150.62
12547	03/17/2017	COSTA HOUSING CORPORATION C/O LAS PALMAS MANAGEME	Utility Billing Credit Refund	225.62
12548	03/17/2017	CREEKSIDE LAND COMPANY LLC	Utility Billing Deposit Refund	335.41
12549	03/17/2017	DAVILA MARIA	Utility Billing Credit Refund	140.62
12550	03/17/2017	DE LA PUENTE DE MADERA MARIA A	Utility Billing Credit Refund	181.52

12551	03/17/2017	DEMPSTER FLORENCE	Utility Billing Credit Refund	149.69
12552	03/17/2017	DVP LP	Utility Billing Credit Refund	135.58
12553	03/17/2017	EL GRANDE MFG CHICHARRONES VICTOR VASQUEZ	Utility Billing Credit Refund	784.43
12554	03/17/2017	ESTRADA FRANCISCO GARCIA AND CERVANTES MARIA	Utility Billing Credit Refund	34.96
12555	03/17/2017	FELIX JOSE LUIS	Utility Billing Credit Refund	190.29
12556	03/17/2017	FISCHER HERBERT	Utility Billing Credit Refund	78.25
12557	03/17/2017	FLORES ELIZABETH	Utility Billing Credit Refund	163.45
12558	03/17/2017	FLORES THERESA	Utility Billing Credit Refund	362.85
12559	03/17/2017	FRANCESCONI NILA	Utility Billing Deposit Refund	12.51
12560	03/17/2017	FUENTES CHRISTINA	Utility Billing Credit Refund	150.66
12561	03/17/2017	GARCIA ANTHONY OR CITY OF MADERA	Utility Billing Credit Refund	231.14
12562	03/17/2017	GARZA JOE L AND MARY N	Utility Billing Deposit Refund	54.34
12563	03/17/2017	GILL LISA M	Utility Billing Credit Refund	349.21
12564	03/17/2017	GONZALEZ LETICIA	Utility Billing Deposit Refund	57.36
12565	03/17/2017	GOODMAN WAYNE	Utility Billing Credit Refund	145.19
12566	03/17/2017	GORATH WAYNE OR CITY OF MADERA	Utility Billing Credit Refund	150.76
12567	03/17/2017	HERNANDEZ FRANCISCA ALICIA OR CITY OF MADERA	Utility Billing Credit Refund	150.58
12568	03/17/2017	HERNANDEZ ISABEL AND HERNANDEZ EFIGENIA	Utility Billing Credit Refund	192.35
12569	03/17/2017	LANDUCCI FRED	Utility Billing Deposit Refund	10.25
12570	03/17/2017	LENOX RICKY AND DEBORAH	Utility Billing Deposit Refund	83.29
12571	03/17/2017	LITTLETON PATSY M OR CITY OF MADERA	Utility Billing Deposit Refund	160.16
12572	03/17/2017	LOPEZ ROSA	Utility Billing Credit Refund	169.74
12573	03/17/2017	MADERIOUS JOHN	Utility Billing Deposit Refund	77.08
12574	03/17/2017	MADRIGAL ARTURO AND JULIE	Utility Billing Credit Refund	181.75
12575	03/17/2017	MARTINEZ MISAEL VARGAS	Utility Billing Credit Refund	214.73
12576	03/17/2017	MEDINA HECTOR	Utility Billing Credit Refund	50.27
12577	03/17/2017	MENDOZA ROBERTO MOTA	Utility Billing Credit Refund	237.26
12578	03/17/2017	MORELOS MATEO SARA OR CITY OF MADERA	Utility Billing Credit Refund	150.61
12579	03/17/2017	MORENO MARIA OR CITY OF MADERA	Utility Billing Credit Refund	66.43
12580	03/17/2017	MUDUNURI VANAJAKSHI	Utility Billing Credit Refund	142.38
12581	03/17/2017	NANEZ CONNIE	Utility Billing Credit Refund	247.02
12582	03/17/2017	NEGRETE LUCERITO OR CITY OF MADERA	Utility Billing Credit Refund	73.74
12583	03/17/2017	PALACIOS MARK	Utility Billing Credit Refund	201.45
12584	03/17/2017	PENNINGTON DANEILE	Utility Billing Deposit Refund	35.09
12585	03/17/2017	PIPES WAYNE	Utility Billing Deposit Refund	10.59
12586	03/17/2017	RAMIREZ AMELIA CARMELA OR CITY OF MADERA	Utility Billing Credit Refund	150.97
12587	03/17/2017	RAYGOZA ISMAEL OR CITY OF MADERA	Utility Billing Credit Refund	151.07
12588	03/17/2017	REALTY FRESNO	Utility Billing Credit Refund	171.36
12589	03/17/2017	REYES SOFIA	Utility Billing Credit Refund	102.58
12590	03/17/2017	ROSE DONALD EUGENE	Utility Billing Deposit Refund	15.85
12591	03/17/2017	SAN JOAQUIN VALLEY COLLEGE INC OR CITY OF MADERA	Utility Billing Credit Refund	199.83
12592	03/17/2017	SANCHEZ MARTINA	Utility Billing Deposit Refund	43.87
12593	03/17/2017	SANTOS ARACELI OR CITY OF MADERA	Utility Billing Credit Refund	145.15
12594	03/17/2017	SELLAI NICHOLAS AND BETHANY	Utility Billing Credit Refund	193.05
12595	03/17/2017	STOUT RODGER	Utility Billing Deposit Refund	53.46
12596	03/17/2017	TRAVELERS HAVEN LLC	Utility Billing Credit Refund	225.19
12597	03/17/2017	TRUJILLO MARIA	Utility Billing Credit Refund	242.12
12598	03/17/2017	VALDIVIA LINDA	Utility Billing Credit Refund	191.72
12599	03/17/2017	VARGAS OCHOA AVIGAIL OR CITY OF MADERA	Utility Billing Credit Refund	150.71
12600	03/17/2017	VIRK HARPAL S	Utility Billing Credit Refund	150.14
12601	03/17/2017	WHITE ANDREW OR CITY OF MADERA	Utility Billing Credit Refund	134.18
12602	03/17/2017	ZAMBRANO JUSTINO CRUZ	Utility Billing Credit Refund	34.52
12603	03/17/2017	ZEILMANN FRANK AND DANIELS KASSIE	Utility Billing Credit Refund	10.68
			Bank # 1 - Union Bank General Account Total	643,915.85

Return to Agenda

REPORT TO CITY COUNCIL

MEETING DATE: April 5, 2017

AGENDA ITEM NUMBER: B-3

Approved By:

PUBLIC WORKS DIRECTOR

CITY ADMINISTRATOR

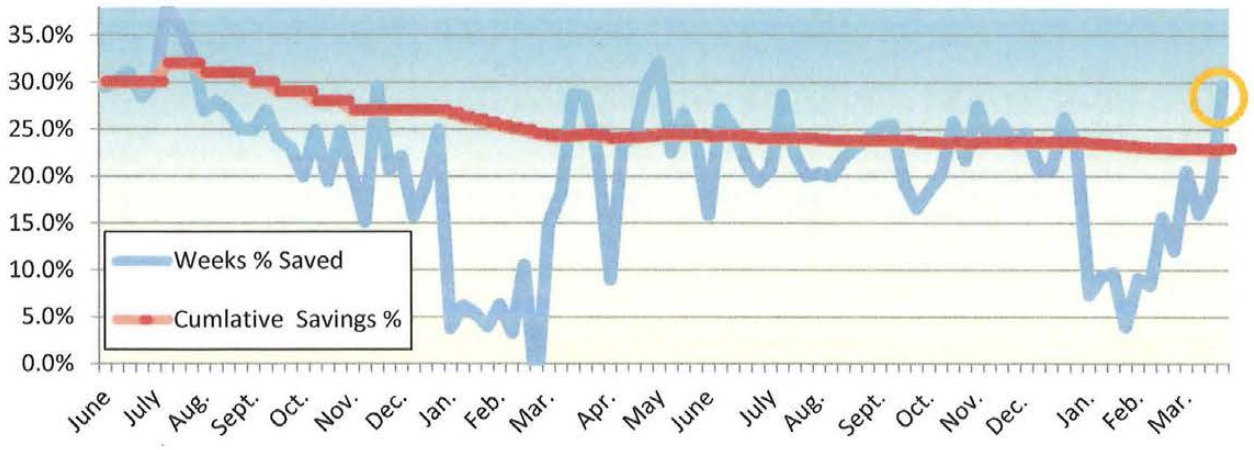
SUBJECT: Bi-Weekly Water Conservation Report for March 13th thru March 26th.

RECOMMENDATION: Staff recommends that the Council review the attached bi-weekly report of water conservation activities and progress in reducing residential water consumption.

BACKGROUND: The State began mandating water conservation goals in June of 2015, the City's initial goal was set as a 32% reduction from water usage levels in 2013. Based on data and the City's particular circumstances, City Staff negotiated a reduction of the goal down to 28%. The State has since suspended its mandatory goals but kept in place various water wasting restrictions, such as not watering with a hose without a control nozzle. Adoption of new mandatory goals or other restrictions may be considered by the State Water Resources Board this spring. This Water Conservation Unit of the Water Division performs water conservation activities and is also responsible for reading, maintaining and shutting off and on water meters.

WATER CONSERVATION: As illustrated below, the City's water conservation rate was up from 19% in the last bi-weekly reporting to 24% in this report. The monthly conservation rate for March 2017 is the same as it was during 2016 at 21%. Below is the most current water conservation data.

Bi-Weekly	Monthly	Cumulative
Mar. 13th – 26th	March 1st – 26th	June 1st, 2015 Mar. 26th, 2017
24%	21%	22.9%



WATER PATROL: The water patrol staff made a total of 137 public contacts. Below is the most current enforcement data. As part of our local outreach and education, water conservation presentations were made at three local elementary schools: James Madison, George Washington and Parkwood. Handouts were distributed to the kids and a total of 320 contacts were made.

Enforcement			
3 Public Presentations (320 Contacts)			
Individual Contacts	**137**	**1st offenses ($75)**	**17**
Verbal Warnings	**2**	**2nd offenses ($250)**	**0**
Correction Notices	**37**	**3rd or more offense ($500)**	**0**

WATER METERS: In addition to water conservation and patrol, the Water Conservation Unit dedicates about 75% of their total man hours to water connection and meter maintenance activities. Approximately 600 of the City's 13,000 water meters have to be read manually, which requires four employees' attention for an entire week each month (generally, the 3rd week of the month). The Unit dedicates another week during the month to shutting water meters off and back on due to delinquent bills. Typically, there are 180 to 200 water services that are turned off during that week and later turned back on.

In addition to the above tasks, staff responds to customer complaints regarding meters and consumption, counsels customers about usage and sends out notifications of leaks detected by the City's software. Staff investigates where we are having abnormally low flows and checks the meters. This resulted in 17 meters being replaced in this bi-weekly period, and 5 customer leaks were found during investigations of customer complaints.

FINANCIAL IMPACT: The expenses for implementing and administering these water conservation activities occur within the Water Fund and do not impact the General Fund.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN: While the proposed actions are not specifically addressed as part of the Plan, they are not in conflict with it and are sympathetic of the underlying principles of the 2025 Plan.

Return to Agenda

REPORT TO CITY COUNCIL

Approved By:

Department Director

City Administrator

Council Meeting of April 5, 2017
Agenda Item Number B-4

SUBJECT: MINUTE ORDER – ACCEPTING THE INSTALLATION OF A NEW COMPRESSED GAS (CNG) COMPRESSOR FEDERAL PROJECT NO. CML 5157 (085) CITY PROJECT NO. CNG 11-01 AND AUTHORIZING THE RECORDING OF A NOTICE OF COMPLETION

RECOMMENDATION:

That the City Council approve Minute Order approving:

a. Acceptance of the Installation of a New Compressed Gas (CNG) Compressor Federal Project No. CML 5157 (085) City Project No. CNG 11-01.

b. The recording of the Notice of Completion.

c. The release of retention after 35 days from recording of the Notice of Completion.

SUMMARY:

On December 7, 2011, the City Council awarded a contract for the construction of the existing CNG Fueling Station at the Madera Unified School District's (MUSD) Transportation Facility located at 1200 Gill Avenue. The project was completed on August 1, 2012.

The City Council, at their October 15, 2014, meeting, awarded a contract to Steve Dovali Construction, Inc. for the installation of a second Compressed Gas (CNG) Compressor at the MUSD fueling site.

The initial design of the CNG Fueling Facility for MUSD was prepared by AECOM Technical Services, Inc., who was selected and contracted by the City of Madera to provide the original design. The second compressor system will provide additional capacity and add operational redundancy to the existing system. In the event that one compressor is down for maintenance or other reason the fueling station could still operate by engaging the new compressor system. If there is an increase in demand for natural gas a third compressor can be added to the fueling station according to the basis of design of the MUSD Fueling Facility.

Construction of the project has been completed with final inspections conducted by AECOM Technical Services, Inc., Design Engineers for the Project and the City's Engineering Department.

Staff recommends that the City Council accept the project as completed and authorize the "Notice of Completion" be recorded.

DISCUSSION:

The completed project consists of the following:

The new compressor is mounted on a fully enclosed skid frame on a concrete foundation. Included in the new compressor system are auxiliary compressor components, coolers, tanks, filters, dryers, including electric panel, motors and equipment for the Motor Control Center (MCC). A new programmable pro-logic controller (PLC) was installed to interface with the existing CNG System PLC controller and the MUSD maintenance facility's dispensing system. The existing PLC controller and new PLC controller have the ability to control the entire fueling station operation.

The existing compressor and new compressor were both manufactured by Knox-Western. Due to existing problems with the fueling operations of the existing CNG system, Knox-Western over-hauled and replaced part on the existing compressor system to make sure it would be compatible with the new compressor system. The existing PLC controller was re-programmed to interface with the new PLC controller to make the systems compatible as required for dispensing of fuel.

The existing compressor system and new compressor have been operating as specified since it was substantially completed on January 27, 2017. Since January 1, 2017 to March 9, 2017 the school district has pumped approximately 16,026 gallons of fast-fill compressed natural gas fuel into their vehicles.

The school district has also employed a CNG maintenance and service company that provides regularly scheduled maintenance of the existing system. The contractor is also utilizing the services of the same service company to oversee the new compressor system during the warranty period.

Delays on the project were experience due to approval of contractor submittals for the proposed equipment and system controllers/PLC's that were specified to interface and be compatible to operate the existing compressor system and new compressor system simultaneously. The school district also experienced problems with the existing system causing considerable down time and reliability issues that caused considerable delay to the project.

There was one contract change order for a deduction of $2,181.00 for an additional day of work to bring in the design engineer to commission the new system. The project was reduced from $367,405.00 to $365,224.00.

FINANCIAL IMPACT:

Funding for the project construction was programmed in the FY 2014/15 budget from Federal Congestion Mitigation Air Quality (CMAQ) Funds and LTF Funds.

Construction of the project did not have a financial impact on the City's General Fund. The project may result in reduced cost for fueling of City vehicles if a long term use contract is finalized with MUSD.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN:

Strategy 115.0 - Ensure sufficient economic resources to provide adequate City services.
Strategy 121.1 – Provide a needs assessment including all forms of transportation.
Strategy 431.0 – Promote alternative energy use.
Strategy 433.0 – Improve air quality through innovative programs.

RECORDING REQUESTED BY:
CITY OF MADERA

AND WHEN RECORDED MAIL TO:
CITY OF MADERA – CITY CLERK
205 W. 4TH STREET
MADERA, CA 93637

SPACE ABOVE THIS LINE FOR RECORDER'S USE

FEE WAIVED PER SECTION 27383 OF THE GOVERNMENT CODE - NO DOCUMENT TAX DUE $ -0-

NOTICE OF COMPLETION

Corporation

NOTICE IS HEREBY GIVEN THAT:

1. The undersigned is owner of the interest or estate stated below in the property hereinafter described,
2. The full name of the undersigned is **City of Madera**
3. The full address of the undersigned is **205 West 4th Street; Madera, CA 93637**
4. The nature of the title of the undersigned is: In fee **Public Improvements**
   (If other than fee, strike "In fee" and insert, for example, "purchaser under contract of purchase," or "lessee")
5. The full names and full addresses of all persons, if any, who hold title with the undersigned as joint tenants or as tenants in common are:

NAMES	ADDRESSES
N/A	

6. A work of improvement on the property hereinafter described was completed on **APRIL 5, 2017**
7. The name of the original contractor, if any, for such work of improvement was **STEVE DOVALI CONSTRUCTION, INC.**
   (If no contractor for work of improvements as a whole, insert "none".)
8. The full name(s) and address (es) of the transferor(s) of the undersigned is (are):

NAMES	ADDRESSES
N/A	

(Complete where undersigned is successor to owner who caused improvement to be constructed)

9. The property on which said work of improvement was completed is in the City of **Madera** County of **Madera**, State of California, and is described as follows:

INSTALLATION OF A NEW COMPRESSED NATURAL GAS (CNG) COMPRESSOR FEDERAL PROJECT NO. CML 5157 (085) CITY PROJECT No. CNG 11-01

10. The street address of said property is Madera **City Limits**
    (If no street address has been officially assigned, insert "none".)

(Signature of Owner named In Paragraph 2)

Dated: _____

Keith Brent Helmuth, P.E
City Engineer

10. Continued .....

INSTALLATION OF A NEW COMPRESSED NATURAL GAS (CNG) COMPRESSOR FEDERAL PROJECT NO. CML 5157 (085) CITY PROJECT No. CNG 11-01

STATE OF CALIFORNIA
County of Madera

Keith Brent Helmuth, being duly sworn says: That he is the City Engineer of the City of Madera, The corporation that executed the foregoing notice as owner of the aforesaid interest or estate in the property therein described; that he makes this verification on behalf of said corporation; That he has read said notice and knows the contents thereof, and that the facts therein stated are true:

Signature of Officer: _____

State of California
County of Madera

The notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

_____
Keith Brent Helmuth, P.E

Subscribed and sworn to (or affirmed) before me on this 5th day of April, 2017, by Keith Brent Helmuth, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

_____
Date

_____
Sonia Alvarez, City Clerk

Return to Agenda

REPORT TO CITY COUNCIL

Approved By:

Department Director

City Administrator

Council Meeting of April 5, 2017
Agenda Item No. B-5

SUBJECT: MINUTE ORDER – ACCEPTANCE OF THE LAUREL STREET BIKE PATH SUNSET AVENUE TO FRESNO RIVER TRAIL FEDERAL PROJECT NO. CML 5157 (097), SJVAPCD PROJECT NO. C-28159-A, CITY OF MADERA PROJECT NO. PK 12 AND AUTHORIZING THE RECORDING OF A NOTICE OF COMPLETION

RECOMMENDATION:

1. That the City Council approve Minute Order approving:
   a. Acceptance of the Laurel Street Bike Path Sunset Avenue to Fresno River Trail Federal Project No. CML 5157 (097), SJVAPCD Project No. C-28159-A, City of Madera Project No. PK 12.

   b. The recording of the Notice of Completion.

   c. The release of retention after 35 days from recording of the Notice of Completion.

SUMMARY:

The City Council, at their July 1, 2015, meeting, awarded a contract to F. Loduca Co. for the Construction of the Laurel Street Bike Path Sunset Avenue to Fresno River Trail Federal Project No. CML 5157 (097), SJVAPCD Project No. 28159-A, City of Madera Project No. PK 12. The Contractor has completed the project in accordance with the plans and specifications. It is staff's recommendation that the City Council accept the project.

A final project inspection was held and the Parks & Community Services Department and Engineering Division have accepted the project. The project can now be accepted by the City Council and a "Notice of Completion" recorded.

DISCUSSION:

The work consists of constructing a Class I, ten (10) foot wide asphalt concrete bikeway from Sunset Avenue to Riverview Street. The bikeway and pedestrian path will also provide access to the Fresno River Trail from Riverview Street via the new ADA compliant concrete ramp.

Included in the project was the clearing and grubbing of vegetation, required demolitions and earthwork necessary for construction of the bikeway including placement of aggregate base and asphalt concrete paving. Concrete improvements include installation of ADA compliant sidewalks and ramps at street connections. Additionally the project included installation of three (3) drinking fountains and trash receptacles along the bikeway, installation of water services for the landscaping and irrigation systems included water meters, backflow devices with vandal proof cages, electrical service and state-of-the-art irrigation controller system capable of numerous irrigation stations.

The project provided 141 trees of various varieties with all trees on the City's approved *Street Tree List*. Irrigation for the trees is by smart clock technology with deep root irrigation bubblers installed at each tree.

Three (3) contract change orders were processed for the project as summarized below:

Change Order No. 1

CCO	Item Description	Amount
1-1	4" Water service line relocation from beneath ADA ramp at Riverview Drive @ T&M.	$ 5,714.68
1-2	Installation of 1400LF of schedule 80 electrical conduit & pull boxes for future lighting - Lump Sum.	$20,325.68
	Total Additive Amount - - - -	**$26, 040.36**

Change Order No. 2

CCO	Item Description	Amount
2-1	Installation of additional concrete sidewalk per Bid Item No. 10 483.25 SF @ $13.00 SF	$ 6,282.25
2-2	Additional aggregate base per Bid Item No. 7 42.66 tons @ $45.00 ton.	$ 1,919.70
	Total Additive Amount - - - -	**$ 8,201.95**

Change Order No. 3

CCO	Item Description	Amount
3-1a	Sawcut & removal of existing curb & sidewalk to install V-12 sidewalk drain @ T&M.	$ 2,069.33
3-1b	Excavation, compaction & setting forms and rebar for V-12 sidewalk drain, including V-12 drainage structure @ T&M.	$ 4,355.90
3-1c	Form retaining curb along north side of Riverview & place curb and sidewalk concrete @ T&M.	$ 3,061.75
3-1d	Install V-12 drainage structure, iron lid & extension @ T&M.	$ 2,017.73
3-2a	Compaction & setting forms for north side retaining curb @ T&M.	$ 1,622.09
3-2b	Stripping forms, backfilling & grading retaining curb @ T&M.	$ 1,000.34
3-3a	Demo, remove & dispose of asphalt concrete for sidewalk installation @ Sunset & Laurel Street @ T&M.	$ 3,251.29
3-3b	Demo, remove & dispose of existing concrete for new sidewalk, adjust MID manhole @ Sunset & Laurel Street @ T&M.	$ 2,153.16
3-3c	Relocate trail signs @ T&M.	$ 336.64
3-4a	Pumped storm water off bike path @ T&M.	$ 2,704.11
3-4b	Pumped storm water off bike path @ T&M.	$ 1,742.17
3-4c	Pumped storm water off bike path @ T&M.	$ 2,322.91
	Total Additive Amount - - - -	**$26,637.42**
3-5	Deletion of Bid Item No. 26 3" Shredded Redwood Mulch	($48,000.00)
	Total Deductive Amount - - - -	**($48,000.00)**

The total cost of the three Contract Change Orders increased the project by $60,879.73 less the reduction of the deleted bid item of $48,000, leaves a total increase to the project of $12,879.73. The additive amount increases the original project approximately 2.2% to $588,645.73. The project was completed within the project funding.

Acceptance of the project was delayed largely due to the time associated with the Contractor's submittal of an "Initial Notice of Potential Claim" and a "Supplemental Notice of Potential Claim" as well as City's response to the claim notices. The claim notices included the Contractor's request for compensation for various components of work they claim to have performed. The claims were reviewed by the City Engineering Division to determine which claims merited approval and could therefore be paid. The final City staff response to Contractor's claims and qualifying payments, less 10% retention, were addressed in Contract Change Order (CCO) No. 3.

Subsequent to staff's payment of CCO No. 3 and during preparation for this acceptance, correspondence was received from the Contractor's legal representative inquiring as to whether the City is interested in engaging in pre-litigation mediation or arbitration to resolve issues arising from the contract. Staff will

communicate with the legal representative to determine the extent to which the Contractor disagrees with staff's response to claims addressed in CCO No. 3. Regardless of this correspondence, it is staff's opinion that the City should accept this project for the purposes of showing completion with the various funding agencies. In addition, while the final retention payment is separate from Contractor claims, staff does believe such payment should not be delayed as a result of additional time associated with resolving those claims. The final progress payment less the retention amount of ten percent has been processed.

FINANCIAL IMPACT:

Funding for the project was programmed in Fiscal Year 2014/15 with Congestion Mitigation Air Quality (CMAQ) Funding, Local Transportation Parks Funding, San Joaquin Valley Air Pollution Control District - Remove II Funding and Measure T – Environmental Enhancement Funding.

Funding for construction of the project did not impact the City's General Fund.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN:

Strategy 113:	Promote greater accessibility of City Facilities and services to meet the needs of various cultural, socio-economic and disabled groups.
Action 121.8:	Promote and encourage walking in the City of Madera.
Strategy 126.6:	Reconstruct existing streets to install sidewalks and ADA ramps.
Strategy 401:	Develop and promote Madera as a walkable community with an emphasis on improving the quality of the natural resources.
Strategy 404:	Community Wellness: Promote increased community wellness.
Strategy 411:	Enhance and expand recreational activities available to Maderans.

RECORDING REQUESTED BY:
CITY OF MADERA

AND WHEN RECORDED MAIL TO:
CITY OF MADERA – CITY CLERK
205 W. 4TH STREET
MADERA, CA 93637

SPACE ABOVE THIS LINE FOR RECORDER'S USE

FEE WAIVED PER SECTION 27383 OF THE GOVERNMENT CODE - NO DOCUMENT TAX DUE $ -0-

NOTICE OF COMPLETION

Corporation

NOTICE IS HEREBY GIVEN THAT:

1. The undersigned is owner of the interest or estate stated below in the property hereinafter described,
2. The full name of the undersigned is **City of Madera**
3. The full address of the undersigned is **205 West 4th Street; Madera, CA 93637**
4. The nature of the title of the undersigned is: In fee **Public Improvements**
   (If other than fee, strike "In fee" and insert, for example, "purchaser under contract of purchase," or "lessee")
5. The full names and full addresses of all persons, if any, who hold title with the undersigned as joint tenants or as tenants in common are:

NAMES	ADDRESSES
N/A	

6. A work of improvement on the property hereinafter described was completed on **APRIL 5, 2017**
7. The name of the original contractor, if any, for such work of improvement was **F. LODUCA CO.**
   (If no contractor for work of improvements as a whole, insert "none".)
8. The full name(s) and address (es) of the transferor(s) of the undersigned is (are):

NAMES	ADDRESSES
N/A	

(Complete where undersigned is successor to owner who caused improvement to be constructed)

9. The property on which said work of improvement was completed is in the City of **Madera** County of **Madera**, State of California, and is described as follows:

LAUREL STREET BIKE PATH SUNSET AVENUE TO FRESNO RIVER TRAIL FEDERAL PROJECT NO. CML 5157 (097), SJVAPCD PROJECT NO. C-28159-A, CITY OF MADERA PROJECT NO. PK 12

10. The street address of said property is Madera **City Limits**
    (If no street address has been officially assigned, insert "none".)

(Signature of Owner named In Paragraph 2)

Dated: _____

Keith Brent Helmuth, P.E
City Engineer

10. Continued .....

LAUREL STREET BIKE PATH SUNSET AVENUE TO FRESNO RIVER TRAIL FEDERAL PROJECT NO. CML 5157 (097), SJVAPCD PROJECT NO. C-28159-A, CITY OF MADERA PROJECT NO. PK 12

STATE OF CALIFORNIA
County of Madera

Keith Brent Helmuth, being duly sworn says: That he is the City Engineer of the City of Madera, The corporation that executed the foregoing notice as owner of the aforesaid interest or estate in the property therein described; that he makes this verification on behalf of said corporation; That he has read said notice and knows the contents thereof, and that the facts therein stated are true:

Signature of Officer: _____

State of California
County of Madera

The notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

_____
Keith Brent Helmuth, P.E

Subscribed and sworn to (or affirmed) before me on this 5th day of April, 2017, by Keith Brent Helmuth, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

_____
Date

_____
Sonia Alvarez, City Clerk

Return to Agenda

REPORT TO CITY COUNCIL

COUNCIL MEETING OF April 5, 2017
AGENDA ITEM NUMBER B-6

APPROVED BY:

DEPARTMENT DIRECTOR

CITY ADMINISTRATOR

SUBJECT: CONSIDERATION OF A RESOLUTION APPROVING AGREEMENT FOR OUTSIDE OF CITY WATER SERVICE FOR PROPERTY LOCATED AT 28120 MONO STREET, APPROVING COVENANT TO ANNEX, AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT AND COVENANT ON BEHALF OF THE CITY AND DIRECTING STAFF TO RECORD THE AGREEMENT AND COVENANT

RECOMMENDATION:

That the City Council approves Resolution No. 17-___:

1. Approving the request by JHS FAMILY LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP, AS AN UNDIVIDED 1/3 INTEREST, DBH FAMILY LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP, AS TO AN UNDIVIDED 1/3 INTEREST, AND JCH LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP, AS TO AN UNDIVIDED 1/3 INTEREST

OR ORDER for connection to the City's water system, approving the Agreement for Outside of City Water and Approving the Covenant to Annex.

2. Authorizing the Mayor to execute the Agreement and Covenant on behalf of the City.
3. Directing staff to record the Agreement and Covenant.

BACKGROUND:

The City has a policy wherein properties located outside the City Limits and are adjacent to the City water system, may under certain conditions, apply for and receive City water service.

SITUATION:

The property owner, JHS FAMILY LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP, AS AN UNDIVIDED 1/3 INTEREST, DBH FAMILY LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP, AS TO AN UNDIVIDED 1/3 INTEREST, AND JCH LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP, AS TO AN UNDIVIDED 1/3 INTEREST OR ORDER, has an existing single family residence on a single parcel located south of Olive avenue (Avenue 14) and set back 78 feet east of Tozer Street (Road 28). Owner has requested they be allowed to connect to an existing 12-inch City water main on Tozer Street, and has declared their request as an urgent matter as the on-site well is going dry. Access from the water main on Tozer Street to the property would be done through a utility easement acquired by the property owner from a parcel immediately adjacent to Tozer Street.

Prior to water connection, owner agrees to sign the attached "**COVENANT TO ANNEX TO THE CITY OF MADERA AND WAIVE THE RIGHT TO PROTEST THERETO**".

The Local Agency Formation Commission (LAFCO) has approved the connection to City water service outside the current City limits.

FISCAL IMPACT:

Approving this request for outside of city water service imposes no additional expense to the City or the General Fund.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN:

The installation of an outside the City Limits water service connection to the site is not specifically addressed in the vision or action plans.

RESOLUTION NO. 17-___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA, APPROVING THE AGREEMENT WITH JHS FAMILY LIMITED PARTNERSHIP , A CALIFORNIA LIMITED PARTNERSHIP, AS AN UNDIVIDED 1/3 INTEREST, DBH FAMILY LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP, AS TO AN UNDIVIDED 1/3 INTEREST, AND JCH LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP, AS TO AN UNDIVIDED 1/3 INTEREST OR ORDER FOR OUTSIDE OF CITY WATER SERVICE FOR 28120 MONO STREET, APPROVING THE COVENANT TO ANNEX, AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT AND COVENANT ON BEHALF OF THE CITY AND DIRECTING STAFF TO RECORD THE AGREEMENT AND COVENANT

WHEREAS, Owner desires to connect the property located at 28120 Mono Street to the City water system; and

WHEREAS, the property is located in the unincorporated territory of the County of Madera; and

WHEREAS, the City Council is willing to authorize said connection to the City's water system, subject to certain conditions.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MADERA HEREBY finds, orders and resolves as follows:

1. The above recitals are true and correct.
2. That certain Agreement for Outside City Limits Water Connection by and between the City and JHS FAMILY LIMITED PARTNERSHIP , A CALIFORNIA LIMITED PARTNERSHIP, AS AN UNDIVIDED 1/3 INTEREST, DBH FAMILY LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP, AS TO AN UNDIVIDED 1/3 INTEREST, AND JCH LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP, AS TO AN UNDIVIDED 1/3 INTEREST OR ORDER, owner of the property located on the east side of Tozer Street, south of Olive Avenue, known as 28120 Mono Street, a copy of which is on file in the Office of the City Clerk and which reference is hereby made for full particulars as to terms and conditions thereof, is approved.

3. The Covenant to Annex to the City of Madera and Waive the Right to Protest Thereof, a copy of which is on file in the Office of the City Clerk and which reference is hereby made for full particulars as to terms and conditions thereof, is approved.
4. The Mayor is authorized and directed to execute the Agreement and Covenant on behalf of the City.
5. Staff is hereby directed to record the Agreement and Covenant
6. This resolution is effective immediately upon adoption.

* * * * * * * * * * * * * * *

Recording Requested By:
City of Madera
When Recorded Return To:
City of Madera, City Clerk
205 W. 4th Street
Madera, CA 93637

Fee Waived Per Section 27383 of the Government Code — No Doc. Tax Due

AGREEMENT FOR OUTSIDE CITY LIMITS WATER CONNECTION FOR 28120 MONO STREET

AGREEMENT MADE AND ENTERED INTO this _____ day of _____, 2017, by and between the CITY OF MADERA, a municipal corporation of the State of California, hereinafter called "CITY" and JHS FAMILY LIMITED PARTNERSHIP , A CALIFORNIA LIMITED PARTNERSHIP, AS AN UNDIVIDED 1/3 INTEREST, DBH FAMILY LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP, AS TO AN UNDIVIDED 1/3 INTEREST, AND JCH LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP, AS TO AN UNDIVIDED 1/3 INTEREST OR ORDER, hereinafter called "APPLICANT".

W I T N E S S E T H

WHEREAS, APPLICANT is the owner of that certain property consisting of 0.5 acres, more or less, located south of Olive avenue (Avenue 14) and set back 78 feet east of Tozer Street (Road 28), known as 28120 Mono Street, in the unincorporated territory of Madera County; and

WHEREAS, APPLICANT desires a water connection to serve APPLICANT'S property at said address; and

WHEREAS, CITY is willing to authorize said water connection subject to conditions agreeable to APPLICANT;

NOW, THEREFORE, the parties hereto agree as follows:

1. Subject to and in accordance with all of the conditions set forth in this agreement, CITY hereby authorizes APPLICANT to connect to existing water main in Tozer Street to serve APPLICANT'S property located south of Olive

avenue (Avenue 14) and set back 78 feet east of Tozer Street (Road 28), which property is more particularly described as follows:

THE LAND-DESCRIBED HEREIN SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF MADERA, CITY OF MADERA, AND IS DESCRIBED AS FOLLOWS:

ALL THAT PORTION OF PARCEL NO. 3 IN SECTION 29, TOWNSHIP 11 SOUTH, RANGE 18 EAST, M.D.B.&M., OF LANKERSHIM COLONY, ACCORDING TO THE MAP ENTITLED, "SUBDIVISION OF LOTS 9 AND 10 LANKERSHIM COLONY, FILED AND RECORDED FEBRUARY 21, 1946, IN VOLUME 5 OF MAPS, AT PAGE 137, IN THE OFFICE OF THE COUNTY RECORDER OF MADERA COUNTY, CALIFORNIA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT WHICH BEARS SOUTH 80 DEGREES 41 MINUTES EAST, 30 FEET AND NORTH 0 DEGREES EAST 676.45 FEET AND SOUTH 89 DEGREES 40 MINUTES EAST, 78 FEET FROM THE WEST 1/4 CORNER OF SAID SECTION 29; THENCE NORTH 0 DEGREES EAST, 72.76 FEET; THENCE SOUTH 89 DEGREES 40 MINUTES EAST, 299.35 FEET; THENCE SOUTH 0 DEGREES 0 MINUTES EAST, 72.76 FEET TO THE SOUTH LINE OF THE SAID PARCEL NO. 3: THENCE ALONG SAID SOUTH LINE NORTH 89 DEGREES 40 MINUTES WEST, 299.35 FEET TO THE POINT OF BEGINNING.

APN: 034-130-007

2. Prior to any such installations, APPLICANT shall pay to CITY water impact fees which total $845.00. Impact fees are based on one single family residence on a single parcel. Any additional development on site will be subject to additional CITY impact fees. APPLICANT shall also pay to City connection, permit, inspection or other fees as required, and 50% of the cost to install the 8-inch component of the 12-inch water main located in Martin Street, in the amount of $221.00. On and after connection of APPLICANT'S property to the CITY water system, APPLICANT shall pay to CITY the appropriate monthly water service charges.

3. APPLICANT agrees that connection at this time is for the purpose of providing domestic water service to property located on the east side of Tozer Street, south of Olive Avenue. Any future water connection for property development purposes is subject to approval of CITY.

4. APPLICANT hereby agrees, prior to receipt of CITY water service, to install a water meter and a reduced pressure back flow prevention device at property line in accordance with City Standard Specifications and destroy any existing wells in accordance with the Madera County and California Department of Health Standards.

5. APPLICANT hereby agrees to the annexation to the CITY of all of APPLICANT'S property described herein and agrees to pay any and all fees and charges associated therewith and hereby irrevocably consents to the annexation of said real property as soon as the Subject Property meets the standards for annexation as determined by the City and waives any right to protest such annexation.

6. APPLICANT agrees that water connection shall be subject to all City water regulations and fines as may be contained in City of Madera Municipal Code.

7. CITY reserves the right to terminate water service provided herein in the event of breach by APPLICANT of any of the terms of the agreement, including but not necessarily limited to the non-payment of monthly service charges. In no event shall APPLICANT'S consent to annexation, however, be considered revocable as a result of the terms of this paragraph.

8. APPLICANT shall protect, defend, indemnify, save and hold harmless CITY and all officials, volunteers, and employees thereof from and against any and all liability or claims and damages, including reasonable attorney's fees and costs, because of or arising out of any accident, occurrence, loss, damage or happening occurring upon or arising out of this Agreement.

9. This agreement shall be recorded and is considered a covenant running with the land and is binding upon APPLICANT, APPLICANT'S heirs, executors, administrators, assigns and successors in interest.

IN WITNESS WHEREOF, the parties hereto have executed this agreement the day and year hereinabove first written.

CITY OF MADERA

Accepted by:

By: _____

Keith B. Helmuth

City Engineer

CITY OF MADERA

By: _____

Andrew J. Medellin, Mayor

ATTEST:

By: _____

Sonia Alvarez, City Clerk

APPROVAL AS TO FORM:

By: _____

Brent Richardson, City Attorney

OWNERS/APPLICANTS:

JHS FAMILY LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP

BY HOVANNISIAN PROPERTIES, INC., A CALIFORNIA CORPORATION, ITS GENERAL PARTNER

JOHN HOVANNISIAN, PRESIDENT

DBH FAMILY LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP

BY HOVANNISIAN PROPERTIES, INC., A CALIFORNIA CORPORATION, ITS GENERAL PARTNER

JOHN HOVANNISIAN, PRESIDENT

JCH LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP

BY HOVANNISIAN PROPERTIES, INC., A CALIFORNIA CORPORATION, ITS GENERAL PARTNER

JOHN HOVANNISIAN, PRESIDENT

ATTACH NOTARY
ACKNOWLEDGEMENTS

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Fresno)

On 3/17/17 (Date) before me, Lindsay Elaine Hovannisian Public Notary, (Here Insert Name and Title of the Officer)

personally appeared John Hovannisian (Name(s) of Signer(s))

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

LINDSAY ELAINE HOVANNISIAN
Notary Public - California
Fresno County
Commission # 2147420
My Comm. Expires Apr 21, 2020

Signature _____
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____ Document Date: _____

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____	Signer's Name: _____
☐ Corporate Officer — Title(s): _____	☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General	☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other: _____	☐ Other: _____
Signer Is Representing: _____	Signer Is Representing: _____

Recording Requested By:
City of Madera
When Recorded Return To:
City of Madera, City Clerk
205 W. 4th Street
Madera, CA 93637

Fee Waived

Per Section 27383 of the Government Code — No Doc. Tax Due

COVENANT TO ANNEX TO THE CITY OF MADERA
AND WAIVE THE RIGHT TO PROTEST THERETO

RECITALS

WHEREAS, the undersigned, Covenantor, hereby represents and warrants that they are the record owner of the real property (the "Subject Property") commonly known as 28120 Mono Street (APN 034-130-007), situated in the County of Madera, State of California, and more particularly described as:

THE LAND-DESCRIBED HEREIN SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF MADERA, CITY OF MADERA, AND IS DESCRIBED AS FOLLOWS:

ALL THAT PORTION OF PARCEL NO. 3 IN SECTION 29, TOWNSHIP 11 SOUTH, RANGE 18 EAST, M.D.B.&M., OF LANKERSHIM COLONY, ACCORDING TO THE MAP ENTITLED, "SUBDIVISION OF LOTS 9 AND 10 LANKERSHIM COLONY, FILED AND RECORDED FEBRUARY 21, 1946, IN VOLUME 5 OF MAPS, AT PAGE 137, IN THE OFFICE OF THE COUNTY RECORDER OF MADERA COUNTY, CALIFORNIA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT WHICH BEARS SOUTH 80 DEGREES 41 MINUTES EAST, 30 FEET AND NORTH 0 DEGREES EAST 676.45 FEET AND SOUTH 89 DEGREES 40 MINUTES EAST, 78 FEET FROM THE WEST 1/4 CORNER OF SAID SECTION 29; THENCE NORTH 0 DEGREES EAST, 72.76 FEET; THENCE SOUTH 89 DEGREES 40 MINUTES EAST, 299.35 FEET; THENCE SOUTH 0 DEGREES 0 MINUTES EAST, 72.76 FEET TO THE SOUTH LINE OF THE SAID PARCEL NO. 3: THENCE ALONG SAID SOUTH LINE NORTH 89 DEGREES 40 MINUTES WEST, 299.35 FEET TO THE POINT OF BEGINNING.

APN: 034-130-007

WHEREAS, the Covenantor hereby warrants that any and all parties having record title interest in the Subject Property which may ripen into a fee have subordinated to this instrument; and

WHEREAS, all such instruments of Subordination, if any are attached hereto and made a part of this instrument; and

WHEREAS, Covenantor's property currently is located in unincorporated portion of Madera County and Covenantor is seeking permission from the City to connect to the City water system located adjacent to Covenantor's property.

COVENANTS

NOW, THEREFORE, the Covenantor hereby covenants, promises and agrees with the City of Madera, for the benefit of said City, its public property and the Subject Property, as follows:

1. The Covenantor hereby agrees to willingly participate in the annexation of the Subject Property to the City of Madera, including filing an application for annexation and paying all applicable fees related thereto as soon as the Subject Property meets the standards for annexation as determined by the City.
2. The Covenantor hereby agrees to the annexation of the Subject Property and waives any right to protest the annexation thereof.
3. Whenever the context hereof requires, the neuter shall include the masculine or feminine, or both, the singular shall include the plural. It is the intention hereof that this document shall constitute a covenant running with the Subject Property owned by the Covenantor, jointly and severally binding upon the undersigned and each of their heirs, representatives, successors and assigns.
4. The Covenant shall be released and of no further effect upon a written determination by the City Engineer of the City of Madera that its continued existence and enforcement are no longer necessary.

CITY OF MADERA

Accepted by:

By: _____

Keith B. Helmuth

City Engineer

CITY OF MADERA

By: _____

Andrew J. Medellin, Mayor

ATTEST:

By: _____

Sonia Alvarez, City Clerk

APPROVAL AS TO FORM:

By: _____

Brent Richardson, City Attorney

COVENANTORS:

JHS FAMILY LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP

BY HOVANNISIAN PROPERTIES, INC., A CALIFORNIA CORPORATION, ITS GENERAL PARTNER

JOHN HOVANNISIAN, PRESIDENT

DBH FAMILY LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP

BY HOVANNISIAN PROPERTIES, INC., A CALIFORNIA CORPORATION, ITS GENERAL PARTNER

JOHN HOVANNISIAN, PRESIDENT

JCH LIMITED PARTNERSHIP, A CALIFORNIA LIMITED PARTNERSHIP

BY HOVANNISIAN PROPERTIES, INC., A CALIFORNIA CORPORATION, ITS GENERAL PARTNER

JOHN HOVANNISIAN, PRESIDENT

ATTACH NOTARY
ACKNOWLEDGEMENTS

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT **CIVIL CODE § 1189**

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Fresno)

On 3/17/17 (Date) before me, Lindsay Elaine Hovannisian Public Notary (Here Insert Name and Title of the Officer),

personally appeared _____ (Name(s) of Signer(s))

John Hovannisian,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

LINDSAY ELAINE HOVANNISIAN
Notary Public - California
Fresno County
Commission # 2147420
My Comm. Expires Apr 21, 2020

Signature _____ (Signature of Notary Public)

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: _____ Document Date: _____

Number of Pages: _____ Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____	Signer's Name: _____
☐ Corporate Officer — Title(s): _____	☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General	☐ Partner — ☐ Limited ☐ General
☐ Individual ☐ Attorney in Fact	☐ Individual ☐ Attorney in Fact
☐ Trustee ☐ Guardian or Conservator	☐ Trustee ☐ Guardian or Conservator
☐ Other: _____	☐ Other: _____
Signer Is Representing: _____	Signer Is Representing: _____

Return to Agenda

REPORT TO THE CITY COUNCIL

COUNCIL MEETING OF:
April 5, 2017

AGENDA ITEM NUMBER:
B-7

Approved By:

PLANNING MANAGER

CITY ADMINISTRATOR

Subject: Request to schedule public hearing for an appeal of a Planning Commission decision.

Recommendation: Staff recommends the City Council schedule the appeal for public hearing on April 19, 2017.

Summary: On March 14, 2017, the Planning Commission approved Conditional Use Permit 2017-07 and Site Plan Review 2017-08, subject to required findings and conditions of approval. The entitlements allowed for three outdoor automotive sales events to be held by 365 Autos in the Madera Marketplace Wal-Mart parking lot located at 1977 West Cleveland Avenue.

Mr. Dave Delawder, representing the Madera Capital LLC ownership group, filed an appeal of the Planning Commission's decision on March 21, 2017. Ordinance requires that the Council, at its next duly held meeting, set a date and time for a public hearing on the appeal.

Staff recommends that the City Council schedule the appeal hearing to its next available meeting on April 19, 2017.

Fiscal Impact:

The fee assessed for processing an appeal request assists the City in partially recovering the costs expended in bringing the appeal request to the City Council.

RECEIVED
MAR 21 2017
CITY OF MADERA
PLANNING DEPARTMENT

APPLICATION FOR APPEAL OF ADMINISTRATIVE DECISION

APPLICANT NAME Madera Capital LP David Delander Property Mgr.
ADDRESS 1850 S. Sepulveda Blvd.
CITY L.A. CA 90025 PHONE 661-547-8037 (c)
310-473-9500 (o)

AN APPEAL CANNOT BE ACCEPTED FOR PROCESSING WITHOUT A FULL EXPLANATION OF THE CIRCUMSTANCES SURROUNDING THE ACTION, AND THE GROUNDS FOR THE APPEAL THEREOF. (USE ADDITIONAL SHEETS IF NECESSARY.)

I AM HEREBY APPEALING THE DECISION OF (NAME) 365 Autos ON (date) March 14, 2017 PERTAINING TO ACTION RELATING TO MY PROPERTY LOCATED AT 1977 W Cleveland Ave. AND FURTHER IDENTIFIED AS ASSESSOR'S PARCEL NUMBER 013-160-014. THIS APPEAL IS BASED ON (GIVE A FULL EXPLANATION)
CC&R's for Madera Marketplace. We feel that Auto Sales were never to be allowed. The sales were only intended for the merchants and not outside vendors this is not part of the Shopping Center and there are no Auto Sales At the Shopping Center. We also disagree that the sale is being done during a prime time of the year at Christmas. The Current approval does not address how many cars are for sale. and no limitation how many cars can be sold. We have restrictions to other tenants what can be sold in front of their stores. The CC&R's stipulate that they run with the land even when property is sold Some of the Planning Commissioners indicated Walmart has had this approval from the City in the past that we lost our rights that is not the interpretation of the CC&R's. We feel this whole thing affects the sales of the other tenants by driving in these sales. and hampers our parking. Our parking under the CC&R's is for customer's service vendors & employees to come and go.

Signature

THE SUBMISSION OF THIS FORM, COMPLETED AS REQUIRED, AND ACCOMPANIED BY THE APPLICATION FEE AS DETERMINED BY THE CITY COUNCIL, ENTITLES THE APPLICANT TO A HEARING BEFORE THE CITY COUNCIL OF THE CITY OF MADERA AT THE NEXT AVAILABLE PUBLIC HEARING, UNLESS DELAYED AT REQUEST OF THE APPLICANT OR DUE TO CIRCUMSTANCES BEYOND THE CONTROL OF STAFF OR THE CITY COUNCIL OF THE CITY OF MADERA.

DATE FILED _____

DATE ACCEPTED _____

APPLICATION FEE:
Administrative $1,204
Project Approvals $605
(Fee Schedule Res. No. 14-137)

Return to Agenda

REPORT TO CITY COUNCIL

COUNCIL MEETING OF April 5, 2017
AGENDA ITEM NUMBER B-8

PREPARED BY: Mary Anne Seay, Director
Parks & Community Services Department

APPROVED BY: David Tooley, City Administrator

SUBJECT: **CONSIDERATION OF A RESOLUTION APPROVING A FACILITY USE AGREEMENT WITH FRESNO COUNTY OFFICE OF EDUCATION (FCOE) FOR USE OF SCOUT ISLAND OUTDOOR EDUCATION CENTER AND AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT ON BEHALF OF THE CITY**

RECOMMENDATION:
Staff recommends Council adopt the attached resolution approving a Facility Use Agreement between the City and the Fresno County Office of Education (FCOE) for use of Scout Island Outdoor Education Center. Staff further recommends that Council authorize the Mayor to execute the Agreement on behalf of the City.

DISCUSSION:
Even though natural wonders such as Yosemite and Kings Canyon National Parks are within close proximity to Madera, surprisingly many of the youth who participate in the Parks and Community Services (PCS) recreation programs have little experience beyond their urban environment. PCS has a programmatic offering that provides a day trip into a more natural surrounding away from the confines of the city landscape. Apart from the recreational opportunities, the day trips are designed to promote the practice of life and environmental science which among others, offers the following benefits, which in turn are our program goals:

1. Provides an opportunity for hands-on, interactive learning.
2. Provides a venue beyond the classroom with a direct connection to the learning material.
3. Begins or continues a dialogue about how environmental issues affect the daily lives of ordinary people.
4. Enhances the promotion of healthy lifestyle activities.
5. Helps students make connections between social, ecological, science, economic, cultural and political issues.

In addition to the benefits listed above, offering life and environmental science programming and excursions has been an integral part of the PCS recreation curriculum for some time. Programming at after school sites as well as local recreation centers includes Project Wild curriculum. Staff have led field trips in the past and have begun dialogue with the Executive Director of the San Joaquin River Parkway & Conservation Trust, Inc. to further our endeavors. This specific outdoor day trip program has been planned to ignite an enthusiasm among the youth participants for outdoor recreation as well as life and environmental science.

Fresno County Office of Education (FCOE) operates field trips out of their Scout Island Outdoor Education Center on the San Joaquin River. One of the field trips offered is 4 to 6 hour canoeing excursions which encompasses both recreational and educational elements. PCS has requested two days of field trips with the intention of taking PCS Program Leaders one day to be trained on water safety and programmatic elements; and Youth Center program participants on the second day. FCOE requires Scout Island user groups including the City to execute a Facility Use Agreement in order to participate in their program. The Agreement defines insurance requirements, transfer of liability and terms and charges for use.

FINANCIAL IMPACT:
FCOE is charging a total of $550.00 for the two day use of the Education Center. This cost has been anticipated in the Council approved FY 2016-17 Recreation Budget (10206200).

CONSISTENCY WITH THE VISION MADERA 2025 PLAN:
The recommended actions support the following Vision Madera 2025 strategies:

Strategy 332: Youth Services: Expand comprehensive services for Madera's youth, including employment opportunities, community activities, sports programs, performing arts and after-school programs.

Strategy 404: Promote increased community wellness.

Strategy 411: Enhance and expand recreational activities available to Maderans.

RESOLUTION NO. 17 -_____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA APPROVING A FACILITY USE AGREEMENT WITH FRESNO COUNTY OFFICE OF EDUCATION (FCOE) FOR USE OF SCOUT ISLAND OUTDOOR EDUCATION CENTER AND AUTHORIZING THE MAYOR TO EXECUTE THE AGREEMENT ON BEHALF OF THE CITY

WHEREAS, outdoor recreation and life and environmental science have demonstrated benefits for the youth of a community; and

WHEREAS, the City through the Parks and Community Services Department offers a program to the youth of Madera that encompasses elements of recreation and education in a natural environment; and

WHEREAS, FCOE operates field trips out of Scout Island Outdoor Education Center on the San Joaquin River that align with the objectives of the recreation and education program provided to Madera's youth; and

WHEREAS, the City's Parks and Community Services Department wishes to provide field trips at the Scout Island facility; and

WHEREAS, FCOE has prepared a Facility Use Agreement that specifies the responsibilities of the FCOE and the City in regard to use of the Scout Island Education Center; and

WHEREAS, the Facility Use Agreement is in the best interest of the City, FCOE and the youth of Madera.

NOW THEREFORE, THE COUNCIL OF THE CITY OF MADERA, HEREBY, finds, orders and resolves as follows:

1. The above recitals are true and correct.
2. The Facility Use Agreement with Fresno County Office of Education, a copy of which is on file in the office of the City Clerk and is referred to for more particulars, is hereby approved.
3. The Mayor is authorized to execute said Agreement on behalf of the City.
4. This resolution is effective immediately upon adoption.

* * * * *

SCOUT ISLAND
OUTDOOR EDUCATION CENTER

fresno county superintendent of schools

APPLICATION & AGREEMENT FOR FACILITES USE

Organization/School: City of Madera Parks & Community Services Department # Attendees: 20 Day 1(D1) and 35 Day 2 (D2)
Event Date: April 10 and 12, 2017 Start-End Time: D1-8:30am to 12:30 D2-9:30am to 3:30pm
Contact Person: Jennifer Schneider Contact Phone: (559) 662-4986
Contact Email: jschneider@cityofmadera.com Contact Cell: (559) 871-1649

EVENT INFORMATION: Canoeing field trip with just adults on day 1 and both adults and students on day 2.

SPECIAL INSTRUCTIONS: ALL STUDENTS AND CHILDREN MUST HAVE A SIGNED LIABILITY WAIVER.

Your organization will need to submit a Certificate of Liability Insurance that meets the requirements outlined in paragraph 1 (Insurance) of the facility use agreement.

RESERVATION AREA(S): TBD

PLEASE CARPOOL. TRANSPORATION BELOW IS BASED ON THE TWO DAYS.

SCOUT ISLAND FEES

Facility Use:$0.00 **Teacher(s):**$200.00 **Canoeing:**$350.00 **Other:** $0.00 **Total:**$550.00

PLEASE BRING A CHECK MADE PAYABLE TO *FCSS-SCOUT ISLAND* ON THE DAY OF YOUR FIELD TRIP OR SEND A COMPLETED PURCHASE ORDER TO 559-265-4063 OR MSTEWART@FCOE.ORG. IF YOU SEND A COMPLETED PURCHASE ORDER AN INVOICE WILL BE MAILED TO YOUR FINANCE OFFICE.

TRANSPORTATION

Scout Island is accessed by a one lane road. Please drive carefully, observe the 25 mph speed limit and watch out for pedestrians, golf carts, bicycles and children. Parking at Scout Island is limited. Carpooling, van and/or bus usage is requested for all events. Please list the number of vehicles that will be used to transport attendees to the site.

BUSSES: 0 **VANS:** 2 **PRIVATE VEHICLES:** 5

OPERATING HOURS AND ACCESS

Operating Hours: Scout Island operates Monday – Friday 8 a.m. – 4:30 p.m. Saturday events are limited and require special permission. Access to Scout Island is controlled by electric gates. Please coordinate your access with Scout Island Staff.

LIABILITY WAIVER

Liability waivers are required for all participants in Service-Learning projects, Canoeing, and the Ropes Course.
Please contact the coordinator for the proper form to be completed prior to your event.

Contact for questions and information:

Matt Stewart
(559) 265-4062 / mstewart@fcoe.org

Reset

SCOUT ISLAND OUTDOOR EDUCATION CENTER
FACILITY USE AGREEMENT

Organization/School: City of Madera Parks & Community Services Department # Attendees: 20 Day 1(D1) and 35 Day 2 (D2)
Event Date: April 10 and 12, 2017 Start-End Time: D1-8:30am to 12:30 D2-9:30am to 3:30pm

Terms & Conditions

INSURANCE: ***(Please check with Scout Island Staff to determine if an Insurance Certificate is required).*** The Organization1 agrees to obtain at its sole expense and to provide evidence of liability insurance providing for minimum liability coverage of $1,000,000 for bodily injury or property damage arising from the use of the facility. Such policy must provide coverage on an occurrence basis. Except as to those organizations exempt from such a requirement, by law, such liability insurance policy or policies shall name the Fresno County Office of Education (FCOE), its officers, agents, and employees, individually and collectively, as ADDITIONALLY INSURED with respect to all matters relating to or arising out of this agreement. Such coverage for additional insured shall apply as primary insurance. Any other insurance, or self-insurance, maintained by FCOE, its officers, agents, and employees, individually and collectively, shall be excess only and noncontributing with insurance provided under Organization's policies. Organization's insurance shall not be canceled or changed without a minimum of thirty (30) days advance written notice given to FCOE.

LIABILITY: The Organization will be liable for injuries resulting from the negligence of the Organization during the use of the facilities or grounds and for all other resulting damages or injury except those for which FCOE is held to be specifically liable by a court of competent jurisdiction. To the extent permitted by law, the Organization hereby agrees to indemnify and hold harmless FCOE, its agents and employees, from all claims, actions, demands, liability, responsibility, damages, loss, cost and expense of any nature whatsoever arising from the Organization's use of FCOE's facilities or grounds, including the cost of defending FCOE, its agents and employees, against claims, actions or demands with respect to which the Organization is held to be solely liable. This section excludes any liability for injuries arising or resulting from the sole negligence of FCOE in the ownership and maintenance of the facilities or grounds. FCOE shall only be liable for injuries arising or resulting from the sole negligence of FCOE in the ownership and maintenance of those facilities or grounds used by the Organization. The Organization will also be liable for any destruction of FCOE Property and may be charged an amount equal to all damages and further use of facilities may be denied.

USE CHARGE: FCOE shall grant the use of any FCOE facilities or grounds under its control when an alternative location is not available. Charges not to exceed direct costs shall be invoiced only in those organizations that promote school and youth activities. The foregoing does not apply if such organization is using FCOE facilities for fund-raising activities which are not beneficial to youth of Fresno County. If FCOE authorizes the use of FCOE facilities or grounds by any church or religious organization which has no suitable meeting place for the conduct of the services, FCOE shall charge the church or religious organization an amount not to exceed its direct costs. In the case of entertainments or meeting where admission fees are charged or contributions are solicited and the net receipts are not expended for the welfare of the pupils of Fresno County or for charitable purposes, a charge shall be levied for the use of school facilities or grounds which shall be equal to fair rental value. "Fair rental value" is the direct costs to FCOE plus the amortized costs of the school facilities or grounds used for the duration of the activity authorized.

IMPROPER USE: Any use by an individual, society, group, or organization for the commission of any act intended to further any program or movement the purpose of which is to accomplish the overthrow of the government of the United States or of the State by force, violence, or other unlawful means shall not be permitted or suffered.

PROTECTION OF PROPERTY: FCOE property must be protected from damage or mistreatment, and each third party user must be responsible for the condition in which it leaves the FCOE facilities or grounds. In the event FCOE property is damaged or must be cleaned as a result of such use, the cost shall be paid for or reimbursed by the Organization. The Organization agrees to accept fees and other charges as noted above for facility use according to the FCOE Fee Schedule and other costs incurred. Information on fees is available at the FCOE Facilities Department. This Agreement is not effective until approved by Scout Island staff.

FACILITY USE/LEAVE NO TRACE GUIDELINES: Organization/School agrees to abide by the Scout Island Facility Use and Leave No Trace Guidelines.

Date: _____ Applicant's Signature/Title _____

Date: _____ Principal Signature/Phone _____

Date: 3/9/2017 Stephen Bock

Director, Scout Island Education Center

Submit Use Application by fax or email with signature(s) no later than two working weeks prior to the event.

Forward To: Matt Stewart
7695 North Van Ness Ave. Fresno, CA 93711 / (559) 265-4062/ Fax (559) 265-4063 / mstewart@fcoe.org

Return to Agenda

Agenda: 04/05/17
Item: B-9

Office of the Mayor

City of Madera
State of California
April 2017

Proclamation

Week of the Young Child 2017

WHEREAS, Madera County is home to more than 12,000 children ages zero through five years old; and

WHEREAS, studies show that the zero to five age group experiences the most critical opportunities for brain growth and development; and

WHEREAS, it is repeatedly determined that children are exposed to risk factors that compromise optimal brain development; and

WHEREAS, the most significant of those risk factors impacting Madera County children include:

- More than 25% of families with children under 5 fall below the federal poverty level;
- 52% of mothers do not have a high school diploma;
- 32% of these children live in a single-parent household;
- 20% of these children live in homes where drug abuse is present; and

WHEREAS, research demonstrates that despite risk factors, early intervention with families during their child's first 5 years of life is proven to impact the child's long term outcomes; and

WHEREAS, to raise awareness about the importance of early childhood development, First 5 Madera County will join the rest of the nation in observance of the Week of the Young Child on Monday, April 24 through Friday, April 28, 2017.

NOW, THEREFORE, BE IT RESOLVED, that I, Andrew J. Medellin, Mayor of the City of Madera, and on behalf of the Madera City Council, do hereby recognize the week of Monday, April 24 through Friday, April 28, 2017 as the **WEEK OF THE YOUNG CHILD** in City of Madera and support the efforts of First 5 Madera County to promote healthy development of our young children.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the City of Madera to be affixed this 5th day of April 2017.

CITY OF MADERA
INCORPORATED
March 27,
1907
CALIFORNIA

Mayor

Return to Agenda

REPORT TO CITY COUNCIL

Approved By:

Department Director

City Administrator

Council Meeting of April 5, 2017

Agenda Item Number B-10

SUBJECT: **CONSIDERATION OF A RESOLUTION APPROVING MODIFICATIONS TO THE FUNDING FOR PROJECTS UNDER THE CONGESTION MITIGATION AND AIR QUALITY (CMAQ) PROGRAM TO BE SUBMITTED AS AN AMENDMENT TO THE 2017 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM**

RECOMMENDATION:

That the City Council adopt Resolution No. 17 - _____

1. Approving Modifications to the Funding for Projects listed in the Federal Moving Ahead for Progress in the 21st Century Act (MAP-21), Congestion Mitigation and Air Quality (CMAQ) Program.

2. Authorizing the City Engineer to submit the approved funding modifications to the Madera County Transportation Commission (MCTC) for programming in the 2017 Federal Transportation Improvement Program.

SUMMARY:

In order to advance two of the City's Federal Congestion Mitigation and Air Quality (CMAQ) projects to the construction phase this calendar year, it is necessary to shift funding from other projects within the CMAQ program.

DISCUSSION:

The most recent federal transportation funding bill, Moving Ahead for Progress in the 21st Century Act (MAP-21), maintained the Congestion Mitigation and Air Quality Improvement Program (CMAQ) that was originally created through federal legislation in 1991. CMAQ funds are funneled through Caltrans and programmed by the Madera County Transportation Commission (MCTC), the designated Metropolitan Planning Organization (MPO) for Madera County.

The purpose of the CMAQ program is to fund transportation projects or programs that will contribute to attainment or maintenance of the National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide (CO), and particulate matter (both PM_{10} and $PM_{2.5}$). The CMAQ program supports two important goals of the U.S. Department of Transportation (Department): *improving air quality and relieving congestion.*

MCTC developed an expenditure plan for these funds which allocates 60% of the funds to be apportioned through regional competitive grant program. The remaining 40% is apportioned to be set aside as a Lifeline amount.

- Grant Program

  The amount apportioned for regional competitive grant is called the "Grant Program". These funds are available to local government agencies/districts/jurisdictions and public/private partnerships in the Madera County Region based on project ranking. The projects are scored on congestion relief, trip reduction, air quality emission reduction, cost benefit ratio and subjective evaluation.

- Lifeline

  40% of the County's apportionment is set aside for each local agency within Madera County as a guaranteed level of CMAQ funding that can be used for any eligible CMAQ project. This program is not competitive and is generally used for projects that meet eligibility requirements but would not otherwise score particularly well under the Grant program.

CMAQ funds have already been apportioned and programmed for the Madera County region through the 2017 Federal Transportation Improvement Program (FTIP). A listing of the current CMAQ funded projects and programs for the City of Madera is attached to this report.

SITUATION:

Assembly Bill (AB) 1012, enacted on October 10, 1999, requires that federal funds be used in a timely manner, "use it or lose it". Each application for CMAQ funds was accompanied by a formal resolution stating that each project will meet established project delivery schedules and that staff will be directed to insure timely delivery of the projects.

The Madera County Transportation Commission has expressed concern with the delivery of the Congestion Mitigation and Air Quality (CMAQ) Program in the Madera County region (this includes City of Chowchilla, City of Madera, and Madera County). MCTC has indicated the region is at risk of losing the funding if it does not keep up with the AB 1012 requirements.

The City has several CMAQ projects currently underway. Two of those projects have the potential to move into construction this calendar year but lack full funding:

1. MAD202065 Pedestrian Facilities – various locations – bounded by Gateway, Central, 3rd, & E Streets.
2. MAD202078 Sidewalk Construction around Schools and Commercial Areas.

Local agencies only have discretion to move "lifeline" funds for their projects in accordance with current MCTC policies. If grant funds are removed from a project, those funds revert back to the original pot for redistribution among all of the agencies. Every two years, the City can modify programming priorities with a new FTIP. Between FTIP cycles, an FTIP amendment is required to adjust project funding.

Three trail projects in the vicinity of the Fresno River are in the current FTIP prepared in spring of 2016. Though some of these specific trail projects remain a part of the Parks & Community Services Department's long term goals to expand walkability in Madera, this series of projects cannot feasibly move forward in the near term within mandated time-frames. This is, in large part, the result of Council action taken in the summer of 2016 to abandon plans to extend the trail on the north bank of the river west of the Schnoor Bridge. The project representing the middle section of connective trail was reconsidered due to concerns raised from neighbors on Trevor Way whose back yards abut the formerly planned trail extension.

In an effort to expense funds within expected time-frames, staff is proposing to move the construction funding from the Phase II Trail Project to the two sidewalk projects named above. The City will have the opportunity to replenish funding for the Phase II Trail Project in the next FTIP cycle (2019 FTIP) that will begin in early 2018. This move maximizes federal funding for the sidewalk projects thereby keeping local transportation funds available for other worthy projects.

FINANCIAL IMPACT:

The CMAQ program requires a local match of 11.47%. When these projects are brought forward and included in the Capital Improvement Program budgets the match will be sought from LTF (Local Transportation Funds), Measure T, or other available grants and sources.

The local matches for the projects discussed herein have been included in the FY 16/17 Budget. It is not anticipated to obligate any General Fund moneys for local matching.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN

Strategy 126.6 – Establish budgets to redevelop existing streets to install sidewalks, curb-cuts, street lights and landscaping strips.

Strategy 431 – Alternative Energy Use: Develop a City plan to promote both governmental and citizen use of alternative sources of energy.

Strategy 401 – Walkable Community: Develop and promote Madera as a walkable community with an emphasis on improving the quality of the natural resources.

RESOLUTION NO. 17 -_____

RESOLUTION OF THE COUNCIL OF THE CITY OF MADERA, CALIFORNIA, APPROVING MODIFICATIONS TO THE FUNDING FOR PROJECTS UNDER THE CONGESTION MITIGATION AND AIR QUALITY (CMAQ) PROGRAM TO BE SUBMITTED AS AN AMENDMENT TO THE 2017 FEDERAL TRANSPORTATION IMPROVEMENT PROGRAM

WHEREAS, Congestion Mitigation and Air Quality (CMAQ) funds are allocated by the Madera County Transportation Commission (MCTC) pursuant to the Moving Ahead for Progress in the 21st Century Act (MAP-21) for Users to receive CMAQ funds; and

WHEREAS, funds become accessible to the local agencies when programmed in the biennial Federal Transportation Improvement Program (FTIP); and

WHEREAS, the City of Madera desires to move lifeline funding programmed in the 2017 FTIP from Madera Phase II Trail Project MAD202086 in order to advance the MAD202065 Pedestrian Facilities bounded by Gateway Central, 3rd, & E Streets Project and MAD202078 Sidewalk Construction Around Schools and Commercial Areas Project; and

WHEREAS, local matching funds in the amount of 11.47% of the project cost are included in the FY 16/17 Budget;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MADERA HEREBY resolves, finds, determines and orders as follows:

1. The above recitals are true and correct.
2. Shifting lifeline funds from Madera Trail Phase II Project to the Sidewalk Projects named above is approved.
3. The City Engineer is authorized to submit the approved funding modifications to the Madera County Transportation Commission (MCTC) for programming in the 2017 Federal Transportation Improvement Program.
4. This resolution is effective immediately upon adoption.

* * * * *

CURRENT CMAQ PROGRAMMING

TIP I.D. No.	FTIP Project Title	Project Programming original date & type	CIP No.	Project Type	CMAQ $$
202046	Construct Class I Bicycle Path -Fresno River Trail , Gateway & UPRR Undercrossing	March 2006 Grant	PK-08	Bike/Ped	299,000
202065	Construct Pedestrian Facilities -various locations - bounded by Gateway, Central,3rd, E Streets	December 2007 Grant	R-38	Pedestrian	278,000
202069	Tulare/Cleveland/Raymond Road -Construction Bike/Pedestian Facilities	December 2009 Grant	PK-48	Bike/Ped	275,000
202072	Curb & Gutter and Shoulder Paving - Raymond Road	December 2009 Lifeline	R-37	PM-10/2.5	267,000
202074	Construct Bike/Pedestr ian Facilities, Cleveland Avenue, Granada Avenue to Schnoor Avenue	December 2009 Grant	PK-56	Pedestrian	300,000
202078	Construct Pedestrian Facilities -various locations around Schools and Commercial areas	June 2012 & February 2014 Lifeline	R-62	Pedestrian	235,000
202079	Curb & Gutter, Shoulder Paving along Sports Complex - Storey Road	June 2012 Lifeline	R-60	PM-10/2.5	271,000
202080	Alley Paving - various locations and Torres Way	June 2012 Lifeline	R-59	PM-10/2.5	150,000
202081	Intersection Improvements - 4th Street/Lake Street/Central Avenue	February 2014 Grant; 2016 Lifeline	R-57	Traffic Flow	500,000
202082	Bike/Ped Facilities - Fresno River Trail, Schnoor to MID, North Bank (Phase I)	February 2014 Grant	PK-57	Bike/Ped	217,000
202083	Pedestrian Facilities -Schnoor Avenue between Sunset and the Fresno River	February 2014 Grant; Lifeline	R-58	Pedestrian	132,000
202084	New CNG Transit Bus for MAX Service - Fleet Expansion	February 2014 Grant	n/a	Transit	150,000
202085	New Traffic Signal-Intersection of Howard Road & Westberry Blvd.	February 2014 Lifeline	TS-19	Traffic Flow	354,000
202086	Bike/Ped Facilities - Fresno River Phase II - between north-south trail behind Montecito Park and Granada Drive	February 2014 Lifeline	PK-58	Bike/Ped	128,000
202087	Purchase one replacement transit bus	February 2014 Lifeline	n/a	Transit	123,000
202088	Alley Paving - various	December 2015 Grant	ALY-02	PM-10/2.5	720,000
202089	Transit Marketing, Outreach and Rebranding Campaign	December 2015 Grant	n/a	Transit	53,000
202090	Golden State Blvd. Shoulder Paving	December 2015 Grant	R-68	PM-10/2.5	110,000
202091	Pecan Avenue Shoulder Paving	December 2015 Grant	R-67	PM-10/2.5	587,000
202092	Expanded MAX Service to Madera Community College	December 2015 Grant	n/a	Transit	183,000
202093	Purchase Replacement PM-10 Certified Street Sweeper	December 2015 Grant	n/a	PM-10/2.5	220,000
202094	Two (2) Buses for MAX Service to MCC	December 2015 Grant	n/a	Transit	266,000
202095	HOPY Intersection	February 2016 Lifeline	TS-23	Traffic Flow	120,000
		TOTAL CMAQ FUNDS			5,938,000

Return to Agenda

REPORT TO CITY COUNCIL

MEETING DATE: April 5, 2017

AGENDA ITEM NUMBER: B-11

Approved By:

PUBLIC WORKS DIRECTOR

CITY ADMINISTRATOR

SUBJECT: Consideration of a Resolution Authorizing the Mayor to Sign a Letter Supporting Legislation Addressing Theft of Recyclable Materials from the Waste Stream.

RECOMMENDATION: Staff recommends that the Council adopt a resolution authorizing the Mayor to sign the attached letter on behalf of the City supporting legislation addressing theft of recyclable materials from the waste stream.

SUMMARY/ DISCUSSION: The City's franchise Solid Waste Hauler, Mid Valley Disposal, as a member of the California Refuse Recycling Council, has requested that we support recently proposed legislation, AB 1147, that addresses large scale theft of recyclable material from the waste stream. The Bill would address an alarming trend of organized theft of refuse material. It is not intended to address individual scavengers, which is already an illegal activity. Notably, it would allow for the recovery of reasonable attorney's fees when prosecuting these types of thefts. While this trend of large scale organized recyclable theft is not yet an issue here in Madera, it could be in the future. Attached is a fact sheet and legislative concept paper on the proposed Assembly Bill 1147, as well as the draft letter of support from the City proposed for the Mayor's signature.

FINANCIAL IMPACT:

There is no financial impact associated with this action.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN:

While the proposed action is not addressed as part of the Plan, it is not in conflict with it and is sympathetic of the underlying principles of the 2025 Plan.

RESOLUTION NO. 17-_____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA AUTHORIZING THE MAYOR TO SIGN A LETTER SUPPORTING LEGISLATION ADDRESSING THEFT OF RECYCLABLE MATERIALS FROM THE WASTE STREAM

WHEREAS, The City mandates the separation of recyclable material from the waste stream and provides recycling collection services through its franchise waste hauler; and

WHEREAS, the net costs of providing recycling services to the public is increased if third parties illegally remove more valuable recyclable material from the waste stream; and

WHEREAS, Legislation has been introduced in the State of California Assembly to address such thefts; and

WHEREAS, the City Council has considered this issue and considers it appropriate for the State legislature to enact provisions to address illegal thefts of this kind,

NOW, THEREFORE, THE COUNCIL OF THE CITY OF MADERA, hereby finds, orders, and determines as follows:

1. City of Madera does support legislative actions as addressed in the letter of support, a copy of which is on file with the City Clerk.
2. The Mayor of the City of Madera is hereby authorized to sign said letter on behalf of the City.
3. This Resolution is effective immediately upon adoption.

****

April 5, 2017

Honorable Rudy Salas
State Capitol, Room 4016
Sacramento, CA 95814

Re: AB 1147 (Salas)
LETTER OF SUPPORT

Dear Assemblyman Salas:

For many years, waste recycling services have been offered in our community through our authorized service provider, Mid Valley Disposal. In that time, we have noted an increasing problem with the theft of recyclables that have been placed at the curb for collection. Under our municipal code, it is illegal to remove recyclable materials from their container when they are placed in bins or at curbside. Further, the rates that we authorize our waste collection franchisee to charge presume that a portion of the franchisee's compensation will come to them indirectly, from the sale of the recyclables they have collected.

When these valuable materials are illegally removed from bins or containers prior to collection, several negative consequences result:

- Our contractor is deprived of valuable revenue, which can necessitate higher rates;
- The peace and quiet of residential neighborhoods is disturbed;
- The privacy rights of our citizens are violated;
- The surrounding areas are often strewn with litter.

AB 1147 is a sensible approach to addressing this issue. It will discourage the large scale theft of recyclable materials by authorizing the recovery of attorneys' fees in appropriate cases. At the same time, it preserves to local governments the ability to determine whether, and to what extent, they wish to regulate such activity. Local governments are still free to determine which recycling activities fall within an exclusive franchise, and which do not, and they remain empowered to adopt whatever form of collection program or system will best suit local conditions and community needs.

AB 1147 sends a message to professional criminals that local laws regarding the handling of solid waste, including recyclable solid waste, must be respected.

We appreciate your interest in this issue and are pleased to offer this letter in support of this worthy effort.

Very truly yours,

Andrew J. Medellin
Mayor, City of Madera

205 W. Fourth Street • Madera, CA 93637 • TEL (559) 661-5400 • FAX (559) 674-2972
www.cityofmadera.ca.gov

Assemblymember Rudy Salas, 32nd District

ASSEMBLY BILL 1147 – RECYCLABLE MATERIALS

FACT SHEET

ISSUE

The goal of this measure is to ensure local government agencies have the protections in place to have viable recycling programs from being poached by large scale illegal scavenging operations.

EXISTING LAW

The passage of AB 939 in 1989 led local agencies to implement curbside recycling programs as a supplement to regular trash service. More than 600 such programs now operate in the state.

The theft of recyclable materials from curbside residential and commercial containers has plagued recycling programs from its inception. Collection charges are fixed by local governments, and presume a certain amount of revenue coming from the program as a result of the sale of high value commodities. When these high value materials are stripped out of the stream, the rates are insufficient to cover the programs operating cost.

In the most egregious cases, scavenging has become a large scale commercial enterprise with fleets of vehicles monitoring collection routes, openly operating in neighborhoods on designated collection days.

THIS BILL

Local governments and agencies are allowed to go after these scavengers and recuperate their cost, but current code makes no provision for the recovery of reasonable attorneys' fees and costs in any civil action brought to enforce either law. As a result, violations of these laws are often not prosecuted.

AB 1147 would amend the law to proscribe such activity, and to provide for a similar right to recover reasonable attorneys' fees, would go a long way toward curtailing illegal behavior.

Note: Nothing in this measure would limit the rights of any person to donate, sell, or otherwise dispose of his or her recyclable materials. It would also have no effect on individuals who collect recyclables from curbside pickups.

SUPPORT

California Refuse Recycling Council (Sponsor)

OPPOSITION

None

FOR MORE INFORMATION

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LEGISLATION CONCEPT PAPER

I. FRANCHISE INTEGRITY

Backgrouud

- Most waste collection services in California are provided pursuant to a franchise agreement between a local agency and a private service provider. In many instances, an exclusive franchise is granted. The benefit of an exclusive waste collection franchise for the delivery of this essential public service has been recognized in statute, and by the courts, for several decades.

- The passage of AB 939 in 1989 led local agencies to implement curbside recycling programs as a supplement to regular trash service. More than 600 such programs now operate in the state. These programs are the most convenient method for the public to actively participate in recycling, and are foundational to the success of California's beverage container recycling law.

- The theft of recyclable materials from curbside residential and commercial containers has plagued recycling programs since the early phases of AB 939. Collection charges ("rates") are fixed by local government, and presume a certain amount of revenue coming to the program as a result of the sale of high value commodities. When these high value materials are stripped out of the stream, the rates are insufficient to cover program operating costs.

- As a result, existing law has, for more than 25 years, made it illegal for anyone to tamper with, or scavenge from, the contents of a residential or commercial recycling container [See Public Resources Code sections 41950, 41951]

- Illegal scavenging has many negative consequences in addition to the purely financial impact on the program operator:
    1. The local agency loses franchise fee revenue from the sale of the stolen material.
    2. The peace and quiet of residential neigbborhoods is disturbed.
    3. Ratepayers may be confronted with increases to cover the lost redemption value.
    4. The privacy rights of waste generators are compromised, potentially leading to identity theft and related problems.
    5. Thieves often leave the site strewn with trash removed from the receptacle during their search for valuable recyclables, creating litter which can attract vectors and present a risk to public health.

- In the most egregious cases, scavenging has become a large scale commercial enterprise with fleets of vehicles monitoring collection routes, openly operating in neighborhoods on the designated collection day only minutes ahead of the authorized recycling agent to empty recycling containers of valuable commodities.

Proposed Change in Law

Sections 41950 and 41951 make no provision for the recovery of reasonable attorneys' fees and costs in any civil action brought to enforce either law. As a consequence, violations of these laws are often not prosecuted because the cost of instituting such litigation exceeds the potential benefit. **Amending the law by providing for the recovery for reasonable attorneys' fees, expert witness fees, and costs incurred in the course of the litigation will serve to further discourage illegal scavenging from recycling containers, particularly where undertaken on a large scale.**

Sections 41950 and 41951 are limited to illegal scavenging from recycling containers. There are other forms of franchise infringement that do not involve scavenging per se. Interference with an exclusive franchise also occurs when an unauthorized person places his or her own container at a residence or business to remove recyclables or solid waste in violation of a municipal ordinance or other law applicable to solid waste handling. **Amending the law to proscribe such activity, and to provide for a similar right to recover reasonable attorneys' fees, would go a long way toward curtailing illegal behavior.**

Return to Agenda

REPORT TO THE CITY COUNCIL

COUNCIL MEETING OF April 5, 2017

AGENDA ITEM NUMBER C-1

APPROVED BY

GRANT ADMINISTRATOR

CITY ADMINISTRATOR

SUBJECT: **Public Hearing to Consider the Community Development Block Grant Review and Advisory Committee Recommendations and Request for Council to Make Tentative Allocations for the 2017/2018 Action Plan**

RECOMMENDATION:

Staff recommends Council open the public hearing and consider the Review and Advisory Committee's (RAC) recommendations for allocating the City's Community Development Block Grant (CDBG) funding for FY 2017/2018. The RAC held its hearing on March 23, 2017 to review all proposals received and was thoroughly advised by staff of the City's priority rankings of our internal service and capital needs, to ensure consistency with the Department of Housing and Urban Development (HUD) requirements for funding CDBG projects. Staff also requests that Council make tentative allocations of this CDBG award.

DISCUSSION:

This is the first in a series of Council hearings for the City's CDBG Action Plan for FY 2017/2018. The purpose of this public hearing is for Council to consider the recommendations offered by both the RAC and Staff before making tentative allocations of CDBG funding for next fiscal year. Council will be asked to consider approval of final allocations at its May 17, 2017 meeting.

As part of the allocation process, staff obtained public input by posting bilingual flyers throughout the city, at City Hall, the Housing Authority of the City of Madera and the Madera County Library. Bilingual notices were published in the Madera Tribune.

Staff attended a Neighborhood Watch meeting on February 23, 2017, and public iuput meetings were held March 2, 7 and 9, 2017 to solicit input about service and capital needs. On March 23, 2017, the RAC received presentations from applicants applying for CDBG allocations for Administration, Public Services and Capital Improvements/Public Facilities. (Council may also access the applications submitted for consideration through their iPads.) After deliberating the merits of each proposal, the RAC arrived at the recommendations contained in this report. Finally, staff prioritized all proposals and included these suggestions as part of tonight's public hearing. (See Attachment A: RAC & Staff Recommendations.) In conclusion, Staff urges Council to consider these recommendations and their financial impacts on the City as it makes its tentative allocation of CDBG funds for FY 2017/2018.

FINANCIAL IMPACT:

This is a Federal grant and the ultimate allocation of the available funding may affect the General Fund through increased revenues or expenditures, which would be approved by Council.

VISION MADERA 2025 ACTION PLAN CONSISTENCY:

Given the broad scope of this grant, our Action Plan activities have the potential to advance an extensive number of the Vision Plan's objectives. Our RAC reviews funding request for consistency with the CDBG regulations, the Consolidated Plan and to promote the aspirations of the Vision Madera 2025 Plan.

Attachment A: RAC & Staff Recommendations

Community Development Block Grant Programs and Projects

Activity Type	Maximum Allocation	Programs	Amount Requested	RAC March 23, 2017	Staff	Council April 5, 2017	Max. Remaining Funds
Administration	**$ 150,273**	Local Administration	$ 150,273	$ 135,873	$ 150,273		
		Fresno/Madera Continuum of Care	$ 16,000	$ 14,400			
		Total Administration:	**$ 166,273**	**$ 150,273**	**$ 150,273**	**$ -**	**$ 150,273**

Activity Type	Maximum Allocation	Programs	Amount Requested	RAC March 23, 2017	Staff	Council April 5, 2017	Max. Remaining Funds
Public Services	**$ 112,705**	Madera County Workforce Investment Center - Bridge to Careers	$ 30,000	$ 7,500			
		Retraining the Village - Hybrid Home Interim Shelter	55,000	$ 7,500			
		City of Madera Parks and Community Service Department - Senior Services	$ 100,000	$ 90,205	$ 100,000		
		Madera Coalition for Community Justice - Zocalo Madera	$ 29,500	$ 7,500			
		Total Public Services:	**$ 214,500**	**$ 112,705**	**$ 100,000**	**$ -**	**$ 112,705**

Activity Type	Allocation	Projects	Amount Requested	RAC March 23, 2017	Staff	Council April 5, 2017	Max. Remaining Funds
Capital Projects / Public Improvements	**$ 576,946**	Madera Housing Authority - Temporary Housing for Homeless Families at Pomona Ranch Housing Center	$ 150,000	$ 150,000			
		City of Madera Engineering Department - New Sidewalks for a Safe Path of Travel	$ 176,946	$ 176,946	$ 176,946		
		Pedestrian Safety and Traffic Signal at Yosemite Avenue and Elm Street Intersection	$ 400,000	$ 250,000	$ 400,000		
		Total Capital Projects/Public Improvements:	**$ 726,946**	**$ 576,946**	**$ 576,946**	**$ -**	**$ 576,946**

	$ 839,924

EQUAL HOUSING OPPORTUNITY

City of Madera Applications Submitted for the CDBG 2017/2018 Action Plan			
Applicant	**Summary**	**Amount Requested**	**Tab**
City of Madera Grant Administration	Administrative activities, services and equipment purchases required to carry out the CDBG program. Coordination/ compliance, reporting to HUD, developing agreements with subrecipients and contractors to carry out program activities. To work with partner agencies to compile mailing lists of rental property owners and managers to provide informational materials regarding fair housing rights and responsibilities, including rights of persons with disabilities; and conducting fair housing workshops. Also, to oversee and carryout records management.	$150,273	1
Community Action Partnership of Madera County	To help address community challenges created by homelessness, work to coordinate case management, intake and referrals with the local and regional collaboration of homeless service providers, to access data from and input data in the Homeless Management Information System and represent Madera in the Fresno/Madera Continuum of Care.	16,000	2
	Maximum Administration Allocation	150,273	
Madera County Workforce Investment Corporation – Bridge to Careers	Scholarships/sponsorships for vocational training and certification programs for low-income adults.	30,000	3
Retraining the Village - Hybrid Home Interim Shelter	Hybrid home interim shelter servicing 12 to 18 Veterans and homeless persons and providing computer and carpentry education.	55,000	4
City of Madera Parks & Community Services Department Senior Services	To support staffing, supplies and associated programming costs for Parks' suite of senior activities (1) Meals on Wheels, (2) Recreation and enrichment at three congregate sites and (3) nutrition/meal programs at each site.	100,000	5
Madera Coalition for Community Justice – Zocalo de Madera	To establish a public art space in downtown and provide a new forum for visual, cultural art and music and other performance art.	29,500	6
	Maximum Public Services Allocation:	112,706	
Housing Authority of the City of Madera - Temporary Housing for Homeless Families at Pomona Ranch Housing Center	To upgrade the Pomona Ranch Housing Center's 50 units with air conditioning and heating to provide temporary residences and a continuum of care for homeless families with children during off-season during the colder winter months.	150,000	7
City of Madera Engineering Department - Pedestrian Safety and Traffic Signal at Yosemite Avenue and Elm Street Intersection	To construct new, 5-foot-wide sidewalks with ADA compliant corner ramps and approaches on Lincoln Avenue, South Street and Austin Street adjacent to George Washington Elementary School.	176,946	8
City of Madera Engineering Department - New Sidewalks for a Safe Path of Travel	To construct and install a new traffic signal with an audible push button activation and countdown pedestrian signal head to allow for ADA compliance, construction of ADA compliant ramps on both sides of Yosemite Avenue and incorporate a pedestrian crosswalk thereby improving safety, accessibility and traffic circulation at the Yosemite and Elm intersection.	400,000	9
	Maximum Capital Improvements/Public Facilities:	576,946	

City of Madera
Applications Submitted for the
CDBG 2017/2018 Action Plan

Tab 1

CITY OF MADERA
COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)
ADMINISTRATION PROPOSAL APPLICATION
2017/2018

AGENCY/PROGRAM INFORMATION **DATE SUBMITTED: March 9, 2017**

Legal Name of Agency: City of Madera

Program Name: CDBG Administration

Agency Address: 205 W. Fourth Street

City/Zip: Madera Telephone: 559-661-3693

Program Manager: Jorge Rojas FAX: 559-674-2972

SUMMARY OF COMMUNITY NEED OR PROBLEM TO BE ADDRESSED: (Describe the community need or problem to be addressed by the proposed program. State how and by whom the need was identified. All research documentation must be acknowledged.)

This activity provides oversight in all areas of the CDBG program. Oversight includes the following areas:

- **consultant services**
- **providing subrecipients with training and capacity building**
- **providing staff and the public with Fair Housing training and oversight**
- **funding to remain current with, but not limited to training, regulations and CDBG components such as:**
  - **Davis Bacon Prevailing Wage**
  - **National Environmental Policy Act**
  - **Section 3**
  - **Minority Business and Disadvantage Business recruitment and contracting**
  - **Outcome and Performance Measurements**
  - **Integrated Disbursement and Information System Reporting**
  - **Economic Development**
  - **Continuum of Care coordination and capacity building**
  - **Downtown and historic preservation**
  - **Neighborhood Revitalization Strategies**
  - **Americans with Disabilities Act compliance and ensuring access to programs and facilities**
  - **Administration of the Downpayment Assistance and Owner-Occupied Residential Rehabilitation Programs**

EXISTING SERVICES: List other agencies currently addressing the need or problem described above. (Attach sheets if necessary.)

Several agencies and City Departments carry out CDBG activities. They do not provide CDBG administrative services.

Explain how your program supplements or complements existing services without duplicating them. (Attach sheets if necessary.)

The response to this question is similar to the previous one. We complement the funded projects and programs by providing oversight and guidance, but we do not duplicate their activities.

CDBG Administration provides oversight and guidance of funded projects. It does not duplicate their activities.

CLIENT POPULATION

Indicate the total number of potential clients in the community who require your services.

Not applicable

State the total number of <u>unduplicated</u> clients you intend to serve during the term of this proposed program/service (12 months)

Not applicable

If this program was funded last year, has there been a change in the composition of the target population to be served and/or shift in the geographic target area?

_____ Yes ___**X**___ No

If yes, <u>explain</u>:

Provide the following demographic information for the total number of unduplicated clients as indicated above:

AGE	0 - 5	6 - 12	13 - 17	18 - 34	35 - 54	55 - 59	60 - 64	65 +
GENDER	Female							
	Male							
FEMALE HEAD								

This information is confidential and is only used for government reporting purposes to monitor compliance with equal opportunity laws. Please note that self-identification of race/ethnicity is voluntary.

RACE	NO.	RACE	NO.
White	_____	American Indian or Alaska native AND White	____
Black/African American	_____	Asian AND White	____
Asian	_____	Black/African American AND White	____
American Indian or Alaska Native	_____	American Indian/Alaska Native AND Black/African American	____
Native Hawaiian or Other Pacific Islander	_____	Other:_____	____
Mexican/Chicano	_____	Cuban	____
Puerto Rican	_____	Other Hispanic/Latino:_____	____

EFFECTIVENESS AND EFFICIENCY

Describe the method used to measure the effectiveness (outcomes) of services. Identify measurable goals and objectives. Attach a copy of the program's evaluation documentation.

Our effectiveness is measured annually and documented in the Consolidated Annual Performance and Evaluation Report. This provides a summary of what we accomplished throughout the program year as well as the number of persons served and amount spent.

What National Objective does your program meet?

Administration of the CDBG program is exempt from meeting a National Objective.

Describe what measureable objectives your program meets?

Administration of the CDBG program is exempt from measureable objectives.

How will your program meet its goals in one year?

A function of Administration associated with the CDBG program is the oversight and monitoring associated with ensuring CDBG-funded programs meet their stated goals.

How does your proposal support the Vision Madera 2025 Action Plan?

The scope of activities funded with CDBG have the potential to advance an extensive number of the Vision Madera 2025 Action Plan's objectives. Funding requests are reviewed for consistency

with CDBG regulations and, also, to promote the aspirations of the Vision Madera 2025 Action Plan.

SERVICE FUNDING

What financial resources, other than City are available for this program? Have applications for other funds been submitted? Explain. If funds other than CDBG are proposed, please provide supporting documentation/letters of commitment.

Except the General Fund, no other sources are available.

Describe in detail all proposed plans for fund raising for this program. What is the projected net income from fund raising? If net fund raising is not increasing, please explain (be specific).

Not applicable.

What was done to receive public input/participation? Please provide details. What did the public input/participation identify? Include documentation of support for the proposal such as meeting minutes, letters and petitions.

Not applicable.

If service is offered outside the Madera city limits, include the list of funding sources and supporting documentation/letters of commitment that support these program services.

Not applicable for Administrative program oversight.

When there is an overflow of clients, how is it determined whom to serve?

Not applicable for Administrative program oversight.

Is income criteria used to establish eligibility for services?

____ Yes __X__ No (If yes, attach a copy of the criteria.)

Is a fee schedule used?

____ Yes __X__ No (If yes, attach a copy of fee schedule.)

INCOME SOURCE	AMOUNT
CITY	
UNITED WAY	
STATE (SPECIFY)	
FEDERAL (SPECIFY) **(CDBG)**	150, 273
SERVICE FEES	
FUND RAISING	
DONATIONS	
RESERVE/CONTINGENCY	
OTHER (LIST)	
TOTAL INCOME	150,273

		AMOUNT
SALARIES		90,164
BENEFITS		39,071
TELEPHONE		1,000
ADVERTISING		2,000
OFFICE SUPPLIES		1,238
SOFTWARE (Non Fair Housing)		1,000
WEBSITE (Non Fair Housing)		1,000
MILEAGE		500
CONFERENCE/TRAINING (Non Fair Housing)		4,000
INTERFUND CHARGE-CENTRAL SUPPLY		300
CONTRACTS HOME Long-Term Monitoring, Fair Housing Information and Coordination		10,000
	TOTAL	150,273

SPONSORING AGENCY MANAGEMENT

CORPORATION DIRECTORS:

How often does the Board meet?

City Council serves as the governing board. Their meetings are the first and third Wednesday of every month.

What was the average number of Board members attending meetings last year?
_____7_____

Based on the bylaws, what is the minimum and maximum number of seats on the Board?

____4____ Minimum ____7____ Maximum

Please provide the following information:

Date of Incorporation: __**March 27, 1907**_____
IRS Employer Number: _**94-6000365**_____

Attach current Board of Directors' roster, including the names, addresses, occupations and number of years served on the Board.

Name	Occupation	Term	District
Andrew J. Medellin, Mayor	Owner, Andy's Sports and Design	Elected 2016, Mayor term ending December 2020	At-Large
Cecelia (Cece) Foley Gallegos, Mayor Pro Tem	Educator	Elected June 2016, Council Member term ending December 2018	1
Jose Rodriguez	Mortgage Lender	Elected November 2016, Council Member term ending December 2020	2
William Oliver, Council Member	Business Support Manager, Fresno County Economic Development Corporation	Elected November 2014, Council Member term ending December 2018	3
Derek O. Robinson Sr., Council Member	Postal Service Retiree, Youth Counselor, Track Athlete and Coach	Elected November 2012, Council Member term ending December 2016	4
Charles Flores Rigby, Mayor Pro Tem	Pastor, Valley West Christian Center; Boys Basketball and Golf Coach, Madera Unified School District	Elected November 2014, Council Member term ending December 2018	5
Donald E. Holley, Council Member	Machine Operator, Jesse Owens Games Organizer, past NAACP President, MLK Committee Member	Elected November 2012, Council Member term ending December 2016	6

FINANCIAL:

How often are financial records audited, and by whom?

_**Annually by Price Paige & Company**_____

Are the treasurer and/or other financial officers bonded? __**Yes**_____

If so, for how much? _____**$1 million**_____

List any judgments or pending lawsuits against the agency or program:

_**None.**_____

List any outstanding obligations: _

__**None.**_____

RESOLUTION/CERTIFICATION:

Not applicable at this time. The City Council will approve a resolution for the final 2017/2018 programs and projects in the Action Plan.

We, the Board of Directors of _____ do hereby resolve that on _____, 2017, the Board reviewed this application and, furthermore, the Board in proper motion and vote approved this application for submission to the City of Madera.

Furthermore, we certify that the agency making this application is (1) non profit, (2) tax exempt, and (3) incorporated in the State of California, and has complied with all applicable laws and regulations. To the best of our knowledge, all information presented herein is correct and complete.

Dated: _____

AGENCY NAME: _____

ADDRESS: _____

TELEPHONE: _____

By: _____
President of the Board of Directors

This application and the information contained herein are true, correct and complete to the best of my knowledge.

By: _____
Grants Administrator

RETURN AN ORIGINAL AND TWO COPIES TO:	City of Madera 205 West Fourth Street Madera, CA 93637 Attention: CDBG Administration
DUE DATE:	**March 16, 2017, 5:00 p.m.**
CONTACT PERSON:	Jorge Antonio Rojas, Program Manager – Grants 559-661-3693 jrojas@cityofmadera.com

City of Madera
Applications Submitted for the
CDBG 2017/2018 Action Plan

Tab 2

RECEIVED 3-16-17 JR

ORIGINAL

CITY OF MADERA
COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)
PUBLIC SERVICE PROPOSAL APPLICATION
2017/2018

AGENCY/PROGRAM INFORMATION **DATE SUBMITTED:** March 15, 2017

Legal Name of Agency: Community Action Partnership of Madera County, Inc.

Program Name: Fresno Madera Continuum of Care Ending Homelessness

Agency Address: 1225 Gill Avenue

City/Zip: Madera, 93637 Telephone: (559) 673-9173

Program Director: Elizabeth M. Wisener FAX (559) 673-3223

SUMMARY OF COMMUNITY NEED OR PROBLEM TO BE ADDRESSED: (Describe the community need or problem to be addressed by the proposed program. State how and by whom the need was identified. All research documentation must be acknowledged.)

This application seeks to help address community challenges created by homelessness in Madera. Homeless Services and Facilities was identified as a "High Priority" on The City of Madera's 2015 - 2019 Consolidated Plan. The most recent homeless-point-in-time-count was conducted in January 2017 in Fresno and Madera Counties. The results will be reviewed and approved by HUD later this year. For purposes of this application, the 2016 homeless point-in-time count results will be used to support how the need was identified. The 2016 Count enumerated 166 unsheltered homeless people and 95 sheltered homeless for a total of 261 people. Because of the support of the City of Madera with the CDBG grant, progress has been made on the Madera County's Ten Year Plan to End Homelessness that was put into place in 2011. Even though progress has occurred, more work needs to be done. Below is a summary of the progress towards ending homelessness in Madera County:

HOMELESS POINT-IN-TIME COUNT HISTORY

FOR THE COUNTY OF MADERA

DESCRIPTION	2010	2011	2012	2013	2014	2015	2016
Sheltered	161	177	90	90	111	68	95
Unsheltered	365	551	551	242	221	196	166
Total	526	728	641	332	332	264	261
Percent Increase/ Decrease From Prior Year		38.40%	-11.95%	-48.21%	0.00%	-20.48%	-21.39%

The change in homelessness from 2010 to 2016 has declined by 265 or 50.4 %. The ongoing CDBG support that has been provided by the City of Madera has helped make this happen.

If this funding request is awarded, CAPMC will assist the City of Madera in achieving the SP-45 Goal regarding Homeless Prevention as listed on page 147 of the City of Madera 2015 – 2019 Consolidated Plan.

The funding request also lines up with SP-60 Homeless Strategy as outlined on page 152 of the City of Madera 2015 – 2019 Consolidate Plan. This strategy outlines actions the City will take to address homelessness and includes a statement that the City will work with and support CAPMC. The Plan also shares that the City intends to continue supporting the Fresno Madera Continuum of Care and the Madera County Homeless Coalition.

EXISTING SERVICES: List other agencies currently addressing the need or problem described above. (Attach sheets if necessary.)

Information about agencies currently addressing the need is included in the table on the following page. The table shows the progress that has been made in building capacity to serve the homelessness since 2010.

In addition, CAPMC is a member of the Fresno-Madera Continuum of Care (FMCoC); the Community Services Program Manager serves both on the Board of Directors and the Executive Committee. The Resident Manager of the Shunammite Place serves as the alternate board member. The FMCoC is comprised of homeless service providers who meet monthly to collaborate, develop and improve on a community-wide systematic approach to addressing the needs of the homeless population. Per the Housing and Urban Development (HUD) regulations, it is required that agencies receiving homeless funding be members of a HUD recognized Continuum of Care, and the Shunammite Place is funded predominately by HUD.

Madera County Homeless Assistance Projects

#	Program	2010 Housing Capacity	2015 Housing Capacity		2017 Housing Capacity
1	Shunammite Place	15	15		15
2	MBH - Madera	9	9		9
3	DSS - Homeless Assistance Program	?	?		39
4	Madera Housing Authority Family Unification	17	17		16
5	Madera Housing Authority VASH Program (Vets)	50	50		50
6	Madera Rescue Mission	132	132		131
7	Turning Point - Oakhurst		7		7
8	Effie Kennon Ranch	0	10		0
9	DSS - Housing Support Program		??		8
10	Victory Outreach Mens Home		10		10
11	ClearView Outreach		30		8
12	CAPMC - DV Transitional		0	**	12
13	Retrain the Village				8
14	CAPMC - Los Amigos Mens Home		0		6
		223	280		319

Notes For The Above Table

- Three new programs opened in 2016: CAPMC Domestic Violence, Transitional Housing Program, Retrain the Village, and CAPMC Los Amigos Men's Housing Project.
- The DV Transitional Program is set up to house 4 families and as of March 15, 2017, there are 12 people in the program.
- Retrain the Village has been approved to serve 8 veterans.
- The Department of Social Services has two programs that assist with housing: The Housing Support Program and the Homeless Assistance Program. For the 2015/2016 year the Homeless Assistance Program served 39 families. As of June of 2015 there were 8 families in the Housing Support Program.
- The net increase from the prior year in the number of homeless people that can be served is 39 or a 13.5% increase in housing capacity. Part of the increase is because data for the number of families served by DSS in the past was not available.

In addition to the above, CAPMC representatives have joined a newly formed Homeless Task Force that is led by the Linda Shaw, Executive Director of the Madera Housing Authority in conjunction with Madera City Councilman Will Oliver and Councilman Charles Rigby. The group is working with representatives from several local entities to help bring more homeless services to Madera. CAPMC representatives will communicate the outcomes of the group to the Madera Homeless Coalition and the FMCoC.

Explain how your program supplements or complements existing services without duplicating them. (Attach sheets if necessary.)

The Fresno-Madera Continuum of Care (FMCoC) invites nonprofit service providers, government entities, business, and individuals to join in the efforts to end homelessness in the community by becoming a member of the FMCoC. FMCoC does not duplicate or provide direct services, but enhances and compliments all other homeless services within the FMCoC region through the ability to standardize services, provide the mandated Federal organization of service providers and the community members, and enables the region to apply for or receive $9,190,594 annually in HUD homeless funds. Without the FMCoC, a Madera County entity would not be eligible to apply for HUD funds which provide operational and supportive services for the Shunammite Place permanent supportive housing and Serenity Village in Oakhurst.

The FMCoC is a federally mandated homeless organization that serves as the Continuum of Care for the cities of Fresno, Madera, Clovis and all municipalities within Fresno and Madera Counties. As such, FMCoC is dedicated to increasing the awareness of the problems of people who are homeless and to the development and carrying out of local strategies to create permanent solutions to homelessness in our community. In the coming fiscal year, the FMCoC will carry out its mission by promoting and implementing these strategies to end homelessness.

This grant will pay for the personnel that will assist the FMCoC with awareness activities related to homeless issues within the City of Madera.

Some of the activities that the CAPMC staff will be responsible for are:

a. Ensure that the goals and objectives of the 10-year Plan to End Homelessness are being met and reported to the City of Madera and the Madera Homeless Coalition.

b. Coordinate the Madera Homeless Coalition meetings.

c. Organize and participate in activities to bring community awareness to the homeless populations and their issues.

d. Provide outreach, education and information to the community on resources available for homeless people or those at-risk of becoming homeless; including the Annual Homeless

Awareness Day event.

e. Seek new funding sources to serve the homeless population.

f. Plan and coordinate the HUD mandated 2018 Homeless Point-In-Time Count

The funding of the CDBG grant is vital to the on-going support for the homeless of Madera County. Because of the funding of the CDBG grant, CAPMC has remained an active participant on the FMCoC Executive Board, by attending monthly meetings, and serving on the FMCoC service committees. CAPMC has essentially become the voice of Madera on the Continuum. The CAPMC staff then share news from the Continuum with members of the Madera County Homeless Coalition. Without participation from an entity in Madera, Madera County would not be eligible to apply for HUD funding to expand housing services to the homeless in Madera. This funding is vital part of the success of Madera County's 10 Year Plan to End Homelessness.

CLIENT POPULATION

Indicate the total number of potential clients in the community who require your services.

The results of the 2016 Homeless Point-In-Time Count indicated there are 166 unsheltered homeless living in Madera County. One hundred twenty-nine were funding living on the streets within the city limits of Madera and 37 were found living in Madera County. Of those counted, 123 or 74% were men and 43 or 26% were women. In addition, five households were identified that had at least one child. Three of these were sheltered and two were not.

State the total number of <u>unduplicated</u> clients you intend to serve during the term of this proposed program/service (12 months)

CAPMC does not intend to provide direct services to clients with this funding source.

If this program was funded last year, has there been a change in the composition of the target population to be served and/or shift in the geographic target area?

_____ Yes ___X___ No

If yes, <u>explain</u>:

Provide the following demographic information for the total number of unduplicated clients as indicated above:

AGE	0 - 5	6 - 12	13 - 17	18 - 34	35 - 54	55 - 59	60 - 64	65 +
GENDER	Female							
	Male							
FEMALE HEAD								

This information is confidential and is only used for government reporting purposes to monitor compliance with equal opportunity laws. Please note that self-identification of race/ethnicity is voluntary.

RACE	NO.	RACE	NO.
White	_____	American Indian or Alaska native AND White	____
Black/African American	_____	Asian AND White	____
Asian	_____	Black/African American AND White	____
American Indian or Alaska Native	_____	American Indian/Alaska Native AND Black/African American	____
Native Hawaiian or Other Pacific Islander	_____	Other:_____	____
Mexican/Chicano	_____	Cuban	____
Puerto Rican	_____	Other Hispanic/Latino:_____	____

EFFECTIVENESS AND EFFICIENCY

Describe the method used to measure the effectiveness (outcomes) of services. Identify measurable goals and objectives. Attach a copy of the program's evaluation documentation.

What National Objective does your program meet?

Although this grant application does not directly relate to the three designated National Objectives, the scope of work of a Continuum of Care Coordinator or similar position is eligible under the CDBG program as administrative cost. Please fund this application out of the administrative cost. As a reference, please see HUD Information Bulletin CPD-01-020.

Describe what measureable objectives your program meets?

1. Support activities of Madera County Homeless Coalition by coordinating and participating in Homeless Coalition meetings. The measurable performance indicator will be tracking participating in meetings.

Goal: Advocacy for Homeless				
Specific Objective	**Source of Funds**	**Year**	**Performance Indicator**	**Expected Number**
Support activities of Madera Homeless Coalition by facilitating the Madera County Homeless Coalition meetings	CDBG and other funds as available	2017/2018	Participate in meetings	4

2. CAPMC will have active membership on the Fresno-Madera Continuum of Care. Membership on the Continuum is vital because often the only representatives present at Continuum meetings from Madera are those from CAPMC. The CAPMC staff then communicates information from the Continuum to the Madera Homeless Coalition. The measureable performance indicator will be participation in meetings.

Goal: Advocacy for Homeless				
Specific Objective	**Source of Funds**	**Year**	**Performance Indicator**	**Expected Number**
CAPMC will have active membership on the Fresno-Madera Continuum of Care.	CDBG and other funds as available	2017/2018	Participate meetings	24

3. CAPMC will work with Madera Homeless Coalition to plan and facilitate a Homeless Awareness Day for Homeless people in the city of Madera.

Goal: Advocacy for Homeless				
Specific Objective	**Source of Funds**	**Year**	**Performance Indicator**	**Expected Number**

Plan and facilitate a Homeless Awareness Day for Homeless people in the city of Madera.	CDBG and other funds as available	2017/2018	Event	1

4. CAPMC will plan and coordinate the 2017 Homeless Point-In-Time Count.

Goal: Advocacy for Homeless				
Specific Objective	**Source of Funds**	**Year**	**Performance Indicator**	**Expected Number**
Plan and facilitate a Homeless Point-In-Time Count	CDBG and other funds as available	2017/2018	Event	1

How will your program meet its goals in one year?

The program will monitor and report on performance indicators on a quarterly basis to the City of Madera. CAPMC will know that it has met its goals in one year if the performance indicators listed above reach the expected numbers.

SERVICE FUNDING

What financial resources, other than City are available for this program? Have applications for other funds been submitted? Explain. If funds other than CDBG are proposed, please provide supporting documentation/letters of commitment.

The CAPMC Staff who serve on the FMCoC Board are funded out of multiple sources. The CDBG funding allows us to maximize resources to provide more comprehensive services to the homeless.

Describe in detail all proposed plans for fund raising for this program. What is the projected net income from fund raising? If net fund raising is not increasing, please explain (be specific).

Each year, CAPMC solicits in-kind donations from several sources to provide much needed assistance for homeless awareness day and the homeless point-in-time count. A dollar value has

not been assigned from the donations, but the events would not be successful without the additional support. This past year CAPMC received enough donations to prepare over 200 hygiene kits. There were also meals were donated for the homeless count. We do not have specific commitments for the 2017-2018 year, but Madera businesses are more than willing to support these types of community events.

What was done to receive public input/participation? Please provide details. What did the public input/participation identify? Include documentation of support for the proposal such as meeting minutes, letters and petitions.

CAPMC has the support of the Madera County Homeless Coalition members and the Fresno-Madera Continuum of Care members to continue facilitating and coordinating the homeless activities of the Coalition. Below is the contact information for agencies that expressed support of the CDBG application.

• Debbie DiNoto, LFMT Division Manager	Madera Behavioral Health
• Dennis Koch, MPA Director with	Madera County Behavioral Health
• Jay Varney, Sheriff/Coroner	Madera County Sheriff's Office
• Mike Unger, Executive Director	Madera Rescue Mission
• Halley Crumb, Executive Director	Retrain the Village
• Betty Scalise, Volunteer	Holy Family Table
• Martin Piepenbrok, Community Relations Mgr.	City of Chowchilla
• Ryan McWerther, Executive Director	The Madera County Food Bank
• Elaine Craig, Executive Director	Madera County Workforce Development
• Al Klodt, Pastor	Clearview Outreach
• Paul Yankee, Analyst	Department of Social Services
• Lourdes Herrera	Madera Coalition for Community Justice

If service is offered outside the Madera city limits, include the list of funding sources and supporting documentation/letters of commitment that support these program services.

CAPMC does not intend to provide direct services to clients outside of the Madera City limits with this funding source.

When there is an overflow of clients, how is it determined whom to serve?

The Centralized/Standardized intake process that is utilized by the Homeless Management Information System (HMIS) and the FMCoC addresses the issue through the standardized referral and replacement of homeless into appropriate and available programs. This is one of the mandated services and homeless project implementations that HUD has required implementation by all CoC's. Further, within our FMCoC and the Madera Homeless Coalition ongoing dialogue and interagency cooperation assist in ensuring that all clients' needs are met.

Is income criteria used to establish eligibility for services?

CAPMC does not intend to provide direct services to clients with this funding source.

____ Yes __X__ No (If yes, attach a copy of the criteria.)

Is a fee schedule used?

CAPMC does not intend to provide direct services to clients with this funding source.

____ Yes __X__ No (If yes, attach a copy of fee schedule.)

INCOME SOURCE	AMOUNT
CITY	
UNITED WAY	
STATE (SPECIFY)	
FEDERAL (SPECIFY) CDBG	$16,000
SERVICE FEES	
FUND RAISING	
DONATIONS	
RESERVE/CONTINGENCY	
OTHER (LIST)	
TOTAL INCOME	$16,000

SALARY EXPENSES	ACCOUNT NO.	AMOUNT
SALARIES	0100	$9,073
BENEFITS	0150	$2,296
SERVICES & SUPPLIES		
INSURANCE	0200	
COMMUNICATIONS	0250	$332
CONSULTANT SERVICES	0300	$1,000
OFFICE EXPENSE	0350	$30
OFFICE RENTAL	0400	$831
EQUIPMENT RENTAL	0450	
UTILITIES	0500	$148
TRAVEL (ADMIN.)	0550	$1,000
FOOD SUPPLIES	0600	
CONTRACTS	0650	$155
TRANSPORTATION	0700	$1,135
FUND RAISING	0750	
TOTAL		$16,000

SPONSORING AGENCY MANAGEMENT

CORPORATION DIRECTORS:

How often does the Board meet? Monthly

What was the average number of Board members attending meetings last year? 11

Based on the bylaws, what is the minimum and maximum number of seats on the Board?

15 Minimum 15 Maximum

Please provide the following information:

Date of Incorporation: 1965

IRS Employer Number: 94-1612823

Attach current Board of Directors' roster, including the names, addresses, occupations and number of years served on the Board.

FINANCIAL:

How often are financial records audited, and by whom?

CAPMC is audited once a year by Randolph E. Scott & Company

Are the treasurer and/or other financial officers bonded? Yes

If so, for how much? $200,000

List any judgments or pending lawsuits against the agency or program:

None

List any outstanding obligations:

None

RESOLUTION/CERTIFICATION:

We, the Board of Directors of Community Action Partnership of Madera County, Inc. do hereby resolve that on April 13, 2017, the Board will review this application and, furthermore, the Board in proper motion and vote approved this application for submission to the City of Madera.

Furthermore, we certify that the agency making this application is (1) non profit, (2) tax exempt, and (3) incorporated in the State of California, and has complied with all applicable laws and regulations. To the best of our knowledge, all information presented herein is correct and complete.

Dated: March 14, 2017

AGENCY NAME: Community Action Partnership of Madera County, Inc.

ADDRESS: 1225 Gill Avenue, Madera, CA. 93637

TELEPHONE: (559) 673-9173

By: _____
Chairperson of the Board of Directors

This application and the information contained herein are true, correct and complete to the best of my knowledge.

By: _____
Executive Director

RETURN AN ORIGINAL AND TWO COPIES TO:

City of Madera
205 West Fourth Street
Madera, CA 93637
Attention: CDBG Administration

DUE DATE: **March 16, 2017, 5:00 p.m.**

CONTACT PERSON:

Jorge Antonio Rojas, Program Manager – Grants
559-661-3693
jrojas@cityofmadera.com

City of Madera
Applications Submitted for the
CDBG 2017/2018 Action Plan

Tab 3

CITY OF MADERA
COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)
PUBLIC SERVICE PROPOSAL APPLICATION
2017/2018

AGENCY/PROGRAM INFORMATION **DATE SUBMITTED: 3/13/2017**

Legal Name of Agency: Madera County Workforce Investment Corporation

Program Name: Bridge to Careers

Agency Address: 2037 W. Cleveland Avenue

City/Zip: Madera, 93637 Telephone: 559-662-4589

Program Director: Elaine M. Craig, Executive Director FAX: 559-673-1794

SUMMARY OF COMMUNITY NEED OR PROBLEM TO BE ADDRESSED: (Describe the community need or problem to be addressed by the proposed program. State how and by whom the need was identified. All research documentation must be acknowledged.)

U.S. Census data from 2014 indicates that 27.6% of the population of the City of Madera live in households below the poverty level. In addition, the unemployment rate for the City of Madera, as published by the State of California Employment Development Department for the month of January 2017 was 8.6%, compared to the County of Madera at 10.0%, the State at 5.1% and the Nation at 4.8%. The unemployment rate for the City of Madera, however, does not reflect the statistic of "Not in Labor Force" which is 50.3% of those 16 years and over. Approximately one half of the unemployed individuals who reside in Madera County live within the City of Madera. More than half of the population is Hispanic or Latino with 69% speaking a language other than English at home. Compounding these issues of poverty and unemployment is the fact that 41.8% of those 25 and older have less than a High School diploma or equivalent, while less than 6.7% hold a Bachelor's degree and 6.9% have an Associate's Degree. The high percentage of individuals who are limited English proficient (LEP) along with the low attainment of a high school diploma/equivalent create barriers to employment that prevent these individuals from advancing in the workforce system. Many often cycle through low wage, dead end jobs and lack the education, skills, and financial support needed to move into self-sustaining wages.

To assist in addressing this need, the Madera County Workforce Investment Corporation is proposing a program offering scholarships or sponsorships for educational services including

GED/HISET and High School Diploma Credit Recovery and Adult Basic Education skills. We will also explore a contextualized Vocational English as a Second Language (VESL) component focused on customer service and/or workplace skills either within the HiSET or as a stand-alone class. The VESL courses would make the pathway from basic skills to academic or certificate programs more efficient. This class would create a bridge for ESL students to enter any field and ensure that they are prepared for the workplace. In addition, eligible participants will receive intensive career counseling and coaching for career pathway choices and options with training that allows maximum opportunity for stackable and portable certificates and credentials.

EXISTING SERVICES: List other agencies currently addressing the need or problem described above. (Attach sheets if necessary.)

The Madera Adult School offers courses and programs in the areas of High School Equivalency (HSE) (including GED and HiSET), English as a Second Language (ESL), Adult Basic Education (ABE), High School Diploma, and Community Education. However, with limited to no financial aid assistance, these courses and programs may not be accessible to low income or underemployed students who do not have the funds and support available to participate in these programs and pass the exams.

Explain how your program supplements or complements existing services without duplicating them. (Attach sheets if necessary.)

As noted above, many individuals who are seeking employment are in need of a high school diploma or equivalent, post-secondary education or technical occupational skills training, licensing, or certification. However, due to state laws and regulations such as SB734, workforce areas are unable to utilize formula funds to spend on non-training related services such as the educational services mentioned above. Currently, we offer the flexibility of an open entry open exit HiSET program that is offered during both afternoons and evenings to allow individuals to enter the class and attend when their schedules permit. We have provided an instructor and clerical support to customize the delivery model for this class to ensure that these customers receive additional support and assistance. This proposed funding will continue to support GED/HiSET and High School Diploma Credit Recovery, as well as Adult Basic Education, and exploration of additional ESL or VESL components to be offered within these services or as a stand-alone. Funds will also be used for supportive services, such as mileage, books, testing fees, etc. that increase successful completion of class for eligible individuals and will complement other resources and services available through other community agencies, without duplication of those services. Up skilling participant's ability to successfully access workforce training opportunities will allow them to locate, obtain, and retain employment in positions that will move them along the path to economic self-sufficiency.

CLIENT POPULATION

Indicate the total number of potential clients in the community who require your services.

Approximately 14,000.

State the total number of <u>unduplicated</u> clients you intend to serve during the term of this proposed program/service (12 months)

50

If this program was funded last year, has there been a change in the composition of the target population to be served and/or shift in the geographic target area?

___X___ Yes _____ No

If yes, <u>explain</u>:

Although there has not been a change in the composition of the target population or in the geographic target area, there has been a shift in the service model. Last year, funding provided assistance for educational services, vocational training and certification programs, and work-based learning opportunities such as paid internships, work experience, job shadowing, and related supportive services for low-income adult residents. This year, funding targets low-income and underemployed adult residents to provide scholarships for non-training related educational services; specific to GED/HiSET and High School Diploma Credit Recovery, Adult Basic Education skills and ESL. There is a bigger need for these fundamental skills, which are necessary to successfully gain access to Workforce services that will lead to training and career pathway choices for stackable and portable certificates and credentials.

Provide the following demographic information for the total number of unduplicated clients as indicated above:

AGE	0 - 5	6 - 12	13 - 17	18 - 34	35 - 54	55 - 59	60 - 64	65 +
				21	25	4		
GENDER	Female	30						
	Male	20						
FEMALE HEAD								

This information is confidential and is only used for government reporting purposes to monitor compliance with equal opportunity laws. Please note that self-identification of race/ethnicity is voluntary.

RACE	NO.	RACE	NO.
White	__15___	American Indian or Alaska native AND White	____
Black/African American	__2__	Asian AND White	____
Asian	__1___	Black/African American AND White	____
American Indian or Alaska Native	_____	American Indian/Alaska Native AND Black/African American	____
Native Hawaiian or Other Pacific Islander	_____	Other:_____	____
Mexican/Chicano	__32___	Cuban	____
Puerto Rican	_____	Other Hispanic/Latino:_____	____

EFFECTIVENESS AND EFFICIENCY

Describe the method used to measure the effectiveness (outcomes) of services. Identify measurable goals and objectives. Attach a copy of the program's evaluation documentation.

The program services will be evaluated using the same outcome metrics as other Workforce Innovation and Opportunity Act (WIOA) funded programs. Performance measurements will include the total number of individuals served, the number of individuals receiving a certificate/credential, and the number who enter employment, or post-secondary education/training following completion of their program.

What National Objective does your program meet?
#1 – Activities Benefiting Lower Income Persons/Households

Describe what measureable objectives your program meets?
Increasing certificate, credential, and employment outcomes for the target population.

How will your program meet its goals in one year?
Courses offered will be open entry/open exit and will be provided in the afternoons and evenings. Funding will also be utilized to purchase work-study materials and assist with exam fees and retakes, which will be completed within the 12 month operating period.

SERVICE FUNDING

What financial resources, other than City are available for this program? Have applications for other funds been submitted? Explain. If funds other than CDBG are proposed, please provide supporting documentation/letters of commitment.

Local Workforce Innovation and Opportunity Act (WIOA) funding (both allocated and grants), as well as CalWORKS and Department of Rehabilitation funds may be accessed/leveraged, based on the eligibility of the individuals served. Staff time and operating costs associated with providing services under this grant will be provided by funds other than CDBG.

Describe in detail all proposed plans for fund raising for this program. What is the projected net income from fund raising? If net fund raising is not increasing, please explain (be specific).

No fundraising is planned or anticipated.

What was done to receive public input/participation? Please provide details. What did the public input/participation identify? Include documentation of support for the proposal such as meeting minutes, letters and petitions.

The Annual Local Strategic Plan has a public comment period and is available for review and comment. The public has an opportunity to provide feedback and input at any time during their participation with our program. In addition, monthly meetings of the Workforce Development Board and their Executive Committee include public comment opportunities.

If service is offered outside the Madera city limits, include the list of funding sources and supporting documentation/letters of commitment that support these program services.

Services will be provided to residents of the incorporated City of Madera.

When there is an overflow of clients, how is it determined whom to serve?

Priority of services shall be given to recipients of public assistance and other low income individuals and Veterans who reside within the City of Madera. Individuals who reside outside the City limits, but within Madera County will only be served after the priority individuals listed above. Overflow customers will be offered the opportunity to access other training opportunities should funding be available. Basic Career Services is available to all customers who access the Job Center, such as: Resource Room, Resume, Job Search, Use of Computers, Fax and Phone, Registration in CalJobs and other job boards.

Is income criteria used to establish eligibility for services?

___X__ Yes _____ No (If yes, attach a copy of the criteria.)

Is a fee schedule used?

____ Yes ___X___ No (If yes, attach a copy of fee schedule.)

INCOME SOURCE	AMOUNT
CITY	
UNITED WAY	
STATE (SPECIFY)	
FEDERAL (SPECIFY)	
SERVICE FEES	
FUND RAISING	
DONATIONS	
RESERVE/CONTINGENCY	
OTHER (LIST)	
TOTAL INCOME	

SALARY EXPENSES	ACCOUNT NO.	AMOUNT
SALARIES	0100	
BENEFITS	0150	
PARTICIPANT SERVICES & SUPPLIES		$30,000
INSURANCE	0200	
COMMUNICATIONS	0250	
CONSULTANT SERVICES	0300	
OFFICE EXPENSE	0350	
OFFICE RENTAL	0400	
EQUIPMENT RENTAL	0450	
UTILITIES	0500	
TRAVEL (ADMIN.)	0550	
FOOD SUPPLIES	0600	
CONTRACTS	0650	
TRANSPORTATION	0700	
FUND RAISING	0750	
TOTAL		$30,000

SPONSORING AGENCY MANAGEMENT

CORPORATION DIRECTORS:

How often does the Board meet? __Monthly_____

What was the average number of Board members attending meetings last year?
_____Five_____

Based on the bylaws, what is the minimum and maximum number of seats on the Board?

_____5_____ Minimum ____8____ Maximum

Please provide the following information:

Date of Incorporation: ___May 9, 2012_____

IRS Employer Number: __45-5243432_____

Attach current Board of Directors' roster, including the names, addresses, occupations and number of years served on the Board.

FINANCIAL:

How often are financial records audited, and by whom? Required by Uniform Guidance Part 200, annual Single Audit is performed by an outside auditing agency annually. Auditor: Moss Adams, LLP – copy of most recent audit will be provided upon request.

Are the treasurer and/or other financial officers bonded? __No___

If so, for how much? ____N/A_____

List any judgments or pending lawsuits against the agency or program:

___None_____

List any outstanding obligations:

___None_____

RESOLUTION/CERTIFICATION:

We, the Board of Directors of the Madera County Workforce Investment Corporation do hereby resolve that on _____, 2017, the Board reviewed this application and, furthermore, the Board in proper motion and vote approved this application for submission to the City of Madera.

Furthermore, we certify that the agency making this application is (1) non profit, (2) tax exempt, and (3) incorporated in the State of California, and has complied with all applicable laws and regulations. To the best of our knowledge, all information presented herein is correct and complete.

Dated: _____, 2017

AGENCY NAME: Madera County Workforce Investment Corporation

ADDRESS: 2037 W. Cleveland Avenue, Madera, CA 93637

TELEPHONE: 559-662-4589

By: _____
President of the Board of Directors

This application and the information contained herein are true, correct and complete to the best of my knowledge.

By: _____
Executive Director

RETURN AN ORIGINAL AND TWO COPIES TO:	City of Madera 205 West Fourth Street Madera, CA 93637 Attention: CDBG Administration
DUE DATE:	**March 16, 2017, 5:00 p.m.**
CONTACT PERSON:	Jorge Antonio Rojas, Program Manager – Grants 559-661-3693 jrojas@cityofmadera.com

City of Madera
Applications Submitted for the
CDBG 2017/2018 Action Plan

Tab 4

RECEIVED 3-13-17 JR

RETRAINING THE VILLAGE

Halley Crumb
16236 North Lake Street
Madera California 93638
Phone: 650.461.0433

March 13, 2017

To Jorge Rojas
Program Grants
Madera City Hall

Dear Jorge,

Enclosed is an application for CBDG grant that is offered on the CITY and County webpage. I have enclosed the boarder of this home located at 16236 North Lake Street Madera, California for consideration as an Emergency Shelter/Transitional housing component.

Retraining the Village is requesting ~~120,000.00~~ 55,000.00 of the 731,000.00 allocated for Homeless Programs.

We have also enclosed the county line that you have given us as an ineligible portion of the grant being given to Retraining the Village. We have also included the statement from CBDG requirements that the Federal Government posted as eligibility of the Funds.

Our argument is that our boarder to the city is NEXT DOOR as noted in the map we are very close to the City line and we are in the process of purchasing this home through another grant option.

We also attended the meeting on March 09, 2017 in which the Department of Housing was there to ask for funding in the County of Madera at 11777 Woodard Street Madera, California. She was not discouraged from applying like Retraining the Village was. This is our second time requesting these funds.

Upon receiving the funds we will be able to service more Veterans and Homeless people in the home taking our number from 6-7 people to 12 and 14 people. We will go to the county and pay the additional money for the capacity. The grant projects the estimated capacity after funds are distributed.

In closing we are prepared to contest the denial of the grant due to disbarred treatment. Retraining the Village has been in Madera City/County for almost 2 years without any funding from the City/County.

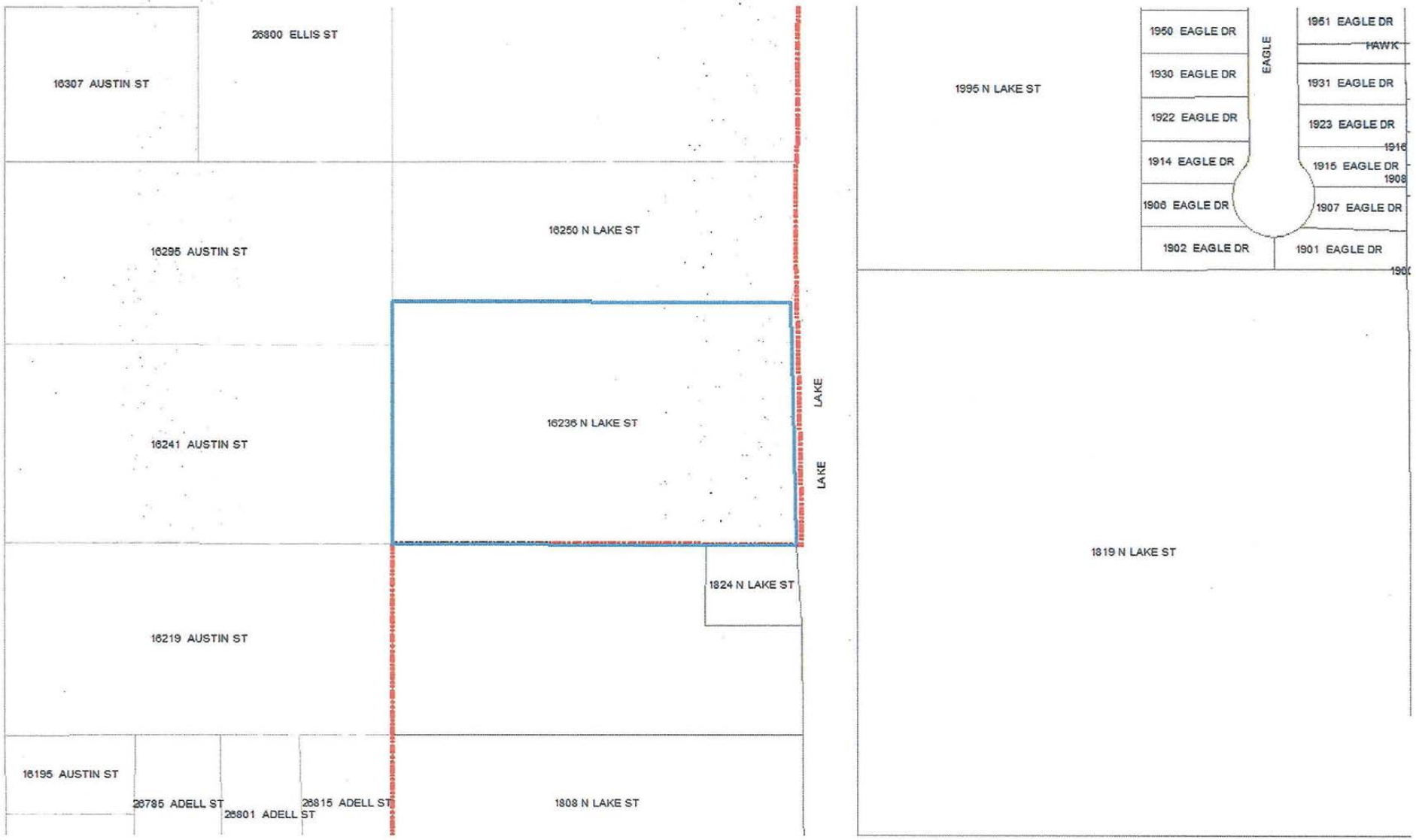
- We are here to help this community and within the time of being here we have helped the community with the 2017 homeless count.
- We participated with outreach at the Park in August of 2016.
- We have collaborated efforts with CAPMC
- Attended the F/MCoC
- Collaborated Efforts with MRM ACES Program
- GEO Re-Entry Services by helping their client graduate from program
- Assist with housing/ employing clients that lived homeless at the river bank
- Participated with the local Probation Department for housing
- We have had an open house as of Jan.06, 2017
- Attended Board of Supervisor Meetings

There are several communities that will be involved with Retraining the Village which is all combined as a dual clients between the following agencies Behavioral Health, Veterans, Re-Entry and Homelessness for males. We are here to serve the Community of Madera males that may fall into each category or one of the four.

If you need any further information, please feel free to contact Halley Crumb by phone at 650.461.0433 or at retrainingthevillage@yahoo.com

Sincerely,

Halley Crumb
Chief Executive Officer
Hcrumb.retrainingthevillage@gmail.com
650.461.0433


16307 AUSTIN ST
26800 ELLIS ST
16295 AUSTIN ST
16250 N LAKE ST
16241 AUSTIN ST
16236 N LAKE ST
LAKE
LAKE
16219 AUSTIN ST
1824 N LAKE ST
16195 AUSTIN ST
26785 ADELL ST
26801 ADELL ST
26815 ADELL ST
1808 N LAKE ST
1995 N LAKE ST
1950 EAGLE DR
1930 EAGLE DR
1922 EAGLE DR
1914 EAGLE DR
1908 EAGLE DR
1902 EAGLE DR
EAGLE
1951 EAGLE DR
HAWK
1931 EAGLE DR
1923 EAGLE DR
1916
1915 EAGLE DR
1908
1907 EAGLE DR
1901 EAGLE DR
1900
1819 N LAKE ST

CITY OF MADERA
COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)
PUBLIC SERVICE PROPOSAL APPLICATION
2017/2018

AGENCY/PROGRAM INFORMATION **DATE SUBMITTED: March 13, 2017**

Legal Name of Agency: __Retraining the Village

Program Name: ____Hybrid Home Interim Shelter

Agency Address: _16236 North Lake Street

City/Zip: _Madera California 93638_ Telephone: (559) 395-4771
Or 650-461-0433

Program Director: _Halley Crumb_____ FAX: (559) 395-4771

SUMMARY OF COMMUNITY NEED OR PROBLEM TO BE ADDRESSED: (Describe the community need or problem to be addressed by the proposed program. State how and by whom the need was identified. All research documentation must be acknowledged.)

The Need

- Homeless males in the City/County of Madera is greater than any other population we serve.

Identified: by the PIT homeless count of Madera City and County on January 25-27, 2017. Retraining the Village participated in the homeless count of 2017 and in the FMCoC meeting on March 09, 2017 the numbers were confirmed that 712 people suffer from homelessness throughout the county. The larger number of homeless where males.

- Outreach; Madera does not have a consistent outreach team for the City and County of Madera. The homeless population is serviced by the local churches and are not serviced by the shelters and other agencies that available in the city/county of Madera.

Identified: FMCoC on March 09, 2017 located at the Clovis Fire Department in the minutes and recorded that the outreach team has not had enough staff to service Madera.

- Veterans Emergency Shelter in Madera City.

Identified: The closes Veterans emergency shelter is in Oakhurst and Fresno both of these shelters are reporting more Veterans intake from other cities and counties. In the FmCoC meeting held on March 09, 2017 there are 6 Veterans homeless entering into the shelters as new Veterans. The number of Veterans that are served in Madera are low due to funding and/or need. West care was given a grant for SSVF by Madera County/City in December of 2016. To service the need of

Veterans. We need to have a home closer into the city of Madera to utilize the housing need of the homeless Veterans.

- The population of Inmates being released is higher due to the passing of proposition 57 legislation of 2016 Vote

Identified: Legislation of California Voters passed the proposition 57 will allow low violators an early release from prison. Thus will increase the need for housing and Re-Entry housing units for the potential homeless growth in population. On the Public Policy site for Prisons they document that 90% of the prison population will be released back into our communities in the future due to reform that is instituted in the Prisons today.

EXISTING SERVICES: List other agencies currently addressing the need or problem described above. (Attach sheets if necessary.)
Hope House
Social Service Workforce Program
Madera Rescue Mission
CAPMC (Community Action Program)
Oakhurst Veteran Housing

Explain how your program supplements or complements existing services without duplicating them. (Attach sheets if necessary.)

Retraining the Village will supplement and complement the existing programs by providing emergency shelter and transitional housing beds. We will provide a referral system that will work with local non-profit agencies that have the same goal in their mission statement. To END HOMELESSNESS.

CLIENT POPULATION

Indicate the total number of potential clients in the community who require your services.

712

State the total number of unduplicated clients you intend to serve during the term of this proposed program/service (12 months)

50

If this program was funded last year, has there been a change in the composition of the target population to be served and/or shift in the geographic target area?

_____ Yes __x__ No

If yes, explain:

Provide the following demographic information for the total number of unduplicated clients as indicated above:

AGE	0 - 5	6 - 12	13 - 17	18 - 34	35 - 54	55 - 59	60 - 64	65 +
				10	15	25		
GENDER	Female							
	Male	x						
FEMALE HEAD								

This information is confidential and is only used for government reporting purposes to monitor compliance with equal opportunity laws. Please note that self-identification of race/ethnicity is voluntary.

RACE	NO.	RACE	NO.
White	_5____	American Indian or Alaska native AND White	____
Black/African American	__10___	Asian AND White	____
Asian	_____	Black/African American AND White	5____
American Indian or Alaska Native	_5____	American Indian/Alaska Native AND	

		Black/African American	____
Native Hawaiian or Other Pacific Islander	_____	Other:_____	____
Mexican/Chicano	__25___	Cuban	____
Puerto Rican	_____	Other Hispanic/Latino:_____	____

EFFECTIVENESS AND EFFICIENCY

Describe the method used to measure the effectiveness (outcomes) of services. Identify measurable goals and objectives. Attach a copy of the program's evaluation documentation.

We measure the effectiveness of our services via the following criteria

- Improvements in housing sustainment for potentially and formerly incarcerated and at risk Veterans males.
- Improvements in managing the support needs of formerly and potentially homeless males that might undermine housing sustainment (including mental health, problematic drug and alcohol use and access to social supports)
- Improvements in social integration to help prevent homelessness or repeat homelessness by utilizing Open Doors for Veterans
- Evidence based policies and strategic case management benefits (including cost offsets through generating savings for health, criminal and emergency development.
- Our measurement of success CRM is Salesforce program system where our case managers will document the success of each client.

Measurable goals and objectives

Goal1: Create a safe and healthier living environment for persons who are at risk of health issues will be rated as emergency placement.
Objective: Emergency Shelter for 12-18 Veteran and community males that is free of substance abuse and with adequate computer education and carpentry education to improve Job search which will complement the City of Madera's Co-plan.

Goal 2: Provide Safe shelter for persons who are at risk homeless and living under the bridges, Veterans, and Community Males who want to move out of homelessness.
Objective: Emergency shelter Veterans and community male's year around at home for a period of 6 months to 1 year at Retraining the Village as a year round emergency shelter. To educate, elevate and excel individuals into permanent housing program and return them to the work force after extensive programing and training.
Goal 3: Provide an effective Continuum of Care for homeless males
Objective: Provide an Outreach named "Streets and Creeks" to engage with the homeless as a trusted source of entrance into the program based community team and services. To assure that our homeless Veterans and males are contacted and provided information of the resources that are offered to them by the City/County of Madera. RTV will schedule a team of professional case managers to engage them and assist those who may be chronically ill and chronically homeless a grade 5 -10 chronically homeless in the county.

What National Objective does your program meet?
Our program meets the National Objective as outlined by Opening Doors which is the nation's first comprehensive federal strategy to prevent and end homelessness. It was presented to the Office of the President and Congress on June 22, 2010, and updated and amended in 2015 to reflect what they have learned over the past five years. Their primary goal and objective is to Prevent and end homelessness among Veterans in 2015. In 2016 the steer uphill climb still exist.
Describe what measureable objectives your program meets?

1) By June 2017, enroll upwards of 6 homeless Veterans / into our housing facility.
2) By September 2017, provide comprehensive intake for Veterans and homeless males, establish career training and immediate need completion connected to local health programs, immediate needs are met, drug programs are current and effective in the community, basic needs are met and clients are in Module 1 faze completion.
3) By December 2017, each client served will have met at least two personal goals and employed at a job (if applicable), Financial Readiness will have been completed including permanent housing search and application processed for entry into permanent housing.
4) By March 2017, 60% of clients will graduate from Retraining the Village program expectations and have obtained full-time work.

How will your program meet its goals in one year?
Retraining the Village will meet our goals in one year by working with homeless shelters, reaching out to the winter shelters to continue housing those who show potential of recovery of drugs and substance abuse who will need further housing without going into to homelessness.
Module 1: Retraining the Village will work with local CAPMC and Shelter Network to improve the quality of life for the homeless males who are at risk of homelessness and Re-Entry clients of the Community.
Module 2: Utilizing CRM data via Salesforce program that compliments HMIS system in place. Utilizing Case by Case management and hiring Certified Case managers who will work with our community to complete their CPM (Case Plan Management) to ensure that the program meets the goals described in the RFP.
Module 3: Retraining the Village will reach out to Reedley Community College for interns who are in need of hours for their degrees in social services, case management, and behavioral health. We will provide on-site Job Training program that will provide an employment readiness by 2018.
Module 4: Retraining the Village will provide specific groups to accomplish the goals and objectives of our program. To direct financial literacy, mannerism, MRT programing, Aces Christian groups, mentorship, and higher education options.

SERVICE FUNDING

What financial resources, other than City are available for this program? Have applications for other funds been submitted? Explain. If funds other than CDBG are proposed, please provide supporting documentation/letters of commitment.
There are corporate and private foundation grants that are available addressing this need

Describe in detail all proposed plans for fund raising for this program. What is the projected net income from fund raising? If net fund raising is not increasing, please explain (be specific).
We anticipate fundraising for this program by utilizing the following;

Breakfast Benefit in October 2017
Carwashes on Saturday morning
Client celebration and graduations

What was done to receive public input/participation? Please provide details. What did the public input/participation identify? Include documentation of support for the proposal such as meeting minutes, letters and petitions.

Application for the FMCoC membership
Fresno Bee Newspaper
SALT team Meetings
Behavioral Health meetings
Madera City and Board of Supervisors meetings

If service is offered outside the Madera city limits, include the list of funding sources and supporting documentation/letters of commitment that support these program services.
Not Applicable

When there is an overflow of clients, how is it determined whom to serve?
If overflow of clients we assist the Medical Condition of client and the length of homelessness at first serviced. Each client has an opportunity to become housed but in the case of overflow we will attempt to contact all agencies who serve those who are in need

Is income criteria used to establish eligibility for services?

_____ Yes ___x___ No (If yes, attach a copy of the criteria.)

Is a fee schedule used?

_____ Yes ___x___ No (If yes, attach a copy of fee schedule.)

INCOME SOURCE	AMOUNT
CITY	120,000
UNITED WAY	0
STATE (SPECIFY)	0
FEDERAL (SPECIFY)	0
SERVICE FEES	5,000
FUND RAISING	10,000
DONATIONS	56,000
RESERVE/CONTINGENCY	0
OTHER (LIST)	58,400
TOTAL INCOME	71,000

SALARY EXPENSES	ACCOUNT NO.	AMOUNT
SALARIES	0100	86,000
BENEFITS	0150	12,000
SERVICES & SUPPLIES		50,00
INSURANCE	0200	4,200
COMMUNICATIONS	0250	400.00
CONSULTANT SERVICES	0300	2,000
OFFICE EXPENSE	0350	1,200
OFFICE RENTAL	0400	880.00
EQUIPMENT RENTAL	0450	0
UTILITIES	0500	12,000
TRAVEL (ADMIN.)	0550	4,000
FOOD SUPPLIES	0600	10,000
CONTRACTS	0650	2,000
TRANSPORTATION	0700	10,000
FUND RAISING	0750	10,000
TOTAL		204,680

SPONSORING AGENCY MANAGEMENT

CORPORATION DIRECTORS:

How often does the Board meet? _____4 times per year_____

What was the average number of Board members attending meetings last year?
_____5_____

Based on the bylaws, what is the minimum and maximum number of seats on the Board?

__3_____ Minimum __7_____ Maximum

Please provide the following information:

Date of Incorporation: November 05, 2012

IRS Employer Number: _80-0875187

Attach current Board of Directors' roster, including the names, addresses, occupations and number of years served on the Board.

FINANCIAL:

How often are financial records audited, and by whom? ___Once a year by Mary Lou Shehan CPA_____

Are the treasurer and/or other financial officers bonded? _____yes____

If so, for how much? ____1,000_____

List any judgments or pending lawsuits against the agency or program:

____N/A_____

List any outstanding obligations: _

_N/A_____

RESOLUTION/CERTIFICATION:

We, the Board of Directors of _____ do hereby resolve that on _____, 2017, the Board reviewed this application and, furthermore, the Board in proper motion and vote approved this application for submission to the City of Madera.

Furthermore, we certify that the agency making this application is (1) non profit, (2) tax exempt, and (3) incorporated in the State of California, and has complied with all applicable laws and regulations. To the best of our knowledge, all information presented herein is correct and complete.

Dated: ___March 13, 2017

AGENCY NAME: _____Retraining the Village

ADDRESS: _16236___North Lake Street Madera, California 93638

TELEPHONE:
_650.461.0433_____

By: _____Rhonda LaBron_____

President of the Board of Directors

This application and the information contained herein are true, correct and complete to the best of my knowledge.

By: _____Halley Crumb_____
__ Executive Director

RETURN AN ORIGINAL AND TWO COPIES TO:	City of Madera 205 West Fourth Street Madera, CA 93637 Attention: CDBG Administration
DUE DATE:	**March 16, 2017, 5:00 p.m.**
CONTACT PERSON:	Jorge Antonio Rojas, Program Manager – Grants

MADERA RESCUE MISSION
P.O. Box 642 • Madera CA 93639 Bus. (559) 675-8321 • Fax (559) 675-8073

02-02-2017

To Whom It May Concern:

I am Jenell Smith Women's Program Director / Emergency Shelter Manager for the Madera Rescue Mission Inc. I have been here for 7 years.
Here at the Mission I also teach" Redeemed", " ACE's". I also am a Chaplain for the many hurting Women and children who come to us for help and resources.

I also am a Certified Facilitator for ACE's which is an acronym for Adverse Childhood Experiences by CEO David Lockridge.

I currently teach this class inside of Madera County Dept. of Corrections under the direction of Lt. Rodriguez and Sgt. Morales.

I also am a Caregiver for Madera County IHHS in which I take care of 2 elderly persons.

Also I have the pleasure of doing Development for the Madera RescueMission for our many upcoming events throughout the year.

I plan on teaching the class of ACE's at Retrain the Village on Fridays from 1pm to 3pm which I feel will be so beneficial for those that suffer from Childhood Trama.

Please feel free to call if you have any questions or require more details.

Sincerely,

Mrs. Jenell Smith (jenellsmith777@gmail.com)
Director of Women's Program/Shelter Manager
Madera Rescue Mission (http://www.maderarescue.org)
1305 Clinton St.
Madera Ca. 93638
559-675-8321 (like us on Facebook)

Sanskar-The New Beginning

501(c)(3) - non profit organization

Our goal is to

instill character values & Education

to

Empower making right choices

+

Growing professionally

Business License #B0105126

This License is issued to:

Business Name: RETRAINING THE VILLAGE
Owner Name(s): HALLEY IRENE CRUMB

Business Address:
16236 N LAKE ST
MADERA, CA 93638

Mailing Address:
HALLEY IRENE CRUMB
RETRAINING THE VILLAGE
16236 N LAKE ST
MADERA, CA 93638

Valid for One Year:

From: 12/19/2016 To: 11/30/2017

The business license described above will expire one year from the date approved by the County's Planning Department. To continue operating in Madera County you must renew this License on or before the date specified in the next annual renewal notice.

Amount Paid: **$41.00**

Tracy Kennedy Desmond, License Collector

This License Must Be Displayed in Public View

Retraining The Village
Meeting Minutes

December 23, 2016

I. Call to order

Halley Crumb called to order the regular meeting of the Retraining the Village at 1:00pm on December 23, 2016 at 2399 Menalto East Palo Alto, California.

II. Roll call

Rhonda La Bron conducted a roll call. The following persons were present:

- **Halley Crumb Chair**
- **Eduardo Als Board Member**
- **Kaderia Als Board Member**
- **Lea Martinez Director**
- **Prashant**
- **Mrs. Audery Cross**

III. Approval of minutes from last meeting

Rhonda La Bron read the minutes from the last meeting. The minutes were approved as read.

IV. Open issues

a) Madera Home grand opening scheduled for Jan 06

b) NEW Board Members

c) Collaboration with Sansaskr-New Beginnings

d) CBDG grant in Madera

V. New business

a) Siltation of Open Board Positions

b) Fundraising Idea's for 2017

c) Graduation/Participation of Clients

d) Hiring an Accountant

e) Human Resources

f) Grants needed

VI. Adjournment

Halley Crumb adjourned the meeting at 3:00pm.

Minutes submitted by: Rhonda La Bron

Minutes approved by: Halley Crumb

Retraining the Village Evaluation Questions

1. **Service accessibility**
   - To what extent has Retraining the Village provided access to mental health services for homeless people with mental health disorders? Across all of Madera?
   - To what extent has Retraining the Village provided access to affordable care?
   - To what extent has Retraining the Village provided equitable access to populations in need (in particular people living in rural and remote areas, children and young people, older persons, Indigenous Americans, and people from culturally and linguistically diverse backgrounds)?
2. **Service appropriateness**
   - To what extent has Retraining the Village provided evidence-based mental health care to homeless people with mental health disorders?
   - To what extent has Retraining the Village provided services that match client needs and expectations?
3. **Service effectiveness**
   - To what extent has Retraining the Village improved health outcomes for homeless people with a mental health disorder?
4. **Housing Services**
   - To what extent has Retraining the Village improved the housing situation of clients?
   - To what extent has Retraining the Village housed homeless clients in permanent housing?
5. **Mental health care system**
   - To what extent has Retraining the Village affected the supply and distribution of the psychologist, social worker and occupational therapist workforce?
   - How has Retraining the Village initiative interacted with other related programs and initiatives?
6. **Skilled, knowledgeable, integrated workforce**
   - To what extent has Retraining the Village provided interdisciplinary primary mental health care for people with mental disorders?
   - Are professionals aware of how to access appropriate primary mental health care training?
   - Are professionals accessing appropriate education and training (for example multidisciplinary or profession specific training)?
7. **Informing the summative evaluation**

   The consultation process will also focus on the following additional questions:
   - What are the characteristics, including clinical characteristics, of consumers receiving Medicare/Medical rebate able Retraining the Village mental health services?
   - Are professionals, consumers and careers aware of Retraining the Village?
   - Has Retraining the Village initiative affected the use of medications prescribed for the treatment of mental disorders, in particular anti-depressants?
   - Has the introduction of Retraining the Village changed how and where professionals practice (for example, movement to another location, change from public to private sector, or change in the mix of public and private sector work)?
   - Are there any unintended consequences for stakeholders due to the introduction of the Retraining the Village?

City of Madera
Applications Submitted for the
CDBG 2017/2018 Action Plan

Tab 5

RECEIVED 3-16-17 JR

CITY OF MADERA
COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)
PUBLIC SERVICE PROPOSAL APPLICATION
2017/2018

AGENCY/PROGRAM INFORMATION **DATE SUBMITTED:** March 16, 2017

Legal Name of Agency: **City of Madera - Parks & Community Services Department**

Program Name: Senior Services

Agency Address: 701 East 5th Street

City/Zip: Madera / 93638 Telephone: (559) 661-5495

Program Director: Mary Anne Seay FAX: (559) 675-3827

SUMMARY OF COMMUNITY NEED OR PROBLEM TO BE ADDRESSED: (Describe the community need or problem to be addressed by the proposed program. State how and by whom the need was identified. All research documentation must be acknowledged.)

The City of Madera's Parks and Community Services (**PCS**) Department offers programs and services for the senior citizens of Madera. Seniors are defined as individuals 60 years of age and older. In recent years, staff has charted increased attendance in each of our program areas as a result of aggressive CDBG goals, an improved marketing strategy and an increasing senior population. While the interest and demand for senior services continue to grow in Madera, revenues have continued to decline in each of the last several years. Without additional sources of funding, the City of Madera would have no recourse but to reduce existing service-levels to Madera's seniors.

PCS employees manage senior services and programs at three congregate sites in addition to providing home-bound meal deliveries (Meals on Wheels) throughout the City. Staff is seeking Community Development Block Grant (CDBG) resources in the amount of $100,000 to support staffing, supplies and associated programming costs for our suite of senior activities which include: 1. the Meals on Wheels program; 2. Recreation and enrichment at our three congregate sites; and 3. nutrition/meal programs at each of the three congregate senior service locations. The congregate locations are located throughout Madera's disadvantaged neighborhoods at: the Frank Bergon Senior Center, the Pan-Am Community Center, and the Adult Day Care (ADC) Facility.

As introduced more generally above, requested CDBG funding would enable the City to continue to host and enhance the following programs and services for seniors:

a) **Meal Program** - The City of Madera provides a nutritious and balanced meal five days per week throughout the year, excluding holidays. The Meals on Wheels portion of the program delivers a minimum of five nutritious meals per week to qualified home-bound seniors. When resources are available from the funding source (Fresno Madera Agency on Aging (FMAAA)), additional meals (breakfast, snacks and/or shelf stable meal packages) are also provided.

b) **Wellness and Nutrition Programs** - Fitness and wellness programming takes place at all three locations. Programs offered throughout the week include: Tai-Chi, Zumba, aerobics, walking, chair exercise, water aerobics, yoga, dance instruction, and others.

c) **Recreation and Educational Activities** - The City augments its daily service for seniors with a variety of recreation and educational programming that includes safety discussions led by local law enforcement, technology related programs, genealogy classes, arts & crafts programs, ceramics classes, educational speakers, games, inter-generational programming, cooking classes, social dances, a wide variety of local and regional excursions, and other programs.

d) **Adult Day Care** - Meal and recreation programs for seniors with special needs are offered at the City of Madera's Adult Day Care (ADC) Center; programming at this facility is designed exclusively for seniors who have dementia (including Alzheimer's), Parkinson's disease or other related health issues. The program provides needed respite for family members and caregivers.

The three senior sites offer programming and services that are located throughout the City benefitting many of Madera's seniors and their families. The Meals on Wheels Program is also offered throughout the City limits. Without the City's senior programs, many program participants would live in isolation without the guarantee of consuming at least one nutritious meal each day. In addition, the recreation and fitness components provide an opportunity for social interaction, engagement, improved vitality and overall increased wellness. Our participants frequently describe our senior programming as their home away from home. In many cases, our services are the only nutritional, social and continued education services received by our participants. The attached letters illustrate some of these points.

EXISTING SERVICES: List other agencies currently addressing the need or problem described above. (Attach sheets if necessary.)

No other Madera-based agency offers the home delivered and congregate meal services and the variety and accessibility of programs within the City limits that are offered by the City's Parks and Community Services Department.

Explain how your program supplements or complements existing services without duplicating them. (Attach sheets if necessary.)

Not applicable

CLIENT POPULATION

Indicate the total number of potential clients in the community who require your services.

The senior population of The City of Madera is estimated to be 6,129 which is 8.8% of the total population of the City according to the most recent census data.

State the total number of <u>unduplicated</u> clients you intend to serve during the term of this proposed program/service (12 months)

None of the 6,129 seniors are exempt from our programs and services, but our program is limited by room-size as well as staffing and other capacity issues. We estimate that we could serve up to 770 unduplicated seniors annually in the various programs and special events provided for area seniors.

If this program was funded last year, has there been a change in the composition of the target population to be served and/or shift in the geographic target area?

_____ Yes ___X___ No

If yes, <u>explain</u>: N/A

Provide the following demographic information for the total number of unduplicated clients as indicated above:

AGE	0 - 5	6 - 12	13 - 17	18 - 34	35 - 54	55 - 59	60 - 64	65 +
							220	550
GENDER	Female	539						
	Male	231						
FEMALE HEAD								

This information is confidential and is only used for government reporting purposes to monitor compliance with equal opportunity laws. Please note that self-identification of race/ethnicity is voluntary.

RACE	NO.	RACE	NO.
White	287	American Indian or Alaska native AND White	296
Black/African American	42	Asian AND White	293
Asian	6	Black/African American AND White	329
American Indian or Alaska Native	9	American Indian/Alaska Native AND Black/African American	51
Native Hawaiian or Other Pacific Islander	3	Other: Two or more races	33
Mexican/Chicano	320	Cuban	0
Puerto Rican	0	Other Hispanic/Latino:_____	320

EFFECTIVENESS AND EFFICIENCY

Describe the method used to measure the effectiveness (outcomes) of services. Identify measurable goals and objectives. Attach a copy of the program's evaluation documentation.

Goal #1: The City will implement new local and regional recreational and educational programs for seniors. Participants will self-report a greater understanding of their community and a healthier life style.

Objective #1: The City will provide regional excursions that expose seniors to art galleries, special cultural events, garden exhibits, farmer's markets, and marketplace experiences that promote lifelong learning of the arts and exposure to various cultures.

Objective #2: The excursions will provide the senior with opportunities to socialize, exercise through walking, shop for healthy fruits and vegetables and promote a better quality of life.

Goal #2: The city will implement new wellness and recreation programs for seniors. Participants will self-report greater life satisfaction and wellness as a result of participating in City provided programming.

Objective #1: The City will provide wellness presentations and programs for seniors to socialize and meet new friends thus providing a wellness experience that promotes healthier self-esteem.

Objective #2: The City will provide a monthly social dance program for seniors to interact and socialize. The art of dancing is a great exercise activity that provides greater range of motion movement, better balance and a sense of wellbeing.

The City of Madera's Senior Service Programs have a system of checks and balances to ensure efficiencies, goal achievement and quality service. In addition to regular site visits, staff observation, employee evaluations, and program audits, we distribute and collect regular customer satisfaction surveys. The data collected from these surveys is compiled, analyzed and used as a means to grow and improve service. (See attached employee evaluation, visitation check-list, and customer satisfaction service survey.)

What National Objective does your program meet?

The City of Madera Senior Service Program meets the national objective of benefiting low and moderate income persons. Most program participants in the City of Madera meet the low income criteria. In the rare circumstance where this is not the case, all program participants are seniors and therefore meet the qualifications as defined by CDBG.

Describe what measureable objectives your program meets?

Objective #1: The program areas listed above will each achieve at least a 10% increase in unduplicated clients over the grant period.

Objective #2: The program areas listed above will each achieve at least a 10% increase in duplicated services provided over the grant period.

Objective #3: The average score on self-reporting surveys for life satisfaction will rise 10% over the grant period.

Objective #4: The average score on self-reporting surveys for wellness will rise 10% over the grant period.

How will your program meet its goals in one year?

The City of Madera Senior Services Program will meet its goals by monitoring monthly meal consumption and quarterly reports that demonstrate goals and objectives are being met to ensure low and moderate income persons are receiving meals, social interaction and recreation programming detailed in this grant application.

How does your proposal support the Vision Plan Madera 2025 Action Plan?

The City of Madera's Senior Services Program supports the Vision 2025 Action Plan in the specific target areas of strategies #337 and #342 by providing intergenerational activities and vocational opportunities for seniors. Strategy #337 is to develop programs for Maderans of all ages with an

emphasis on youth and senior activities. Strategy #342 is to ensure there are paid and volunteer opportunities for Madera's seniors.

SERVICE FUNDING

What financial resources, other than City are available for this program? Have applications for other funds been submitted? Explain. If funds other than CDBG are proposed, please provide supporting documentation/letters of commitment.

a) The Fresno Madera Area Agency on Aging (FMAAA) offers grant funding to help offset costs of senior services programs.
b) Some seniors make anonymous voluntary donations to the program. The suggested donation is $1.75/ meal. Seniors are NOT denied a meal and City staff does not track who donates resources and who does not.
c) The City of Madera's General Fund.
d) Other fund raising efforts occur periodically throughout the year; modest support of senior programs is achieved through fund-raising.

Describe in detail all proposed plans for fund raising for this program. What is the projected net income from fund raising? If net fund raising is not increasing, please explain (be specific).

As mentioned earlier, this request is to cover increasing costs of doing business for an increased number of participants in the City of Madera. The overall budget for the three senior sites and homebound meal program is estimated to be about $433,094 for the upcoming 2017-18 Fiscal Year. FMAAA grants are anticipated to offset this figure by $71,563. Funding support from the FMAAA is likely to remain relatively consistent in the upcoming fiscal year, but specific funding amounts are not communicated to staff until well after the CDBG selection process and the City of Madera's Budget building process have been completed.

Voluntary donations for the current fiscal year are projected to be shy of $19,000. These voluntary contributions have declined significantly over the last several years and have not recovered in step with the economic recovery. City staff project $19,000 in donations for the upcoming fiscal year. The City's General Fund available to the Parks and Community Services Department has also decreased in step with the economic down-turn and final budget numbers are not yet available for next Fiscal Year. This reduction has impacted the service delivery plan for senior programs, while CDBG and FMAAA grant awards make continued programming possible.

What was done to receive public input/participation? Please provide details. What did the public input/participation identify? Include documentation of support for the proposal such as meeting minutes, letters and petitions.

The City of Madera surveys senior program participants annually and receives feedback from the Park and Recreation Advisory Board and the City of Madera Vision 2025 subcommittee.

These groups meet regularly to discuss various topics and to give valuable input on programs and services, including those for seniors. Survey results and community feedback data are analyzed and program planning is implemented to meet the needs of participants as a direct result of feedback data.

The City of Madera has also hosted community meetings to seek feedback from seniors on the allocation of resources. Staff continues the practice of including participant feedback in program development. This occurs through formal evaluations and surveys as well as more casual conversation between staff and program participants. Valuable input from seniors continues to influence the provision of services. Seniors identified various areas of interest; the top three areas of requested change in the last survey are:

1. Increasing hours of operation at senior centers.
2. Increasing senior programming during added hours of operation.
3. Increasing healthy food choices in the meal program.

If service is offered outside the Madera city limits, include the list of funding sources and supporting documentation/letters of commitment that support these program services.

The City of Madera does not offer service outside of the Madera City limits.

When there is an overflow of clients, how is it determined whom to serve?

The City of Madera has not had an issue with an overflow of clients for the congregate meal program. The Home delivered meal program has a waiting list system in effect to serve the overflow of clients, additional resources helps to reduce the waiting list. We have increased the number of recreation and fitness programs to accommodate the increased interest, including additional and more regular field trips. Trips are offered on a first come/first served basis and they have filled up from time to time. When possible, a second bus is ordered.

Is income criteria used to establish eligibility for services?

_____ Yes __X__ No (If yes, attach a copy of the criteria.)

Is a fee schedule used?

____ Yes __X__ No (If yes, attach a copy of fee schedule.)

INCOME SOURCE	AMOUNT	
CITY	230,286	
UNITED WAY	-	
STATE (SPECIFY)	-	
FEDERAL (SPECIFY)	71,563	FMAAA
SERVICE FEES	500	
FUND RAISING	11,000	
DONATIONS	18,900	
CDBG REQUEST	100,000	
OTHER (LIST)	845	Madera County
TOTAL INCOME	433,094	

SALARY EXPENSES	ACCOUNT NO.	AMOUNT
SALARIES	0100	237,597
BENEFITS	0150	107,722
SERVICES & SUPPLIES		41,181
INSURANCE	0200	325
COMMUNICATIONS	0250	3,700
CONSULTANT SERVICES	0300	-
OFFICE EXPENSE	0350	1,300
OFFICE RENTAL	0400	1
EQUIPMENT RENTAL	0450	-
UTILITIES	0500	5,000
TRAVEL (ADMIN.)	0550	-
FOOD SUPPLIES	0600	1,000
CONTRACTS	0650	24,500
TRANSPORTATION	0700	4,268
FUND RAISING	0750	6,500
TOTAL		433,094

SPONSORING AGENCY MANAGEMENT

CORPORATION DIRECTORS:

How often does the Board meet?

The Madera City Council meets twice per month; once on the first Wednesday and once on the third Wednesday of each month. In the event a regularly scheduled meeting lands on a holiday, the Council meets the following business day.

What was the average number of Board members attending meetings last year?

The average number of members at meetings last calendar year was six (6). It should be noted that in November of 2012, the City of Madera moved from five (5) at large elected Council Members with a rotating annual Mayor to having six (6) Council Members elected by district and one (1) four year Mayor.

Based on the bylaws, what is the minimum and maximum number of seats on the Board?

___4___ Minimum ___7___ Maximum

Please provide the following information:

Date of Incorporation: 1907

IRS Employer Number: 94-6000365

Attach current Board of Directors' roster, including the names, addresses, occupations and number of years served on the Board.

Andrew J. Medellin, Mayor, Mayor term expires December 2020

Cece Foley Gallegos, Mayor Pro-Tem term ending December 2017, Council Member term expires December 2018; District 1

Jose Rodriguez, Council Member term expires December 2020; District 2

William Oliver, Council term expires December 2018; District 3

Derek O. Robinson Sr., Council Member term expires December 2020; District 4

Charles F. Rigby, Council Member term expires December 2018; District 5

Donald E. Holley, Council Member term expires December 2020; District 6

All of the Council Members and the Mayor may be reached at the following:

Madera City Hall
205 W. 4th Street
Madera, CA 93637

(559) 661-5409

FINANCIAL:

How often are financial records audited, and by whom?

Senior Service budgets are tracked regularly by staff. Internal Parks & Community Service Department practice is to review budgets on a quarterly basis. The Senior Program is subject to being audited twice annually. Separate audits occur by the Fresno Madera Area Agency on Aging and by Price Paige and Company; they can be reached at: telephone - 559.299.9540, fax 559.299.2344 or website www.ppcpas.com.

Are the treasurer and/or other financial officers bonded? Yes

If so, for how much? $1,000,000

List any judgments or pending lawsuits against the agency or program:

None

List any outstanding obligations:

None

RESOLUTION/CERTIFICATION:

We, the Board of Directors of N/A do hereby resolve that on , 2015, the Board reviewed this application and, furthermore, the Board in proper motion and vote approved this application for submission to the City of Madera.

Furthermore, we certify that the agency making this application is (1) non profit, (2) tax exempt, and (3) incorporated in the State of California, and has complied with all applicable laws and regulations. To the best of our knowledge, all information presented herein is correct and complete.

Dated: _____, 2017

AGENCY NAME: City of Madera – Parks & Community Services Department

ADDRESS: 701 East 5th Street, Madera, California 93738

TELEPHONE: 559-661-5495

By: _____
Mayor, City of Madera

This application and the information contained herein are true, correct and complete to the best of my knowledge.

By: _____
Director, Parks and Community Services Department

RETURN AN ORIGINAL AND TWO COPIES TO:	City of Madera 205 West Fourth Street Madera, CA 93637 Attention: CDBG Administration
DUE DATE:	**March 16, 2017, 5:00 p.m.**
CONTACT PERSON:	Jorge Antonio Rojas, Program Manager – Grants 559-661-3693 jrojas@cityofmadera.com

Roberta Fox
PO Box 101
Madera, CA 2017

March 14, 2017

To whom if may concern;

I'm writing you to inform you how much the Pan Am Senior Program is a very important part of our lives as seniors living ! this community.

It's not only a place to socialize but much more. For us older citizen's socialization is crucial for depression, loneliness, mental cognitive function. It is a safe place to congregate with others for nutrition, arts and crafts, karaoke, dancing, exercise, and other positive activities that would not exist for us if not for this program.

I personally looking forward to a long term of these services. It has become a part of my life that I'm not prepared to loose. I also very impressed with the work of Susan Gonzales, whom is a fine personal, but as a friend to all of seniors here.

Thank you again for this opportunity to express my appreciation of this community service program.

Sincerely,

Roberta Fox

Roberta Fox
Foxrj7@yahoo.com

To whom it may concern

The benefits of this program is that this program proves a safe and creative place for seniors to come to Through Music, Arts & crafts and Social skills.

Deborah Mayer

I Albert Lozano, Gets great gusto to come to Pan Am. CB because it takes the stress away from our everyday life. By mingaling with fellow seniors & as for me I like to share my small expertize in Karike. To make everyone happy. [signature]

Also we ~~songs~~ singers like to thank the staff for their tolerance.

March 14, 17

I have been coming to Frank Bergon Center for the past three years and has had a great impact of my life.

I have enjoyed meeting and greeting people here. I have been also eating the lunches here. The staff have been of great helps for information that I was given. Such as bus information, health and things to do in Madera.

I also like playing pool here with the gentlemen that play pool. I've made a few friends male and female alike. I greatly appreciate what the center has done for me

Sincerely
Antonio D. Lova

3-14-17

Kathy Garcia

To Whom it May Concern;

I go to the Frank Bergon Senior Center because it gets me out of my apartement and I've made some new friends and run into some old friends. I love the pot luck get-togetters, cause I love to cook and bake. I also love the dancing and the computer room.

Kathy Garcia

3/14/2017

I, Krystle Kidwell, am writing this short letter from the bottom of my heart to thank everyone involved in funding & staffing this program at Madera Adult Day Care Center.

Both my husband and I have observed tremendous improvements of my Mom's mood & behavior since she was first accepted to the Center this April.

All the exercises, activities and the loving care from the staff has played an important role in her well-being. The knowledge from the Coordinator has provided the family members significant support to cope with the stress from this unfortunate illness.

I can't find adequate words to express my appreciation of this wonderful program, but keep all involved in our thoughts & prayers!

3-14-2017

This program has help
Emily a lot She doesn't
have to stay in her
apt. by her self and She
seems a lot happier

Thank you
Jose Fuentes my Mother in law

3/14/19

I Grace Castilla daughter of Maria Castilla am truly appreciative of Mahon Adult Day Care. My mom has benefited greatly from the program. I feel that it gives her the stimulation that she needs to stay healthy. Thank you so much for the Adult Day Care. The staff are Great!

Grace Castilla

3-14-2017

Daycare is really helpful
in Rosie's care

Thanks
Odell Williams

How would you rate the quality of meals?
Excellent Good Fair Poor No Opinion

How would you rate the cleanliness of the center and grounds?
Excellent Good Fair Poor No Opinion

How would you rate the programs offered through Senior Services
Excellent Good Fair Poor No Opinion

How would you rate the accessibility to Senior Services
Excellent Good Fair Poor No Opinion

Have you utilized the Commodities Program
Yes No

If yes, How would you rate the Commodities Program
Excellent Good Fair Poor No Opinion

Have you utilized the Brown Bag Program
Yes No

If yes, How would you rate the Brown Bag Program?
Excellent Good Fair Poor No Opinion

Have you utilized the Travel and Trips Program?
Yes No

If yes, How would you rate the Travel and Trip Program
Excellent Good Fair Poor No Opinion

How would you rate the social environment at Senior Centers?
Excellent Good Fair Poor No Opinion

How would you rate the friendliness and helpfulness of staff?
Excellent Good Fair Poor No Opinion

How would you rate the Responsiveness and availability of staff?
Excellent Good Fair Poor No Opinion

Based on your personal experience how would you describe staff
Very Courteous Somewhat courteous Somewhat discourteous Discourteous

City of Madera – Parks & Community Services
Visitation Checklist

Facility:		Program:	
Date:		Staff Present:	
Time In:	Time Out:	# of Participants	
Activity:		Report By:	

PERSONNEL (Staff was where they were schedule to be, doing what they were scheduled to do)

	All scheduled employees were present
	Employees were on time
	Employees were in appropriate attire/uniform
	Employees were leading calendared activities
	Employees were working to achieve objectives
	Employees were engaged with program participants
	Employees were appeared organized
	Employees had the supplies they needed

FACILITY (The facility is well maintained)

	The Facility was neat and orderly
	Bathrooms were clean and stocked
	Other Facility issues: (please note that facility issues need to be reported to appropriate staff)

CORE VALUES (To the extent possible, please identify whether the staff exhibited the departments core values)

	Service
	Integrity
	Accountability
	Teamwork

FORMS (Staff was able to locate forms at the facility and were aware of their intended use)

	Activity calendar posted (Lessons schedule for pool)
	Attendance Form (up to date)
	Menu posted (where appropriate)
	Attendance Form (up to date)
	Incident reports in file
	Accident report in file
	Rules Posted
	Department Mission Statement and Core Values posted
	Other Required Forms:

SAFETY (Safety policies and procedures were observed)

	Staff Exhibited basic safety principles in their
	Fire extinguisher current
	Injury and Illness Plan available
	Appropriate postings of requires safety postings
	First Aid Kit up to date
	Other safety concerns or issues: (please note that safety issues need to be reported to appropriate staff immediately)

NOTES & OBSERVATIONS (Use this space to highlight the positives you noted during this visitation. Also, use the space below share information that might help the PCS team deliver higher quality service to our program participants.

Employee(s) Signature(s):	Supervisor Signature:

ity of Madera
Employee Performance Rating Form

LAST NAME	FIRST NAME	ID#	RANGE/STEP	PURPOSE OF REPORT
				( ) Probationary ___ Month ( ) Other _____ (X) Merit Increase ( ) Semi-Annual Performance

DEPARTMENT	POSITION TITLE	PERIOD ENDING	DUE DATE
P&CS	Program Leader		

PERFORMANCE FACTORS	NOT ACCEPTABLE	IMPROVEMENT NEEDED	SATISFACTORY	GOOD	SUPERIOR
1. Skill Level/Job Knowledge					
2. Work Habits					
3. Initiative					
4. Attitude					
5. Judgment					
6. Appearance/Physical Condition					
7. Communication Skills -Written/Oral					
8. Safety Awareness					
9. Cost Consciousness					
10. Attendance/Punctuality					
SUPERVISORS ONLY					
11.Organizational Skills					
12. Supervision/Leadership					
13. Self Confidence					
14. Fairness/Impartiality					

OVERALL COMMENTS:

RECOMMENDATIONS FOR IMPROVEMENT:

EMPLOYEE COMMENTS (optional):

GOALS (if applicable):
1.

SIGNATURE OF RATER (Immediate Supervisor) DATE

( ) I have discussed the above with the employee and explained the rating and remarks.

EMPLOYEE SIGNATURE DATE

( ) I have discussed the above rating with my supervisor
( ) I have reviewed this report. My signature does not necessarily imply agreement with all items marked.

DEPARTMENT HEAD SIGNATURE DATE

( ) I concur with rating
( ) I do not concur with rating
( ) Approved for merit increment

REVIEWED BY:

CITY MANAGER DATE:

WHITE – PERSONNEL COPY YELLOW – EMPLOYEE COPY PINK – DEPARTMENT COPY

City of Madera
Applications Submitted for the
CDBG 2017/2018 Action Plan

Tab 6

RECEIVED 3/16/17 9R

CITY OF MADERA
COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)
PUBLIC SERVICE PROPOSAL APPLICATION
2017/2018

AGENCY/PROGRAM INFORMATION **DATE SUBMITTED: March 16, 2017**

Legal Name of Agency: Madera Coalition for Community Justice

Program Name: Zocalo de Madera
Agency Address: 126 N. B Street

City/Zip: Madera, CA 93638 Telephone: (559) 661-1879

Program Director: Lourdes Herrera FAX: (559) 674-5674

SUMMARY OF COMMUNITY NEED OR PROBLEM TO BE ADDRESSED: *(Describe the community need or problem to be addressed by the proposed program. State how and by whom the need was identified. All research documentation must be acknowledged.)*

Please see attachment.

EXISTING SERVICES: *List other agencies currently addressing the need or problem described above. (Attach sheets if necessary.)*

There are some programs offering art exposure in Madera. None are focused on creating a public space dedicated to art and culture. This proposal is centralized around community unity and encouraging youth to become involved within their community through art, culture, and

Explain how your program supplements or complements existing services without duplicating them. (Attach sheets if necessary.)

There are some art activities and programs within Madera Unified School District. This project is design to enhance and supplement the current programs and activities in place. It is designed to take place in downtown Madera to create a higher sense of community through art expression.

CLIENT POPULATION

Indicate the total number of potential clients in the community who require your services. 2,000

State the total number of unduplicated clients you intend to serve during the term of this proposed program/service (12 months)

We will be serving a minimum of 300 people through this project in the proposed 12 month period.

If this program was funded last year, has there been a change in the composition of the target population to be served and/or shift in the geographic target area?

_____ Yes _____ No

If yes, explain:

Provide the following demographic information for the total number of unduplicated clients as indicated above:

AGE	0 - 5	6 - 12	13 - 17	18 - 34	35 - 54	55 - 59	60 - 64	65 +
	10	25	100	100	25	25	10	5
GENDER	Female	150						
	Male	150						
FEMALE HEAD								

This information is confidential and is only used for government reporting purposes to monitor compliance with equal opportunity laws. Please note that self-identification of race/ethnicity is voluntary.

RACE	NO.	RACE	NO.
White	6%	American Indian or Alaska native AND White	____
Black/African American	9%	Asian AND White	____
Asian	____	Black/African American AND White	____
American Indian or Alaska Native	_____	American Indian/Alaska Native AND Black/African American	_____
Native Hawaiian or Other Pacific Islander	_____	Other:_____	
Mexican/Chicano	85%	Cuban _____	
Puerto Rican	_____	Other Hispanic/Latino:_____	

EFFECTIVENESS AND EFFICIENCY

Describe the method used to measure the effectiveness (outcomes) of services. Identify measurable goals and objectives. Attach a copy of the program's evaluation documentation.

Please see attachment.

What National Objective does your program meet?

The project addresses both youth development and economic development.

Describe what measurable objectives your program meets?

Please see attachment.

How will your program meet its goals in one year?

Please see attachment.

SERVICE FUNDING

What financial resources, other than City are available for this program? Have applications for other funds been submitted? Explain. If funds other than CDBG are proposed, please provide supporting documentation/letters of commitment.

No other funding is available at this time.

Describe in detail all proposed plans for fund raising for this program. What is the projected net income from fund raising? If net fund raising is not increasing, please explain (be specific).

None.

What was done to receive public input/participation? Please provide details. What did the public input/participation identify? Include documentation of support for the proposal such as meeting minutes, letters and petitions.

All was conducted orally during meetings and group discussions. This project has been an on going conversation with Madera Unified School District and Madera Arts Council. At the annual strategic planning meeting, both board members and community attendees, and youth discussed the application and the former subsequently approved its submission.

If service is offered outside the Madera city limits, include the list of funding sources and supporting documentation/letters of commitment that support these program services.

N/A

When there is an overflow of clients, how is it determined whom to serve?

Everyone in attendance will be able to attend and participate in the activities scheduled. This is open to the community.

Is income criteria used to establish eligibility for services?

__X__ Yes _____ No (If yes, attach a copy of the criteria.)

Is a fee schedule used?

____ Yes __X__ No (If yes, attach a copy of fee schedule.)

INCOME SOURCE	AMOUNT
CITY	29,500
UNITED WAY	
STATE (SPECIFY)	
FEDERAL (SPECIFY)	
SERVICE FEES	
FUND RAISING	
DONATIONS	
RESERVE/CONTINGENCY	
OTHER (LIST)	
TOTAL INCOME	29,500

SALARY EXPENSES	ACCOUNT NO.	AMOUNT
SALARIES	0100	17,500
BENEFITS	0150	2,500
SERVICES & SUPPLIES		4,500
INSURANCE	0200	500
COMMUNICATIONS	0250	200
CONSULTANT SERVICES	0300	3,000
OFFICE EXPENSE	0350	500
OFFICE RENTAL	0400	
EQUIPMENT RENTAL	0450	
UTILITIES	0500	
TRAVEL (ADMIN.)	0550	300
FOOD SUPPLIES	0600	500
CONTRACTS	0650	
TRANSPORTATION	0700	
FUND RAISING	0750	
TOTAL		29,500

SPONSORING AGENCY MANAGEMENT

CORPORATION DIRECTORS:

How often does the Board meet? Monthly

What was the average number of Board members attending meetings last year? 10

Based on the bylaws, what is the minimum and maximum number of seats on the Board?

8 Minimum 20 Maximum

Please provide the following information:

Date of Incorporation: September 7, 1994

IRS Employer Number: 77-0391942

Attach current Board of Directors' roster, including the names, addresses, occupations and number of years served on the Board.

FINANCIAL:

How often are financial records audited, and by whom? 12 months

Are the treasurer and/or other financial officers bonded? No

If so, for how much? N/A

List any judgments or pending lawsuits against the agency or program: N/A

List any outstanding obligations: N/A

RESOLUTION/CERTIFICATION:

We, the Board of Directors of Madera Coalition of Community Justice do hereby resolve that on February 27, 2017 the Board reviewed this application and, furthermore, the Board in proper motion and vote approved this application for submission to the City of Madera.

Furthermore, we certify that the agency making this application is (1) non profit, (2) tax exempt, and (3) incorporated in the State of California, and has complied with all applicable laws and regulations. To the best of our knowledge, all information presented herein is correct and complete.

Dated: March 16, 2017

AGENCY NAME: Madera Coalition for Community Justice
ADDRESS: 126 N. B Street Madera, CA 93638

TELEPHONE: (559) 661-1879

By: _____
President of the Board of Directors

This application and the information contained herein are true, correct and complete to the best of my knowledge.

By: LOURDES HERRERA
Executive Director

RETURN AN ORIGINAL AND City of Madera

TWO COPIES TO: 205 West Fourth Street
Madera, CA 93637
Attention: CDBG Administration

DUE DATE: **March 16, 2017, 5:00 p.m.**

CONTACT PERSON: Jorge Antonio Rojas, Program Manager – Grants
559-661-3693
jrojas@cityofmadera.com

Madera Coalition for Community Justice
126 N. B Street Madera, CA 93638
(559) 661-1879 www.maderaccj.org

"If you want peace, work for justice."

March 16, 2017

Zocalo de Madera

MCCJ projects go beyond doing the critical work in the community to bring about economic equity, social and environmental justice -- it seeks to actively engage its constituents to become a catalyst and to actively engage them in fashioning the solution. The proposed project offers a multi-faceted framework that uses the community as the forum for catalyzing new thinking, social interaction, co-operative and collaborative activities, real-life learning, and problem-solving. In that connection, it provides a context for addressing barriers in the local socio-political, environmental and educational system that circumscribe their quality of life, developmental needs and social activism.

Youth is an underutilized and overlooked resource. Too often, the adult world seeks to do things for them or to do things to them when they misstep. MCCJ's vision is to combine education and activism as the cornerstone of a sustainable community, in which youth live their lives consciously choosing actions that ensure a healthy quality of life. Its mission is to harness the collective vision, energy, and talent of youth and to parlay those expressions in ways that are collaborative and constructive to better the community by providing them with leadership development, educational tools and access to a network of resources.

The Madera downtown has been in steady decline since the 80s. The older generation often harkens back to the "good old days" and stay away from the downtown referring to it derogatorily as "Little Tijuana." Despite the best efforts of the city's redevelopment agency, most of the downtown remains blighted. While most Maderans stay away due to the fear of crime, it is still frequented by new immigrants and farmworkers. Public art has the transformative power to build pride in the neighborhoods while expressing the world-view of community members, where they come from, what they do and how they connect to each other. More specifically, street art has the effect of bridging community values between the young and old. Moreover, it facilitates youth engagement especially in terms of supporting them in becoming more positively involved with public space and art. In Madera, many teens are isolated – there is little in terms of program activities. A public art space would provide for a youth voice that integrates them into public life while providing a positive, supportive and active engagement in the community. It keeps them grounded and gives them a sense of place. (Zocalo Madera can provide a new forum for all sorts of visual and cultural art and music and other performance art where students can freely and openly learn and participate in.) At the same time, it invigorates the larger community and provides a healthy injection of creative energy that is sorely needed. From the City's perspective, the project begins to build a healthy community that revitalizes the economy of the downtown making it accessible, attractive and exciting, promotes healthy living, lowers crime and increases civic participation and political engagement.

Zocalo Madera is creative place making at its best connecting the community through art in a way that highlights neighborhood culture and bringing youth together to learn about each other and explore the larger world around them. Street art amplifies the power of young people to transform the

place they live in and allows youth to exercise transformative agency by reclaiming public space as a forum to take action for positive change. The proposed project brings arts and culture to improve the place where they live. It places youth, front and center, as "stewards" of the place and space where they live and learn. By extension, it provides links to multiple sectors of the community. The project activities will be designed by youth, planned by youth, and implemented by youth, with the support, guidance, mentoring and training provided by MCCJ staff, California Rural Legal Assistance, as well as other professionals and experts.

The project seeks to establish a public art space in downtown Madera that will be spearhead by a cadre of youth guided by Madera Coalition for Community Justice. Zocalo Madera will be a sanctioned space in downtown Madera that will feature a displays of graffiti art on wood panels that invites local youth street artists to contribute their artwork, show and tell, and provide a platform for other youth to learn and compete. Ideally, this "public square" will be a part of the City's revitalization of its downtown and connect with a fledgling "Art Hop" across the street that offers art classes and activities. While a major thrust of the project is to provide a hub, a gathering place, for youth from the Eastside of town, the overarching purpose is to provide a creative space to engage different groups and to be recognized by a wider public audience as a place that hosts educational and cultural events and a welcoming place that promotes public discourse and the exchange of ideas. In that connection, future directions call for networking with the Madera County Arts Council along with Madera Unified School District.

Project Implementation

The program will be composed of two core components. The first component (months 1-3) will be the planning process and plan preparation, and the second component (months 4-12) will be the plan implementation. Fifteen to twenty-four youth will be recruited from the local high schools for this year-long project. (It is anticipated that each event will involve and additional 50 youth from the Eastside Madera.) They will meet biweekly or as frequently as possible. The youth group will be guided by MCCJ staff coordinator to navigate the technical, political, legal and administrative considerations attending to this project. The project will begin with the hiring of a coordinator and student recruitment in the first month. These youth will be educated on a broad range of issues in order to develop a comprehensive plan that is essential to implement the project ranging from training in facilitation/presentation skills, gathering and analysis of data, participatory action research and mapping assessment. They will also engage in maintenance activities: leadership development, team-building and relationship-building opportunities with adult allies. An advisory committee may be established consisting of local stakeholders. In the second part of the program, the youth will begin by mapping community assets and resources, convene forums where they learn and listen to the community regarding goals, perception, problems and possibilities of public art, write letters to editors and collaborate on news story published in local and school newspapers, prepare a report of findings and recommendations, bring key stakeholders together to develop a shared vision, visit six street art sites around the state, conduct research, network with other street art communities, and consult with local and regional street art experts (including Erik Gonzalez) for technical assistance on best practices of successful public art spaces. Throughout the project life, there will be opportunities for the youth to reflect and regroup. There will be time scheduled to allow them to reflect on what they've learned and impact of their experience. Program activities will be planned and coordinated in a manner that provides a continuous loop of feedback that allows staff to monitor results, effectiveness and impact.

The youth will develop an action plan with goals linked to specific actions. Each goal will be broken into specific steps assigned to specific individuals. They will establish the time frame for the planning process and an implementation schedule that links budget and task responsibilities. Further, they will conduct face-to-face workshops with stakeholders to review research material and analyze data, flesh out problems, issues and concerns, consider budget and resource availability, develop vision for a plan, develop plan goals and objectives, generate and evaluate plan options and implement the best plan. During the course of these activities, they will collectively determine common thread issues including: site selection, exhibition display format (permanent or portable, wall murals, large scale pieces, gallery-style, commissioned artwork, etc.), motifs, themes and/or cultural symbols, images and/or styled writing, governance, rules of operation, and criteria for artist selection. They will also participate in developing effective communications, outreach and education tools. The youth will be involved in the day-to-day responsibility of implementing and running the project.

Project Evaluation

Evaluation will measure program outcomes and process. Program effectiveness will be determined by comparing accomplishments to the stated objectives and activities that will be set forth in an action plan. Important criteria include completion of tasks, attainment of recruitment goals and compliance with budget outlay. There are important indicators that will measure successes or failures: retention rate of over 80% of participants; increased knowledge, confidence and skill in conducting research, planning, advocacy and evaluation; clear understanding and commitment to project mission; 75% of members participate in project activities, events and training; 50% of members participate in college outreach; establish stronger relationship with each other and with adult mentors; development of a core group of members who assume leadership roles in assigned activities; increased knowledge of current events and local issues in the City, increased understanding, skills, and knowledge of schools, local government, public hearing process, and budgets; enhanced confidence and skills in public speaking; understanding of leadership development; deeper appreciation of cooperation and collaboration; and attendance of at least one public hearing. Separately, there will be periodic evaluations by participants and partners on the program and/or activities. These important "lessons learned" will be shared with participants, community partners, the organization and board. Process will be evaluated through quarterly activity and budget reports. Review and updates will be provided by MCCJ director to the board monthly.

Madera Coalition For Community Justice

Madera, CA 93638
*PH: (559) 661-1879
maderaccj@yahoo.com

P.O. Box 817

126 N. B Street

*FAX (559) 674-5674
maderacoalition.org

Board of Directors
2017

President-Raquel Rodarte | **Vice President-Laura Hadjis**
Treasure- Franklin Nickell | **Secretary- Sue Kern**

NAME	ADDRESS	PHONE	YEAR ON BOARD /SINCE	OCCUPATION
Becerra, Jose	712 Green Way Madera, CA 93638	(559) 871-8250 C	3 years Has served since 2014	**Student**
Guadalupe Rangel	1763 Coolidge St. Madera, CA 93638	(559) 645-2715 C	1 year Has served since 2016	**Stay Home** Mom
Kern, Sue	P.O. Box 580 North Fork, CA 93643	(559) 877-5800 H (559) 457-2132 W (559) 349-3777 C	25 Years Has served since 1992	**Lawyer**
Pablo Fernandez	775 Saint Mary Ave Madera, CA 93637	(323) 715-0945	3 years Has served since 2014	**Youth Coordinator**
Nickell, Franklin	300 S N Street Madera, CA 93637	(559) 416-0964	3 years Has served since 2014	
Lilia Alaniz	27137 Parkwood Ave Madera, CA 93637	(559) 363-3730	4 years Has served since2013	**Instructional Assistant**
Rodarte, Raquel	10784 Juanita Dr. Madera, CA 93636	(559) 674-4631W (559) 673-2661H (559) 908-8447 C	20 Years Has served since 1997	**Elementary School Teacher**
Hadjis, Laura	P.O. Box 1283 Madera, Ca. 93639	(559) 673-2037 H	11 Years Has served since 2006	**Retired Migrant Counselor**
Cesar Hernandez	1763 Coolidge St. Madera, CA 93638	(559) 536-2503 C	1 year Has served since 2016	**Student**
Netty Ames		(559) 673-7909	2 years Has served since 2015	**Retired**

Honorary-*Gloria Medina* P.O. Box 1115, Madera, CA 93638 (559) 871-5355
Legal Counsel-*Baldwin Moy* Calif. Rural Legal Assistance 117 South Lake St., Madera, CA 93638 (559) 674-5670
Special Guest- Ramiro & Liz Gutierrez (559) 661-0190

INTERNAL REVENUE SERVICE
DISTRICT DIRECTOR
2 CUPANIA CIRCLE
MONTEREY PARK, CA 91755-7406

DEPARTMENT OF THE TREASURY

Date: MAY 30 1995

MADERA COALITION FOR COMMUNITY
JUSTICE
P.O. BOX 817
MADERA, CA 93639

Employer Identification Number:
77-0391942
Case Number:
955065145
Contact Person:
JOSEPH FAN
Contact Telephone Number:
(818) 441-6841
Accounting Period Ending:
June 30
Foundation Status Classification:
170(b)(1)(A)(vi)
Advance Ruling Period Begins:
August 31, 1994
Advance Ruling Period Ends:
June 30, 1999
Addendum Applies:
No

Dear Applicant:

Based on information you supplied, and assuming your operations will be as stated in your application for recognition of exemption, we have determined you are exempt from federal income tax under section 501(a) of the Internal Revenue Code as an organization described in section 501(c)(3).

Because you are a newly created organization, we are not now making a final determination of your foundation status under section 509(a) of the Code. However, we have determined that you can reasonably expect to be a publicly supported organization described in sections 509(a)(1) and 170(b)(1)(A)(vi).

Accordingly, during an advance ruling period you will be treated as a publicly supported organization, and not as a private foundation. This advance ruling period begins and ends on the dates shown above.

Within 90 days after the end of your advance ruling period, you must send us the information needed to determine whether you have met the requirements of the applicable support test during the advance ruling period. If you establish that you have been a publicly supported organization, we will classify you as a section 509(a)(1) or 509(a)(2) organization as long as you continue to meet the requirements of the applicable support test. If you do not meet the public support requirements during the advance ruling period, we will classify you as a private foundation for future periods. Also, if we classify you as a private foundation, we will treat you as a private foundation from your beginning date for purposes of section 507(d) and 4940.

Grantors and contributors may rely on our determination that you are not a private foundation until 90 days after the end of your advance ruling period. If you send us the required information within the 90 days, grantors and contributors may continue to rely on the advance determination until we make a final determination of your foundation status.

If we publish a notice in the Internal Revenue Bulletin stating that we

Att. 2

will no longer treat you as a publicly supported organization, grantors and contributors may not rely on this determination after the date we publish the notice. In addition, if you lose your status as a publicly supported organization, and a grantor or contributor was responsible for, or was aware of, the act or failure to act, that resulted in your loss of such status, that person may not rely on this determination from the date of the act or failure to act. Also, if a grantor or contributor learned that we had given notice that you would be removed from classification as a publicly supported organization, then that person may not rely on this determination as of the date he or she acquired such knowledge.

If you change your sources of support, your purposes, character, or method of operation, please let us know so we can consider the effect of the change on your exempt status and foundation status. If you amend your organizational document or bylaws, please send us a copy of the amended document or bylaws. Also, let us know all changes in your name or address.

As of January 1, 1984, you are liable for social security taxes under the Federal Insurance Contributions Act on amounts of $100 or more you pay to each of your employees during a calendar year. You are not liable for the tax imposed under the Federal Unemployment Tax Act (FUTA).

Organizations that are not private foundations are not subject to the private foundation excise taxes under Chapter 42 of the Internal Revenue Code. However, you are not automatically exempt from other federal excise taxes. If you have any questions about excise, employment, or other federal taxes, please let us know.

Donors may deduct contributions to you as provided in section 170 of the Internal Revenue Code. Bequests, legacies, devises, transfers, or gifts to you or for your use are deductible for Federal estate and gift tax purposes if they meet the applicable provisions of sections 2055, 2106, and 2522 of the Code.

Donors may deduct contributions to you only to the extent that their contributions are gifts, with no consideration received. Ticket purchases and similar payments in conjunction with fundraising events may not necessarily qualify as deductible contributions, depending on the circumstances. Revenue Ruling 67-246, published in Cumulative Bulletin 1967-2, on page 104, gives guidelines regarding when taxpayers may deduct payments for admission to, or other participation in, fundraising activities for charity.

You are not required to file Form 990, Return of Organization Exempt From Income Tax, if your gross receipts each year are normally $25,000 or less. If you receive a Form 990 package in the mail, simply attach the label provided, check the box in the heading to indicate that your annual gross receipts are normally $25,000 or less, and sign the return.

If you are required to file a return you must file it by the 15th day of the fifth month after the end of your annual accounting period. We charge a penalty of $10 a day when a return is filed late, unless there is reasonable

cause for the delay. However, the maximum penalty we charge cannot exceed $5,000 or 5 percent of your gross receipts for the year, whichever is less. We may also charge this penalty if a return is not complete. So, please be sure your return is complete before you file it.

You are not required to file federal income tax returns unless you are subject to the tax on unrelated business income under section 511 of the Code. If you are subject to this tax, you must file an income tax return on Form 990-T, Exempt Organization Business Income Tax Return. In this letter we are not determining whether any of your present or proposed activities are unrelated trade or business as defined in section 513 of the Code.

You need an employer identification number even if you have no employees. If an employer identification number was not entered on your application, we will assign a number to you and advise you of it. Please use that number on all returns you file and in all correspondence with the Internal Revenue Service.

This determination is based on evidence that your funds are dedicated to the purposes listed in section 501(c)(3) of the Code. To assure your continued exemption, you should keep records to show that funds are spent only for those purposes. If you distribute funds to other organizations, your records should show whether they are exempt under section 501(c)(3). In cases where the recipient organization is not exempt under section 501(c)(3), you must have evidence that the funds will remain dedicated to the required purposes and that the recipient will use the funds for those purposes.

If you distribute funds to individuals, you should keep case histories showing the recipients' names, addresses, purposes of awards, manner of selection, and relationship (if any) to members, officers, trustees or donors of funds to you, so that you can substantiate upon request by the Internal Revenue Service any and all distributions you made to individuals. (Revenue Ruling 56-304, C.B. 1956-2, page 306.)

If we said in the heading of this letter that an addendum applies, the addendum enclosed is an integral part of this letter.

Because this letter could help us resolve any questions about your exempt status and foundation status, you should keep it in your permanent records.

MADERA COALITION FOR COMMUNITY

If you have any questions, please contact the person whose name and telephone number are shown in the heading of this letter.

Sincerely yours,

Richard R. Orosco
District Director

Enclosure(s):
Form 872-C

The Madera Coalition for Community Justice prohibits discrimination against and harassment of any employee or any applicant for employment because of race, color, national or ethnic origin, age, religion, disability, sex, sexual orientation, gender identity and expression, veteran status or any other characteristic protected under applicable federal or state law. All personnel who are responsible for hiring and promoting employees and for the development and implementation of university programs or activities are charged to support this effort and to respond promptly and appropriately to any concerns that are brought to their attention.

City of Madera
Applications Submitted for the
CDBG 2017/2018 Action Plan

Tab 7

Housing Authority of the City of Madera

Community Development Block Grant Application 2017-2018

Submitted by Linda Marie Shaw, Executive Director

HACM is dedicated to serving our community by providing quality housing, resources, capital improvements and other sustaining services that will improve the lives of families.

RECEIVED 3-16-17 JR

CITY OF MADERA
COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)
PUBLIC SERVICE PROPOSAL APPLICATION
2017/2018

AGENCY/PROGRAM INFORMATION **DATE SUBMITTED: March 16, 2017**

Legal Name of Agency: Housing Authority of the City of Madera (HACM)

Program Name: Temporary Housing for Homeless Families at Pomona Ranch Housing Center

Agency Address: 205 N. G Street

City/Zip: Madera, CA 93637 Telephone: 559-674-5695

Program Director: Linda Shaw FAX: 559-674-5701

SUMMARY OF COMMUNITY NEED:

The 2015 Fresno Madera Continuum of Care Point-in-Time Count yielded a count of 264 homeless individuals in Madera. The majority of this population, 196 individuals, was listed as "unsheltered." In 2016, the Madera Rescue Mission self-reported that they provided emergency/overnight shelter to 47 families – defined as an adult with at least one child under age 18.

The Pomona Ranch Housing Center is a 50-unit subsidized residential complex for migrant farm workers, which sits empty between November and March of each year at taxpayer expense. HACM aims to upgrade these residential units with air conditioning and heating units in order to provide temporary residences and a continuum of care for homeless families with children. Once the Pomona Ranch facilities have been upgraded for the colder winter months, each of the 50 residences will be made available to homeless families at no cost. The opportunity to re-purpose Pomona Ranch during its 'off-season' was proposed by Linda Shaw at HACM and supported by 2016 data provided the Madera Rescue Mission.

Currently, The Pomona Ranch Housing Center is a gated 50-unit complex, with 10 two-bedroom, 30 three-bedroom, and 10 four-bedroom units. All units have 1 bathroom. In the spring/summer/fall months, rent is paid by migrant workers on a daily basis and all utilities are included. Each unit has a stove, refrigerator, 1 folding table, 6 folding chairs, and 2 beds per bedroom. The center has a playground, soccer field, volleyball court, and 2 basketball courts. This center has an on-site laundry facility with coin operated machines and a daycare facility run and operated by the Madera County Community Action Partnership.

EXISTING SERVICES: *List other agencies currently addressing the need or problem described above.*

Madera Rescue Mission (overnight-only homeless shelter)

Explain how your program supplements or complements existing services without duplicating them.

The Madera Rescue Mission is an overnight-only shelter with separate facilities for men and women, which means that some children have to be housed separately from their mother and/or father, depending on their gender and age. The facilities are overnight-only, which means families don't have a place to stay or keep their belongings during the day.

The proposed housing program at Pomona Ranch will provide homeless families with up to approximately 5 months of secure temporary housing from November to March. This will create a sense of stability and security while also giving adults a safe space from which to seek out job opportunities and/or additional services. The HACM will work to provide families at Pomona Ranch with a continuum of care that involves collaborations and referrals to multiple community organizations that provide services to homeless families.

HACM has formed an ad hoc committee comprised of representatives from local agencies and organizations that have pledged to provide a continuum of care for homeless families at Pomona Ranch. This agency is comprised of: Linda M. Shaw, Executive Director, Housing Authority City of Madera; Jim Taubert, Executive Director, Successor Agency; Charles Rigby, Chairperson, HACM Board of Commissioners; William Oliver, Vice-Chairperson, HACM Board of Commissioners; Elizabeth Wisener, Community Svc. Program Mgr. – Community Action Partnership of Madera County (CAPMC); Mattie Mendez, Executive Director, CAPMC; Dennis Koch, Executive Director, Madera County Behavioral Health; Miguel Gonzalez, Program Mgr., Dept. Social Services; Van Do-Reynoso, Public Health Director, Madera County Public Health; Mike Unger, Madera Rescue Mission; and G. Chiramonte, Madera Police Department.

CLIENT POPULATION

Indicate the total number of potential clients in the community who require your services.

128 - 200

State the total number of unduplicated clients you intend to serve during the term of this proposed program/service (12 months)

128

If this program was funded last year, has there been a change in the composition of the target population to be served and/or shift in the geographic target area?

_____ Yes ___X___ No

If yes, explain: N/A

Provide the following demographic information for the total number of unduplicated clients as indicated above:

AGE	0 - 5	6 - 12	13 - 17	18 - 34	35 – 54	55 - 59	60 - 64	65 +
	51	34	13	20	29	1	0	0
GENDER	Female	83						
	Male	45						
FEMALE HEAD	46							

Race/Ethnicity:

Madera Rescue Mission did not provide ethnicity data for homeless families.

EFFECTIVENESS AND EFFICIENCY

Describe the method used to measure the effectiveness (outcomes) of services. Identify measurable goals and objectives.

HACM will measure the effectiveness of its program by the number of families with children that choose to reside at Pomona Ranch between the months of November and March.

What National Objective does your program meet?
This program meets the following CDBG National Objective: L/M Income Limited Clientele

Describe what measureable objectives your program meets
The program will "exclusively benefit a clientele who are generally presumed by HUD to be principally L/M income persons," a definition that includes homeless persons.

How will your program meet its goals in one year?
HACM will assist homeless families needing shelter after the appropriate measures have been taken to ensure that Pomona Ranch residential units are safe and comfortable for families with children.

SERVICE FUNDING

What financial resources, other than City are available for this program? Have applications for other funds been submitted? Explain.
No additional funds have been committed for this project at this time. No other grant proposals for this project have been submitted at this time.

Describe in detail all proposed plans for fund raising for this program. What is the projected net income from fund raising? If net fund raising is not increasing, please explain (be specific).
HACM aims to support this project with CDBG grant funding.

What was done to receive public input/participation? Please provide details. What did the public input/participation identify? Include documentation of support for the proposal such as meeting minutes, letters and petitions.
See **Attachment A,** which highlights relevant sections from multiple public meetings.

If service is offered outside the Madera city limits, include the list of funding sources and supporting documentation/letters of commitment that support these program services.
See **Attachment B** for letters of support from Office of Migrant Services and CA Dept. Of Housing and Community Development.

When there is an overflow of clients, how is it determined whom to serve?
HACM has waiting lists for all programs. Families will be served on a first-come first-served basis.

Is income criteria used to establish eligibility for services?

__X__ Yes _____ No

Is a fee schedule used?

____ Yes __X__ No

HOMELESS FAMILY HOUSING PROJECT BUDGET

INCOME SOURCE	AMOUNT
CITY	
UNITED WAY	
STATE (SPECIFY)	
FEDERAL (SPECIFY)	
SERVICE FEES	
FUND RAISING	
DONATIONS	
RESERVE/CONTINGENCY	
OTHER (LIST) CDBG GRANT:	$150,000
TOTAL INCOME	*$150,000*

SALARY EXPENSES	ACCOUNT NO.	AMOUNT
SALARIES (P/t Mgmt fee)	0100	$15,000
BENEFITS	0150	$6,300
SERVICES & SUPPLIES		$2,800
INSURANCE	0200	$14,400
COMMUNICATIONS	0250	
CONSULTANT SERVICES	0300	$2,000
OFFICE EXPENSE	0350	
OFFICE RENTAL	0400	
EQUIPMENT RENTAL	0450	$10,000
UTILITIES	0500	$14,500
TRAVEL (ADMIN.)	0550	
FOOD SUPPLIES	0600	
CONTRACTS (HVAC units)	0650	$80,000
TRANSPORTATION	0700	$5,000
FUND RAISING	0750	
TOTAL		$150,000

SPONSORING AGENCY MANAGEMENT

CORPORATION DIRECTORS:

How often does the Board meet? ___Monthly_____

What was the average number of Board members attending meetings last year? ___Seven (7)__

Based on the bylaws, what is the minimum and maximum number of seats on the Board?

____7____ Minimum ____7____ Maximum

Please provide the following information:

Date of Incorporation: _____1968_____

IRS Employer Number: _____94-2542559_____

See **Attachment C** for Board of Directors' roster, including the names, addresses, occupations and number of years served on the Board.

FINANCIAL:

How often are financial records audited, and by whom? HACM financial records are not audited, as the OMS subsidy that the agency receives is reimbursed on a monthly basis and all rent revenues are submitted to OMS also on a monthly basis. The financials are presented along with our audited financial statements and submitted to HUD REAC annually.

Are the treasurer and/or other financial officers bonded? Board of Commissioners and Executive Director are not bonded

If so, for how much? _____N/A_____

List any judgments or pending lawsuits against the agency or program:

_____None_____

List any outstanding obligations:

_____None_____

RESOLUTION/CERTIFICATION:

Please see **Attachment D**.

This application and the information contained herein are true, correct and complete to the best of my knowledge.

By: Linda M. Shaw
Executive Director

RETURN AN ORIGINAL AND TWO COPIES TO:	City of Madera 205 West Fourth Street Madera, CA 93637 Attention: CDBG Administration
DUE DATE:	**March 16, 2017, 5:00 p.m.**
CONTACT PERSON:	Jorge Antonio Rojas, Program Manager – Grants 559-661-3693 jrojas@cityofmadera.com

Capital Improvements Summary

Housing Authority of the City of Madera

Charles F. Rigby
CHAIRMAN

Linda Marie Shaw
EXECUTIVE DIRECTOR

Memorandum

To: Linda M. Shaw

From: James Garcia

Date: 3/9/17

RE: Pomona Ranch A/C Project (50) units.

There are ten units that are 862.5 sf. it would take a 2-ton unit of cooling and heating 14-seer energy efficient for approximate $5,000.00 per unit with an estimated cost to install at prevailing wage of about $4,500.00 not including permits, engineering, prints or other variables. A/C unit $5,000.00 installation $4,500.00 Total of $9,500.00 per unit.

1. Remove water cooler.
2. Inspect roof for damage & repairs.
3. Install new plenum and return duct.
4. Install pre-manufacture metal roof curb and seal replace shingles as needed.
5. Install new gas line for heater.
6. All new ducting per size per room and vents.
7. Install return duct.
8. Drop in 2-ton unit 14-seer and connect.

There are ten units at 632.5 sf. And thirty units at 713 sf. It takes 200 sf. per ton so these units are under 800 sf. and do not qualify for HVAC roof units.
The balance of units that are under 800 sf. we could use 1 1/2-ton mini split system were condenser is outside and A/C-Heating are inside cost for unit $1,900.00 plus installation $3,000.00 Total of $4,900.00 per unit.

10 – 2-ton units installation $95,000.00

10 – 1 1/2-ton mini split system A/C-Heating $49,000.00

Grand total $144,000.00

Thank you,

James Garcia
Maintenance Services Manager

Attachment A - see highlighted minutes

MINUTES OF THE REGULAR MEETING OF THE HOUSING AUTHORITY OF THE CITY OF MADERA

Wednesday, March 8, 2017
6:00 P.M. – Regular Session
City Hall Council Chambers

6:00 p.m. - REGULAR SESSION

Commissioner Andrew Medellin opened the Regular Meeting of the Housing Authority of the City of Madera called for the roll.

ROLL CALL

Present: Chairperson Derek O. Robinson, Sr.
Vice Chairperson Charles F. Rigby
Commissioner Jose Rodriguez
Commissioner William Oliver
Commissioner Andrew J. Medellin
Commissioner Donald E. Holley
Commissioner Cece Foley Gallegos

Absent:

Also present were Sally Bomprezzi, Financial Services Manager; Irma Vargas, HCV Services Manager; Nora Rivera, Migrant Center Supervisor; Linda M. Shaw, Executive Director; Brent Richardson, General Legal Counsel, and Alicia Gonzales, Recording Secretary

INVOCATION

Pastor Randy Brannon – Grace Community Church

PLEDGE OF ALLEGIANCE:

Lead by Commissioner Andrew Medellin

PUBLIC COMMENT:

Designated period of fifteen (15) minutes for members of the public to address the Housing Authority Board of Commissioners on matters of public interest.

PRESENTATION

None

A. WORKSHOP

None

B. CONSENT CALENDAR

B-1 Approval of Minutes of Regular Meeting – January 11, 2017
B-2 Register of Audited Demands – January 5, 2017 – January 25, 2017
B-3 Register of Audited Demands – February 8, 2017 – February 16, 2017

Commissioner Holley, seconded by Commissioner Robinson moved to approve. Motion carried unanimously.

C. HEARINGS, PETITIONS, BIDS, RESOLUTIONS AND AGREEMENTS

C-1 Consideration of a Resolution Approving the Agreement with Lowe's for Low Flow Toilets and Authorizing the Chairperson to Execute the Agreement

Executive Director Linda Shaw asked Nora Rivera, Migrant Center Supervisor to explain how the project was funded. Ms. Rivera stated that the Office of Migrant Services contacted our agency indicating that they wanted to proceed with low flow, water conservative toilets, shower heads, and aerators. The project was initially going to be funded by a grant that we did not receive, details were not provided. She stated that currently there is a healthy amount of money in the Operating Reserves which we were approved to use and move forward with the project. Ms. Rivera stated that she requested quotes from local vendors and Lowe's provided the lowest bid.

Chairperson Rigby stated that it was good to hear that the agency shopped local

Commissioner Holley, seconded by Commissioner Gallegos moved to approve. Motion carried unanimously.

C-2 Consideration of a Resolution Approving the Submission of the CDBG Application to request Funding to Retrofit Pomona Ranch Units and Authorizing the Executive Director to Sign the Agreement

Executive Director Linda Shaw stated that what we primarily need to do as part of Housing the Homeless at Pomona Ranch is to provide heating. Ms. Shaw stated that the heater units would cost around $570 per unit, as well as other Capital Improvement Projects. She is requesting approval from the board to submit the application for CDBG funds.

Commissioner Medellin asked for a recap of the homeless project at Pomona Ranch.

Executive Director Linda Shaw stated that there have been several meetings with a larger Ad Hoc Committee led by Commissioner Oliver and Rigby. Other partners have also joined, such as Jim Taubert, CAPMC, and others from the community who are able to provide land and funding so we may go above and beyond Pomona Ranch at some point and time. She added that we are talking about putting up an edifice that might be a year around opportunity for people to be housed and provide supplemental services to go along with that, such as work experience. She stated that there is a lot to do around this project which continues to grow. The original focus was Pomona Ranch. Just recently she received affirmation from OMS, although they are struggling with getting guidelines to everyone across the state. Ms. Shaw stated that she believes we are in good shape. She added that our Housing Authority has never applied for CDBG funds before and sees this as a great opportunity to get our foot in that door and have money to begin working on the project.

Commissioner Oliver stated that the Ad Hoc committee is working with many different agencies and partners including CAPMC, Department of Social Services, and Fresno Continuum Care. One thing that we are also looking at leveraging for both our facilities and maybe potential grant funding in the future, is to look at potential match dollars for emergency services or emergency solutions grant money, which could also aid in these efforts. He added that as Ms. Shaw had mentioned, we decided it would be best to focus our efforts on existing infrastructure, and what better way than to put to use a building that sits vacant six months out of the year. Commissioner Oliver stated that all of our partners seem to be excited about the project. We are also looking into a tour with some of our partners at Fresno Continuum. This project is off to a good start so far and we appreciate Ms. Shaw's leadership.

Chairperson Rigby added that we have brought several other agencies to the table including the Police and Sheriff Department, several community health groups, Behavioral Health, as well as Neighborhood Revitalization. We are currently seeing a collective community effort trying to work towards a common goal. This pilot program will be something we hope to hang our hat on.

Commissioner Medellin thanked everyone involved for their efforts so far.

Commissioner Medellin, seconded by Commissioner Oliver moved to approve. Motion carried unanimously.

D. WRITTEN COMMUNICATIONS

None

E. ADMINISTRATIVE REPORTS

E-1 Presentation of Audit (Informational Only) – Price Paige & Company – David Dybas

Financial Services Manager Sally Bomprezzi introduced Dave Dybas, Audit Manager-Price Paige & Company, Clovis, CA; who presented a brief overview of the agency's audit. He stated the Housing Authority experiences a level of scrutiny as far as internal controls of compliance because of the large amounts of federal funding it receives. Mr. Dybas stated that since it was Government Auditing Standards and because of the single audit and the Government Funding that is received, we have two reports. The first report is the Independent Audit Report and the Governments Auditing Standards report as well as the single audit. In regards to compliance, the Government Auditing Standards as well as the Uniform Guidance, we did have one finding. He stated that it was the calculation of the tenants income, that amount decides how much the Housing Authority's portion is going to be paid, opposed to the amount the tenant is going to pay. There were four instances out of sixty, which was a large improvement. He stated that last year, Linda was just coming aboard and there was new staff in training. He added that since then they have done a great job. Mr. Dybas stated that although there was a finding, but it is not to the severity that it was last year. He stated that staff went above and beyond to make sure that the files were starting to come together and that staff was receiving training.

Chairperson Rigby stated to Ms. Shaw that in regards to the finding on the Government Auditing Standards, he asked if this would be something that could be under control next year. He asked if it was due to the agency not documenting the amount of income being taken in by tenants.

Ms. Shaw stated that when she came aboard, the files were not complete giving the reason a few more staff were hired and separated that out so that program would report directly to her. She added that over the past year they have worked on cleaning up as many files as they possibly could before the audit, but there were still a couple of files that were not in order. Ms. Shaw stated the just as Mr. Dybas indicated it improved a great deal and she believes by next year the agency will be clear.

F. EXECUTIVE DIRECTOR REPORT

F-1 CPS HR Consulting Compensation Study and Request that an Ad Hoc Committee be appointed to work with Executive Director

Executive Director Linda Shaw stated that she previously sent to all Commissioners a copy of the Compensation Study. She stated that she along with the Finance Department found a few issues with the study. Due to the complexity of the study she requested an Ad Hoc Committee to

work through the study and make decisions on what part of the study will be validated and if so, how do we get that money into the hands of our employees.

Chairperson Rigby asked if any of the Commissioner would be interested in assisting Ms. Shaw in this process.

Commissioner Gallegos stated that she would like to be a part of the Ad Hoc Committee.

Commissioner Rodriguez stated that he would like to also be a part of the Ad Hoc Committee.

Chairperson Rigby appointed Commissioner Rodriguez and Commissioner Foley Gallegos to the Compensation Study Ad Hoc Committee.

F-2 Out-of-State Travel for Chairperson, Charles Rigby to attend the 2017 NAHRO Washington Conference in Arlington, VA – March 25 – March 28, 2017

Executive Director Linda Shaw stated that she is requesting approval for Chairman Rigby to attend a legislative conference in Washington, D.C. at the end of this month. She stated that for several reasons she is unable to attend, and Chairperson would be the best person to attend. We are in the process of setting up meetings with people of Congress. Meetings have already been set up with Senator Feinstein's office, Representative Costa, and meetings are pending with Linda Sanchez and Kamala Harris. In addition to those meetings the entire conference will be around talking to Legislatures directly about Affordable Housing, Immigration Issues, and others that are related.

Commissioner Oliver stated that it sounds like money well spent, and in addition to the Housing Authority he would imagine that there would be complimenting discussions for the City of Madera so he suggests reaching out to our consultant in Washington, D.C. and possibly assist with scheduling other meetings.

Chairperson Rigby asked Legal Counsel if this was an action item.

Legal Counsel, Brent Richardson stated the by-laws require approval formal approval for the Executive Director. He added that if Ms. Shaw is looking for a motion that Chairperson Rigby would need to abstain from it.

Commissioner Holley, seconded by Commissioner Gallegos moved to approve. Motion carried unanimously.

G. COMMISIONER REPORT

Commissioner Robinson stated that he attended the Adult Probation Graduation Dinner on March 7, 2017. He added that it was nice to see eight individuals graduated and to see them take their first steps to improving their lives.

H. CLOSED SESSION

H-1 Closed Session Announcement – General Legal Counsel

H-2 Conference with Real Property Negotiators - Pursuant to Government Code Section 54956.8

Property:	1 Parcel
Housing Authority APN:	006-280-001

Agency Negotiators:	Linda Shaw
Negotiating Parties:	Mark Meyers
Under Negotiations:	Price and Terms

H-3 Closed Session Report – General Legal Counsel

Legal Counsel Brent Richardson requested that the agenda items under Closed Session be pulled.

I. ADJOURNMENT

Meeting adjourned at 6:25 p.m.

MINUTES OF THE REGULAR MEETING
OF THE HOUSING AUTHORITY OF THE CITY OF MADERA
Wednesday, January 11, 2017
6:00 P.M. – Regular Session
City Hall Council Chambers

6:00 p.m. - REGULAR SESSION

Commissioner Andrew Medellin opened the Regular Meeting of the Housing Authority of the City of Madera called for the roll.

ROLL CALL

Present: Chairperson Derek O. Robinson, Sr.
Vice Chairperson Charles F. Rigby
Commissioner Jose Rodriguez
Commissioner William Oliver
Commissioner Andrew J. Medellin
Commissioner Donald E. Holley
Commissioner Cece Foley Gallegos

Absent:

Also present were Martha Ramirez, Housing Services Manager; Sally Bomprezzi, Financial Services Manager; Linda M. Shaw, Executive Director; Brent Richardson, General Legal Counsel, and Alicia Gonzales, Recording Secretary

PLEDGE OF ALLEGIANCE:

Lead by Commissioner Andrew Medellin

PUBLIC COMMENT:

Designated period of fifteen (15) minutes for members of the public to address the Housing Authority Board of Commissioners on matters of public interest.

PRESENTATION

Presentation by the Successor Agency - National Night Out Award

Commissioner Andrew Medellin passed the gavel to the Housing Authority Chairperson Derek O. Robinson, Sr. to conduct the Housing Authority portion of the meeting.

REORGANIZATION OF BOARD OF COMMISSIONERS

1. Selection of Chairperson

Chairperson Robinson asked Brent Richardson, Legal Counsel to address the reorganization of Chairperson and Vice Chairperson.

Mr. Richardson stated that some time ago by a resolution of the board which amended the by-laws, it provides an order of how the Chairperson and Vice Chairperson are selected, typically it is the person who has served the longest without being Chair and the Vice Chairperson usually

moves up to Chairperson which is Commissioner Rigby, provided he does not decline the position. He added that the appropriate vote for Vice Chairperson would be Commissioner Oliver.

Commissioner Rigby asked to abstain from voting.

Commissioner Jose Rodriguez nominated Commissioner Rigby as Chairperson of the Housing Authority of the City of Madera, seconded by Commissioner Holley. Motion carried with one abstention from Commissioner Rigby.

Commissioner Jose Rodriguez asked for future reference when someone is nominated can he vote for himself.

Mr. Richardson, Legal Counsel stated that yes that is allowed.

2. Selection of Vice Chairperson

The meeting was turned over to Chairperson Charles Rigby to continue with the meeting.

Chairperson Rigby stated that he was now opening up the session for nominations for Vice Chairperson.

Commissioner Gallegos nominated Commissioner Oliver as Vice Chairperson, seconded by Commissioner Robinson moved to approve. Motion carried unanimously.

Chairperson Rigby asked Recording Secretary, Alicia Gonzales to read the announcement.

Alicia Gonzales, Recording Secretary read the announcement which stated; Per government code 54957.5 members of the public are advised that less than 72 hours prior to this evenings meeting Items B-1 and B-2 were provided to the Board of Commissioners and staff. If you wish to obtain a copy of these items they are located on the podium. She also stated that it is also being requested at this time to pull agenda item B-8 from the Consent Calendar.

General Legal Counsel, Brent Richardson made clarification that Item B-8 was pulled from the agenda.

A. WORKSHOP

None

B. CONSENT CALENDAR

B-1 Approval of Minutes of Special Meeting – November 2, 2016

B-2 Approval of Minutes of Regular Meeting – November 9, 2016

B-3 Register of Audited Demands – November 4, 2016 – November 15, 2016

B-4 Register of Audited Demands – December 5, 2016 – December 30, 2016

B-5 Authorization of Out-of-State Travel for the Financial Services Manager to Attend Training Provided by Casterline Associates, P.C., Advanced PHA Budgeting & Accounting Seminar in Carson City, Nevada, February, 14-15, 2017

B-6 Consideration of a Minute Order Approving the Benefit Credit Increase to Housing Authority of the City of Madera Employees

B-7 Consideration of a Minute Order Approving and Authorizing the Executive Director to open a New Checking Account with Wells Fargo Bank for Flexible Benefit Funding

B-8 Consideration of a Minute Order Approving the Position of an Inspector with the Salary Range beginning at 59.5A

B-9 Consideration of a Minute Order Approving Agapito Rodriguez, Maintenance Lead to begin at Salary Range 55.0E

Commissioner Oliver, seconded by Commissioner Medellin moved to approve. Motion carried unanimously.

C. HEARINGS, PETITIONS, BIDS, RESOLUTIONS AND AGREEMENTS

C-1 Consideration of a Resolution Approving Schedule of Accounts Chargeable to Collection Losses for the Farm Labor Program Quarter Ending December 2016

Executive Director Linda Shaw asked Martha Ramirez, Housing Services Manager to speak about Items C-1 and C-2

Housing Services Manager, Martha Ramirez stated that the write offs for Public Housing and Farm Labor Programs are amounts owing from the families that left the program with a balance due. She stated that after all efforts of collecting are exhausted, we then send the files to Medvetta Collection Agency. If Medvetta is unable to collect the balances, the balances are then brought to the Board as write-offs. Ms. Ramirez stated that as shown, the balances are low because we do try our best to collect.

Chairperson Rigby asked what the process of collection is.

Housing Services Manager, Martha Ramirez stated that when the family moves out they are provided with a balance due notice. She stated that if we see that there is no effort from the family to pay the balance, she contacts, visits, and attempts to collect. This process takes up to thirty days. If unable to collect, the file is sent to Medvetta Collection Agency. She also stated that if the collection agency is unable to collect, that is when the amounts are brought to the Board as a write off.

Commissioner Medellin stated that if the balance is not collected is the family then, for lack of better word; black listed.

Ms. Ramirez stated that if it is a Public Housing family they are placed on a HUD website, which is the debts owed website. She added that if they try to sign up anywhere in the United States their Social Security number and name is tagged. If they want to receive assistance they must pay their balance off in Madera first. Also, the tenant is sanctioned for seven years, they will not be able to receive Housing Authority assistance. The same rule applies to Rural Development, their system is not as sophisticated, however internally the information is kept. But most tenants usually do pay off the balance.

Commissioner Oliver, seconded by Commissioner Robinson moved to approve. Motion carried unanimously.

C-2 Consideration of a Resolution Approving Schedule of Accounts Chargeable to Collection Losses for the Public Housing Program Quarter Ending December 2016

Commissioner Medellin, seconded by Commissioner Robinson moved to approve. Motion carried unanimously.

C-3 Consideration of a Resolution Approving an Amendment to the Employment Agreement with Linda Shaw as the Executive Director and Authorizing the Chairperson to Execute the Amendment

General Legal Counsel, Brent Richardson stated that the Ad Hoc Committee met with Ms. Shaw and came up with recommendations and amendments to her contract regarding salary. He added that he prepared the amendment and is now before you for consideration.

Chairperson Charles Rigby stated that he was on the Ad Hoc committee when Ms. Shaw was hired, she was on a probationary period and the Ad Hoc that was made up of himself, Chairperson Medellin, and Chairperson Holley decided that is was fair to remove Ms. Shaw from her time of probation. He added that they all agreed that she has done a significant job to indicate that she is deserving of that time to be pulled off of probation, and we are glad to have her here and we hope to have her here for many years to come.

Commissioner Robinson, seconded by Commissioner Holley moved to approve. Motion carried unanimously.

D. WRITTEN COMMUNICATIONS

None

E. ADMINISTRATIVE REPORTS

None

F. EXECUTIVE DIRECTOR REPORT

F-1 Sexual Harassment Training

Executive Director, Linda Shaw stated that as the Board is aware there was an investigation. She stated that she took action with regard to the results of the investigation. She also stated that for future reference the Housing Authority staff will receive sexual harassment training, Maintenance especially. The training will take place in February.

F-2 1431 Riverview

Executive Director Linda Shaw stated that we have had a few conversations about the application to HUD for the purchase of the property at 1431 Riverview. She added that Mr. Meyer's has also contacted the Mayor to ask about the status of the application. Ms. Shaw stated that the Housing Authority is resubmitting the application to HUD. She added that she was concerned about the environmental that was done by Mr. Meyer's representative that it does not meet what HUD is requiring. She stated that she is moving forward and sending it to HUD and will allow HUD to make the rejection.

Chairperson Rigby asked if Ms. Shaw's concern was voiced to the applicant

Executive Director, Linda Shaw stated, yes.

F-3 Grant Writer Contract

Executive Director Linda Shaw stated that she was encouraged to look at the home funds, and in doing so there are some challenges with regard to the home fund. She stated that there are other funds available. She asked if she could step to Item F-5.

Chairperson Rigby stated yes, it is within your report.

Ms. Shaw stated that she would like to request the appointment of an Ad Hoc Committee to work with her on these issues because they are becoming a little more complicated and she does not want to free fall on her own. She stated that she would appreciate the appointment of an Ad Hoc Committee to work with her on the homeless/housing issues. She added that if for some reason the agency receives a lot of money, she has some really creative ideas about how to use the money, but she does not want to do that by herself.

Chairperson Rigby stated that for the record just for those who might not be in communication with you about the project, please inform the Commissioners and the public of some of the things that you are hoping to do with some of the finances that could be allocated through the searches of these grants and opportunities.

Ms. Shaw stated that the Pomona Ranch property is empty for five months during the year. It seemed appropriate to get a waiver from OMS to house homeless families or individuals in that property during the time it sits empty. She added that she has a call out to the OMS Director because she is getting mixed signals right now about whether or not they can go ahead and retro fit the units for heating. She stated that she is being told it is not allowed, then being told it will only require a separate agreement with OMS. Ms. Shaw stated that the other project that she is very excited about is building a homeless shelter on the Storey Road property. She added that if the agency receives enough money to do that, she would like to build a 25-40 bed unit. She also added that the homeless shelter would be open year around. They would work with the homeless shelter in place and with other agencies such as Behavioral Health and Community Action Partnership. Ms. Shaw stated that the Ad Hoc Committee could help her work through those issues.

F-4 Board Orientation

Executive Director Linda Shaw stated that she would like to set up an orientation for the newer members such as Commissioner Gallegos, Commissioner Rodriguez, and new incoming Chair and Vice Chair. She stated she added it to the agenda to ask if anyone else would like to participate.

Chairperson Charles Rigby stated that he would love to sit on the Ad Hoc committee, and if it is okay, along with Vice Chairperson Oliver. He added that he and Vice Chairperson Oliver have been working alongside Ms. Shaw and several other groups within the County and City limits with this issue of homelessness and the housing issues. He added that he is watching very carefully a program that is being started by a Madera County team that have four gentlemen that are living in apartments that have become available through some funding, which is a six month program. He also stated that Commissioner Oliver has made a suggestion of possibly connecting with some of the things we have seen come out of Fresno. Chairperson Rigby stated that he would like to appoint Vice Chairperson Oliver to the Ad Hoc Committee.

Commissioner Oliver stated that he would also like to be appointed to the Ad Hoc Committee.

Commissioner Rodriguez asked if it was a two or three member committee.

Chairperson Rigby stated that there can be up to three members without interfering with the Brown Act.

Commissioner Rodriguez stated that he would like to serve as an alternate if a member were to be absent.

Chairperson Rigby stated that under the advisory of the council he would like to maintain that the three names be associated with the Ad Hoc are, Chairperson Rigby, Vice Chairperson Oliver, and Commissioner Robinson.

G. COMMISIONER REPORT

Commissioner Oliver shared a reminder that on January 26, 2017 there will be a Community Brainstorming Workshop between the City of Madera, Madera County Board of Supervisors, Madera Unified School District, and the Madera Arts Council regarding a feasibility study to create a Civic Center and Performing Arts Center in Madera. He added that this will be the first of several different community workshops. It will be held at 6:30pm – 8:30pm at the Madera South High School Multipurpose Room. He added that it would be a great opportunity for the Housing Authority to show some leadership with this project.

Commissioner Medellin congratulated Chairperson Rigby and Vice Chairperson Oliver, and a great thank you to the past Chairman Derek Robinson for doing a fantastic job this last year and for your service.

Commissioner Robinson stated that he enjoyed working with Linda Shaw and he praised her effort in bringing the Housing Authority up to the stratosphere.

Commissioner Holley stated that this Sunday at Martin Luther King Middle School, there will be a Martin Luther King program beginning at 2:30pm. He stated that if you can, come out to see what the young kids of our community have wrote about Martin Luther King.

Chairperson Rigby stated that he would like to thank his fellow Chair people for the nomination and he looks forward to serving as the Chair and working alongside Ms. Shaw and her incredible staff.

H. CLOSED SESSION

None

I. ADJOURNMENT

Meeting adjourned at 6:45 p.m.

MINUTES OF THE REGULAR MEETING
OF THE HOUSING AUTHORITY OF THE CITY OF MADERA
Wednesday, October12, 2016
6:00 P.M. – Regular Session
City Hall Council Chambers

6:00 p.m. - REGULAR SESSION

Commissioner Robert L. Poythress opened the Regular Meeting of the Housing Authority of the City of Madera and the Special Meeting of the Madera City Council Regular Meeting of the City Council as the Successor Agency to the Former Madera Redevelopment Agency and Special Meeting of the City Council as the Successor Housing Agency and called for the roll.

ROLL CALL

Present: Chairperson Derek O. Robinson, Sr.
Vice Chairperson Charles F. Rigby
Commissioner Robert L. Poythress
Commissioner William Oliver
Commissioner Andrew J. Medellin
Commissioner Donald E. Holley
Commissioner Cece Foley Gallegos

Absent: None

Also present were Martha Ramirez, Housing Services Manager; Nora Rivera, Migrant Center Supervisor; James Garcia, Maintenance Services Manager; Brent Richardson, General Legal Counsel, and Alicia Gonzales, Recording Secretary

PLEDGE OF ALLEGIANCE:

Lead by Commission Robert L. Poythress

PUBLIC COMMENT:

Designated period of fifteen (15) minutes for members of the public to address the Housing Authority Board of Commissioners on matters of public interest.

Commissioner Robert L. Poythress passed the gavel to the Housing Authority Chairperson Derek O. Robinson, Sr. to conduct the Housing Authority portion of the meeting.

Late agenda item announcement was made by Recording Secretary, Alicia Gonzales. Per Government Code Section 54957.5, members of the public were advised, that less than 72 hours prior to this evening's meeting, copies of the attachment that were handed out were in-advertently left out of the agenda packets for the presentation item. The Investment Plan was distributed to members of the Board of Commissioners and staff.

PRESENTATION

Sally Bomprezzi stated that the presentation was related to agenda item C-1, Investment Policy.
Lyle Defenbaugh, Client Relations Director for CalTRUST explained the connection between CalTRUST and Wells Fargo Asset Management. He stated that one of the requirements of the California Government Code and the Joint Powers Law that authorizes local agencies to create a JPA for purposes

of offering an investment program is that the JPA is required to retain an outside investment manager that meets certain criteria. They must have at least five years of experience managing the types of securities that local agencies can invest in and has a minimum of five hundred million dollars in assets under management. Mr. Defenbaugh described in his presentation the definition of CalTrust, Investment Options, and Wells Fargo Asset Management for Institutional Investors.

Vice Chairperson Rigby stated that the most recent activity with the Wells Fargo may or may not have an affect with the agencies decision to move forward with this company. He added that he is aware of several cities that have withdrawn their activity from using Wells Fargo Asset Management. The City of Chicago and several California cities have suspended the underwriting of municipal bonds and issues under Wells Fargo. He asked Mr. Defenbaugh for his comment on the current Wells Fargo situation.

Mr. Defenbaugh stated that what went on is indefensible, and what went on was on the retail banking side. Wells Fargo has three principal organizational units within the bank which include Retail Banking, Wholesale Banking, and Wealth and Investment Management. Wells Fargo Asset Management is under the Wealth and Investment Management category. He stated that the City of Chicago and the State of California does not include Wells Fargo Asset Management. Essentially the agencies that have suspended relations with Wells Fargo for one year falls under three different areas, the first is they will not consider Wells Fargo Investment Banking for the underwriting for any debt issues that they are undertaking for the next year, the second area is that they will not buy any Wells Fargo stocks or bonds into their portfolios, and third they are not going to buy any financial instruments from Wells Fargo Brokers that they may do business with. He stated that he has not seen any action taken by any agency that directly affects business with Wells Fargo Asset Management.

Vice Chairperson Rigby asked if the relationships have been stressed.

Mr. Defenbaugh stated that on his part he has reached out to as many investors in the CalTrust program to answer any questions and talk to them about their approach.

Executive Director Linda Shaw stated that she wanted to clarify that by no means are we agreeing to a contract with Wells Fargo tonight. Over the next couple of months what we hope to do is bring a couple more investment companies for the Board to review and think about to go along with the policy that Sally Bomprezzi will speak about this evening.

Sally Bomprezzi, Financial Services Manager stated that she was unaware of CalTrust until she spoke with the local Wells Fargo representative Donna Gonzalez. At that time we were looking into investing the LAIF funds and she then introduced Mr. Defenbaugh. Sally added, that is when it was realized the agency did not have an Investment Policy. She added that tonight's presentation was informational only.

A. WORKSHOP

None

B. CONSENT CALENDAR

B-1 Approval of Minutes – October 12, 2016

B-2 Register of Audited Demands – September 1, 2016 – September 23, 2016

Commissioner Holley, seconded by Commissioner Oliver moved to approve. Motion carried unanimously.

C. HEARINGS, PETITIONS, BIDS, RESOLUTIONS AND AGREEMENTS

C-1 Consideration of a Resolution Approving Adoption of an Investment Policy for the Housing Authority of the City of Madera

Linda Shaw stated that the Housing Authority did not have a current Investment Policy and by law we need a policy on file.

Financial Services Manager, Sally Bomprezzi stated that the last document related to an Investment Policy is a resolution dated July 5, 1988. The document states it is a resolution authorizing the investment of the Housing Authority of the City of Madera monies in local agency fund. She added that the resolution has not been revisited. The LAIF fund currently holds $3.1 million dollars which is accruing .64%, and the money is currently not being used. We recently added $350,000 to the LAIF fund, which was surplus money from Section 8. Sally added that she was recently advised in a training that, the Investment Policies and Cash Management Policies must be reviewed annually and the Board of Commissioners need to be updated on the Investments. She added that she recommends that adoption of the new Investment Policy with the Cash Management guidelines.

Vice Chairperson Rigby stated that he agrees to adopt the policy, but he would like to suggest creating an Ad Hoc Committee be formed that might accompany this policy. He added that he would like to volunteer Mayor Poythress to the Ad Hoc Committee.

General Legal Counsel, Brent Richardson stated that there is no Ad Hoc consideration as part of this item he suggests the requests for an Ad Hoc be brought back at the next meeting.

Vice-Chairperson Rigby, seconded by Commissioner Oliver, moved to approve. Motion carried unanimously.

D. WRITTEN COMMUNICATIONS

None

E. ADMINISTRATIVE REPORTS

None

F. EXECUTIVE DIRECTOR REPORT

F-1 Request Performance Evaluation

Executive Director Linda Shaw stated that she handed out to all Board Members information regarding her Performance Evaluation. She added that she would like to request a date to be set for a Closed Session hearing regarding the Performance Evaluation and an Ad Hoc Committee be set.

All Board Members agreed to the Closed Session item be presented at the next City Council Meeting on Wednesday, November 2, 2016.

F-2 Pomona Ranch – Homeless

Executive Director, Linda Shaw stated that she met with a couple of the Commissioners and staff about responding to the letter from OMS. Since the meeting with the Commissioners and Staff, an updated letter was received from OMS and forwarded to the Board of Commissioners. The letter stayed the same with the exception of a 30 day time limit for tenants to stay in housing. The most important decision made at the meeting was that we could not begin housing for the

homeless by this winter, and we would look at doing it over a period of 3 years. It was also decided to do 10 units per year over a period of 5 years. The good news is that the County has home funds available that we will seek to receive.

Commissioner Oliver stated that this may be introduced as a pilot project. We should also take the next several months as an opportunity to take in as many community partners.

Vice Chairperson Rigby stated that he wanted to reiterate that this is a pilot program and we want to be as slow to move with this a possible, only because we want to do it the correct way. We see this as a valuable opportunity to utilize resources that have been made available to us and to serve a community which needs it greatly. He added that he is looking forward to implementing a few ideas that he took in at League of Cities Conference and turn it into something that would be a great asset to our City.

Executive Director Linda Shaw stated that she is requesting permission to sign the OMS agreement and permission to apply for the Grant Funds. She stated that she believes that money would cover year one and year twos expenses.

General Legal Counsel Brent Richardson stated that an approval and agreement was not contemplated for this item. He added that if the item is time sensitive, it could be presented at the Special Meeting on November 2. He added that the only other option in certain cases, is to execute the contract then add it to the next board agenda as a ratification.

The Board agreed to add the OMS agreement to the November 2 Special Meeting of the Housing Authority.

F-3 Sale of Chowchilla Properties

Executive Director Linda Shaw stated that the MORES Board which is a nonprofit subsidiary company of the Housing Authority has given instruction to sell the properties at the end of the next six months. The reason they would like to sell the property is because it is hard to maintain without an onsite manager. Also, over the years the units have had a high vacancy rate and the units are not fully maintained. The MORES Board has approved a budget for the maintenance issues to be completed. She added that the occupancy rates have increased. She also added that the Victim Services Agency has shown interest in renting out any vacancies that we may have. Ms. Shaw stated that due to the nonprofit being attached to the Housing Authority that the Board should know that the MORES Board wants to sell the properties. She also stated that when the properties were appraised in 2013 the appraisal on the properties were higher than what they are being appraised at now. Currently the MORES Board owes $804,000 to the bank and owes $496,000 to the Housing Authority. At the MORES meeting in October we are going to ask them to begin paying back what they owe. Ms. Shaw added that two companies have recently shown interest in being property managers for the Chowchilla sites. It was recommended to the MORES Board to hold on to the properties as long as they can be kept full and maintained. The MORES Board agreed to keep them vacant and maintained for the next six months, but at the end of the six months they would like them sold.

Commissioner Oliver requested a MORES workshop to talk discuss MORES and its relationship to the Housing Authority. At that workshop it would be interesting to discuss and get more information about the history, formation, and Board of Directors. He added that he would like to see the workshop come together that way the Board of Commissioners is more aware of that entity and have a frame of greater reference.

Sally Bomprezzi stated that in regard to MORES, Inc. it was supposed to be separate from the Housing Authority. She added that technically MORES should hire an employee that does the accounting for the nonprofit. She also stated that she encourages the workshop sooner rather than later. We are currently using our personnel to do the accounting, and it is supposed to be clearly separate.

Brent Richardson, Legal Counsel stated that he does not function as legal counsel to the MORES Board. He stated that he was only part of the formation of the nonprofit.

Commissioner Medellin stated that he agreed with Commissioner Oliver's assessment, we need to understand what our relationship is with the MORES Board. He added that we are responsible for the tenants and for the two properties, which is about 50 units. He stated that it is important to understand what our relationship is since we are responsible for the tenants. Mr. Medellin stated that he does remember in 2013 when the property was purchased, the units were filled quickly. He added that soon after, maintenance became an issue as well as vacancies. Now within a short time as Ms. Shaw has become director and changing the way our practices are done especially with maintenance, he has a question as to why the MORES Board is now interested in selling. Commissioner Medellin asked if there are bids for property managers.

Linda Shaw replied, stating that there are currently two bids for property managers.

Commissioner Poythress stated that two of the MORES Board members include Gary Svanda as well as a new Board Member Bill Glover who is a MAI Appraiser, he has a lot of knowledge with commercial appraisals. Mr. Glover took a look at the appraisals that were done for these properties and immediately found a lot of short falls in the appraisals that were done. It seems that from the beginning we paid more for the properties than we should have. Mr. Poythress added that the properties are a bit beat up, the idea was that money needs to be put into these properties before they could be marketed. But because of the distance between Chowchilla and Madera, the area where these properties are located, and the ongoing maintenance that the properties require, the Board has decided that it would be best to pursue a sale. Currently, there are no bids on the properties because they will not be for sale until spring 2017. He also added that once the units are filled, a period of time is needed to be able to show that they have been fully occupied for some time. Commissioner Poythress stated that this was a decision of efficiency and how effective could we really be, managing the properties from a distance.

Commissioner Medellin asked if the properties were sold would the option be to continue at low income housing or could it be sold to anyone.

Commissioner Poythress stated the sale would be open market.

G. COMMISIONER REPORT
None

H. CLOSED SESSION
None

I. ADJOURNMENT
Meeting adjourned at 8:03 p.m.

MINUTES OF THE REGULAR MEETING
OF THE HOUSING AUTHORITY OF THE CITY OF MADERA

Wednesday, September 14, 2016
6:00 P.M. – Regular Session
City Hall Council Chambers

6:00 p.m. - REGULAR SESSION

Commissioner Robert L. Poythress opened the Regular Meeting of the Housing Authority of the City of Madera and the Special Meeting of the Madera City Council Regular Meeting of the City Council as the Successor Agency to the Former Madera Redevelopment Agency and Special Meeting of the City Council as the Successor Housing Agency and called for the roll.

ROLL CALL

Present: Chairperson Derek O. Robinson, Sr.
Vice Chairperson Charles F. Rigby
Commissioner Robert L. Poythress
Commissioner William Oliver
Commissioner Andrew J. Medellin
Commissioner Donald E. Holley
Commissioner Cece Foley Gallegos

Absent:

Also present were Martha Ramirez, Housing Services Manager; Officer Juan Villegas, Madera Police Department; Brent Richardson, General Legal Counsel, and Alicia Gonzales, Recording Secretary

PLEDGE OF ALLEGIANCE:

Lead by Commission Robert L. Poythress

PUBLIC COMMENT:

Designated period of fifteen (15) minutes for members of the public to address the Housing Authority Board of Commissioners on matters of public interest.

Yuliana Franco – Consultant, Madera Neighborhood Outreach

Presented to the Board of Commissioners the 2016 National Night Out video. She added that the 2016 National Night Out binder was submitted to the National Night Out Association. Ms. Franco also stated that she was very proud of the community and its collaboration. She handed out copies of the 2016 National Night Out binders to the board members.

Commissioner Robert L. Poythress passed the gavel to the Housing Authority Chairperson Derek O. Robinson, Sr. to conduct the Housing Authority portion of the meeting.

A. WORKSHOP

None

B. CONSENT CALENDAR

B-1 Approval of Minutes – August 10, 2016

B-2 Register of Audited Demands – August 4, 2016 – August 26, 2016

Commissioner Holley, seconded by Vice-Chairperson Rigby moved to approve. Motion carried unanimously.

C. HEARINGS, PETITIONS, BIDS, RESOLUTIONS AND AGREEMENTS

C-1 Consideration of a Resolution Approving the Adoption of Amendments/Revisions to the Housing Authority of the City of Madera Public Housing Admission and Continued Occupancy Plan (ACOP) and Authorizing the Executive Director to Execute the Documents for Submittal to HUD

Executive Director Linda Shaw asked Martha Ramirez, Housing Services Manager to inform the Board of Commissioners of the ACOP.

Martha Ramirez stated that the Public Housing Apartments are owned and managed by the Housing Authority of the City of Madera these units are located throughout out the City of Madera. The Madera Housing Authority has a total of 244 units. Public Housing has a plan titled Admission & Occupancy Plan referred to as the ACOP. It is the guide and reference to carry out the Public Housing Program. Included in this plan are regulatory changes as well as revisions.

She added, in order for the Housing Authority to proceed with the changes to the ACOP it must be presented to our Resident Advisory Board known as (RAB). The role of the RAB members are to assist and make recommendations, amendments and/or modifications to the plan. The recent ACOP changes were presented to the RAB members and were reviewed and approved. Martha Ramirez stated that at this time she is requesting approval to the amended and revised ACOP.

Commissioner Holley, seconded by Vice-Chairperson Rigby, moved to approve. Motion carried unanimously.

C-2 Consideration of a Resolution Approving Renewal of Standard Agreement with the State of California Employment Development Department (EDD) and Authorizing the Executive Director to Execute the Agreement on behalf of the Housing Authority of the City of Madera

Executive Director Linda Shaw asked Martha Ramirez, Housing Services Manager to inform the Board of Commissioners of the EDD Agreement.

Martha Ramirez stated that the Housing Authority of the City of Madera is requesting approval to go into an agreement for services with the Employment Development Department (EDD). With this agreement EDD will provide current wage history, disability insurance claim history, and unemployment insurance claim history that is used to calculate families' income for both Public Housing and the Farm Labor program.

Commissioner Oliver, seconded by Commissioner Gallegos, moved to approve. Motion carried unanimously.

D. WRITTEN COMMUNICATIONS

None

E. ADMINISTRATIVE REPORTS

Informational Presentation by Cal Trust Regarding Investment Options – Lyle Defenbaugh & Sally Bomprezzi

Chairperson Robinson stated that the Administrative Report will be postponed until the October board meeting.

F. EXECUTIVE DIRECTOR REPORT

Police Office Update – Officer Juan Villegas

Linda Shaw, Executive Director stated that she has asked Officer Villegas to briefly update the board on the status of his position at the Housing Authority.

Officer Juan Villegas stated that in the time he has been Officer for the Housing Authority a lot of changes have occurred. He stated that the residents are communicating their concerns, and building trust towards him. He added that he is making his rounds to all residents, introducing himself, handing out business cards and just letting residents know he is available to them. Officer Villegas stated that this has been a positive experience for him and the Housing Authority residents. He added that he will continue to work with the residents to bring trust back to the department and the Housing Authority.

G. COMMISIONER REPORT

Vice Chairperson Rigby stated that on September 14, 2016 at approximately 4:30p.m. he received an email in regards to hearing from OMS on whether or not Pomona Ranch will be made available to housing the homeless of the City of Madera. He stated that OMS seems to be in favor of this idea, but there are some requirements that need to be met. He added that he is willing to make himself available to work on this project to meet the requirements OMS is asking, as well as re-present the project to the Commission. He asked Ms. Shaw to state her opinion of the OMS letter she prepared.

Executive Director Linda Shaw stated that at this time she is recommending that she be allowed to caucus with her staff to go through each requirement given by OMS and prepare a recommendation to present to the board. She also added that she would like to recommend appointing an ADHOC Committee to include Commissioner Oliver and Vice Chairperson Rigby, to go through the list of requirements and make some preliminary conclusions and be prepared to present a plan in the upcoming October meeting.

Brent Richardson, Legal Counsel stated that the request for an ADHOC Committee was not on the agenda.

Ms. Shaw asked if she could conduct a meeting and invite those board members who would like to be involved, as long as it is not a quorum, then make a formal presentation at the board meeting in October.

Vice Chairperson Rigby stated the weather will begin to get cold and this is a timely matter. He added that he wants to make sure that the Housing Authority has enough time to prepare Pomona Ranch if this is the direction of the commission.

Chairperson Derek Robinson stated that he visited the Building Industry Luncheon at Pardini's Restaurant in Fresno, CA. He stated that he also attended the Executive League in the City of Tulare where he was notified that he will receive an award for Leadership at the next meeting.

H. CLOSED SESSION
None

I. ADJOURNMENT
Meeting adjourned at 6:28 p.m.

Attachment B - Letters of Support

MORES INC.
205 N G ST. MADERA, CA 93637
PHONE: 559-674-5695 FAX: 559-674-5701

Mr. Jorge Antonio Rojas, Grants Program Manager
City of Madera
205 W. Fourth Street
Madera, CA 93637

March 3, 2017

RE: Pomona Ranch and the Homeless

Dear Mr. Rojas:

I represent the Madera Opportunity Resident Enrichment Services (MORES, Inc.) Board. This letter is being written in support of the application submitted to you by the Housing Authority of the City of Madera. Since 1968 the Housing Authority has provided affordable housing services to low and moderate income families, now they want to help resolve the issues of homelessness with our local community.

At this time, there are approximately 200 individuals and families on the street, without shelter, especially during winter months. The Housing Authority has a facility already in place that remains empty for a good part of the year. With some retrofitting and staffing this could be open to bring in families who are in need of shelter.

This is an important project for the City and for the people we serve. Homeless issues are at the forefront of a much larger national agenda and solutions will be a catalyst for future growth. I would hope that this application will be given serious attention and approval from decision makers. Thank you for your time and interest in our project.

Sincerely,

Herman Perez, Chairman

Cc: Madera City Council
Housing Authority of the City of Madera Board of Commissioners
Linda M. Shaw, HACM Executive Director

Resident Advisory Board

Mr. Jorge Antonio Rojas, Grants Program Manager
City of Madera
205 W. Fourth Street
Madera, CA 93637

March 2, 2017

RE: Pomona Ranch and the Homeless

Dear Mr. Rojas:

We are aware of the funding request submitted by the Housing Authority of the City of Madera, asking your consideration of an application to house homeless families at Pomona Ranch. We fully support this project, and ask that you give the Housing Authority an opportunity to address the serious homeless problem facing our community.

As residents, we know what it's like to need affordable and safe housing; the Housing Authority has been in the business of providing shelter to those who need it and is in a position to provide continuous shelter in an effort to solve this problem.

Please give this application your fullest consideration and help the Housing Authority reach it's goal of serving homeless families this winter.

Sincerely,

Vidal Hinojosa
1034 Kennedy Street, #115
Madera, CA 93638
Cell: 559-363-0030

Mary Varela
211 Santa Cruz, #C
Madera, CA 93637
Cell: 559-395-6050

Cc: Madera City Council
Housing Authority of the City of Madera Board of Commissioners
Linda M. Shaw, HACM Executive Director

Attachment C

Housing Authority of the City of Madera (HACM)
Board of Commissioners
205 W. Fourth Street
Madera, CA 93637

- **Andrew Medellin - Mayor/Commissioner:**
- 7/1/11 – 12/5/12: 5 Months
- 12/2012 – 2016: 4 Years
- 2016 – 2020: 4 Year Term
- Owner of Andy's Sports & Design - 1993

Charles Rigby – Chairperson:
2014 – 2018: 4 Year Term
Pastor, Valley West Christian Center; Head Assistant Coach – Men's Basketball- Reedley College; Head Golf Coach Desmond Middle School

- **William Oliver - Vice-Chairperson:**
- 2014 -2018: 4 Year Term
- Fresno County Economic Development Corporation (EDC) – Business Support Manager
-
- **Donald Holley – Commissioner:**
- 2012 – 2016: 4 Years
- 2016 2020: 4 Year Term
- Retired
-
- **Cecelia (Cece) Foley-Gallegos – Commissioner:**
- 2016 – 2018
- Teacher
-
- **Derek O. Robinson Sr. – Commissioner:**
- 2012 – 2016: 4 Years
- 2016 – 2020: 4 Year Term
- Retired
-
- **Jose Rodriguez – Commissioner:**
- 2016 – 2020
- Mortgage Lender, Branch Manager American Pacific Mortgage

C-2

Attachment D - page 1

RESOLUTION NO. 1080

RESOLUTION OF THE HOUSING AUTHORITY OF THE CITY OF MADERA APPROVING THE SUBMISSION OF THE CDBG APPLICATION TO REQUEST FUNDING TO RETROFIT POMONA RANCH UNITS AND AUTHORIZING THE EXECUTIVE DIRECTOR TO SIGN THE AGREEMENT ON BEHALF OF THE HOUSING AUTHORITY OF THE CITY OF MADERA

WHEREAS, there is a need for funding to retrofit units at Pomona Ranch; and

WHEREAS, Pomona Ranch can with proper staffing and capital improvements, be utilized to provide shelter for homeless families; and

WHEREAS, Pomona Ranch remains empty for five months of the year during winter months; and

WHEREAS, we certify that the agency making this application is tax exempt and incorporated in the State of California, and has complied with all applicable laws and regulations.

NOW, THEREFORE, THE BOARD OF COMMISSIONERS OF THE HOUSING AUTHORITY OF THE CITY OF MADERA HEREBY finds, orders and resolves as follows:

1. The above recitals are true and correct.
2. The Application, a copy of which is on file in the office of the Secretary and referred to for particulars, is approved
3. The Executive Director is authorized to execute the Application on behalf of the Housing Authority of the City of Madera.
4. This resolution shall be effective immediately.

****

Attachment D - page 2

The foregoing Resolution No. 1080 was adopted by the Housing Authority of the City of Madera on this 8th day of March 2017, by the following vote:

AYES: Commissioners Rigby, Oliver, Robinson, Medellin, Holley, Gallegos, Rodriguez

NOES: None

ABSENT: None

Charles F. Rigby, Chairperson

ATTEST:

Linda M. Shaw
Secretary

Approved as to Legal Form:

J. Brent Richardson
General Legal Counsel

City of Madera
Applications Submitted for the
CDBG 2017/2018 Action Plan

Tab 8

RECEIVED 3-16-17 9K

CITY OF MADERA
COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)
PEDESTRIAN SAFETY AND TRAFFIC SIGNAL
AT YOSEMITE AVENUE AND ELM STREET INTERSECITON
PROPOSAL FORM
2017/2018

DATE SUBMITTED: March 16, 2017

A. GENERAL INFORMATION

1. Name of Department/Organization: City of Madera, Engineering Department

   Address: 205 W. Fourth Street Madera, Ca. 93637

   Contact Person: Rosalva Ramirez Phone: (559) 661-5418

   Concurrence: _____
   Keith B. Helmuth, City Engineer

B. ACTIVITY DESCRIPTION

1. Summary (Description of proposed project and anticipated accomplishment. If appropriate, include diagram of the area.):

   The proposed project will make safety, accessibility and traffic improvements to the Yosemite and Elm intersection in the City of Madera. This will include the construction and installation of a new traffic signal with an audible push button activation and countdown pedestrian signal head to allow for ADA compliance, construction of ADA compliant ramps on both sides of Yosemite Avenue and incorporate a pedestrian crosswalk. These improvements will help mitigate the current and future traffic congestion and provide additional pedestrian safety measures to facilitate access to the various commercial services located adjacent to the intersection, for area residents.

2. Need (Explain why project is needed.):

   The existing intersection has Elm Street meeting Yosemite Avenue at a 'T' with only right turns allowed from Elm Street onto Yosemite Avenue. In 2006 a traffic analysis was conducted as part of the requirements for the Sugar Pine Village Development, now the Crossroads Shopping Center. The results of this analysis showed that with the projected traffic volumes, the existing intersection would not function adequately. The study recommended the installation of a traffic signal to address the congestion and safety issues. The new signal would allow for right and left turns onto Yosemite Avenue from Elm Street as well as provide time for pedestrians to cross Elm Street and Yosemite Avenue.

The proposed pedestrian improvements would provide a much-needed path for residents to access the commercial establishments located adjacent to the project. The area surrounding the project has a high low-income population that regularly use the local grocery store, Rancho San Miguel, the Pharmacy and other services in the shopping center at this location. Currently the nearest crosswalks (both signalized) are about 900 feet to the east and 3,400 feet to the west. This project would respond to the highly prioritized community need presented in the five-year consolidated plan; specifically, under: Item #1 making street improvements, Item #3 making sidewalk improvements as well as Item #11 improving ADA accessibility to public facilities.

This project was previously advertised and set to begin construction in 2013; however, due to the dissolution of the Redevelopment Agency (RDA), the project was postponed. Since 2013, the residential and commercial development in the area has continued to grow given area residents' increased demand for services. The traffic volumes and the number of projected pedestrians to use the intersection continues to increase which create not only congestions issues but increase the risk of traffic and pedestrian accidents.

Given the time that has elapsed since the project was originally planned in 2006 until now and additional requirements established by Caltrans, the cost of this signal is substantially more than that which was originally planned. The City has not been able to cover the cost of these improvements since then. Thus, without a meaningful source of funding; such as CDBG, the City must continue to delay or cancel this much-needed project. The City has diligently worked on preparing this project for construction, anticipating applying and obtaining CDBG funding and working to secure additional City funds.

These improvements would not only provide a safe and adequate intersection for drivers and pedestrians, but also would promote and support local businesses; thereby continue to reduce blithe in the neighborhood and support the service needs of community residents, including many seniors and disabled folks that utilize walkers and wheelchairs. Residents would have greater and safer access to the multiple services in the adjacent commercial developments as well as access to the bus stop found near the intersection.

3. Estimated cost of project and source of estimate (if available): $ 650,000.00

The engineer's estimate including the bread down of costs for construction management and inspection is attached.

Please identify other sources of funds to implement this project. If funds other than CDBG are proposed, please provide supporting documentation/letters of commitment.

The pedestrian facilities as part of the traffic signal project will be funded by the available development impact funds. These funds are limited and are used for reimbursements of development projects. The fund would provide $250,000 for the project with a need of $400,000 from the CDBG grant.

4. Timetable (assuming final approval next July 1). Will your proposal meet these goals in one year? Give starting date for activity.

The City anticipates receiving final approval from Caltrans shortly in April or May. With this approval, the project is ready for advertisement and construction as soon as the CDBG funds are approved. Please see the attached project schedule for construction.

5. What measureable goals will your program deliver?

The project will create an intersection with the capacity to effectively and safely support the current and projected traffic volumes for the residents in close proximity to the intersection.

6. What are the project's expected outcomes? How are the outcomes assessed?

There are two outcomes. First, a protected pedestrian crossing on a State Highway will be provided where none previously existed. Pedestrian crossings at traffic signals represent the highest level of protection and safety as borne out in innumerable traffic engineering publications. Second, increase the capacity of the intersection. This is assessed by determining the level of service of the intersection. With the installation of this traffic signal the intersection will operate at an acceptable level of service.

7. What National Objective does your program meet?

The pedestrian and intersection improvements meet the following national objectives:

1. **The project is in a low-income area**
2. **The project is adding improvements that encourage future development on vacant lots in the area and eliminate the blight.**

8. How does your proposal support the Vision Plan Madera 2025 Action Plan?

The traffic signal is a much-needed public improvement. The project not only includes the improvements to the street and intersection but will also enhance the current pedestrian facilities as well as improve ADA accessibility.

C. ENVIRONMENTAL IMPACTS:

1. Historical:

There are no historical sites in the project area that would be affected.

a. How old is the affected structure? **NA**

b. Will this project affect an historically significant (or potentially historic) structure? **NA**

2. Archeological:

a. Will this project involve any ground disturbance?

The project will cause minimal ground disturbance as required to install the signal pole bases and electrical conduit.

b. If so, how deep will excavation be and what is the volume of earth to be moved?

NA

3. Water:

a. Does this project involve a sewer or water system?

No existing sewer or water systems will be disturbed due to this project.

D. PROGRAM ELIGIBILITY:

To be eligible for funding, a project must either benefit low and moderate-income persons or prevent/eliminate slums or blight. Indicate how the proposed project meets this requirement. Projects that primarily benefit handicapped or senior citizens meet the criteria for benefiting low and moderate-income persons.

1. Primarily benefits low and moderate-income persons.

a. Number of persons served annually:

The project is in the CDBG qualifying census tract 9. Referencing to the 2015 census the project will positively benefit approximately 9,359 low to moderate income residents in the surrounding neighborhoods.

b. Service Area:

Number of City residents served annually:

Approximately 9,359 residents in the surrounding area would benefit from the proposed improvements and pedestrian facilities at Yosemite Avenue and Elm Street.

Number of persons with disabilities or seniors served:

The traffic signal would provide a controlled intersection for the numerous seniors, disabled, and access to the transit systems that service the senior and disabled in the community. This project would provide safe access to the adjacent businesses and community centers. A few of the businesses in the immediate area include a community church, grocery stores, pharmacy and restaurants. Yosemite Avenue is also a main access street to the schools and community center located south of Yosemite Avenue at Tozer Street.

2. How will the proposed project prevent or eliminate slums or blight?

The proposed project is in a low-income area with vacant lots on the north and west side of the intersection that are creating blight in the area. With the increase in traffic volumes brought on by the adjacent shopping center the existing intersection is functioning at a low capacity. Construction of the crosswalk improvements would aid in creating a more attractive setting for future development and the associated traffic demands within this census tract.

E. CITIZEN PARTICIPATION:

Project proposals should include evidence of citizen support for activity.

1. What was done to receive public input/participation? Please provide details. What were the outcomes? Include documentation of support for the proposal such as meeting minutes, letters and petitions.

The improvements are essential to current efforts underway to revitalize the City's downtown area. The shopping center at this location was a project brought forth by the RDA to improve the low-income area and bring much needed facilities to the neighbors. Please see that the attached letter of support from the RDA.

2. Note complaints that have been received, etc.

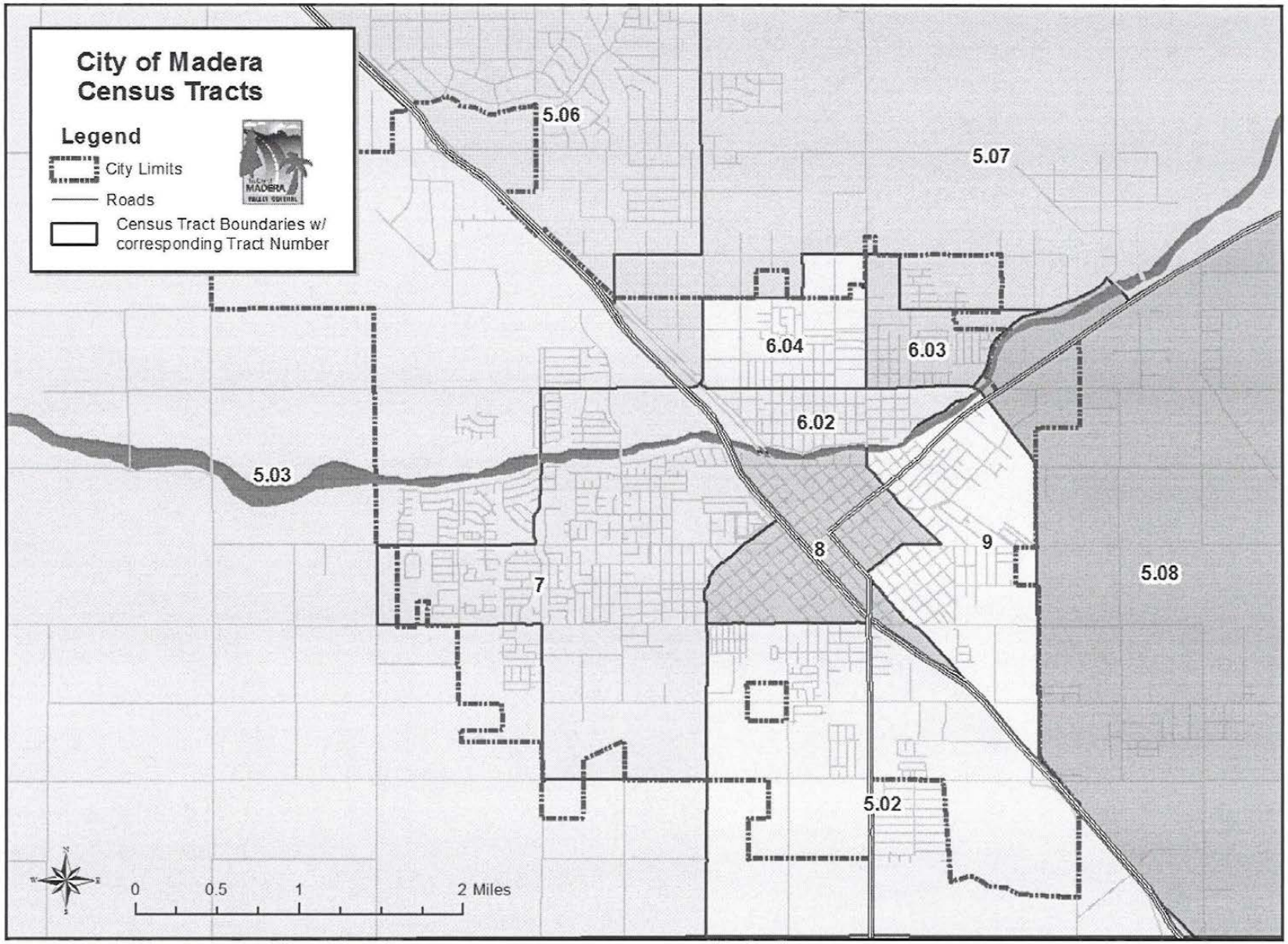
The RDA gauged the need for the original project through community interactions in 2008. The pedestrian and intersection improvements were always a part of that original plan presented to the residents.

3. Evidence of collaboration with other agencies within the community.

The City of Madera is working closely with Caltrans in the design of this project. Caltrans is supportive of the pedestrian and ADA improvements on Yosemite Avenue as a State Highway. Members of the Madera County Transportation Commission (MCTC) have voiced their concerns regarding the safety and traffic conditions of this intersections at various MCTC meetings. The Madera Fire Department is also in favor the of the safety improvements that this project will provide. Please see that the attached letter of supports from the Madera Fire Department and the Madera County Supervisor attached.

Please see the eligible CDBG Census Tract map below.

RETURN AN ORIGINAL AND TWO COPIES TO:	City of Madera 205 West Fourth Street Madera, CA 93637 Attention: CDBG Administration
DUE DATE:	**March 16, 2017, 5:00 p.m.**
CONTACT PERSON:	Jorge Antonio Rojas, Program Manager – Grants 559-661-3693 jrojas@cityofmadera.com


City of Madera
Census Tracts
Legend
City Limits
Roads
Census Tract Boundaries w/
corresponding Tract Number
5.06
5.07
6.04
6.03
6.02
5.03
8
9
7
5.08
5.02
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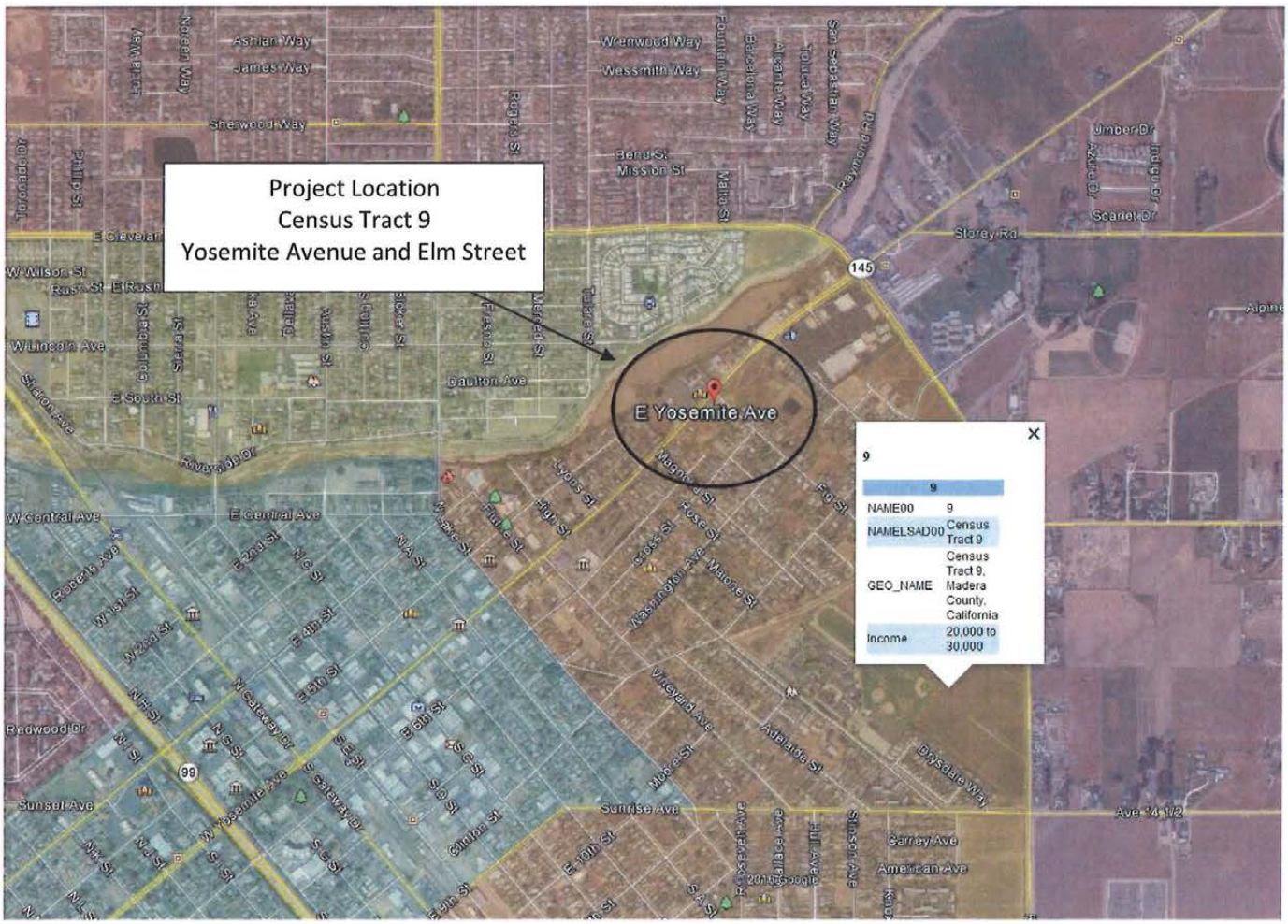
0.5
1
2 Miles

CDBG

YOSEMITE AVENUE AND ELM STREET TRAFFIC SIGNAL

PROJECT LOCAITON MAP



CDBG PROJECT SCHEDULE FOR
E. Yosemite Avenue (SR 145) & Elm Avenue Traffic Signal
RDA Project No. 15-01

Item of Work	Date
Finalize Caltrans Permit	March-17
Advertise construction of project	June-17
Opend Bids	July-17
Beginning Construction	August/ September 2017
Allow for 90 day construction period	September- December 2017
Finalize Construction	January/February 2018
Submit project to the City Council Acceptance	March/April 2018

CDBG ESTIMATE FOR
E. Yosemite Avenue (SR 145) & Elm Avenue Traffic Signal
RDA Project No. 15-01

Item	Description	Unit of Measure	Approx. Quantity	Unit Price ($)	Total Amount
1	Mobilization, Bonds, Insurance & Permits (not to exceed)	LS	1	$20,000.00	$20,000.00
2	Caltrans & City Traffic Control and Signing	LS	1	$15,000.00	$15,000.00
3	Clearing & Grubbing, Demolition, Removal & Disposal	LS	1	$10,000.00	$10,000.00
4	Water Pollution Control Plan(WPCP, Dust Control Plan)	LS	1	$3,000.00	$3,000.00
5	Provide New Traffic Striping, Markings & Signage	LS	1	$5,000.00	$5,000.00
6	Saw Cut Asphalt and Concrete Surfaces	LS	1	$2,000.00	$2,000.00
7	Demolition of existing concrete sidewalk, curb and gutter	LS	1	$10,000.00	$10,000.00
8	Demolition of existing median island	LS	1	$10,000.00	$10,000.00
9	Demolition of existing asphalt pavement	LS	1	$10,000.00	$10,000.00
10	Remove Existing Striping & Markings	LS	1	$2,000.00	$2,000.00
11	Median Island Concrete Curb	SF	531	$20.00	$10,620.00
12	Concrete Sidewalk, Curb and Gutter	SF	289	$15.00	$4,335.00
13	ADA Corner Ramp with Truncated Domes	EA	3	$5,000.00	$15,000.00
14	Caltrans Type F Concrete Dike	LS	1	$2,000.00	$2,000.00
15	Asphalt Concrete - Type B	Tons	150	$150.00	$22,500.00
16	Aggregate Base - Class 2	Tons	250	$50.00	$12,500.00
17	Slurry Seal Application - Type II	LS	1	$5,000.00	$5,000.00
18	Provide and Install Traffic Signal Pole Caltrans Type 19-2-100	EA	2	$20,000.00	$40,000.00
19	Provide and Install Traffic Signal Pole Caltrans Type 24A-3-100	EA	1	$15,000.00	$15,000.00
20	Provide and Install Traffic Signal Pole Caltrans Type 15TS	EA	2	$20,000.00	$40,000.00
21	Provide and Install Traffic Signal Pole Caltrans Type 1A	EA	1	$15,000.00	$15,000.00
22	Provide and Install Traffic Signal Type D Loops	EA	6	$4,000.00	$24,000.00
23	Provide and Install Traffic Signal Type E Loops	EA	10	$5,000.00	$50,000.00
24	Provide and Install Traffic Signal Right Turn Loop	EA	1	$10,000.00	$10,000.00
25	Provide and Install Audible Pedestrian Push Button and Countdown Pedestrian Heads	LS	1	$10,000.00	$10,000.00
26	Provide & Install LED Street lights and Arms	EA	4	$10,000.00	$40,000.00
27	Provide and Install Caltrans Camera System	EA	1	$15,000.00	$15,000.00
28	Provide and Install Wireless Modem Airlink GX440 with Ethernet Extender Service	LS	1	$10,000.00	$10,000.00
29	Provide & Install Opticom Preemption System	LS	1	$5,000.00	$5,000.00
26	Provide and Install Model 2070E Controller, 332 Cabinet, Battery Backup System & Programming	LS	1	$25,000.00	$25,000.00
27	Provide & Install, Electrical Systems/Meter Pedestal & Pull Boxes	LS	1	$35,000.00	$35,000.00
28	Provide & Install Barricades	EA	5	$1,000.00	$5,000.00
29	Provide & Install Street Name Signs (3)	LS	1	$1,500.00	$1,500.00
30	Caltrans Permit Compliance	LS	1	$10,000.00	$10,000.00
31	Miscellaneous Work	LS	1	$10,000.00	$10,000.00
				Bid Item Total	$519,455.00
				Contingencies 10%	$51,945.50
				Construction Total	$571,400.50
				Construction Management and Inpseciton 15%	$77,918.25
				Project Total Cost	**$649,318.75**
				DIF funds available	**$249,318.75**
				CDBG Funds requested	**$400,000.00**

Successor Agency
to the former Madera Redevelopment Agency

428 East Yosemite Avenue
Madera, California, 93638
Phone: (559) 661-5110
Fax: (559) 674-7018

March 7, 2017

City of Madera
Keith Helmuth, City Engineer
Engineering Division
205 West Fourth Street
Madera, CA 93637

Subject: Construction of a new Traffic Signal at Yosemite Avenue and Elm Street

Mr. Helmuth,

The neighborhood surrounding Yosemite Avenue and Elm Street is currently using an inadequate intersection.

The Madera Redevelopment Agency prior to its dissolution had invested a great deal of time and resources to the betterment and development of East Yosemite Avenue/HWY 145 corridor. Dilapidated, blighted structures have been purchased and abated. Underground storage tanks have been removed and extensive mitigation perform. The Crossroads shopping center was developed. Today the Successor Redevelopment Agency remains involved in this area as it serves an important sector of the City/County. The intersection at Yosemite and Elm in its current state has significant limitations. Negative Traffic patterns are emerging. One example is where the left turn onto Yosemite is not possible a right turn and immediate U turn is now taking place.

The signal at this intersection was always a goal of the Agency. As an Agency deeply invested in that area we would stress that our citizens, local businesses and their customers would benefit greatly from the construction of a functional intersection.

At this time the Successor Agency to the Former Madera Redevelopment Agency would like to support the proposed "Construction of a new Traffic Signal at Yosemite and Elm Avenue."

Sincerely,

Bob Wilson
Redevelopment Manager

MADERA CITY FIRE DEPARTMENT

NANCY B. KOEPERICH
Fire Chief

DAVE ALLEN
Division Chief

JAMES FORGA
Battalion Chief

200 4th Street • Madera, CA 93637 Phone: 559.675.7799 Fax: 559.297.3415

March 13, 2017

City of Madera
Engineering Division
205 West Fourth Street
Madera, Ca. 93637

Subject: Construction of a new Traffic Signal at Yosemite Avenue and Elm Street

To whom it may concern,

The neighborhood surrounding Yosemite Avenue and Elm Street is currently using an inadequate intersection. The Madera City Fire Department responds to all types of emergencies throughout the city of Madera. As an emergency responding agency for the area, our citizens as well as our staff would benefit from the construction of a functional intersection. Safety for the responders and safety for the citizens.

CALFIRE/Madera City Fire Department would like to support the proposed "Construction of a new Traffic Signal at Yosemite Avenue and Elm Street."

Sincerely,

James Forga
Battalion Chief
Madera City Fire Department

BOARD OF SUPERVISORS
COUNTY OF MADERA

MADERA COUNTY GOVERNMENT CENTER
200 WEST FOURTH STREET / MADERA, CALIFORNIA 93637
(559) 675-7700 / FAX (559) 673-3302 / TDD (559) 675-8970

MAX RODRIGUEZ
SUPERVISOR, DISTRICT 4

March 16, 2017

City of Madera
Engineering Division
205 W. Fourth St.
Madera, CA 93637

RE: CONSTRUCTION OF A NEW TRAFFIC SIGNAL AT YOSEMITE AVENUE AND ELM STREET

To Whom It May Concern:

I am pleased to offer my support for the proposed construction of a new traffic signal at Yosemite Avenue and Elm Street. As a lifelong resident of the City of Madera and supervisor representing district four, I share numerous concerns about the welfare of our pedestrians, motorists, and cyclists at this unsafe intersection. Traffic signals offer the maximum degree of control at intersections. They are a valuable device for improving safety and efficiency of both pedestrian and vehicular traffic. Constructing a traffic signal would provide a permanent solution to what is currently an inadequate crossing and would likely prevent serious injuries or loss of life.

For these reasons, I strongly support the placement of a new traffic signal at the Yosemite Avenue and Elm Street intersection and hope you will consider the incalculable impacts it would have on our city. If you have any questions regarding this recommendation, please do not hesitate to contact me at 559-662-6040 or maxr@madera-county.com. Thank you for your consideration.

Respectfully,

Max Rodriguez,
Supervisor District 4

City of Madera
Applications Submitted for the
CDBG 2017/2018 Action Plan

Tab 9

RECEIVED 3-16-17 9R

CITY OF MADERA

COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG)
NEW SIDWALKS FOR A SAFE PATH OF TRAVEL
PROPOSAL FORM
2017/2018

DATE SUBMITTED: March 16, 2017

A. GENERAL INFORMATION

1. Name of Department/Organization: City of Madera, Engineering Department

   Address: 205 W. Fourth Street Madera, Ca. 93637

   Contact Person: Rosalva Ramirez Phone: (559) 661-5418

   Concurrence: _____
   Keith B. Helmuth, City Engineer

B. ACTIVITY DESCRIPTION

1. Summary (Description of proposed project and anticipated accomplishment. If appropriate, include diagram of the area.):
   The proposed project involves the construction of new 5-foot-wide sidewalks with ADA compliant corner ramps and approaches. The project is located on Lincoln Avenue, South Street, and Austin Street, adjacent to George Washington Elementary School. See location map attached.

2. Need (Explain why project is needed.):
   Various locations throughout the City of Madera lack adequate sidewalks and pedestrian facilities. To more effectively address issues of installing sidewalk, the Engineering Department has previously submitted to the City Council for approval, a methodology for determining the location of new sidewalks projects. This methodology will prioritize locations as follows:
   1. **Construction of sidewalks and wheel chair ramps shall to the greatest degree possible be installed along high pedestrian routes.**
   2. **Priority shall be given to school walking routes on collector and arterial streets; elementary through high school in that order.**
   3. **Commercial or retail areas along collector or arterial roads.**
   4. **Residential neighborhoods where verifiable pedestrian safety concerns has been found.**
   5. **Priorities may be adjusted as may be deemed necessary for competitiveness in grant applications.**

The area surrounding George Washington Elementary school consists of a patchwork of incomplete sidewalks and is considered a high priority location. The lack of sidewalks and ramps represents an unsafe path of travel for the many school children that attend the school. This project will begin to fill in the missing sidewalks along direct routes to the school while also providing ADA compliant corner ramps and adjust existing approaches as required.

3. Estimated cost of project and source of estimate (if available): $231,946

The engineer's estimate including the bread down of costs for construction management and inspection is attached.

Please identify other sources of funds to implement this project. If funds other than CDBG are proposed, please provide supporting documentation/letters of commitment.

The sidewalks project will have additional funds provided by local transportation funds (LTF). These funds are limited and are used sparingly for various projects. The fund would provide $55,000 for the project with a need of $176,946 from the CDBG grant.

4. Timetable (assuming final approval next July 1). Will your proposal meet these goals in one year? Give starting date for activity.
Upon approval of the CDBG funds, the City will immediately begin design on this project followed by construction. Please see the attached project schedule for design and construction.

5. What measureable goals will your program deliver?
The project will help in furthering our goal of creating safe and complete paths of travel for pedestrians and students. This goal is also included in a City document called the Vision 2025 Plan.

6. What are the project's expected outcomes? How are the outcomes assessed?
The outcomes include decreasing the probability of pedestrian accidents along these routes. By making sidewalks available, pedestrians will no longer feel the need to walk in the streets and interact with traffic which in turn reduces the risk of pedestrian accidents.

7. What National Objective does your program meet?
The pedestrian and intersection improvements meet the following national objectives:
   1. **The project is in a low-income area that utilizes the local school.**
   2. **The project would eliminate blight in the area by constructing sidewalk where dirt and weeds are present.**
   3. **The project has a direct need to provide sidewalks for the residents. Pedestrian safety is a priority not just locally but also on a state and national level. The lack of sidewalks puts pedestrians in unsafe situations by forcing them to walk on the roads.**

8. How does your proposal support the Vision Plan Madera 2025 Action Plan?
The project not only includes the improvements to the street; they enhance the current pedestrian facilities and improve the ADA accessibility.

C. ENVIRONMENTAL IMPACTS:

1. Historical: **There are no historical sites in the project area that would be affected.**

   a. How old is the affected structure? **NA**
   b. Will this project affect an historically significant (or potentially historic) structure? **NA**

2. Archeological:

   a. Will this project involve any ground disturbance?
The project will cause minimal ground disturbance as required to construct 4" thick concrete sidewalks.

   b. If so, how deep will excavation be and what is the volume of earth to be moved? **NA**

3. Water:

   a. Does this project involve a sewer or water system?
No existing sewer or water systems will be disturbed due to this project.

D. PROGRAM ELIGIBILITY:

To be eligible for funding, a project must either benefit low and moderate-income persons or prevent/eliminate slums or blight. Indicate how the proposed project meets this requirement. Projects

that primarily benefit handicapped or senior citizens meet the criteria for benefiting low and moderate-income persons.

1. Primarily benefits low and moderate-income persons.

   a. Number of persons served annually:
   The project is in the CDBG qualifying census tract 6.02. Referring to the 2015 census the project will positively benefit approximately 5,058 low to moderate income residents in the surrounding area.

   b. Service Area:

   Number of City residents served annually:
   Approximately 5,058 residents in the surrounding area would benefit from construction of sidewalks and ADA facilities.

   Number of persons with disabilities or seniors served:
   The project would provide sidewalk for numerous seniors, disabled, and transit systems that service the senior and disabled in the community. This project would contribute to providing safe access to the school, local churches and the transit stop in the area.

2. How will the proposed project prevent or eliminate slums or blight?
   The proposed project is in a low-income area with a high minority population. The area currently has minimal sidewalks on the local roads leading to the school. Where sidewalks are missing, dirt and dried weeds are present. This project eliminates the current blight by adding concrete sidewalk improvements.

E. CITIZEN PARTICIPATION:

Project proposals should include evidence of citizen support for activity.

1. What was done to receive public input/participation? Please provide details. What were the outcomes? Include documentation of support for the proposal such as meeting minutes, letters and petitions.
   Ove the past few years the City worked with the Madera Unified School District (MUSD) in addressing the lack of pedestrian facilities near schools. This lack of sidewalks near schools and through the City is what led to a need of a priority list for sidewalks project. We remain in contact with the MUSD and try to incorporate new sidewalk projects near schools as much as possible.

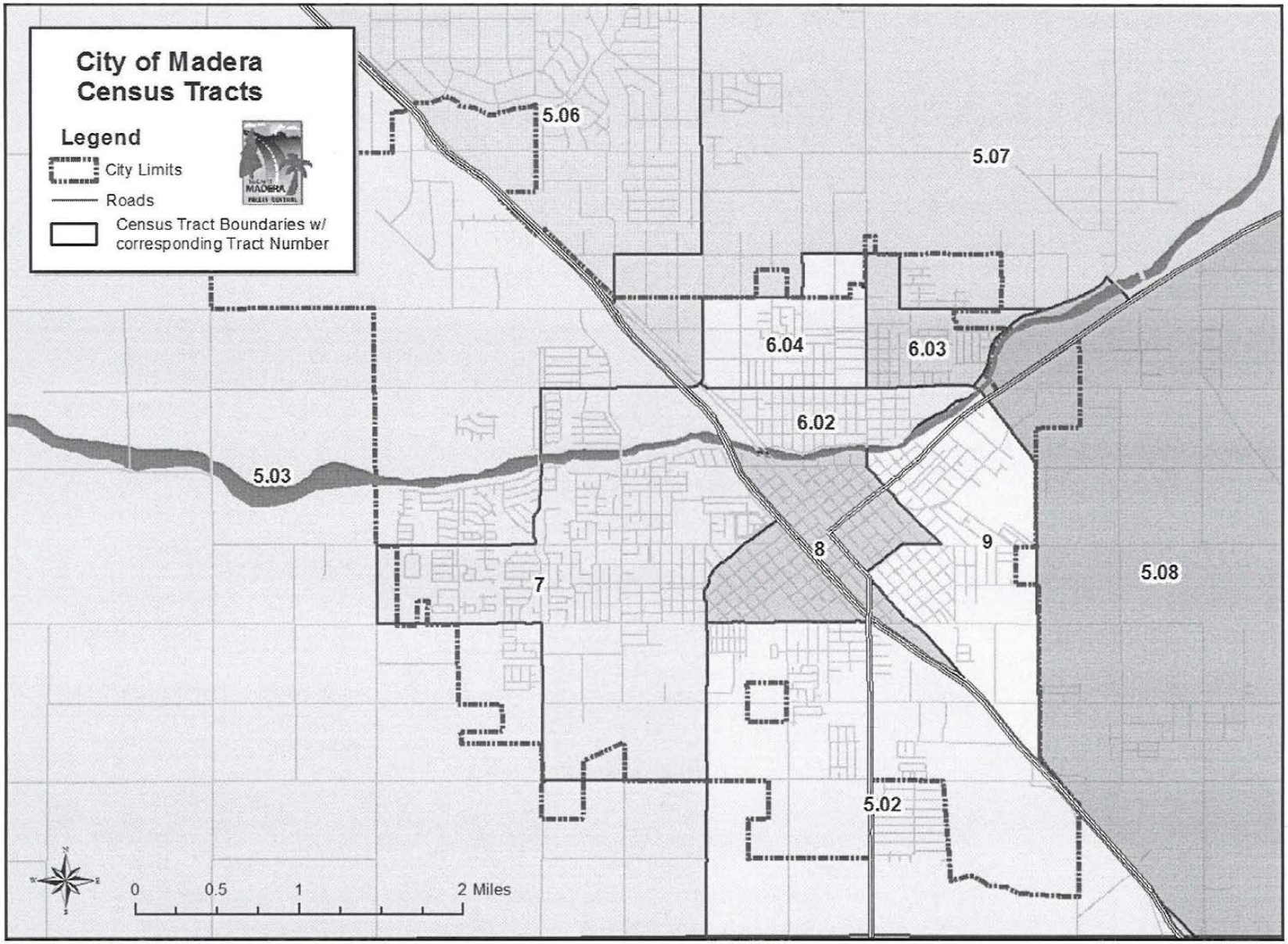
2. Note complaints that have been received, etc.
   The MUSD receives concerns from parents and staff regarding the concerns of missing

sidewalks. The MUSD in turn contacts the City to discuss any potential projects that could help address these concerns.

3. Evidence of collaboration with other agencies within the community.
See the attached letter of support from the MUSD.

Please see the eligible CDBG Census Tract map below.

RETURN AN ORIGINAL AND TWO COPIES TO:	City of Madera 205 West Fourth Street Madera, CA 93637 Attention: CDBG Administration
DUE DATE:	**March 16, 2017, 5:00 p.m.**
CONTACT PERSON:	Jorge Antonio Rojas, Program Manager – Grants 559-661-3693 jrojas@cityofmadera.com


City of Madera
Census Tracts
Legend
City Limits
Roads
Census Tract Boundaries w/
corresponding Tract Number
5.06
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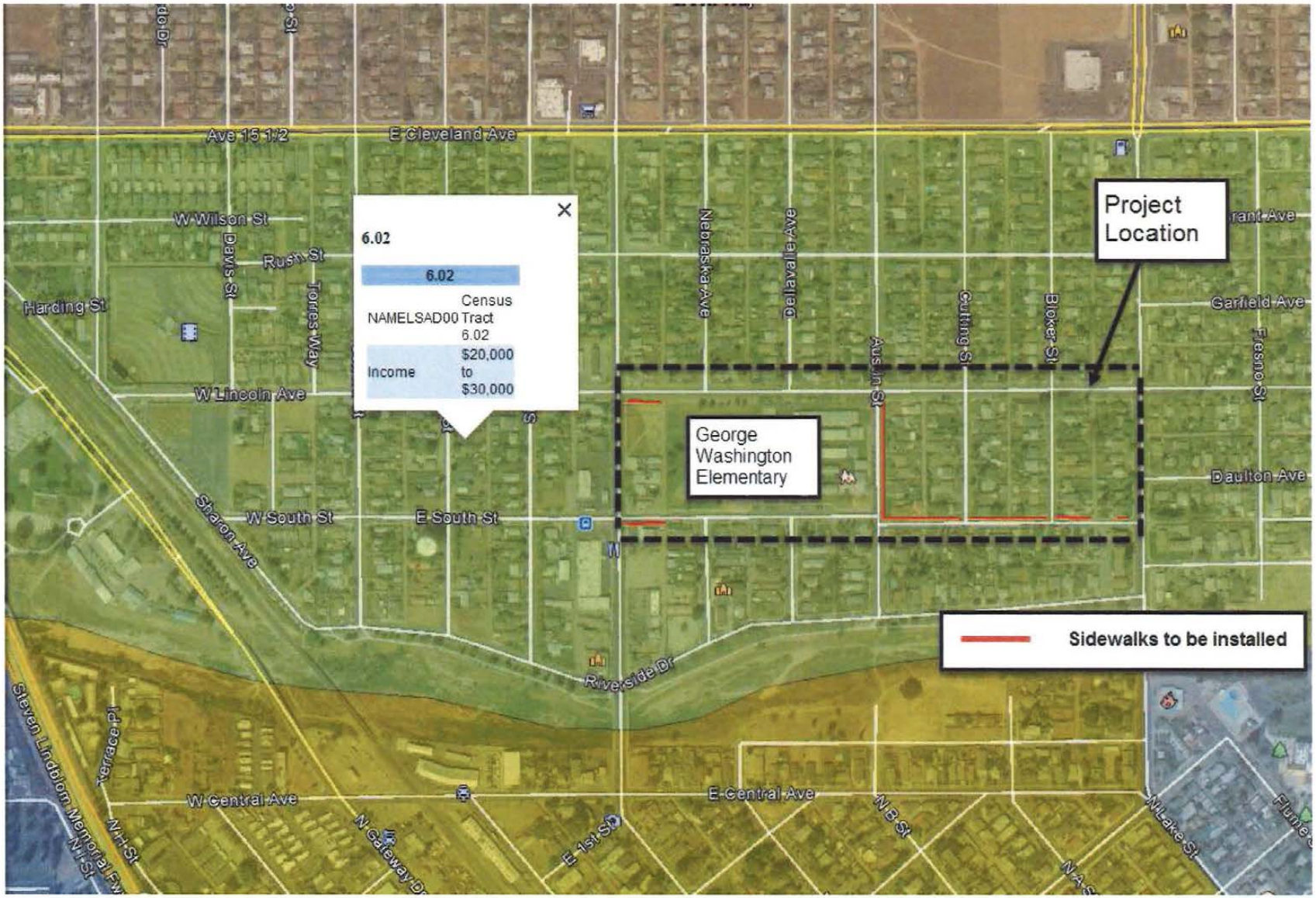
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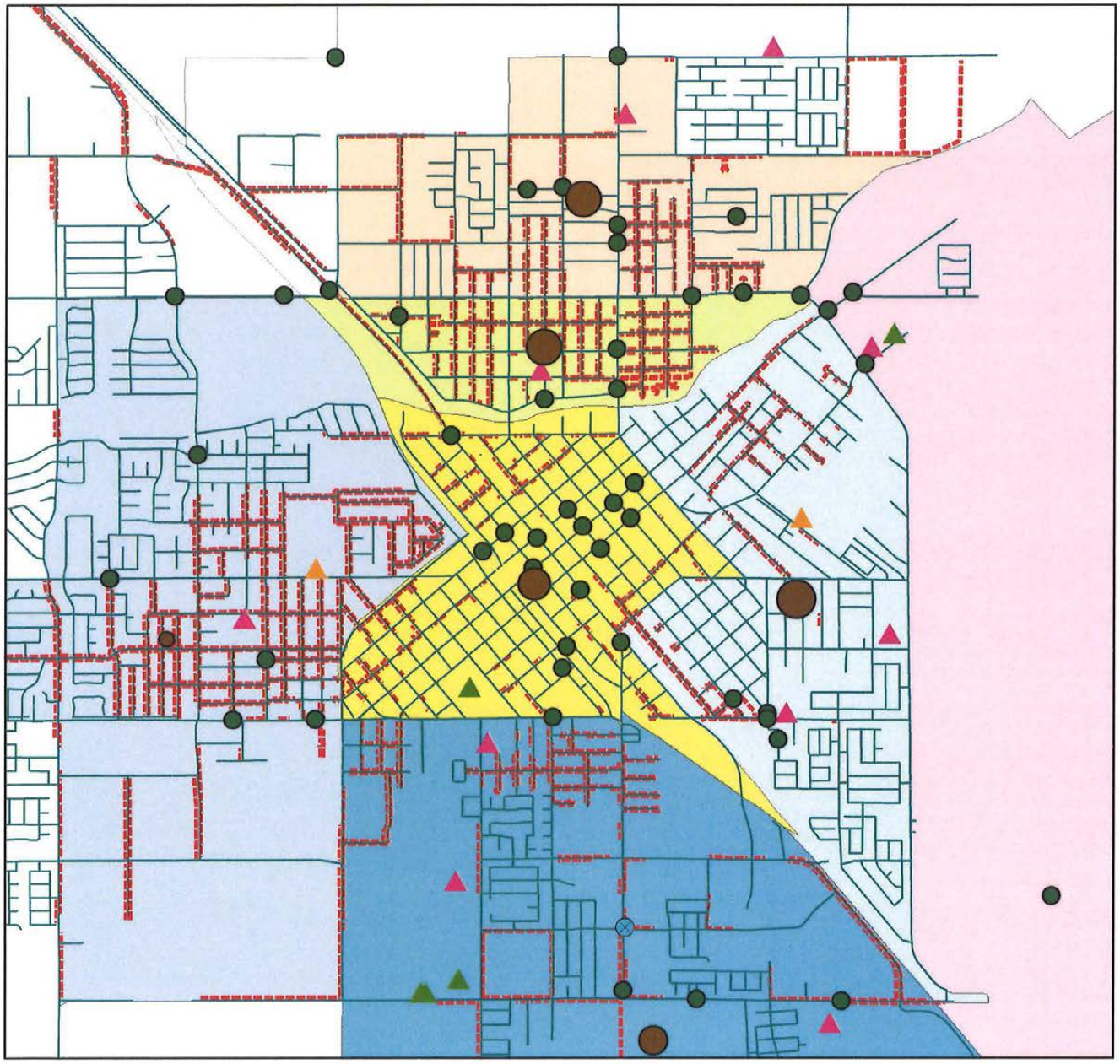
Census NAMELSAD00 Tract 6.02
Income $20,000 to $30,000
Project Location
George Washington Elementary
Sidewalks to be installed
E Cleveland Ave
W Wilson St
W Lincoln Ave
W South St
E South St
Harding St
Davis St
Torres Way
Nebraska Ave
Dellavalle Ave
Cutting St
Bloker St
Garfield Ave
Fresno St
Daulton Ave
Sharon Ave
Riverside Dr
W Central Ave
E Central Ave
E 1st St
N Gateway Dr
N B St
N Lake St
Steven Lindblom Memorial Fwy
Terrace Pl

MISSING CITY SIDEWALK



Legend

Missing Sidewalk

Pedestrian Collision

MaderaUSD_Schools

GRD_RANGE

- 7-8
- 9-12
- K-6
- K-8

Income By Area

Income, Census Tract

- < $20,000, Census Tract 8
- $20,000 to $30,000, Census Tract 6.01
- $20,000 to $30,000, Census Tract 6.02
- $20,000 to $30,000, Census Tract 9
- $30,000 to $35,000, Census Tract 5.02
- $35,000 to $45,000, Census Tract 5.08
- >$45,000, Census Tract 7

Race_Hispanic_Latino

HispPer as Percent of Total

- 0- 2.71
- 2.71 - 4.18
- 4.18 - 5.56
- 5.56 - 7.73
- 7.73 - 7.90
- 7.90 - 9.65
- 9.65 - 10.67
- 10.67 - 11.86
- 11.86 - 12.76

BID SCHEDULE
FOR
MISSING SIDEWALKS PROJECT CDBG

Item	Description	Unit of Measure	Approx. Quantity	Unit Price ($)	Total Amount
1	Mobilization, Bonds, Insurance & Permits (not to exceed $10,000)	LS	1	$10,000.00	$10,000.00
2	Traffic Control, Signage and Detours	LS	1	$5,000.00	$5,000.00
3	Clearing & Grubbing, Demolition, Removal & Disposal	LS	1	$8,000.00	$8,000.00
4	Water Pollution Control Plan(WPCP, Dust Control Plan)	LS	1	$500.00	$500.00
5	Asphalt Concrete Type B	TON	50	$30.00	$1,485.00
7	Concrete Sidewalk	SF	14025	$7.00	$98,175.00
8	Concrete Alleyway Approach	EA	3	$2,500.00	$7,500.00
9	Concrete Drive Approach	EA	6	$2,000.00	$12,000.00
10	Concrete Curb Return ADA ramp with truncated domes	EA	5	$10.00	$50.00
11	Concrete adjustment of existing curb returns to meet ADA compliance	SF	2314	$6.00	$13,884.75
12	Sidewalk, Ramp and Approach, Backfill, Grading and Compaction with Ag base to a depth of 12"	Tons	1064	$25.00	$26,612.44
13	Miscellaneous landscape restoration and irrigation repair, mailbox relocation and sign relocation, tree removal, fence relocation	LS	1	$10,000.00	$10,000.00

Engineeers Estimate Construction Total	$193,207.19
Contingencies 10%	$19,320.72
CM 10%	$19,320.72
Total	$231,848.63
Grant Money for Construction Only	**$ 176,946.00**
Local Match	**$54,902.63**

CDBG PROJECT SCHEDULE FOR
Missing Sidewalks Project CDBG

Item of Work	Date
Award CDBG Funds	June-17
Begin Preliminary Design, environmental and right of way research	July-17
Begin Design of Project	August/ September/December 2017
Advertise for Construction	January-18
Construct Project 45 day construciton period	February - March 2018
Finalize project	April-May 2018

MADERA UNIFIED SCHOOL DISTRICT
1902 Howard Road, Madera, California 93637
(559) 675-4500

FAX: (559) 675-1186
www.madera.k12.ca.us

March 14, 2017

City of Madera
Engineering Division
205 West Fourth Street
Madera, CA 93637

Subject: Installation of new sidewalk near George Washington Elementary School

To whom it may concern,

Madera Unified School District supports the City of Madera's grant application to install new sidewalk near George Washington Elementary School. There are sections on Austin Street and South Street where there is no sidewalk. Adding sidewalk in those sections would allow for a safe walking path for a majority of our students who walk to and from Washington Elementary School every day.

We hope you will give this application your full consideration.

Sincerely,

Rosalind Cox
Director of Facilities Planning & Construction Management

Return to Agenda

REPORT TO CITY COUNCIL

MEETING DATE: April 5, 2017

AGENDA ITEM NUMBER: C-2

Approved By:

PUBLIC WORKS DIRECTOR

CITY ADMINISTRATOR

SUBJECT: Noticed Public Hearing and Consideration of a Resolution Adopting the City of Madera 2015 Urban Water Management Plan.

RECOMMENDATION: Staff recommends that after taking public testimony that the Council adopt a resolution adopting the City of Madera 2015 Urban Water Management Plan.

SUMMARY:

Every five years, the City's Urban Water Management Plan "UWMP" must be updated and submitted to the California State Department of Water Resources to be in compliance with the Urban Water Management Planning Act. The UWMP includes a general discussion of the history of Madera, along with an overview of its demographics, water supply sources, water demand, reliability and water shortage contingency planning, and conservation measures.

The City's last adopted version of the plan was the 2010 UWMP adopted by the City Council on September 7, 2011. This adoption of 2015 UWMP has been slightly delayed due to the State not releasing the guidelines for this round of updates until last November. Once the new 2015 version is adopted by the Council, the UWMP will be submitted to the Department of Water Resources for approval. The plan only updates current information and data, it does not pose any substantive policy changes.

DISCUSSION:

The purpose of the UWMP update is to comply with Water Code Sections 10610 through 10657 of the Urban Water Management Planning Act which was adopted through Assembly Bill 797 in 1983. This act requires that "every urban water supplier providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre-feet of water annually, prepare and adopt, in accordance with prescribed requirements, an Urban Water Management Plan." The act also requires that the plan be periodically reviewed for changes and that an update is submitted to the State Department of Water Resources every five years.

The 2015 UWMP describes the service area for the City's water system, identifies and quantifies the existing and planned water supply and demand; describes the reliability of water supply and vulnerability to seasonal or climatic shortage; describes the limited opportunities for exchanges or transfers of water and the water quality in the supplier's service area; discusses the supplier's water conservation approach and each of the best management practices that are being implemented. It also includes the strategies for dealing with water shortages.

The City of Madera's 2015 UWMP is a revision of the 2010 plan. It includes the changes that occurred in the City for the last five years, and provides new information as required by the Urban Water Management Planning Act. The plan must be adopted and mailed to the California State Department of Water Resources within 30 days of the adoption.

As required by law, a notice of a public hearing on the 2015 UWMP to be held by the Council on April 5, 2017 was published in the Madera Tribune on March 22, 2017 and March 29, 2017. The purpose of the public meeting is to solicit input from residents of Madera on the 2015 UWMP. As of the date of submitting this report, there have been no comments and/or recommendations from the public for revisions to the 2015 UWMP as proposed.

By its adoption, Council is certifying that the City is effectively managing their water resources for current and future needs. Within 30 days of adoption, the final UWMP will be submitted to the Department of Water Resources (DWR).

UWMP Relationship to SGMA Requirements

As noted above, the 2015 UWMP has been prepared and is proposed for adoption in conformance with the Urban Water Management Act of 1983, part of the Water Code. These requirements are separate from the requirements of the Sustainable Groundwater Management Act (SGMA), which was adopted in 2014. In conformance with the requirements of SGMA, the City has established itself as a Groundwater Sustainability Agency (GSA) within its corporate boundaries. The City's GSA is currently working with the other GSAs within the Madera Groundwater Sub-basin on the initial elements of a Groundwater Sustainability Plan. That Plan, which must be completed by 2020, may specify new program and policy elements which are required in order to comply with legislative requirements for groundwater sustainability.

FINANCIAL IMPACT:

The expenses for implementing and administering these water conservation activities occur within the Water Fund and do not impact the General Fund.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN:

While the proposed actions are not specifically addressed as part of the Plan, they are not in conflict with it and are sympathetic of the underlying principles of the 2025 Plan.

RESOLUTION NO. 17-_

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA ADOPTING THE 2015 CITY OF MADERA URBAN WATER MANAGEMENT PLAN

WHEREAS, California Water Code Sections 10620 et seq. require the adoption of an Urban Water Management Plan (the "Plan"); and

WHEREAS, such legislation requires that once adopted that a copy of the Plan be filed with the California Department of Water Resources; and

WHEREAS, the City of Madera, in compliance with such legislation, has drafted a proposed Plan and circulated it for public review and held a duly noticed public hearing on such proposed plan; and

WHEREAS, public hearings on the Plan were duly noticed and held before the Madera City Council on April 5, 2017.

NOW, THEREORE, THE COUNCIL OF THE CITY OF MADERA, hereby finds, orders, and determines as follows:

1. The above recitals are true and correct.
2. The Urban Water Management, a copy of which is on file in the office of the City Clerk and referred to for more particulars, is hereby adopted.
3. The Director of Public Works is hereby authorized and directed to file this Plan with the California Department of Water Resources.
4. This Resolution is effective immediately upon adoption.

****

URBAN WATER MANAGEMENT PLAN

2015 UPDATE

City of Madera

March 2017

DRAFT

Date Signed_____

DRAFT

DATE SIGNED:_____

Prepared by:
Provost & Pritchard Consulting Group
2505 Alluvial Avenue
Clovis, CA 93611-9166

City of Madera
2015 Urban Water Management Plan

Contact Sheet

Date plan submitted to the Department of Water Resources: [----------]

Name of person(s) preparing this plan:

Mr. Danny Martin
Water and Sewer Operations Manager
Phone: (559) 661-5466
Fax: (559) 661-0760
Email: dmartin@cityofmadera.com

Owen Kubit, PE, Project Manager
Provost & Pritchard Consulting Group
Phone: (559) 326-1100
Fax: (559) 326-1090
Email: okubit@ppeng.com

The Water supplier is a: **City**

The Water supplier is a: **Retailer**

Utility services provided by the water supplier include: **Water, Wastewater**

Is This Agency a Bureau of Reclamation Contractor? **No**

Is This Agency a State Water Project Contractor? **No**

Table of Contents

Executive Summary ES-1
1 Introduction and Overview 1
1.1 Overview 1
1.2 Purpose 1
1.3 Background 1
1.3.1 Urban Water Management Planning Act 1
1.3.2 Previous Urban Water Management Plan 2
1.4 Report Organization 2
1.4.1 Report Tables 3
1.5 Water System Master Plan 3
2 Plan Preparation 5
2.1 Plan Characteristics 5
2.2 Coordination 6
2.3 Plan Adoption, Submittal, and Implementation 7
2.3.1 Notice of Public Hearing 7
2.3.2 Public Hearing and Adoption 8
2.3.3 Plan Submittal 8
2.3.4 Public Availability 9
3 System Description 10
3.1 Service Area Physical Description 10
3.1.1 Location 10
3.1.2 Land Use 12
3.1.3 Climate 12
3.2 Service Area Population and Demographics 13
4 System Water Use 16
4.1 Water Use by Sector 16
4.2 Distribution System Water Losses 20
4.3 Water Savings from Codes, Standards, Ordinances, and Plans 21
4.4 Water Use for Lower Income Households 22
5 Baseline and Targets 23
5.1 Updated Calculations from 2010 UWMP 23
5.2 Baseline Periods 24

5.2.1 Determination of 10-15 Year Baseline Period (Baseline GPCD) 24
5.2.2 Determination of 5-Year Baseline Period (Target Confirmation) 24
5.3 Service Area Population 25
5.4 Gross Water Use 26
5.5 Baseline Daily Per Capita Water Use 26
5.6 2015 and 2020 Targets 27
5.6.1 Selection of Target Method 27
5.6.2 5-Year Baseline – 2020 Target Confirmation 30
5.6.3 2015 Interim Urban Water Use Target 30
5.6.4 Baselines and Targets Summary 30
5.7 2015 Compliance Daily per Capita Water Use 31
5.7.1 Meeting the 2015 Target 31
5.7.2 Adjustments to 2015 Gross Water Use 32
6 System Supplies 33
6.1 Water Supply Facilities 33
6.2 Groundwater 33
6.2.1 Groundwater Basin Description 33
6.2.2 Groundwater Quality 35
6.2.3 Groundwater Management 36
6.2.4 Overdraft Conditions 37
6.2.5 Historical Pumping 38
6.2.6 Groundwater Recharge, Storage and Banking 38
6.3 Surface Water 39
6.4 Stormwater 39
6.5 Wastewater and Recycled Water 39
6.5.1 Recycled Water Coordination 40
6.5.2 Wastewater Collection, Treatment, and Disposal 40
6.5.3 Recycled Water Systems 43
6.5.4 Recycled Water Beneficial Uses 43
6.5.5 Actions to Encourage and Optimize Future Recycled Water Use 43
6.6 Desalinated Water Opportunities 44
6.6.1 Brackish Water and/or Groundwater Desalination 44
6.6.2 Seawater Desalination 44
6.7 Exchanges or Transfers 44

6.8 Future Water Projects 45
6.9 Summary of Existing and Planned Sources of Water 46
7 Water Supply Reliability....47
7.1 Constraints on Water Sources....47
7.2 Reliability by Type of Year....48
7.3 Supply and Demand Assessment 49
7.4 Water Quality Impact on Reliability....50
7.5 Regional Supply Reliability....51
8 Water Shortage Contingency Planning....53
8.1 Stages of Action....53
8.1.1 Triggers for Water Shortage Stages 54
8.1.2 Summary of Response Levels....55
8.1.3 Procedures for Declaring Response Levels....55
8.2 Prohibitions on End Users....55
8.3 Penalties, Charges, and Other Enforcement of Prohibitions....58
8.4 Consumption Reduction Methods by Agencies 58
8.5 Tracking Water Use Reductions....59
8.6 Revenue and Expenditure Impacts/Measures to Overcome Impacts....60
8.7 Resolution or Ordinance....61
8.8 Catastrophic Supply Interruption 62
8.9 Minimum Supply Next Three Years....63
9 Demand Management Measures 64
9.1 DMMs 64
9.1.1 Water Waste Prevention Ordinances 64
9.1.2 Metering....65
9.1.3 Conservation Pricing 65
9.1.4 Public Education and Outreach 66
9.1.5 Programs to Assess and Manage Distribution System Real Loss....67
9.1.6 Water Conservation Program Coordination and Staffing Support 67
9.1.7 Other Demand Management Measures....67
9.2 Planned Implementation to Achieve Water Use Targets....71
9.3 California Urban Water Conservation Council 71
10 Completed UWMP Checklist 72
11 Bibliography/References 77

List of Figures

Figure 3-1: Location Map 11
Figure 3-2: Historical and Estimated Future Population 15
Figure 4-1: Connections by Water Sector 17
Figure 4-2: Population versus Production 18
Figure 5-1: Hydrologic Regions 29
Figure 5-2: Per Capita Use versus Targets (1995-2015) 31
Figure 6-1: Groundwater Sub-Basin Map 34

List of Tables

Table 1-1: UWMP Related Legislation 2
Table 2-1: Public Water System Information 5
Table 2-2: Plan Identification 5
Table 2-3: Agency Identification 6
Table 2-4: Coordination with Appropriate Agencies 7
Table 2-5: Notification to Cities and Counties 8
Table 3-1: Land Use in Madera (2015) 12
Table 3-2: Climate Characteristics 13
Table 3-3: Population Growth - Actual and Estimates 14
Table 3-4: Population – Current and Projected 14
Table 4-1: Water Accounts by Sector - Metered and Unmetered (2015) 16
Table 4-2: Estimated Percent Water Use by Sector (2015) 19
Table 4-3: Demands for Potable and Raw Water- Actual and Projected 20
Table 4-4: Water Loss Summary Most Recent 12 Month Period Available 21
Table 4-5: Low-Income Projected Water Demands 22
Table 5-1: City Population (2000-2015) 25
Table 5-2: Gross Water Use (2011-2015) 26
Table 5-3: Gallons Per Capita per Day 27
Table 5-4: Summary of Baseline and Targets 30
Table 6-1: Volume of Groundwater Pumped 38
Table 6-2: Wastewater Generated within Service Area in 2015 41
Table 6-3: Wastewater Treatment and Discharge within Service Area in 2015 42
Table 6-4: Methods to Expand Future Recycled Water Use 44
Table 6-5: Retail Water Supplies — Current and Projected 46
Table 7-1: Bases of Water Year Data 48

Table 7-2: Normal Year Supply and Demand Comparison 49
Table 7-3: Single Dry Year Supply and Demand Comparison 50
Table 7-4: Multiple Dry Year Supply and Demand Comparison 50
Table 7-5: Factors Resulting in Inconsistency of Supply 51
Table 8-1: Triggers for Water Shortage Stages 54
Table 8-2: Water Shortage Plan Response Levels 55
Table 8-3: Water Shortage Plan Prohibitions on End Users 56
Table 8-4: Outdoor Watering Ordinance Prohibitions on End Users 57
Table 8-5: City Consumption Reduction Methods 59
Table 8-6: City Ordinances and Resolutions for Water Shortage Measures 61
Table 8-7: Water Shortage Contingency – Minimum Supply (2016-2020) 63
Table 9-1: Public Outreach and Education in 2015 66
Table 9-2: Demand Management Measures - Rebate Program (2015) 69

APPENDIX

Appendix A - Urban Water Management Planning Act
Appendix B - Standard UWMP Tables
Appendix C - Adoption Resolution
Appendix D - Notice of Public Hearings & Notification Letters
Appendix E - Distribution System Water Losses
Appendix F - Groundwater Basin Information
Appendix G - Groundwater Management Plan
Appendix H - Consumer Confidence Report (2015)
Appendix I - Water Shortage Contingency Plan
Appendix J - Water Rates

List of Abbreviations

AB	Assembly Bill
ADD	Average Day Demand
AF	Acre Feet
AFY	Acre Feet per Year
AWWA	American Water Works Association
BMO	Basin Management Objective
BMP	Best Management Practices
CASGEM	California Statewide Groundwater Elevation Monitoring Program
CCF	hundred cubic feet
CDR	Center for Demographic Research
CII	Commercial, Industrial and Institutional water use sectors
CIMIS	California Irrigation Management Information System
CIP	Capital Improvement Plan
CRWQCB	California Regional Water Quality Control Board
CUWCC	California Urban Water Conservation Council
CVP	Central Valley Project
CWC	California Water Code
DBCP	dibromochloropropane
DMM	Demand Management Measures
DOF	Department of Finance
DPH	Department of Public Health
du/ac	Dwelling Units per Acre
DWR	Department of Water Resources
EDB	ethylene dibromide
ETo	Evapotranspiration
FAR	Floor Area Ratio
FY	Fiscal Year
GAC	Granular Activated Carbon
GIS	Geographic Information System
GMP	Groundwater Management Plan
gpcd	gallons per capita per day
gpd	gallons per day
gpm	Gallons per Minute
HECW	high efficiency clothes washer
HGL	Hydraulic Grade Line
IRWM	Integrated Regional Water Management
IRWMP	Integrated Regional Water Management Plan
MAF	Million Acre Feet
MCL	maximum contaminant level
MFR	Multi-Family Residential
MG	Million Gallons
mg/l	Milligrams per Liter
mgd	Million Gallons per Day
MID	Madera Irrigation District
MOU	Memorandum of Understanding
NPDES	National Pollutant Discharge Elimination System
PG&E	Pacific Gas & Electric
psi	pounds per square inch

PVC	poly-vinyl chloride
PWS	Public Water System
PWSS	Public Water System Survey
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SFR	Single Family Residential
SGMA	Sustainable Groundwater Management Act
SWP	State Water Project
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
ULFT	Ultra Low Flow Toilet
USEPA	United States Environmental Protection Agency
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
WCS	Water Code Section
WDR	Waste Discharge Requirement
WMP	Water Master Plan
WRCC	Western Regional Climate Center
WRR	Water Recycling Requirement
WSCP	Water Shortage Contingency Plan
WSMP	Water System Master Plan
WWTF	Wastewater Treatment Facility

Executive Summary

This 2015 Urban Water Management Plan (UWMP) describes current and future water uses, reliability of water sources, and existing and planned water conservation measures for the City of Madera. Water resources and demographic data are provided for the years 2011-2015, and projected water supplies and demands up to 2040. This document is an update to the City's 2010 UWMP.

This UWMP complies with the Urban Water Management Planning Act (UWMPA). This planning act was established by Assembly Bill 797 (AB797), September 21, 1983. UWMPs must be prepared by any water supplier that provides water for 3,000 or more connections or delivers more than 3,000 acre-feet per year. UWMPs must be updated every five years. This UWMP satisfies new guidelines established by the State in 2016.

The City of Madera is a retail agency, providing water directly to customers. In 2015 they served 13,695 active residential, commercial, industrial and landscape connections. Currently, the City obtains 100% of their water supply from local groundwater.

This UWMP must address requirements of the Water Conservation Act of 2009 Senate Bill x7-7 (SBX7-7). SBX7-7 requires statewide per capita water use reduction of 20 percent by the year 2020. The City's 10-year baseline per capita water use is 245 gallons/capita/day (gpcd), with goals of 220 gpcd by 2015 and 196 gpcd by 2020. The actual per capita consumption in 2015 was 128 gpcd, which is well below the 2020 target. However, the recent drought conditions, reduced water table, new State mandates on water conservation, and the formation of the Madera groundwater sustainability authority "GSA" make it prudent to continue water conservation efforts.

The City has a large portfolio of water conservation programs that have been effective at reducing water demands during the recent drought. A city-wide meter installation program is 90% complete and has also helped to reduce water demands. The City also has a Water Shortage Contingency Plan that was revised in 2015 due to the extended drought. In 2015, water use per capita was roughly half what is was 20 years ago.

This UWMP provides a comprehensive overview of the City's water system. In addition to complying with the UWMPA and SBX7-7, it also serves as a short and long range planning document, a data source for the development of a regional water plan, a source document for preparing General Plans, and a key component to an Integrated Regional Water Management Plan. The UWMP also allows the City to maintain eligibility for certain State grants and loans.

1 Introduction and Overview

1.1 Overview

This document presents the 2015 Urban Water Management Plan (Plan or UWMP) for the City of Madera (City) service area. This chapter describes the general purpose of the Plan, background information on UWMP requirements, and the organization of the UWMP. This Plan satisfies requirements for a retail UWMP, and covers the years 2011 to 2015. This plan is also an update to the City's 2010 UWMP.

1.2 Purpose

The purpose of the UWMP is to help maintain efficient use of urban water supplies, continue to promote conservation programs and policies, verify that sufficient water supplies are available for future beneficial use, and provide a mechanism for response during drought conditions. This report, which was prepared in compliance with the California Water Code (CWC) and the guidelines and format established by the Department of Water Resources (DWR), constitutes the City of Madera 2015 UWMP.

An UWMP serves many purposes including:

- Long-range planning document
- Reference document for water resources data
- Reference document for project specific developments and water supply assessments
- Companion to an Integrated Regional Water Management Plan
- Allows the City to maintain eligibility for certain State grants, loans and drought assistance

1.3 Background

1.3.1 Urban Water Management Planning Act

In 1983, State Assembly Bill (AB) 797 modified the California Water Code Division 6, by creating the Urban Water Management Planning Act (UWMPA or Act). The UWMPA requires urban water suppliers within the state to prepare and adopt UWMPs for submission to the California Department of Water Resources. The UWMPs, which must be filed every five years, must satisfy the requirements of the UWMPA of 1983 including amendments that have been made to the Act. The UWMPA requires urban water suppliers servicing 3,000 or more connections, or supplying more than 3,000 acre-feet (AF) of water annually, to prepare an UWMP. **Appendix A** includes a copy of the UWMPA.

Several amendments to the original UWMPA have increased the data requirements and planning elements to be included in subsequent UWMPs. The most recent amendments have increased requirements to incorporate sections on recycled water use, demand management measures (DMMs), and water shortage contingency plans (WSCP). Recycled water use sections were added to assist in evaluation of alternate water supplies for future use when projects exceed the current water supplies. Demand management measures must be clearly

described including which measures are being implemented and which are scheduled for implementation in the future. Water contingency plans are to be prepared and coordinated with other water suppliers in the area for use during times of drought. Pertinent bills that have passed are as follows.

Table 1-1: UWMP Related Legislation

Bill	Requirements
SB610 and AB901	Consideration of water availability when reviewing new large developments
SB318	Investigate possibilities of developing desalinated water
AB105	Submit UWMP to State Library
Water Conservation Bill (2009)	Urban water suppliers to reduce the statewide average per capita daily water consumption by 20% by December 31, 2020
AB 2067	Revises requirements on Demand Management Measures
SB 1420	Requires electronic submittal, standard forms and tables, and a report on distribution system losses
SB 1036	Urban suppliers to include energy-related information (optional) and analyze and define artificial water features

1.3.2 Previous Urban Water Management Plan

Pursuant to the UWMPA, the City previously prepared an UWMP in 2010, which was adopted by the City on September 21, 2011 and subsequently approved by DWR. This 2015 UWMP report serves as an update to the 2010 UWMP.

1.4 Report Organization

This 2015 UWMP is organized into the following chapters.

Chapter 1: Introduction and Overview
This chapter provides a discussion of the purpose and content of the 2015 UWMP and the extent of the City's water management planning efforts.

Chapter 2: Plan Preparation and Adoption
This chapter provides information on the City's development of the 2015 UWMP including the basis for plan preparation, UWMP characteristics, data format and coordination, and outreach to nearby agencies. This chapter also details the steps taken by the City to adopt the UWMP and make it available to the public.

Chapter 3: System Description
This chapter provides a description of the City's water system including service area maps, climate information, service area population and demographic information.

Chapter 4: System Water Use
This chapter describes the City's current and historic water uses, system losses, estimated water savings, and water use by lower income households.

Chapter 5: Baselines and Targets
This chapter includes a description of the City's chosen method for calculating their baseline, calculated baseline water use, 2015 interim and 2020 ultimate targets, and compliance with 2015 interim target. This chapter also includes an explanation on how the City plans to reach their 2020 target.

Chapter 6: System Supplies
This chapter includes a discussion of the City's water system supplies including groundwater and surface water, the City's future water projects, and a summary of existing and future water sources.

Chapter 7: Water Supply Reliability
This chapter describes the reliability of the City's water supply including a supply and demand assessment and discussions on regional reliability.

Chapter 8: Water Shortage Contingency Planning
This chapter provides a description of the City's Water Shortage Contingency Plan including stages of action, prohibitions, penalties, reduction methods, and catastrophic supply interruption.

Chapter 9: Demand Management Measures
This chapter explains the City's existing and historic efforts to promote water conservation and the City' plans to use Demand Management Measures to achieve their 2020 water use targets.

Chapter 10: Completed UWMP Checklist
Detailed UWMP checklist showing where each required topic is addressed in the UWMP.

Chapter 11: Bibliography/References
List of relevant reports, studies, references and data sources used in preparing the UWMP.

1.4.1 Report Tables

The Department of Water Resources has developed standardized tables to assist water managers in calculating per capita consumption, baseline consumption, water reduction targets, water use, etc. These tables are a required attachment to the UWMP document. However, they are not required in the body of the text and can be altered as needed to better reflect the water system. When appropriate and relevant, these tables have been included in the body of this text, but some are only found in **Appendix B – Standard UWMP Tables**. It should be noted that some of the tables in the body of this document are not identical to the tables provided by DWR. Titles and substance may vary.

1.5 Water System Master Plan

In 2014, Akel Engineering prepared the City of Madera Water System Master Plan (WSMP). The Master Plan included the following:

- Summary of the City's existing domestic water system facilities
- Documentation of planning growth assumptions and known future developments

- Projections of future domestic water demands
- Evaluation of the domestic water facilities needed to meet existing and projected demand requirements and fire flows
- Evaluation of the existing groundwater conditions
- Recommendations for a Capital Improvement Program (CIP) including an opinion of probable cost

The 2014 WSMP used a different methodology for estimating current and future per capita demands than the 2010 UWMP, and stated that demand estimates superseded those in the 2010 UWMP. This report uses data from the 2014 WSMP, as well as recent data from the City and California Department of Finance. As a result, the per capita demand analysis in this UWMP supersedes the analysis in the WSMP.

The WSMP includes a proposed $148 million CIP through the year 2050. The CIP is mentioned in this UWMP and will be the blueprint for future water system improvements in the City of Madera. The WSMP estimated future population growth of 3.5% annually, but this estimate has been revised down to 2% herein, so the proposed CIP may be implemented at a slower pace than presented in the CIP.

The WSMP and UWMP overlap in several areas, and some of the information in this UWMP was obtained from the WSMP.

2 Plan Preparation

2.1 Plan Characteristics

The City of Madera is a Public Water System (PWS), as defined by the California Health and Safety Code. The PWS number, and the number of connections and water delivered in 2015 are shown in the table below.

Table 2-1: Public Water System Information

Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied in 2015 (AF)
2010002	Madera-City	13,695	9,314

This UWMP was prepared individually for the City of Madera. Preparing a regional UWMP with other agencies was not feasible since Madera is isolated from other Cities large enough to require an UWMP. Data in this UWMP is reported in acre-feet (AF) for each calendar year.

Table 2-2: Plan Identification

☒	Individual UWMP
☐	Regional UWMP (checking this triggers the next line to appear)
N/A	Does this Regional UWMP include a Regional Alliance?

Table 2-3: Agency Identification

Name of Agency	City of Madera
☐	Agency is a wholesaler
☒	Agency is a retailer
Fiscal or Calendar Year	
☒	UWMP Tables Are in Calendar Years
☐	UWMP Tables Are in Fiscal Years
Units of Measure	
☒	Acre Feet (AF)
☐	Million Gallons (MG)
☐	Hundred Cubic Feet (CCF)

2.2 Coordination

Legal Requirements:

§10620(d)(2) Each urban water supplier shall 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.
§10621(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by §10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from a city or county that receives notice pursuant to this subdivision.
§10635(b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

The City is the sole water supplier for the area and therefore did not have an opportunity to participate in a regional UWMP. However the efforts to prepare this UWMP were coordinated with appropriate agencies to provide the most accurate and clear picture of the water situation in the City.

Table 2-4: Coordination with Appropriate Agencies

Coordinating Agencies	Participated in Developing the Plan	Commented on the Draft	Attended Public Meetings	Was Sent a Copy of the Draft Plan	Was Sent a Notice of Intention to Adopt
County of Madera				Planned	x
Madera Irrigation District				Planned	x
Madera County Farm Bureau				Planned	
Madera Valley Water Company				Planned	
Madera Unified School District				Planned	
Madera District Chamber of Commerce				Planned	
Madera Hispanic Chamber of Commerce				Planned	

2.3 Plan Adoption, Submittal, and Implementation

2.3.1 Notice of Public Hearing

Legal Requirements:

CWC 10621 (b)
Every urban water supplier required to prepare a plan shall… at least 60 days prior to the public hearing on the plan … notify any city or county within which the supplier provides waters supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.
CWC 10642
The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area.

The UWMPA requires that the UWMP show the water agency solicited public participation. In accordance with the UWMPA, the City held a public hearing and adopted the 2015 UWMP on _____. A copy of the adopting resolution and resolution of intent to adopt are included in **Appendix C**. The hearing provided an opportunity for the City's customers, residents, and employees to learn and ask questions about the current and future water supply.

Pursuant to California Code Section 6066, a notification of the time and place of the public hearing was published in the local newspaper on _____. A copy of these notifications is included in **Appendix D**.

Table 2-5: Notification to Cities and Counties

Names of Cities and Counties	60 Day Notice (CWC 10621 (b))	Notice of Public Hearing (CWC 10642)
Madera County	☒	☐

2.3.2 Public Hearing and Adoption

Legal Requirements:

CWC 10642 Prior to adopting a plan, the urban water supplier …shall hold a public hearing thereon.
CWC 10608.26
(a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:
(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.
(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.
(3) Adopt a method, pursuant to subdivision (b) of Section 10608.20 for determining its urban water use target.
CWC 10642
After the hearing, the plan shall be adopted as prepared or as modified after the hearing

The Draft 2015 UWMP was presented to the City of Madera City Council as an information item on _____. The 2015 UWMP was then adopted by resolution of the City of Madera City Council on _____, following a public hearing. This public hearing provided an opportunity for the City's customers, residents, and employees to learn and ask questions about the current and future water supply of the City of Madera. A copy of the adoption resolution is included in **Appendix C**.

2.3.3 Plan Submittal

Legal Requirements:

CWC 10621(d)
An urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.
CWC 10644(a)
An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption.
CWC 10635 (b)
The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

After the UWMP was adopted by the Madera City Council, the final report was uploaded electronically to the DWR website and a copy was sent to the California State Library.

2.3.4 Public Availability

Legal Requirements:

CWC 10645
Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

After adoption and submission of the 2015 City of Madera UWMP, the document was made available to the public on the City's website _____, and in hard-copy form at the City's office at 205 W. Fourth Street, Madera, CA 93637.

3 System Description

3.1 Service Area Physical Description

Legal Requirements:

§10631(a) Describe the service area of the supplier.
§10631(a) (Describe the service area) climate.

3.1.1 Location

The City of Madera, incorporated in 1907, is located along Highway 99 near the middle of the San Joaquin Valley in central California. The City covers 15.8 square miles or about 10,100 acres, as shown in **Figure 3.1**.

The City of Madera is the largest city in Madera County and serves as the County seat. The City was laid out in 1876 at the end of a lumber flume, which delivered timber from the Sierra Nevada Mountains to sawmills near the railroads. The City utilizes a Council and Administrator form of government. Six City Council members and a separately-elected Mayor address the legislative needs of the City. The City Administrator is appointed by the City Council to administer the overall city organization. Madera is a full-service city, operating its own water and wastewater systems, and hosting a full range of community-based programs and services. Strategic planning in the City is driven by Vision Madera 2025, a community-based visioning program completed in 2006, and by the City's Comprehensive General Plan.

The City lies within the San Joaquin Valley and consists of mostly flat topography. The foothills of the Sierra Nevada Mountains begin about 15 miles east of the City. The foothills of the Coastal Mountain Range are about 45 miles west of the City. As shown in **Figure 3.1**, the Fresno River flows through the City from the east. The river is dry for much of the year since the flow is dependent on water releases from upstream water impoundments.

Three unincorporated areas are found to the north, south and east of the City, respectively, including Madera Acres, Parkwood and Parksdale. None of these areas receive City water, however, portions of Parkwood are on the City sewer system.

The island of City of Madera property west of the main portion of the City and outside of the City's sphere of influence, as shown on **Figure 3.1**, is the City's wastewater treatment facility.

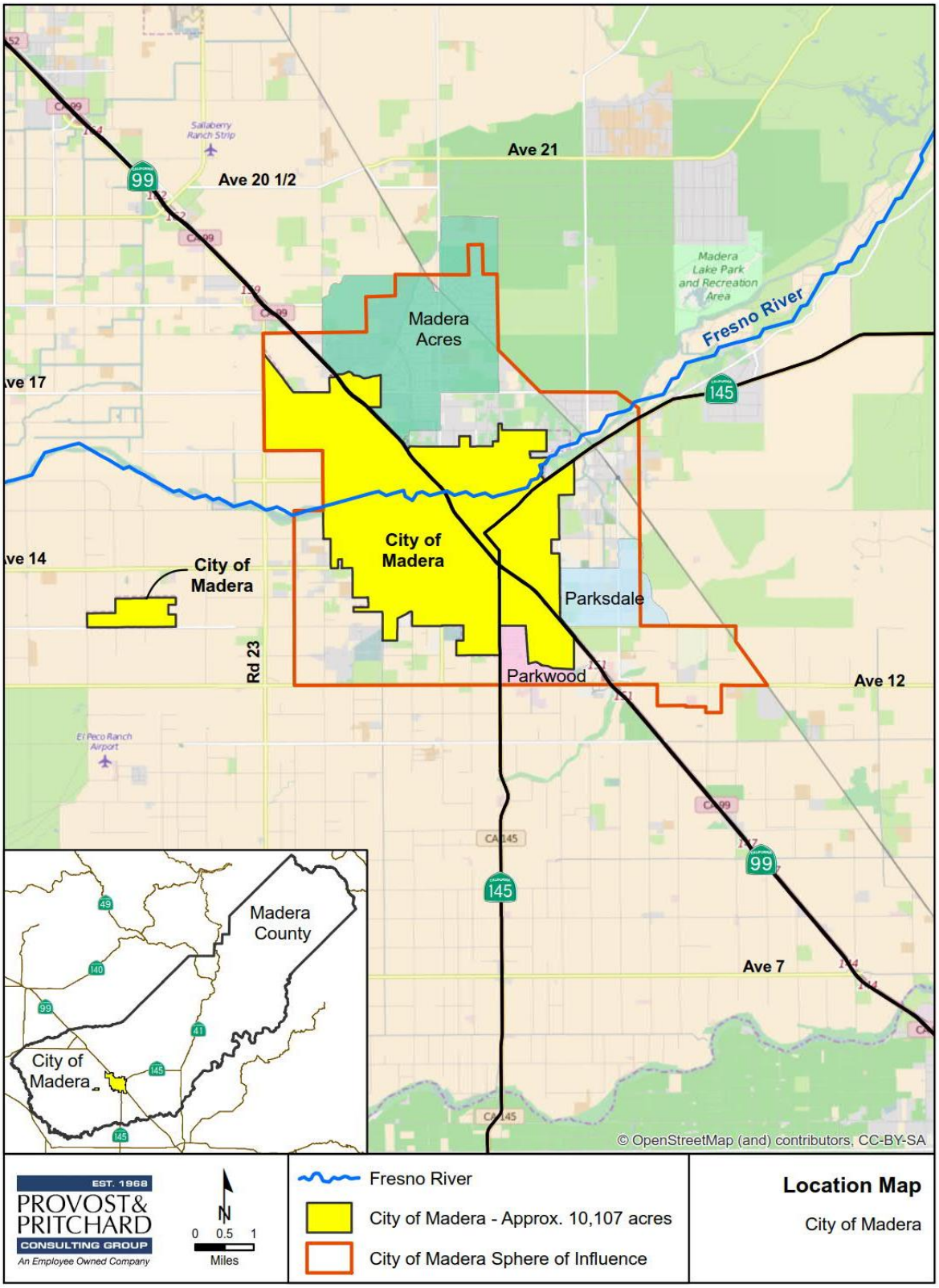


Figure 3-1: Location Map

3.1.2 Land Use

Land use in Madera in 2015 is shown in the table below.

Table 3-1: Land Use in Madera (2015)

Land use	Area(acres)	Percent of Total(%)
Commercial	1,270	12.6
Industrial	1,003	9.9
Very Low-Density Residential	45	0.4
Low-Density Residential	3,884	38.4
Medium-Density Residential	745	7.4
High-Density Residential	341	3.4
Office	134	1.3
Public and Semi-Public	1,417	14.0
Open Space	709	7.0
Resource Conservation	379	3.7
Freeway 99 R/W & Undesignated	180	1.8
Total	10,107	100%
Source: City of Madera Department of Community Development		

According to the City's 2014 Groundwater Management Plan (Provost & Pritchard, 2014), the City had 1,100 acres of cropped land within the City limit. This cropping is generally just outside of urban areas.

3.1.3 Climate

The City's climate is generally dry with mild winters and hot summers. Historically, the daily maximum summer temperature has reached 115°F. During the summer relative humidity is typically around 15 percent, reaching as low as 8 percent. During winter months, relative humidity is typically around 90 percent with mild weather and some cold spells. Winds are generally from the northwest, following the layout of the San Joaquin Valley. The standard monthly average evapotranspiration (ETo) rates, rainfall, and temperature are summarized in **Table 3.2**.

Table 3-2: Climate Characteristics

Month	Standard Monthly Average ETo (inches)	Monthly Average Rainfall (inches)[2]	Monthly Average Temperature (ºF)[2]	
			Min.	Max.
January	1.5	1.98	36	54
February	2.4	1.92	39	61
March	4.2	1.81	42	67
April	5.8	1.08	46	75
May	7.8	0.39	51	84
June	8.7	0.09	57	92
July	9.6	0.01	61	98
August	8.5	0.02	60	96
September	6.4	0.14	55	91
October	4.2	0.58	48	80
November	2.2	1.18	40	66
December	1.3	1.78	36	55
Annual Total/Average	62.7	10.99	48	77

(1) California Irrigation Management Information System (CIMIS) Station 145 - Madera (CIMIS, 2010). Represents monthly average ETo from May 1998 to April 2011.
(2) Western Regional Climate Center (WRCC) Station 045233 - Madera. Represents monthly average data from January 1928 to January 2015.

As shown in the table above, the City's average low and high monthly temperatures have been measured to be 36°F and 98°F, respectively. ETo averages a total of 62.7 inches per year, while the average annual rainfall is only 11 inches. Most of the rainfall typically occurs during the period of November through April. Rainfall during the summer is minimal.

3.2 Service Area Population and Demographics

Legal Requirements:

CWC Section 10631 (a)
Describe the service area of the supplier, including current and projected population . . . The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

Population data for the City of Madera was obtained from the California Department of Finance (DOF), which reports census data in years it is collected, as well as population estimates in years between censuses. DOF population estimates were also used in the 2010 UWMP. DOF population estimates from 2001 to 2009 have been revised since the 2010 UWMP, so revised numbers are presented in this UWMP. In addition, the 2010 UWMP was prepared before 2010 census data was available. As a result, an estimated 2010 population of 58,243 was used for the 2010 UWMP, but this has been replaced with the actual 2010 census population of 61,416 in this 2015 UWMP.

Table 3.3 summarizes actual population growth for several periods as well as assumed growth rates from several reports.

Table 3-3: Population Growth - Actual and Estimates

Source	Population Growth Rate	Notes
2005 UWMP	3.60%	Assumed future rate
2010 UWMP	3.20%	Assumed future rate
1997 Water System Master Plan	3.20%	Assumed future rate
2014 Water System Master Plan	3.50%	Assumed future rate
2011-2015	1.08%	Actual growth rate
2000-2015	2.76%	Actual growth rate

Long-term population growth (2000-2015) has been 2.76%, below the predicted 3%+ growth rates presented in previous water plans. The most recent growth, between 2011 and 2015, has been fairly low at about 1.1%. This low growth rate may be a result of poor economic conditions. Based on an evaluation of the data in **Table 3-3**, the City elected to use a long-term population growth rate of 2.0%. This growth rate was applied to the DOF 2015 population estimate and projected to the year 2040. Current population and projected future growth are shown in **Table 3-4** below.

Table 3-4: Population – Current and Projected

	2015	2020	2025	2030	2035	2040
Service Area Population[1]	64,810	71,555	79,003	87,226	96,304	106,328
1 - Service area population defined as the population served by the City's water system						

Figure 3.1 graphs historical population since 1996 and projected population through 2040 using 2% compounded growth.

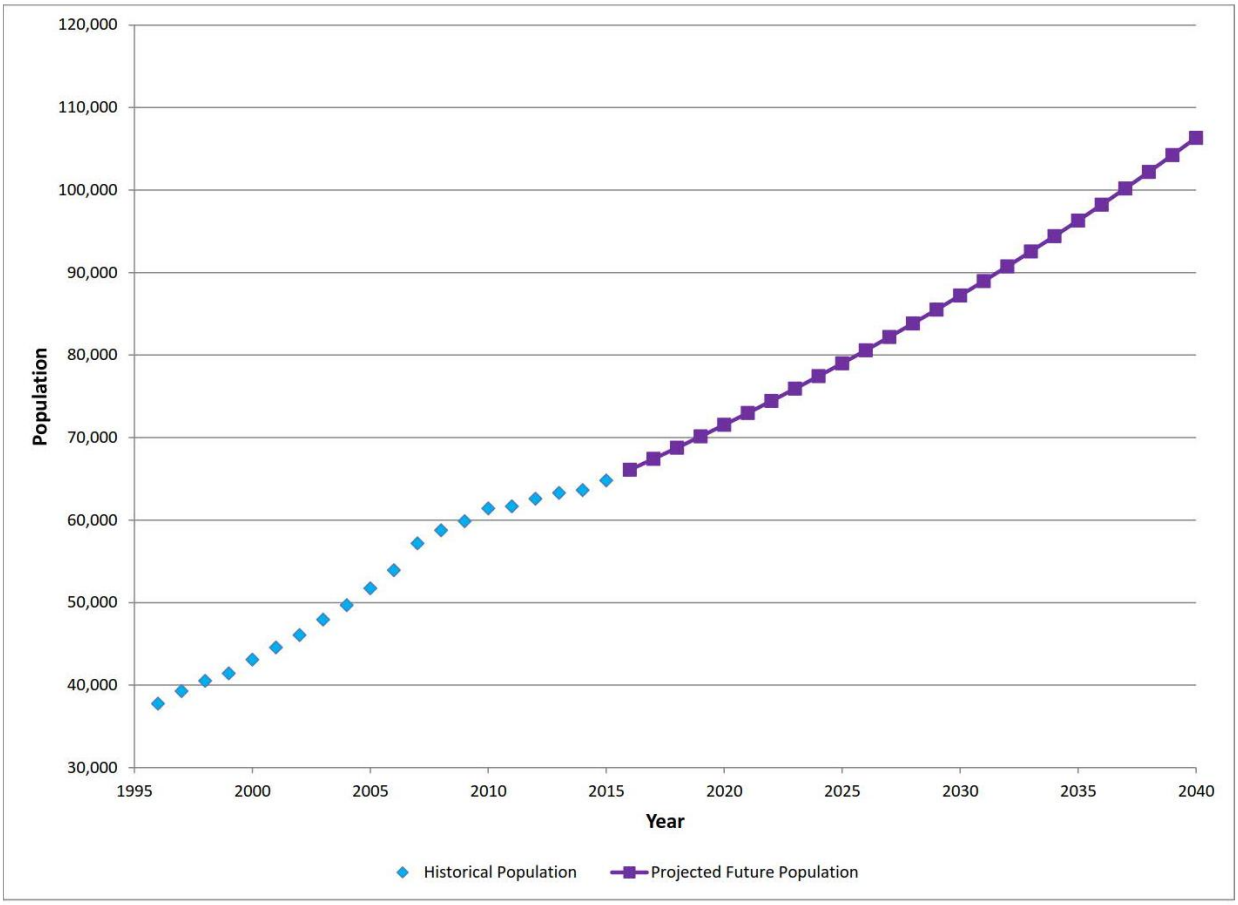


Figure 3-2: Historical and Estimated Future Population

4 System Water Use

This section describes the historical, current, and projected water use through year 2040. It also describes the types of customer accounts in the City and the breakdown of accounts throughout the system. Distribution system losses and low income household water use are also discussed. The City only uses treated domestic water, and does not use raw water or recycled water.

4.1 Water Use by Sector

Legal Requirements:

CWC 10631(e)
(1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:
(A) Single-family residential.
(B) Multifamily.
(C) Commercial.
(D) Industrial.
(E) Institutional and governmental.
(F) Landscape.
(G) Sales to other agencies.
(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.
(I) Agricultural.
(2) The water use projections shall be in the same five-year increments described in subdivision (a).

The City is now in the process of installing meters on all customer connections and is slated for completion in 2017 or 2018. **Table 4-1** shows the number of metered and unmetered accounts for each major customer category. In 2015, 91% of all connections were metered. **Figure 4-1**shows the percentage of water connections in each category in 2015.

Table 4-1: Water Accounts by Sector - Metered and Unmetered (2015)

Connections	Metered	Unmetered	Total	% Metered
Single Family Residential	11,721	181	11,902	98%
Multi-Family Residential	278	582	860	32%
Commercial/Institutional	350	469	819	43%
Industrial	17	1	18	94%
Landscape	86	10	96	90%
Total	12,452	1,243	13,695	91%

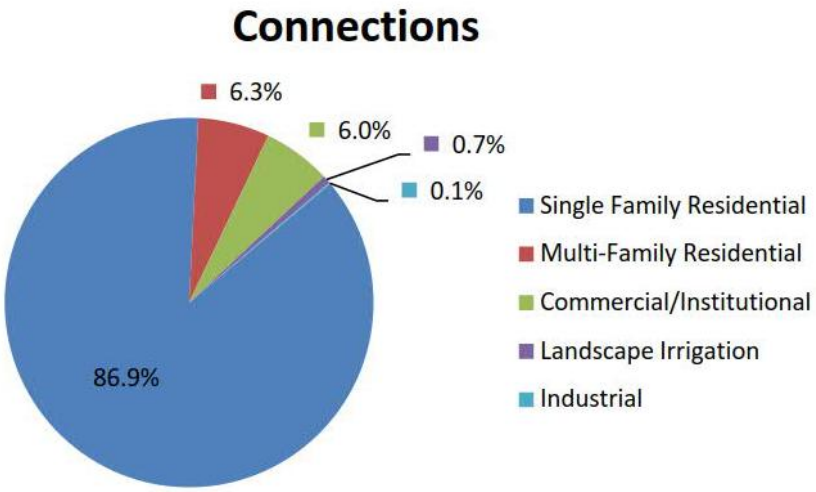


Figure 4-1: Connections by Water Sector

Figure 4-2 shows that population has increased significantly since 1996, but during this period water usage has actually declined. This occurred largely due to the City's successful conservation programs and water meter installations. Some of the recent declines may also be due to the State-imposed 2015 water conservation requirements brought about by an extended drought, and the results of an economic downturn.

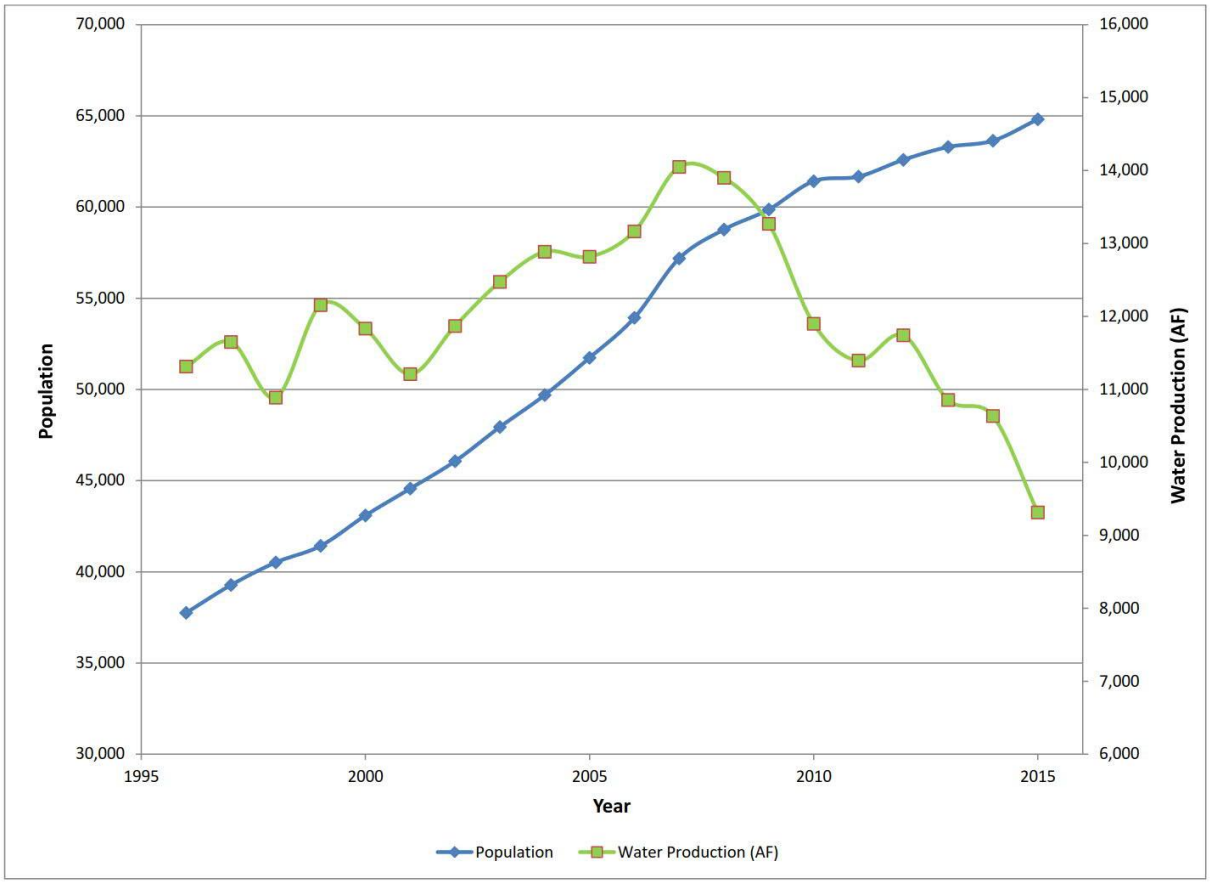


Figure 4-2: Population versus Production

For 2015, water use data was available for about 90% of the connections; however, water usage for the other connections had to be estimated. Losses are unknown since the system is not fully metered. A 7% total distribution-system loss rate was assumed to be consistent with the 2010 UWMP and 2014 WSMP.

The average water use per metered connection was calculated for each water sector. Unmetered connections typically use 10-20% more water than metered connections due to disincentives to conserve water. However, using this assumption, and accounting for the 7% losses, the total deliveries would be greater than the well pumping. In fact, if unmetered connections are assumed to use the same as metered connections, then metered deliveries would still exceed groundwater pumpage.

This problem was resolved by incorporating the discrepancy into the unmetered commercial/institutional, industrial and landscape connections. Water usage by such accounts can vary substantially over time, while residential accounts typically have similar water usage on an annual basis. As a result, unmetered residential accounts were assumed to have the same water usage as metered residential accounts, while unmetered commercial/institutional, industrial and landscape connections were assumed to have water usage 70% below the typical metered connections. While this may not be an accurate assumption, it was necessary to achieve a water balance. After the entire system is metered a more accurate picture of water use by sector can be determined.

Future water demands (2020 and later) are based on the City's 2020 per capita Target of 196 gpcd (See Chapter 5). This value is multiplied by the anticipated population (assuming long-term average growth of 2% per year). The distribution of water by water sector was based on the estimated percentage of water used in each sector in 2015, as shown below:

Table 4-2: Estimated Percent Water Use by Sector (2015)

Water Use Sector	Estimated Percent of Water Use
Single Family Residential	56.8%
Multi-Family Residential	17.1%
Commercial/Institutional	16.1%
Industrial	0.5%
Landscape Irrigation	2.4%
Losses	7.0%
Total	100.0%

These percentages will need to be refined in the future after the entire water system is metered. The percentage of water used by Single Family Residential may go up since they have made a large impact in drought-related conservation, while the percentage of multi-family residential may go down, since they typically have little to no landscaping and thus less ability to conserve water.

As shown later in Chapter 5, City water usage in 2015 is already well below 2020 goals. Yet, future water usage shown above is based on the 2020 goals. The 2020 goals represent minimum standards and are typically used to estimate future water use in an UWMP. In addition, usage could increase as the current drought ends and water conservation measures are relaxed.

Table 4-3: Demands for Potable and Raw Water- Actual and Projected

Use Type	2015 Actual			2020[1]	2025	2030	2035	2040
	No. of Connections	Level of Treatment	Volume					
Single Family Residential	11,902	Drinking	5,295	8,900	9,900	10,900	12,000	13,300
Multi Family Residential	860	Drinking	1,596	2,700	3,000	3,300	3,600	4,000
Commercial / Institutional	819	Drinking	1,503	2,500	2,800	3,100	3,400	3,800
Industrial	96	Drinking	44	100	100	100	100	100
Landscape	18	Drinking	224	400	400	500	500	600
Losses	-	Drinking	652	1,100	1,200	1,300	1,500	1,600
	13,695	-	9,314	15,700	17,400	19,200	21,100	23,400

1 – Water usage increases substantially in 2020 because it is assumed that 2020 water usage is the same as the 2020 Target (196 gpcd). 2015 usage was substantially below the 2020 Target at 128 gpcd.

4.2 Distribution System Water Losses

Legal Requirements:

CWC 10631(e)(1) and (2)
Quantify, to the extent records are available, past and current water use over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:…(J) Distribution system water loss
CWC 10631 (e)(3)
(A) For the 2015 urban water management plan update, the distribution-system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution-system water loss shall be quantified for each of the five years preceding the plan update.
(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water-loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

City water losses can be estimated using three different methodologies:

1. **Difference in Well Pumping and Customer Meter Readings.** This methodology was not used due to incomplete metering in the City. The City's wells are 100% metered, however, only 90% of the City's connections are metered, with the remaining expected to be metered in the next few years. This made a comparison of well pumping and deliveries infeasible.

2. **City Estimated Losses – Method Reported in UWMP.** The 2010 UWMP did not have data to measure estimated losses since most of the City was not metered in 2010. At the time, the City assumed 7% distribution system losses based on typical losses for similar systems. A 7% loss was also assumed in the City's 2014 WSMP. For estimating purposes and for consistency with these previous documents, this UWMP also assumes 7% system losses. This results in losses of 9,314 AF x 7% = 652 AF in 2015.

3. **AWWA Water Audit Software.** System water losses were calculated using American Water Works Association (AWWA) Free Water Audit Software (see results in **Appendix E**). The software uses inputs from volume of water supplied, volume of water delivered, metering error percentage, and metering confidence levels to calculate apparent, unauthorized, and real losses.

   The software provides default values for typical losses for a similar system. However, unlike the City estimated losses, the AWWA software does not include authorized, unmetered activities such as line flushing for mains and hydrants and firefighting. Losses are comprised of only unauthorized consumption, metering and data handling errors, and real loss. Using the spreadsheet, the calculated losses for the Madera system were 5.8%, or about 536 AF.

   The difference between volume supplied and volume delivered, minus any metering error adjustments, is the calculated loss. This value is then broken into apparent loss (caused by metering errors and data handling inaccuracies) and real loss, leakage, and unauthorized water consumption.

   The City was given an Infrastructure Leakage Index of 2.92. This represents the ratio of Real Losses to Unavoidable Real Losses. The Infrastructure Leakage Index is most efficient when maintained between 1 and 8. In Index value of 1 represents a 'top of the line' system with only unavoidable losses, and 8 being the maximum amount of loss feasible to maintain both water and financial resources.

   The City was also given a Water Audit Data Validity Score of 81 out of 100. This index scores the validity of the water use data based on factors such as metering, meter calibration, data management, auditing of customer records, etc.

Table 4-4: Water Loss Summary Most Recent 12 Month Period Available

Reporting Period Start Date (Month/Year)	Loss (AF)[1]
January, 2015	652

1 – Loss value based on assumed 7% total distribution system losses

4.3 Water Savings from Codes, Standards, Ordinances, and Plans

Legal Requirements:

CWC §10631 (e)(4)
(A) If available and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.
(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following: (i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.

Ordinances and policies have been adopted to reduce water waste, and are described in Section 8 – Water Shortage Contingency Planning and Section 9 – Demand Management

Measures. Estimating water savings from ordinances and policies is an optional part of 2015 UWMPs, and was not performed largely due to the difficulty in assigning accurate savings estimates to specific ordinances.

4.4 Water Use for Lower Income Households

Legal Requirements:

CWC 10631.1(a)
The water use projections required by Section 10631 shall include projected water use for single family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.
California Health and Safety Code 50079.5 (a)
"Lower income households" means persons and families whose income does not exceed the qualifying limits for lower income families… In the event the federal standards are discontinued, the department shall, by regulation, establish income limits for lower income households for all geographic areas of the state at 80 percent of area median income, adjusted for family size and revised annually.

The UWMPA requires that the UWMP identify low income housing demands and developments within the agency's service area and develop demand projections for those units.

According to the area's Regional Housing Need Allocation[1], 22% of the population in Madera lives below the poverty level. This rate was assumed to be the same for single and multi-family homes, and be constant into the future, resulting in the low income water demands shown in **Table 4-5**.

Table 4-5: Low-Income Projected Water Demands

Low Income Water Demands	2015	2020	2025	2030	2035	2040
Single-family residential	1,200	2,000	2,200	2,400	2,600	2,900
Multi-family residential	400	600	700	700	800	900
Total	1,600	2,600	2,900	3,100	3,400	3,800
Units : Acre-feet, values rounded to nearest hundreds						

[1] http://www.hcd.ca.gov/housing-policy-development/housing-resource-center/plan/he/

5 Baseline and Targets

This Chapter describes the estimated baseline water usage over a ten year period, the establishment of water conservation goals for 2015 and 2020, and the City's current status in meeting the 2015 goal. Refer to **Appendix B** for additional DWR tables with backup information and calculations.

As described in Senate Bill 7 of Special Extended Session 7 (SBX7-7), the California legislature set a statewide goal of a 20 percent per capita reduction in urban water use by 2020. SBX7-7 requires that retail water suppliers comply with its requirements. Consistent with SBX7-7, the 2015 UWMP must provide an estimate of Base Daily Per Capita Water Use, and comparison to the reduction goal established in the 2010 UWMP, as well as an interim conservation goal for 2015. This estimate utilizes information on population as well as base gross water use.

The per capita demands and future targets below replace those in the City's 2010 UWMP and 2014 Water System Master Plan (Akel, 2014).

5.1 Updated Calculations from 2010 UWMP

Legal Requirements:

CWC 10608.20
(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).
Methodologies DWR 2010, Methodology 2 Service Area Population
Page 27 - Water suppliers may revise population estimates for baseline years between 2000 and 2010 when 2010 census information becomes available. DWR will examine discrepancy between the actual population estimate and DOF's projections for 2010; if significant discrepancies are discovered, DWR may require some or all suppliers to update their baseline population estimates.

The 2010 UWMP included population data and historical water usage to calculate per capita demands and future conservation targets. For this UWMP, the population data was updated with more recent estimates from the Department of Finance for the years 2001-2010. In addition, the City's 2014 Water System Master Plan had some refined water usage data for several years that replaced some values in the 2010 UWMP. Using this data, the per capita baseline and future conservation targets have been recalculated. The resulting changes were minor, with the baseline water usage reduced from 247 gpcd to 245 gpcd, and the 2020 Target reduced from 197 gpcd to 196 gpcd.

5.2 Baseline Periods

Legal Requirements:

CWC 10608.20
(e) An urban retail water supplier shall include in its urban water management plan due in 2015. . .the baseline daily per capita water use…along with the bases for determining those estimates, including references to supporting data.
(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).

The baseline period has not been adjusted in the 2015 UWMP. However, baseline water usage did change because more recent Census population data was used, and refined water supply data was available in the 2014 Water System Master Plan. A discussion of the 10-year and 5-year baseline periods is provided below.

5.2.1 Determination of 10-15 Year Baseline Period (Baseline GPCD)

Legal Requirements:

CWC 10608.12
(b) "Base daily per capita water use" means any of the following:
(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.
(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

The 10-year baseline period ranges from 1995 to 2004, which was unchanged from the 2010 UWMP. This period was selected since it is recent and reflects current water use practices.

5.2.2 Determination of 5-Year Baseline Period (Target Confirmation)

Legal Requirements:

CWC 10608.12 (b)
(3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

Urban retailers must also report daily per capita water use for a five-year period within the range of 2003 to 2010. The selected five year baseline period is from 2003 to 2007, which remains unchanged from the 2010 UWMP. This 5-year baseline period is compared to the 2020 Target to determine the 'minimum' water use reduction requirement. The Target established with the 10-year baseline period cannot be higher than 95% of the 5-year baseline period. The purpose of this second baseline period is to help ensure that the long-term 2020 target is at least slightly less than recent water usage.

5.3 Service Area Population

Legal Requirements:

CWC 10608.20
(e) An urban retail water supplier shall include in its urban water management plan…the baseline daily per capita water use,…along with the bases for determining those estimates, including references to supporting data.
(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.
CWC 10644 (a) (2)
The plan… shall include any standardized forms, tables, or displays specified by the department.

Population data for the City of Madera for years 2000 and 2010 were taken from the US Census. Years 2001 to 2009 and 2011 to 2015 were taken from the California Department of Finance. The DOF estimates population in years between decadal censuses based on factors such as housing construction, housing demolitions, vacancy rates, etc.

Deliveries of City water outside of its service area, or use of other water supplies within City limits, are estimated to be very minor, and include less than 1% of the connections. The US Census Data for the City is therefore considered an accurate representation of the City's customer population. The City population from 2000 to 2015 is shown in the table below.

Table 5-1: City Population (2000-2015)

Year	Population
2000	43,089
2001	44,565
2002	46,066
2003	47,939
2004	49,691
2005	51,735
2006	53,928
2007	57,181
2008	58,767
2009	59,868
2010	61,416
2011	61,670
2012	62,587
2013	63,293
2014	63,635
2015	64,810

5.4 Gross Water Use

Legal Requirements:

CWC 10608.12
(g) "Gross Water Use" means 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.
California Code of Regulations Title 23 Division 2 Chapter 5.1 Article
Section 596 (a) An urban retail water supplier that has a substantial percentage of industrial water use in its service area is eligible to exclude the process water use of existing industrial water customers from the calculation of its gross water use to avoid a disproportionate burden on another customer sector.

Gross water use for 2015 was determined from metered readings, an assumed 7% distribution system loss, and estimated water usage at unmetered connections (see Section 4.1). In previous years (2011-2014), fewer connections were metered and there is greater uncertainty in the breakdown of water usage by sector, so only total gross water use is reported.

Table 5-2: Gross Water Use (2011-2015)

Water Use	Year				
	2011[1]	2012[1]	2013[1]	2014[1]	2015
Single Family Residential	-	-	-	-	5,295
Multi-Family Residential	-	-	-	-	1,596
Commercial / Institutional	-	-	-	-	1,503
Industrial	-	-	-	-	44
Landscape Irrigation	-	-	-	-	224
System Losses	-	-	-	-	652
Total	11,396	11,743	10,855	10,636	9,314
1 – Only total deliveries are reported due to insufficient data to report or estimate water use in all sectors					

5.5 Baseline Daily Per Capita Water Use

The 10-year baseline water use was recalculated to be 245 gpcd, as shown in the table below. In the 2010 UWMP, the baseline usage was 247 gpcd. Differences in baseline consumption were due to revised population and water usage numbers.

Table 5-3: Gallons Per Capita per Day

Baseline Year		Service Area Population	Annual Gross Water Use (AF)	Daily Per Capita Water Use (gpcd)
10 Year Baseline gpcd				
Year 1	1995	36,557	10,306	252
Year 2	1996	37,753	11,314	268
Year 3	1997	39,276	11,650	265
Year 4	1998	40,518	10,888	240
Year 5	1999	41,424	12,156	262
Year 6	2000	43,089	11,834	245
Year 7	2001	44,565	11,210	225
Year 8	2002	46,066	11,869	230
Year 9	2003	47,939	12,474	232
Year 10	2004	49,691	12,887	232
10 Year Average Baseline gpcd				**245**
2015 Compliance Year gpcd				
2015		64,810	9,314	**128**

5.6 2015 and 2020 Targets

Legal Requirements:

CWC 10608.20(e)
An urban retail water supplier shall include in its urban water management plan due in 2015. . .urban water use target, interim urban water use target,…along with the bases for determining those estimates, including references to supporting data (10608.20(e)).
CWC 10608.20
(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan…

5.6.1 Selection of Target Method

DWR allows agencies to use one of four methods to determine their demand reduction targets for 2020. Below is a brief description of each method.

Method 1 – Baseline Reduction Method. The 2020 water conservation target for this method is defined as a 20 percent reduction of average per-capita demand during a 10-year continuous baseline period that should end between 2004 and 2010.

Method 2 – Efficiency Standard Method. The 2020 water conservation target for this method is based on calculating efficiency standards for indoor use separately from outdoor use for residential sectors and an overall reduction of 10 percent for commercial, industrial, and institutional (CII) sectors. The aggregated total of the efficiency standards in each area is then used to create a conservation target.

Method 3 – Hydrologic Region Method. This method uses the ten regional urban water use targets for the state. Based on the water supplier's region, a static water use conservation target for 2020 is assigned.

Method 4 – Savings by Water Sector. This method identifies water savings obtained through identified practices, and subtracts them from the base daily per capita water use value identified for the water supplier.

The actual water conservation targets derived for the City of Madera (City) are described for each method in the following paragraphs. This section is concluded with a recommended method that has been used to adjust the projected water demands with the minimum water conservation requirement per SBx7-7. The demand projections with water conservation are used for the water reliability calculations under normal, dry, and multiple dry year conditions are presented in Chapter 7.

Method 1 – 20% Reduction

Method 1 establishes a baseline water per-capita consumption using historical population and historical demands. Any 10-year consecutive period between 1995 and 2010 can be selected to establish the baseline per-capita demand for the water supplier using the average per-capita consumption from that 10-year period. If an agency uses 10 percent or more recycled water in year 2008, the baseline value can also be determined with a 15-year consecutive period between 1990 and 2010. The City does not serve recycled water so the baseline is limited to 10 years in length.

Under Method 1, the baseline value is reduced by twenty percent to determine the year 2020 conservation target. The intermediate target for year 2015 is the mid-point value between the baseline and year 2020 target values.

The population, total consumption, and the per-capita consumption of the 10-year baseline period are shown in **Table 5-3**. The average per-capita consumption during this period was 245 gpcd. Based on twenty percent reduction from this baseline period, the City's 2020 conservation target would be 196 gpcd.

Method 2 – Efficiency Standards

Method 2 uses performance standards for both indoor and outdoor usage to establish the supplier's 2020 water conservation target. Method 2 consists of a series of four steps and utilizes actual water use data and estimates from the water supplier. First, the method assumes a standard statewide indoor use target of 55 gpcd. Then, the landscaped area for the supplier's entire service area is determined. Commercial, institutional, and industrial water use is accounted for separately using historical billing data. The performance standards for outdoor landscape irrigation, based on acreage, and commercial, institution, and industrial use, based on demands, are then applied to those totals. Finally, the performance standards for all three sectors are added together to determine the Method 2 2020 conservation target.

There is insufficient data to calculate Method 2 for the City. Principally, the effort associated with digitizing or surveying the amount of irrigated landscape within the City's service area would represent a significant effort.

Method 3 – Hydrologic Regions

The State's 20 x 2020 water conservation plan has identified specific urban water use targets for 2015 and 2020 for each of the ten hydrologic regions shown in **Figure 5-1**. The City falls in Hydrologic Region 6 (San Joaquin) which has a target use of 174 gpcd for year 2020.

Figure 5-1: Hydrologic Regions

Method 4 – Savings by Water Sector

Method 4 was considered but not selected because it requires data not currently collected for the City of Madera, specifically water conservation values for specific Demand Management Measures.

Recommended Method

Method 1 – Baseline Reduction Method has a 2020 Target of 196 gpcd, and Method 3 – Hydrologic Regions has a 2020 Target of 174 gpcd. Methods 2 and 4 require data that is not available for the City and therefore cannot be used. Based on an evaluation of each method as described above, Method 1 provides the preferable conservation target for the City of Madera.

5.6.2 5-Year Baseline – 2020 Target Confirmation

Legal Requirements:

CWC 10608.22
Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.

The 5-year baseline target confirmation is used to verify that the calculated 2020 target is less than or equal to 95% of the 5-year baseline gpcd. 95% of the 5-year baseline is the maximum allowable 2020 target. The five year baseline usage from 2003 to 2007 was 224 gpcd, so the maximum allowable 2020 target is 224 gpcd X 0.95 = 213 gpcd. This is greater than the 2020 target of 196 gpcd, so no adjustments are needed.

5.6.3 2015 Interim Urban Water Use Target

The 2015 Interim Water Use Target is 90% of the baseline per capita use or 90% x 245 gpcd = 220 gpcd.

5.6.4 Baselines and Targets Summary

The baseline and targets are summarized in **Table 5.4** below.

Table 5-4: Summary of Baseline and Targets

Description	Value (gpcd)
10-Year Baseline	245
2015 Interim Target	220
2020 Target	196
2015 Actual Use	128

Average water use in the years 2011 through 2014 was 158 gpcd. As a result of the State's mandatory 35% water use reduction in 2014, and 28% reduction in 2015, Madera's use dropped nearly 20% overall in 2015, to 128 gpcd. Since achieving this rate of use required imposition of very strict outdoor watering restrictions, it is not considered sustainable over the long term, and use can be expected to return to near the 2011-2014 level. Despite that, it is anticipated that, with continued water conservation efforts and the completion of city-wide water metering, the City's average daily per capita water use in the future will very likely remain below the 196 gpcd conservation target of Year 2020.

5.7 2015 Compliance Daily per Capita Water Use

Legal Requirements:

CWC 10608.12 (e)
"Compliance daily per-capita water use" means the gross water use during the final year of the reporting period…
CWC 10608.24 (a)
Each urban retail water supplier shall meet its interim urban water use target by December 31,2015.
CWC 10608.20(e)
An urban retail water supplier shall include in its urban water management plan . . compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.

5.7.1 Meeting the 2015 Target

The City of Madera has seen a steady decline in per capita demand, with 2015 per capita use about half of 1995 per capita use. The City began meeting their 2020 target in 2010 and was well below it in 2015. **Figure 5-2** shows annual gpcd for the City from 1995 to 2015 in comparison to the 2015 and 2020 Targets.

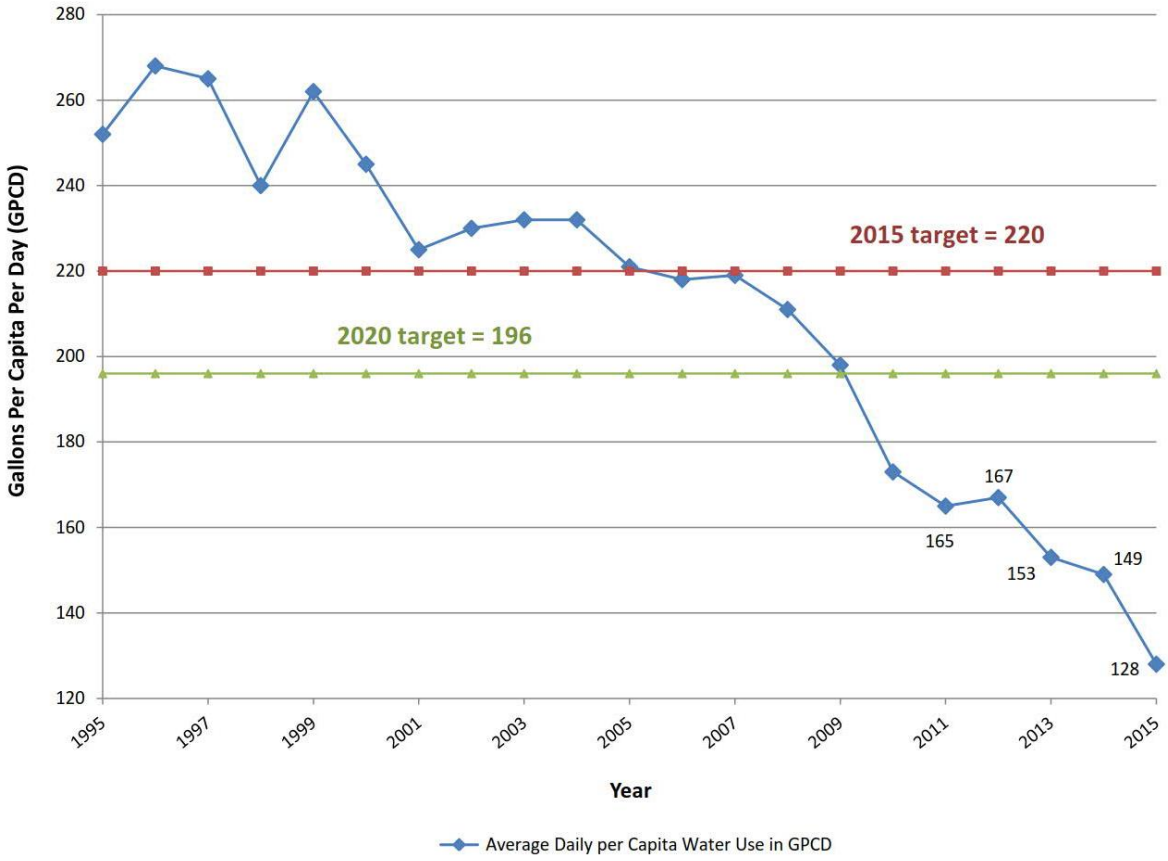


Figure 5-2: Per Capita Use versus Targets (1995-2015)

5.7.2 Adjustments to 2015 Gross Water Use

Legal Requirements:

CWC 10608.24 (d)
When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:
Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.
Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period. Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period. If the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described in paragraph (1), it shall provide the basis for, and data supporting, the adjustment in the report required by Section 10608.40.
Methodology Document, Methodology 4
This section discusses adjustments to compliance-year GPCD because of changes in distribution area caused by mergers, annexation, and other scenarios that occur between the baseline and compliance years.

No adjustments were made to the 2015 gross water use due to the climate, industrial water use, fire suppression or other factors that would cause abnormal water usage.

6 System Supplies

Legal Requirements:

§10631(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a).

UWMPA requirements state that the water supplier must describe their existing and planned water supply sources for the next 20 years. The following description includes information on the City's water supplies, recycled water opportunities, and pertinent information on groundwater management.

6.1 Water Supply Facilities

The City currently receives potable water supplies exclusively from groundwater through 18 active wells. These wells all pump from the regional groundwater supply (the Madera Subbasin of the San Joaquin groundwater basin) directly into the distribution system to meet the City's demands.

The City's water distribution system consists of more than 200 miles of water mains, ranging from 2 to 14 inches in diameter and forming a single pressure zone. The City's older pipelines are primarily asbestos-cement and steel, while more recently constructed pipelines are mainly polyvinyl chloride (PVC). The City's generally flat topography slopes from east to west from 300 feet in the east to 240 feet in the west. With this generally flat topography, the City is maintained as a single pressure zone, with a single one-million-gallon elevated storage tank regulating system operation. No major water supply infrastructure has been constructed since 2010.

6.2 Groundwater

6.2.1 Groundwater Basin Description

Legal Requirements:

CWC 10631 (b) If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan: (2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater.

The City is located in the San Joaquin River hydrologic region and extracts its groundwater from the Madera Subbasin, one of nine subbasins in the San Joaquin Valley Groundwater Basin. **Figure 6.1** shows the location of the City within the groundwater basin.

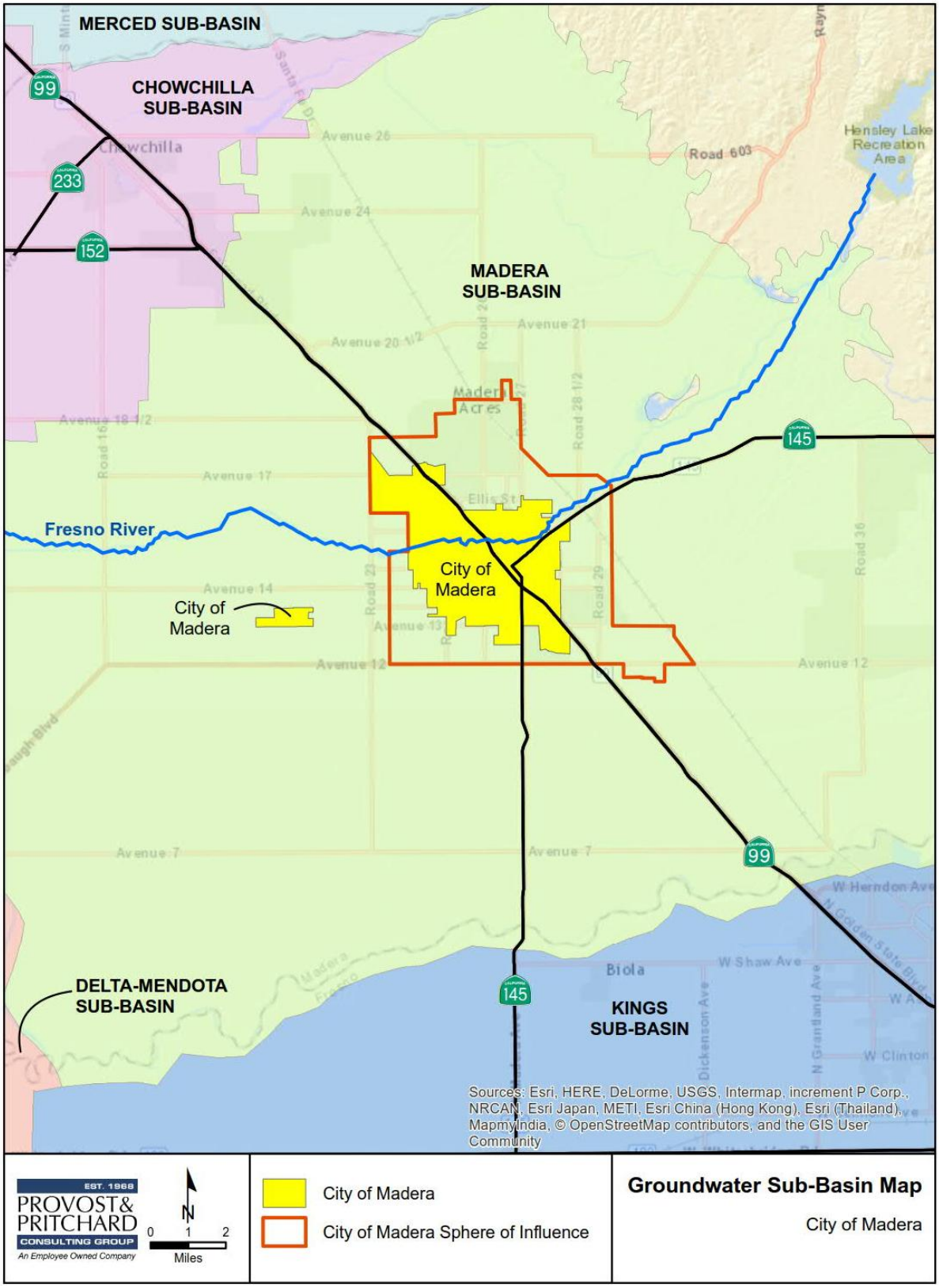


Figure 6-1: Groundwater Sub-Basin Map

The total surface area of the subbasin is 394,000 acres, or 614 square miles. The City occupies less than 3 percent of this total area. The Madera Subbasin consists of alluvium emanating from the Sierra Nevada range. The subbasin is bounded on the south by the San Joaquin River, on the west by the eastern boundary of the Columbia Canal Service Area, on the north by the southern boundary of the Chowchilla Subbasin, and on the east by the crystalline bedrock of the Sierra Nevada foothills.

The current volume of water in the entire basin, or in the basin underlying the City, is not precisely known at this time, and is dependent on groundwater levels and the base of fresh water. However, the groundwater basin has significant reserves. According to DWR's Bulletin 118 – California Groundwater (2004) the Madera Subbasin had a 12,600,000 AF of storage to a depth of 300 feet in 1995.

Aquifers in the Madera Subbasin consist of alluvial sediments composed of unconsolidated gravels, sands, silts, and clays. Major streams in the area include the San Joaquin and Fresno rivers. The Madera Subbasin has been in an overdraft condition for many years. DWR Bulletin 118 includes a detailed description of the Madera Subbasin and its characteristics and conditions (see **Appendix F**).

6.2.2 Groundwater Quality

Groundwater within the Madera Subbasin has generally been high quality. While total dissolved solids (TDS) ranges from 100 to 6,400 milligrams per liter (mg/L) within the subbasin, average TDS is 215 mg/L (DWR, 2003).

Groundwater is mainly of a bicarbonate type throughout most of the subbasin, transitioning from calcium- and calcium-magnesium-bicarbonate water in the east of the subbasin to sodium-bicarbonate water in the west of the subbasin. Sodium increases near the western edge of the subbasin along with increasing chloride, to produce poor quality sodium-chloride type water. Average TDS concentration increases in the western portion of the subbasin.

Nitrate, DBCP, iron and manganese are constituents of particular concern in the Madera Subbasin. Well No. 27 is not currently in use, but it is equipped with granular activated carbon (GAC) for treatment of DBCP and EDB.

The Madera Regional Groundwater Management Plan (Provost & Pritchard, 2014) provided a broad evaluation of groundwater quality in the Madera Water Master Plan sub-area, which includes the City of Madera and significant areas of primarily agricultural lands that surround the City, mainly to the south. This area extends beyond the City's current sphere of influence and planning area. Available water quality data indicate the following:

- **Arsenic –** concentrations are acceptable and below the MCL of 10 µg/L in the sub-area.
- **Boron –** concentrations are below 500 µg/L in the entire sub-area.
- **Total Dissolved Solids** – concentrations are generally acceptable within the sub-area, with the exception of several wells in the western portion, which have elevated concentrations of over 1,000 mg/L. No construction information (well logs, well construction reports, etc.) are available for these wells, but they are located to the southwest of the City and are located in an industrial area. Elevated TDS concentrations could be problematic for agricultural and domestic use.

- **Manganese** – concentrations appear to be acceptable and below the secondary MCL of 50 µg/L in the sub-area.
- **Nitrate (as NO_3)** – concentrations appears to be under the MCL of 45 mg/L, with the exception of the area southwest of the City where land use potentially affects the shallow aquifer water quality. A closer examination into the potential source for the elevated nitrate concentrations revealed that at these locations, high-density animal enclosures and/or fertilizer plants were in close proximity. Elevated nitrate concentrations can be harmful for domestic use, especially to young children.

For additional groundwater quality information, including groundwater quality maps, the reader is referred to the 2014 Water System Master Plan (Akel, 2014).

6.2.3 Groundwater Management

Legal Requirements:

CWC 10631 (b) If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:
A copy of any groundwater management plan adopted by the urban water supplier… or any other specific authorization for groundwater management.…For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.

In December 2014, the City of Madera and five partnering agencies completed the Madera Regional Groundwater Management Plan (Provost & Pritchard, 2014, see **Appendix G** for a copy). The partnering agencies included the City of Chowchilla, Chowchilla Water District, Madera County, Madera Irrigation District and South-East Madera County United. The Groundwater Management Plan (GMP) was the beginning of a cooperative and regional approach to groundwater management, which will be continued through efforts to comply with the Sustainable Groundwater Management Act (SGMA). For more information on SGMA refer to Section 7.1 – Constraints on Water Supplies.

The GMP Participants adopted several overarching Basin Management Objectives (BMO) that guided preparation of the recommendations in the GMP. BMOs are broad goals for improving the management of a local groundwater basin. BMOs were developed through a collaborative process with the other GMP Participants. This process included several general meetings on the GMP, as well as focused workshops specifically on BMOs. Six BMOs were established and are described below:

Stabilization of Groundwater Levels (by 2024): The overarching and highest-priority goal is to stabilize the groundwater levels by 2024. This will be accomplished through a combination of demand reduction, groundwater recharge, and acquisition of new surface water supplies.

Subsidence Mitigation: Subsidence mitigation is a regional goal. Although, subsidence is not currently a problem in the City of Madera, issues with subsidence exist in the northwestern portion of Madera County.

Recovery of Groundwater Levels after 2024: The goal is the recovery of groundwater levels to sustain a 5 year drought. The recovery of groundwater levels will inherently have multiple benefits such as improved groundwater quality, and reduced pumping cost. The

storage needed to accommodate a 5-year drought will vary by area and drought severity, but could be 15 to 20 feet of groundwater.

Public Awareness and Education: The goal is to provide public education and awareness of groundwater conditions, provide recommendations for the next drought, better understanding of water resources, and causes and impacts of subsidence. A major focus of the educational program will be on K-12 education.

Economic Viability: The goal is to help ensure economic viability of the region by providing a reliable groundwater supply. Reliable groundwater supplies will benefit local agriculture and increase property values.

Collaborative Governance: Collaborative governance will be performed through a regional water agency or cooperative agreement. The City is currently working on this developing the most appropriate governance structure with other local agencies.

6.2.4 Overdraft Conditions

Legal Requirements:

CWC 10631(b)(2). For basins that have not been adjudicated, (provide) information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

The Madera Subbasin, like the San Joaquin Valley Groundwater Basin in general, has been in a state of overdraft for several decades. The Madera Subbasin is considered to be 'critically overdrafted' by the California Department of Water Resources. The San Joaquin Valley Groundwater Basin, and thus the Madera Subbasin, is not adjudicated and there are currently no limitations placed on groundwater pumping. The City, as well as DWR and Madera Irrigation District (MID), actively monitors groundwater levels.

According to the 2014 GMP, groundwater levels in the City of Madera ranged in elevation from about 20 to 80 feet above mean sea level. The 2014 GMP also estimated that groundwater level declines in the City were between 1 and about 2.5 feet/year from 1980 to 2011. During this period, some areas in Madera County had up to 5 feet of decline per year.

Overdraft within the City of Madera is not precisely known, and a detailed water balance for the City would be required to fully understand the rate of overdraft. The GMP did evaluate overdraft on a regional scale throughout Madera County. The 2008 Madera Integrated Regional Water Management Plan (IRWMP) calculated the cumulative overdraft in the Valley area of Madera County to be 99,000 AF/year. The area covered by the GMP covered most of the Valley area of Madera County, but excluded a few active districts that did not participate in the GMP. Overdraft was estimated to average 143,000 AF/year over the period from 1980-2011. Future overdraft (2014 and beyond) was estimated to be 259,000 AF/year, which indicates a serious regional problem with overdraft. The increase in overdraft is attributed primarily to increased conversion of previously-fallow lands to irrigated agriculture, maturation of existing tree crops, and impacts from the San Joaquin River Restoration. The City covers a relatively small portion of Madera County, so a regional approach to address overdraft is needed, with cooperation from all local agencies. The City can fulfill its own obligation to the

regional effort by attempting to stabilize local groundwater levels through water conservation, and possibly recharging surface waters within the City.

The City identified the following as high priority strategies for addressing the local groundwater overdraft in the 2014 GMP:

- Groundwater recharge
- Flood and stormwater capture
- Identify and import new surface water supplies
- Increase surface water storage
- Increase conveyance capacity
- Surface water treatment
- Agricultural land conversion / reserve open space
- Work with adjacent entities
- Water use restrictions in droughts
- Urban water conservation
- New fees to fund recharge projects

6.2.5 Historical Pumping

Legal Requirements:

CWC 10631 (b) If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan: 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. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

The Madera Subbasin is the only source of groundwater in the region, and the City's overall demands are met with groundwater. All groundwater is pumped from the alluvial groundwater basin. No fractured bedrock aquifers are found in the City. Groundwater pumpage from 2011 to 2015 is shown in the table below.

Table 6-1: Volume of Groundwater Pumped

Basin	Sub-Basin	2011	2012	2013	2014	2015
San Joaquin Valley	Madera	11,396	11,743	10,855	10,636	9,314
Total		11,396	11,743	10,855	10,636	9,314
Units : AF						

6.2.6 Groundwater Recharge, Storage and Banking

The City performs groundwater recharge through the purchase of small quantities of surface water from MID, and by keeping stormwater as long as possible in stormwater basins, while ensuring sufficient capacity to provide necessary stormwater flood protection.

The following forms of recharge also benefit the City of Madera:

- Stream flow percolation from the San Joaquin River, Chowchilla River, Fresno River, and other creeks and sloughs
- Infiltration and precipitation that falls on the Valley floor
- Subsurface inflow
- Seepage from unlined canals

The City does not currently participate in any groundwater banking projects.

6.3 Surface Water

The Fresno River flows through the City from the east; this section of river is mostly dry unless the river stage is high enough to spill over the John Franchi Diversion Dam. The Fresno River is an important source of natural groundwater recharge for the City. The City has no water rights for the Fresno River water, nor any surface water contracts with U.S. Department of the Interior, Bureau of Reclamation (Reclamation), State Water Project, or other surface water purveyors. Historically, its water supply has been almost 100 percent from groundwater. In the past, the City has purchased small quantities of surface water from Madera Irrigation District. Refer to Section 6.7 – Exchanges and Transfers for more information.

According to the Regional GMP, the City had 1,100 acres of cropped land within the City limit, generally just outside of the urban area. These lands had a total irrigation demand of 2,500 AF/year. They receive both surface water from Madera Irrigation District, estimated at 1,900 AF/year, and use groundwater from private wells, estimated at 600 AF/year, to meet demands. These supplies and demands are not considered in the UWMP's water supply analysis.

6.4 Stormwater

The City also has numerous stormwater basins. Some are connected to MID facilities and can receive surface water for recharge. Small quantities of MID surface water have been purchased and recharged in these basins. In recent years, the stormwater basins are operated to maximize the volume of stormwater that is captured and recharged locally, by keeping the stormwater in the basins for as long as possible for the purposes of maximizing percolation opportunities. The City may take actions to enhance the percolation and recharge opportunities, such as adding vertical percolation wells and turnout gates from MID facilities to storm drainage basins. In events where storm drainage basin capacity is potentially exceeded, water is sent to local streams and irrigation canals to allow basins to accommodate further runoff. No data is currently available on stormwater recharge volumes in the City.

6.5 Wastewater and Recycled Water

The City does not recycle water for direct use of any kind. Treated effluent from the wastewater treatment facility (WWTF) is disposed through on site percolation ponds. Although, this is not considered recycled water according to UWMP guidelines, it still helps to recharge the groundwater supply. This section describes the City's wastewater system and potential opportunities for recycled water.

6.5.1 Recycled Water Coordination

Legal Requirements:

CWC 10633
The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.

As part of the integrated master planning process, a recycled water feasibility study was completed by MWH Americas, Inc in 2013. This study evaluated the feasibility of constructing a new recycled water system for servicing selected users. The City coordinated with various water users and several were identified as part of the feasibility study, including Madera Unified School District, City parks, and the municipal golf course. Several alternatives were developed as part of the recycled water feasibility study. The study estimated that recycled water usage could eventually be as high as 3,300 AF/year. Recycling wastewater was found to be technically feasible and the study found there would be demand for the recycled water. However, all alternatives were considered to be cost-prohibitive at the time; the cost to treat and distribute the water would be far more than potential water fees collected at the rates the City believes could be charged. The report instead recommended that City Well 27, which has required treatment before potable use, be used to provide non-potable water to certain customers, thus conserving the City's supply of potable well water.

6.5.2 Wastewater Collection, Treatment, and Disposal

Legal Requirements:

CWC 10633 (a) (Describe) the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.
CWC 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.

Wastewater is collected throughout the City of Madera via a network of sanitary sewer collection pipelines ranging from 8 to 48 inches in diameter. With the aid of five sewer lift stations, the influent is gravity-fed to the WWTF, located approximately seven miles west of the City limits. The WWTF was constructed in 1972, and provides primary and secondary treatment without disinfection. A plant expansion and upgrade was completed in 2007, which resulted in a treatment capacity of 10.1 mgd. The plant has 280 acres of land for incidental recharge and evaporation of effluent. The treatment process consists of screening, grit removal, sedimentation, an activated sludge process, and final clarification. Also included in the plant expansion were an odor control and a water reclamation system to provide water for plant purposes.

There are approximately 12,800 residential connections, each typically with a 4-inch sewer service connecting to the main. Commercial and industrial customers number just over 1,000 and are connected with service lines appropriate to handle their particular wastewater load. The average daily wastewater volume for 2015 was estimated to be approximately 4.8 mgd. The City of Madera has no facilities for extensive storage of the wastewater before treatment. Septic haulers from outside the City service area bring in an additional volume of wastewater. The most recent data show that outside septic waste collection contributes less than 1 percent

of total volume, though the biological loading is disproportionately higher due to the higher strength of the septage versus domestic wastewater.

The effluent from the City of Madera's WWTF is disposed to fourteen 20-acre percolation/evaporation ponds. The WWTF Expansion Predesign Report by Boyle Engineering (July 2004) proposed a system of recovery wells that would pump groundwater from under the percolation ponds to an MID canal for agricultural irrigation. This pumping of percolate would be intended to reduce groundwater mounding under the WWTF and to control elevated concentrations of nitrate or other contaminants in the underlying groundwater. A recovery well has been installed, but the implementation of the project has encountered regulatory hurdles and the system has yet to be operated as planned.

In the 2010 UWMP, future wastewater collection and treatment data were generated by assuming a 50 percent return-to-sewer ratio for water use within the City. In 2015, the ratio was 58%, which likely reflects the anomalous and extensive 2015 State-mandated water conservation requirements, which primarily reduced outdoor water use.

Table 6-2: Wastewater Generated within Service Area in 2015

Wastewater Collection Agency	Wastewater Treatment Agency	Treatment Plant Name	Is WWTP Located Within Service Area?	Was Volume Measured or Estimated?	Volume of Wastewater Collected from the Service Area
City of Madera	City of Madera	Madera Wastewater Treatment Facility	No	Measured	16,503 MG

Table 6-3: Wastewater Treatment and Discharge within Service Area in 2015

Name of Wastewater Treatment Plant	Discharge Location Name or Identifier	Discharge Location Description	Method of Disposal	Does this Include Wastewater Generated Outside the Service Area?	Treatment Level	2015 Volumes (AF)				
						Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area, in other UWMP	Recycled Outside of Service Area, not in other UMWP
Madera Wastewater Treatment Facility	WWTF Percolation Ponds	280 acres at the WWTF	Percolation Ponds	Yes, Septage	Secondary Undisinfected	16,503	16,503	0	0	0

6.5.3 Recycled Water Systems

Legal Requirements:

CWC 10633(c) (Describe) the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.

The City does not recycle water.

Treated effluent from the WWTP is disposed of through percolation ponds at the WWTFP, which, though not considered recycled water by the Department of Water Resources, still helps recharge the Madera Groundwater Subbasin.

6.5.4 Recycled Water Beneficial Uses

Legal Requirements:

CWC 10633(d) (Describe and quantify) the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.
CWC 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…
CWC 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 pursuant to this subdivision.

The City does not currently use recycled water within its service area.

The City completed a recycled water study, which found water recycling to be economically unfeasible at the time. Several potential beneficial uses exist, including industrial water usage, landscape and golf course irrigation, and agricultural irrigation. If economic conditions change, or the City can successfully secure grants for a major portion of the capital costs, the City may reconsider recycled water in the future.

Any potential use for recycled water would have to improve water balance from the current operation, which effectively allows most treated wastewater to percolate back to the drinking water aquifer. An application where recycled water could directly replace groundwater pumping would be a more efficient use of the water, and could be advantageous if the business case could be made.

6.5.5 Actions to Encourage and Optimize Future Recycled Water Use

Legal Requirements:

CWC 10633(f) (Describe the) actions, including financial incentives, 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.
CWC 10633(g) (Provide a) plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

While the City's earlier study found production and use of recycled water to be uneconomical, the City may reconsider a recycled water system if a significant portion of the capital costs can be funded through grants and if uses can be found which directly reduce use of potable water. The City can also provide assistance to industrial or commercial customers in developing recycling water on-site.

Table 6-4: Methods to Expand Future Recycled Water Use

Actions	Planned Implementation Year	Expected increase in recycled water supply (AFY)
Assist commercial and industrial customers with developing recycled water on-site	On-going	Unknown
Seek funding for capital costs if economics of recycled water improve	Unknown	3,300 AF

6.6 Desalinated Water Opportunities

Legal Requirements:

§10631(i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

The UWMPA requires that the UWMP address the opportunities for development of desalinated water, including ocean water, brackish water and groundwater.

6.6.1 Brackish Water and/or Groundwater Desalination

The groundwater that the City relies on is not brackish or in need of desalination. If this were to change in the future, the City will consider this option.

6.6.2 Seawater Desalination

Due to the geographic location of the City, desalination of seawater for use by the City is not practical or economically feasible.

6.7 Exchanges or Transfers

Legal Requirements:

§10631(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

The City occasionally purchases small quantities of surface water, typically a few hundred acre-feet at a time, from MID to recharge in City stormwater basins. Purchases are subject to approval by the MID Board of Directors. MID water supplies have been reduced due to the San Joaquin River Restoration Program, and it is expected that in the future they will only sell

water in wet years when they have surplus supplies. There is currently no long-term agreement between the City and MID, and purchases are made on an ad hoc basis.

6.8 Future Water Projects

Legal Requirements:

CWC 10631(g) …The urban water supplier shall include a detailed description of expected future projects and programs… that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

Future water projects for the City of Madera are documented in their 2014 Groundwater Management Plan (GMP) and 2014 Water System Master Plan (WSMP).

Groundwater Management Plan

The GMP lists several projects that could help alleviate overdraft. These projects are listed below. Specific details on the projects are not included in the GMP.

- Airport Basin
- Ellis Basin
- Fresno River Dam in City of Madera
- Future basin sites
- Future stormwater collection/recharge sites
- Golf course basin sites
- Schmidt Creek Flood Control and Groundwater Recharge Project

Water System Master Plan

The WSMP proposed a Capital Improvement Program that includes approximately 114 miles of pipeline improvements, 23 new wells, two new storage reservoirs, and two new booster stations that will convey water from the west side of the City to the east, with a project cost totaling over $148 million dollars through 2050. These projects address both existing deficiencies and necessary expansions to accommodate planned growth. Projects will be implemented as needed, not strictly on the schedule in the WSMP. The 2014 WSMP was based on a 3.5% growth annual population rate and a static per-capita water consumption rate. Currently, the City's growth rate is projected to be about 2.0% over time so Plan implementation may proceed at a slower pace than anticipated in the WSMP.

The number of projects and their specific yields are too large to list. Readers are referred to the WSMP for more details.

6.9 Summary of Existing and Planned Sources of Water

Legal Requirements

CWC 10631
(b)Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision 10631(a). (4) (Provide a) detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

The City plans to continue using groundwater to meet their water demands. The City has made extensive progress in reducing per capita demands, which has reduced stress on the groundwater aquifer. The City has occasionally purchased small quantities of surface water from the Madera Irrigation District for recharge in City stormwater basins. The City may continue or expand surface water purchases to help meet future demands, but there are currently no long-term agreements in place, and purchases are made on a year-to-year basis.

Table 6-5: Retail Water Supplies — Current and Projected

Water Source	2015		2020[1]	2025	2030	2035	2040
	Actual Volume	Level of Treatment of Source Water					
Purchased Water	0	-	0	0	0	0	0
Groundwater	9,314	Drinking Water	15,700	17,400	19,200	21,100	23,400
Imported Surface water	0	-	0	0	0	0	0
Recycled Water	0	-	0	0	0	0	0
Desalinated Water	0	-	0	0	0	0	0
Stormwater Use	0	-	0	0	0	0	0
Transfers	0	-	0	0	0	0	0
Exchanges	0	-	0	0	0	0	0
Total	9,314	-	15,700	17,400	19,200	21,100	23,400
Estimated Demands	9,314	-	15,700	17,400	19,200	21,100	23,400

1 – Water usage increases substantially in 2020 because it is assumed that 2020 water usage is the same as the 2020 Target (196 gpcd). 2015 usage was substantially below the 2020 Target at 128 gpcd

7 Water Supply Reliability

The Urban Water Management Planning Act requires that UWMPs address the reliability of the agency's water supplies. This includes supplies that are vulnerable to seasonal or climatic variations. The UWMPA also requires that the UWMP include information on the quality of water supplies and how this affects management strategies and supply reliability. In addition, an analysis must be included to address supply availability in a single dry year and in multiple dry years. The relevant sections of the UWMPA are presented below.

This chapter addresses these UWMPA requirements as follows. First, the reliability of the City's water supply sources is described. Secondly, a comparison of supply and demand under normal, single dry year, and multiple dry years is provided. Next, planned and potential future supply projects and programs that would impact overall supply availability and reliability are discussed. Lastly, factors impacting inconsistencies of supply are described.

7.1 Constraints on Water Sources

Legal Requirements:

CWC 10631(c)(2)
For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.
CWC Section 10634
The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

The City faces the same ongoing water supply challenges as other water purveyors in the San Joaquin Valley. Increased groundwater pumping and water quality concerns have resulted in a greater focus on pumping, overdraft, and reuse.

The 2014 Sustainable Groundwater Management Act (SGMA) will require that groundwater supplies be managed for long-term sustainability, with no net long-term overdraft. In other words, the Act will limit how much groundwater can be pumped. At the time of this UWMP, many provisions in SGMA have not yet gone into effect, and, throughout the state, water agencies are only in the preliminary planning stages for SGMA compliance. As a result, DWR does not require that SGMA be addressed in the 2015 UWMPs. The City of Madera is currently reviewing the SGMA guidelines and evaluating alternatives for complying with the new regulations. SGMA will be addressed in the City's 2020 UWMP. However, the City's tremendous success in reducing per capita demands will be a major factor in helping them comply with SGMA.

7.2 Reliability by Type of Year

Legal Requirements:

CWC 10631(c) (1)
Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following: (A) an average water year, (B) a single dry water year, (C) multiple dry water years.

There are two aspects of supply reliability that can be considered. The first relates to immediate service needs and is primarily a function of the availability and adequacy of the supply facilities. The second aspect is climate related, and involves the availability of water during mild or severe drought periods. This section compares water supplies and demands during three water scenarios: normal water year, single dry water year, and multiple dry water years. These scenarios are defined as follows.

Normal Year
The normal year is a year in the historical sequence that most closely represents median runoff levels and patterns. The supply quantities for this condition are derived from historical average yields.

Single Dry Year
This is defined as the year with the smallest available useable supply. The supply quantities for this condition are derived from the minimum historical annual yield.

Multiple Dry Years
This is defined as the three consecutive years with the smallest available useable supply. Individually, none of these years may be the driest on record. Rather, the requirement looks at the three actual consecutive years of record with the smallest available water supply. Water systems are more vulnerable to these droughts of long duration, because they deplete water storage reserves in local and state reservoirs and in groundwater basins.

Drought years were based on a comparison of local precipitation to the long-term average precipitation. Since the City does not have a surface water supply tied to runoff from a watershed, the local precipitation is considered a reasonable indicator of hydrologic conditions. Local precipitation is generally related to the amount of local recharge, surface water supplies available to surrounding areas, and reliance on groundwater supplies. Base years for different hydrologic year types are shown in the table below.

Table 7-1: Bases of Water Year Data

Water Year Type	Base Year(s)	Volume Availability (local rainfall)	% of Average Supply[1]
Average Water Year	1992	11.00 inches	100%
Single-Dry Water Year	2013	2.47 inches	22%
Multiple-Dry Water Years – 1st Year	2013	2.47 inches	22%
Multiple-Dry Water Years – 2nd Year	2014	5.42 inches	49%
Multiple-Dry Water Years - 3rd Year	2015	3.85 inches	35%

1 - Based on long-term average of 10.99 inches per year

7.3 Supply and Demand Assessment

Legal Requirements:

CWC 10635(a)
Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional or local agency population projections within the service area of the urban water supplier.

Normal Year

Normal year demand projections are presented in Chapter 4. Projections were generated by applying demands that incorporate conservation targets to projected population. As shown in the table below, current water supplies are anticipated to be sufficient to meet demands in normal year conditions through year 2040.

Table 7-2: Normal Year Supply and Demand Comparison

Water Use	Water Use (AFY)					
	2015	2020	2025	2030	2035	2040
Supply Totals	9,314	15,700	17,300	19,200	21,100	23,300
Demand Totals	9,314	15,700	17,300	19,200	21,100	23,300
Difference	0	0	0	0	0	0

Single-Dry-Year and Multiple-Dry-Years

Since the City does not have multiple supply sources, it is necessary for the City to pump groundwater to meet all projected demands. As shown in Tables below, anticipated supplies of groundwater are sufficient to meet all demands through year 2040 even under drought conditions.

It is important to consider that the Madera Subbasin has historically been in a state of critical overdraft. The tables below assume that the supply is equal to demand only because there is currently a sufficient volume of water within the subbasin to meet the projected demand. In order to continue to utilize groundwater, it is essential that the City continue its current efforts towards conservation, groundwater recharge, and groundwater management. Maintaining a low per capita water use, accomplishing groundwater recharge in collaboration with Madera Irrigation District, water metering, and possibly production and use of recycled water are all important components of ensuring the ongoing sufficiency of the Madera Subbasin. Groundwater banking for drought years is also a possible drought protection measure, ensuring that years with low surface runoff do not further harm the subbasin.

The City will need to continue developing additional demand management measures and water supply management strategies to assure the Subbasin aquifer is adequate to meet projected demands. As with the Basin Management Objectives identified in the Regional Groundwater Management Plan, success will be defined in part by reaching a point where demands do not exceed the annual recharge of the aquifer, and the groundwater elevation first stabilizes and then begins to recover.

Based on an analysis of historical data, the 2010 UWMP assumed that dry-year and multiple-dry-year demands would be 11% higher than normal years, due to higher evapotranspiration, lower soil moisture, and lower effective precipitation to satisfy landscape water needs. Absent regulatory intervention, this is a reasonable assumption and reflects past conditions. However, the City has aggressively pursued conservation measures, instilled a culture of water conservation, and has successfully implemented their Water Shortage Contingency Plans in recent droughts. Combined with the State's demonstrated willingness to impose tough outdoor water use restrictions in severe drought time, it is now considered more reasonable to assume that water demands will go down in drought years, due to implementation of the City's Water Shortage Contingency Plan and the effects of State requirements. The tables below assume that water demands go down 10% in a Single Dry year, 10% in each of the first two years of a 3-year drought, and 20% in the third year of a 3-year drought.

Table 7-3: Single Dry Year Supply and Demand Comparison

Water Use	Water Use (AFY)					
	2015	2020	2025	2030	2035	2040
Supply Totals	8,400	14,100	15,600	17,300	19,000	21,000
Demand Totals	8,400	14,100	15,600	17,300	19,000	21,000
Difference	0	0	0	0	0	0

Table 7-4: Multiple Dry Year Supply and Demand Comparison

		Water Use (AFY)					
		2015	2020	2025	2030	2035	2040
Year 1	Supply totals	8,400	14,100	15,600	17,300	19,000	21,000
	Demand totals	8,400	14,100	15,600	17,300	19,000	21,000
	Difference	0	0	0	0	0	0
Year 2	Supply totals	8,400	14,100	15,600	17,300	19,000	21,000
	Demand totals	8,400	14,100	15,600	17,300	19,000	21,000
	Difference	0	0	0	0	0	0
Year 3	Supply totals	7,500	12,600	13,800	15,400	16,900	18,600
	Demand totals	7,500	12,600	13,800	15,400	16,900	18,600
	Difference	0	0	0	0	0	0

7.4 Water Quality Impact on Reliability

The City of Madera's water system currently meets state and federal guidelines for regulation of contaminants and monitoring requirements. A copy of the City's Consumer Confidence Report is included in **Appendix H**.

MWH Americas evaluated water quality regulations pertinent to the City and summarized the results in a letter report (refer to the 2014 WSCP for a copy of the letter report). Water quality tests for City wells did not reveal contaminant levels in excess of established primary MCLs, with the exception of Well No. 27. The report identifies the following issues with Well Nos. 21, 27, and 33:

- Well No. 27 requires treatment using GAC for ethylene dibromide (EDB) and dibromochloropropane (DBCP), and has not been used recently. The City plans to install a nitrate analyzer to Well No. 27 with the intent of running the well. Water will be flushed until nitrate levels drop below the MCL, then the well will run continuously. This will be done since GAC traps nitrate, which can sometimes be released from the GAC during short periods resulting in high nitrate concentrations in the water. Monitoring the nitrate levels will help to reduce nitrate accumulation and the potential for a release.Well No 21 and Well No. 33 have quantifiable amounts of DBCP, but do not exceed the MCL. Additionally, other wells in and around the City have measurable levels of nitrate, but do not exceed the MCL.

These groundwater quality issues do not currently pose a threat to the City's water reliability.

Other water quality issues are discussed in Section 6.2.2. Careful planning and placement of new wells can help to avoid water quality issues in the City. While it was preferred to continue constructing groundwater supply wells throughout the City, review of the groundwater conditions, completed by Kenneth D. Schmidt and Associates, combined with recent groundwater test holes, indicate high probabilities of poor water quality and low well yields in the east and northeast part of the City. As a result, future supply wells will be located in the western part of the City, and the CIP includes projects designed to facilitate transport of water from west to east to meet city-wide standards.

7.5 Regional Supply Reliability

Legal Requirements:

CWC 10620 (f)
An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

Table 7-5 shows the main water supply sources for the City, and factors that could impact overall reliability.

Table 7-5: Factors Resulting in Inconsistency of Supply

Water supply sources[1]	Specific source name, if any	Limitation quantification	Legal	Environmental	Water quality	Climatic
Groundwater	Madera – Sub-basin				X	X
MID Surface Water	Annual surface water purchases	X				X

Groundwater

Isolated groundwater quality issues may impact only a subset of the City's wells. In addition, increasing concentrations of total dissolved solids (TDS) over time may indicate TDS sources from human activities such as wastewater percolation, agricultural drainage, or the migration of poorer quality water toward pumping depressions to the northeast. Given that the City has the ability to influence some of the activities that cause water quality issues, as well as alter the pumping regimes, which then influence groundwater flow in the region, groundwater management practices should be adjusted to ensure a consistent groundwater supply.

Groundwater levels can also fluctuate based on climatic conditions, mostly as a result of increased dependence on groundwater in areas surrounding the City when surface supplies are limited in droughts. This can cause a reduction in groundwater levels.

MID Surface Water

The City has purchased small quantities of surface water from MID in the past. The quantity is typically limited and purchases are subject to approval by the MID Board of Directors. MID water supplies have been reduced due to the San Joaquin River Restoration Program, and it is expected that they will only sell water in wet years then they have surplus supplies.

8 Water Shortage Contingency Planning

Water supplies may be interrupted or reduced significantly in a number of ways, such as a drought, which limits supplies, an earthquake, which damages water delivery or storage facilities, a regional power outage, or a toxic spill that affects water quality. This chapter describes how the City plans to respond to such emergencies so that needs are met promptly and equitably. The City's Water Shortage Contingency Plan is described in this chapter.

The groundwater aquifer, which supplies the City, is large, covering much of the San Joaquin Valley, and is known to contain several million acre-feet of water, with an average annual replenishment of over two million acre-feet. While it is acknowledged that the aquifer is overdrafted and the groundwater level has declined over the past several decades (See Section 6, Water Supplies), the rate of decline in the City has been moderate and the groundwater surface has not been subject to sudden changes. As a result, the quantity of water available from this water source is considered to be very reliable and not subject to sudden failure due to natural causes.

Despite the reliable nature of the aquifer, other factors could create a water emergency for the City. As demonstrated by the actions of the State during 2015, an executive order from the Governor's office, or an act of the Legislature, can have a profound effect on the City's access to water. The 2015 executive order requiring a 28 percent reduction in overall water use created such an emergency for the City, despite the ongoing availability of groundwater for the City's use.

8.1 Stages of Action

Legal Requirements:

CWC 10632 (a)
(1) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions, which are applicable to each stage.

As part of the preparation of the City's 1995 UWMP, the City Council adopted Resolution Number 95-52, Adoption of a Water Shortage Contingency Plan (WSCP). The plan identifies four water shortage stages and accompanying supply conditions. The WSCP has since been modified, most recently by Ordinance C-4-2015 in 2015 in response to Governor Brown's Executive Order declaring a water emergency. The 2015 WSCP primarily addresses outdoor landscape watering. Both of these ordinances can be found in **Appendix I,** and are collectively called the Water Shortage Contingency Plan. Each WSCP includes different tiers with increasing water use restrictions. The 1995 WSCP includes Stages 1 through 4. The 2015 WSCP includes Levels A through E. Currently, the two WSCPs are jointly used, and the water use restrictions in both plans are combined. Note that the 2015 WSCP focuses on outdoor water use restrictions, while the 1995 WSCP contains more details on triggers for declaring water shortages, customer actions to reduce water use, and public ageny consumption reduction methods.

8.1.1 Triggers for Water Shortage Stages

1995 Water Shortage Contingency Plan - Water shortage stages are defined in the 1995 resolution 95-52, which adopted the Water Shortage Contingency Plan. The WCSP includes supply conditions that initiate each water shortage stage (**Table 8-1**).

Water shortage stages are declared by the City Administrator as advised by the Water Shortage Response Team, chaired by the Water Division Supervisor. In addition, it is recommended that the declaration of a water shortage stage be based on the following factors:

- Reduced average static ground water levels
- Local factors such as degradation of water
- Regional factors such as increased groundwater extraction by other users
- Regulatory factors including the Governor's order regarding water emergency
- Failure of equipment within the City's water system

Table 8-1 lists the initiating conditions for each stage, along with suggested groundwater level triggers based on historic groundwater data. The suggested groundwater level triggers for each shortage stage were calculated considering potential reduction in the area of well screen to groundwater interface, as a result of reduced groundwater levels. It was assumed that as groundwater levels fall, the reduction in available well screen area corresponds to a reduction in supply from the City's groundwater wells. The suggested triggers were based on the level at which the reduction in supply equates to the minimum demand reduction for that shortage stage. A drawdown of 50 feet was assumed based on the historical difference between static and pumping levels.

Table 8-1: Triggers for Water Shortage Stages

City of Madera Water Shortage Plan Stage Initiating Conditions	Suggested Associated Groundwater Level (1,2)
Stage 1: Continued decrease of water table due to weather conditions and overdraft pumping	-
Stage 2: Weather forecasts predict a continuing trend of drier than normal conditions with a further deterioration of groundwater levels	245 ft bgs
Stage 3: Ground water levels have decreased to the point that City wells are in jeopardy of breaking suction	260 ft bgs
Stage 4: Customer demands and system pressure criteria requirements cannot be met	330 ft bgs

1. Associated Groundwater Level is calculated as the capacity weighted average depth to groundwater level for all the City's wells
2. The suggested groundwater level is based on the assumption that the overall reduction of well screening area will result in a corresponding reduction in supply from groundwater wells, and is the level at which the percentage reduction of capacity weighted average screen range available equals the minimum demand reduction for the water shortage stage.

Ordinance C-4-2015 (Outdoor Watering Ordinance) – The Outdoor Watering Ordinance deals specifically with outdoor watering requirements, which were targeted by the City as the best and most effective way to respond to the State mandate that they reduce consumption by a State mandated 28 percent below 2013 levels. Any of these response levels can be triggered by Resolution of the City Council. The Ordinance does not contain any objective or automatic triggers. Ordinance response levels are different from and independent of the levels in the 1995 WCSP.

8.1.2 Summary of Response Levels

Conservation targets for each Response Level in the WCSP are summarized in Table 8-2. As a Response Level is declared, all water conservation measures for the previous Response Level are also enforced.

Table 8-2: Water Shortage Plan Response Levels

Response Levels	Restrictions	Conservation Target
Stage 1 – Existing Conditions	Voluntary	Limit water use increase to population increase
Stage 2 – Potential Moderate Shortage	Mandatory	5 - 10%
Stage 3 – Serious Shortage	Mandatory	10 - 35%
Stage 4 – Critical Emergency Shortage	Mandatory	35 - 50%

These can be supplemented with provisions in the 2015 WSCP (Levels A through E) focused on outdoor watering.

The City relies on the San Joaquin Valley aquifer for its water supplies. With an overall volume of several million acre-feet, the aquifer is not subject to sudden rises or shortages and contains sufficient water to serve the City and other water users, which have relied on it for decades, even in its overdrafted condition. If the overdraft continues unabated, and storage reserves are reduced substantially, then this assumption will be revised and the WSCP will be amended accordingly.

8.1.3 Procedures for Declaring Response Levels

Response levels for the Water Shortage Plan and the Outdoor Watering Levels are proposed by the City Administrator and approved by the City Council, following the guidance for conditions and groundwater levels set forth in **Table 8-2** above. The City Council always has discretion to delay or speed declaration of a given response level depending upon other conditions.

8.2 Prohibitions on End Users

Legal Requirement

CWC 10632 (a)
(4) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.

Prohibitions on end users are shown in the Table below.

Table 8-3: Water Shortage Plan Prohibitions on End Users

Response Levels	Restrictions	Explanation	Penalty
Stage 1 – Existing Conditions	Voluntary	Outside irrigation limited to 3 days per week based on street address	Yes
		No hosing of paved surfaces	
		No irrigation between 11 a.m. and 7 p.m	
		No water is allowed to run into street or gutter	
		Water leaks must be repaired within 5 days of citation	
		Evaporative coolers must be equipped with water recirculation devices	
		No washing down of buildings other than for painting or other maintenance	
		No continuous flow for recreational purposes	
		Require recirculation of water in new commercial car washes	
Stage 2 – Potential Moderate Shortage (5% to 10%)	Mandatory	All Stage 1 prohibitions become mandatory	Yes
		Voluntary reduction of water consumption by stricter adherence to Water Use Regulations	
Stage 3 – Serious Shortage (10% to 35%)	Mandatory	All Stage 1 and Stage 2 prohibitions	Yes
		Stricter adherence to Water Use Regulations	
		Outside watering is limited to two days a week	
		Water served to restaurant customers only upon request to promote conservation and public awareness of drought conditions	
		Existing commercial carwashes required to install water recirculation equipment	
Stage 4 – Critical Emergency Shortage (35% to 50%)	Mandatory	All Stage 1 through Stage 3 prohibitions	Yes
		Outside watering limited to one day per week	
		Installing low-flow showerheads and toilet tank displacement devices	

Stage 1 – Existing Conditions occurs when there is a continuous decrease of the water table due to weather conditions and overdraft pumping.

Stage 2 – Potential Moderate Shortage occurs when weather forecasts predict a long period of drought conditions accompanied by deteriorating groundwater conditions. The target reduction in water consumption for this stage is five to ten percent.

Stage 3 – Serious Shortage occurs when, in addition to continuing drought conditions, standing groundwater level has decreased to the point where City wells are in jeopardy of breaking suction. The target reduction in water consumption for this stage is 10 to 35 percent.

Stage 4 – Critical Emergency Storage occurs when customer demands and system pressure requirements cannot be met. The target reduction in water consumption for this stage is 35 to 50 percent.

For each of the requirements above that deal with outdoor watering restrictions, the requirements in the WSCP have been superseded by Ordinance C-4-2015. Outdoor watering requirements can now be set to any of five levels of restriction by the City Council, without change to the overall Water Shortage Plan response level that is in place. This allows the City to quickly respond to a need to reduce overall consumption, even in cases when the written triggers in the WSCP have not been met.

Prior to the 2015 water emergency, the City had been enforcing restrictions equivalent to Level B. With the adoption of this ordinance, the City Council chose to impose Level C outdoor watering restrictions, which remain in effect at the time of this report. The table below summarizes water use restrictions adopted in the 2015 ordinance.

Table 8-4: Outdoor Watering Ordinance Prohibitions on End Users

Response Level	Restriction
Level A, Limited Provisions:	Outdoor application of water for irrigation and recreation uses shall be restricted to the hours of 7:00 pm to 10:00 am.
Level B, Moderate Provisions:	Outdoor application of water for irrigation and recreation uses shall be restricted to the hours of 7:00 pm to 10:00 am and restricted to usage on Sunday and Thursday for even addressed parcels and Saturday and Wednesday for odd addressed parcels.
Level C, Significant Provisions:	Outdoor application of water for irrigation and recreation uses shall be restricted to the hours of 7:00 pm to 10:00 am and restricted to usage on Sunday for even addressed parcels and Saturday for odd addressed parcels.
Level D, Aggressive Provisions:	Outdoor application of water for irrigation of plants shall be limited to drip system designed to only irrigate trees and bushes to minimally maintain their viability. Irrigating of lawn/turf using any method of watering shall be prohibited.
Level E, Extreme Provisions:	All outdoor application of water for irrigation of plants other than edible crops for personal consumption shall be eliminated.

In addition to the five levels of outdoor watering restriction set forth in **Table 8-4** above, the ordinance contains a number of other use requirements and prohibitions, including the following:

- Food for personal consumption: Watering of plants by drip irrigation that is grown as food for personal consumption (not for medicinal use) shall always be allowed to be watered on any day of the week between the hours of 7:00 p.m. to 10:00 a.m.
- Household Gray Water: Up to 100 gallons per household per parcel per day of reused domestic water from showers, washing, etc. "Gray Water" may be reutilized for outdoor watering, subject to applicable health and safety regulations.
- Importation of Water: Except for Recycled or “Gray” water, no water which is obtained from a source other than the City's municipal water system may be used for outdoor watering.

8.3 Penalties, Charges, and Other Enforcement of Prohibitions

Legal Requirements:

CWC 10632 (a)
(6) Penalties or charges for excessive use, where applicable.

The Water Shortage Contingency Plan identifies penalties in addition to basic use violations, to be associated with each stage of action.

- Stage 1 Violations
  Penalties for violations were increased in 2015. They are currently as follows:
  - Violation 1 - $75 surcharge on next water bill
  - Violation 2 - $250 surcharge on next water bill
  - Violation 3 - $500 surcharge on next water bill
- Stage 2 Violations
  - Penalties will be the same as Level 1, but a follow up letter will be sent after the second violation and an education visit and warning will be issued after the third violation. Further violation concerns will be met with staff contact to resolve violations, with water service shutoff as a potential consequence. A reconnection fee will be issued in the event of a shutoff.
- Stage 3 Violations
  - Penalties will be the same as Level 2, but violation 2 will be accompanied by an additional surcharge and educational visit from City Staff. Violation 3 will be accompanied by a second additional surcharge, possible installation of a water meter (if not already metered), a flow restriction devise on connection or discontinuation of service of situation if not resolved.
- Stage 4 Violations
  - Penalties will be the same as Level 3, and City Council will consider increasing surcharges for violation of Water Use Regulations.

8.4 Consumption Reduction Methods by Agencies

Legal Requirements:

CWC 10632 (a)
(5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

The City has established the following consumption reduction methods to help reduce water use. These are measures that the City (as opposed to customers) would implement.

Table 8-5: City Consumption Reduction Methods

Response Level	Consumption Reduction Methods by Water Supplier
1,2,3,4	Prepare and mail Annual Water Use Regulations to all customers
1	Two water patrol personnel enforcing regulations 80 hrs/week from Apr 1st to Oct 31st
1	Check groundwater levels quarterly
2	Check groundwater levels monthly
2,3,4	Public Works Department initiates its annual water conservation program
2,3,4	Third Water Patrol added
2,3,4	Increase public information campaign
2,3,4	Work with news media to publicize water savings
2,3,4	Disseminate water savings technical information to specific customer types.
2,3,4	Recruit and train volunteers for speaker's bureau.
2,3,4	Distribute water conservation kits to all customers
3,4	Check groundwater levels weekly
3,4	Pass City of Madera Resolution declaring Water Shortage Emergency
3,4	Revue water revenue, and adjust if necessary
3,4	Hire part-time employee to coordinate Water Conservation Program
3,4	Distribute landscape conservation, drought tolerant garden and efficient irrigation info.
3,4	Publicize Stage 4 reduction requirements if conditions worsen
3,4	Eliminate fire hydrant flushing, except when absolutely necessary
3,4	Discontinue irrigation of selected turf areas at parks and schools
3,4	Require low flow toilets and showerheads, and faucet aerators prior to property sale
3,4	Require hot water re-circulating systems or on demand water heaters in new construction
3,4	Initiate high visibility low flow toilet replacement program (elected officials, City Hall, etc.)
3,4	Lower bowls on city wells (if needed)
4	Implement the City of Madera Water Quality Emergency Notification Plan
4	Moratorium on new water services until shortage ends
4	Discontinue irrigation of park and school district athletic fields
4	Rate increases to finance improvements
4	Require all homes to install low flow showers/toilets and fix leaks. Hire compliance officer.

8.5 Tracking Water Use Reductions

Legal Requirements:

CWC 10632(a)
(9) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

As of 2015, the City is 90% metered, and expected to be fully metered by 2018. As a result, the City will soon have the tools to monitor specific consumption at all connections. Users with increasing or excessive consumption relative to their neighbors can be identified, and City staff can work with these customers to identify issues with leaks, equipment, or behavior that are driving above-average water consumption. The City's wells are fully metered, and the City will soon be able to compare well pumping to customer use, to help identify system losses.

With the upgrade of the Water Department's Supervisory Control and Data Acquisition (SCADA) equipment, precise and detailed reports can be easily generated for water production at any or all of the City's groundwater wells. Under all water supply conditions, production is measured by the SCADA system every 20 seconds and is recorded perpetually; first, at the control station hard drive; then, periodically at secondary electronic storage media. Regulation reports are printed monthly and kept on file.

Under normal Stage 1 conditions, the Water Department Operations Manager reviews the Daily Water Production Report before it goes to file.

In the event of a Stage 2 water shortage, the Operations Manager will review daily production figures every week and check them against a previous three years average to ensure compliance with the 5 to 10 percent Stage 2 reduction goal.

During a Level 3 water shortage, production figures are reviewed daily by the Water Division Operations Manager and the Public Works Director. The City Administrator and the City Council will be kept informed weekly of production levels, particularly of non-attainment of the 10 to 35 percent Stage 3 reduction goal.

When a Level 4 water shortage is declared, a production report will be provided to the Operations Manager twice daily, and daily to the Public Works Director. If the 35 to 50 percent reduction goal is not being met, the City Administrator and City Council will be immediately informed.

City residents can call the Public Works Department to get information on their water use. The City is currently upgrading its water monitoring software, with the goal of allowing individual customers to review their water use in near-real-time, over any internet connection. This will be a benefit to users enabling them to track water usage and exercise more control over the variable-cost component of their water bills. Additionally, it will allow the City to add accountability to customers who are using substantially more than the average household, by printing warnings on water bills, and adding quantity-based fines to the current ordinance restrictions. Involving customers in the responsibility to monitor and control consumption will be an important step toward accountable water use.

8.6 Revenue and Expenditure Impacts/Measures to Overcome Impacts

Legal Requirements:

CWC 10632 (a)
(7) An analysis of the impacts of each of the actions and conditions described in paragraphs (1) to (6), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

According to the UWMPA, the UWMP is required to include an urban water shortage contingency analysis that addresses the financial impacts from reduced water sales.

It is anticipated that water shortages would result in a reduction in revenue. Since the substantial completion of the metering project in 2015, the City has implemented metered pricing, based in part on a fixed service charge and in part on a variable use charge driven by

actual water volume metered. To the extent water use is reduced, the variable component of the water bills will go down and City revenues will be reduced.

The City will need to determine the extent of any revenue and expenditure imbalance as well as proposed measures to overcome impacts to City revenues and expenditure imbalances at the time the water shortage has started.

The revenue impacts of a water shortage for metered accounts are expected to parallel but be less than the consumption reductions of 5 to 10 percent in Stage 2, 10 to 35 percent in Stage 3, and 35 to 50 percent in Stage 4. Revenue impacts are of lower magnitude than use reductions because the fixed service portion of the bill would remain unchanged.

Water Department expenditures will rise with declaration of higher water conservation stages. Level 2 expenditure impacts include hiring an additional Water Patrol officer, distribution of water conservation kits, and media and public education campaigns. Level 3 involves further public education, and Level 4 is accompanied by further noticing, enforcement, education, and hiring of another part time seasonal compliance officer.

The City has sufficient operating funds to supplement short term deficiencies in revenue caused from a brief (one year or less) water shortage, but would need to quickly consider and implement rate changes if the per-service volume of water delivered were to decline significantly.

The City recently performed a Rate Study (Raftelis, 2015) and implemented new rates in 2015 that address many of the issues discussed above. The City's new water rates can be found in **Appendix J**.

8.7 Resolution or Ordinance

The City adopted its Water Shortage Response Plan on April 5, 1995. Copies of the relevant ordinances are included in **Appendix I**. The complimentary Ordinance C-4-2015 was adopted May 20, 2015 and operates alongside the Water Shortage Response Plan.

Table 8-6: City Ordinances and Resolutions for Water Shortage Measures

Ordinance or Resolution Number	Date	Legislation
95-52	4/5/95	Adopts City's Water Shortage Contingency Plan
C-4-15	5/20/15	Urgency Ordinance Relating to Water Service Restrictions

8.8 Catastrophic Supply Interruption

Legal Requirements:

CWC 10632(a)(3)
Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

During declared shortages, or when a shortage declaration appears imminent, the City will activate water shortage response measures, including a Stage 4 – Critical Emergency Shortage.

Because the City is reliant entirely upon groundwater drawn from an extensive basin, and not reliant on surface water, supplies which may have dramatic annual fluctuations or become suddenly disrupted by failure of a major conveyance system, the possibilities for a catastrophic system interruption are much more limited. Because of the distributed nature of groundwater production, there is no single facility whose loss would cripple supply. Each well contributes only a small percentage of the overall total, so the loss of one or even two or three wells simultaneously would not be crippling. Loss of a major proportion of the wells concurrently could occur from a failure of the power grid, but even that damage would be mitigated by engine-powered backup generators at many of the well sites.

Other failure mechanisms would not occur suddenly but could more plausibly affect a large percentage of the wells. A major contamination plume affecting the aquifer could render water unusable for potable purposes if untreated. There is no known contaminant plume upgradient of the City, so this threat, while possible, is not viewed as realistic at this time.

Significant decline in the aquifer's water surface elevation could drop the water surface below the well bowls. The Water Shortage Plan acknowledges this threat by using water surface elevation as the trigger for water conservation target levels. Because of the large size of the aquifer beneath the City, changes in level tend to occur with low to moderate rapidity. In every historic case of water elevation decrease, there has been time for the City to respond by deepening pump set elevations and changing bowls and motors as required to maintain production. Depending upon the severity of the drop, certain wells may not be deep enough to accommodate the necessary pump set depth, but this is not expected to be a widespread issue. Shallow wells will have to be replaced by new, deeper wells to maintain overall system capacity.

It is anticipated that a major or long-term disaster such as described would deplete City reserves and that restoration of the water distribution system would depend upon outside emergency funding to construct needed treatment facilities and/or new and modified supply wells. Either of these jobs, if needed throughout the system, would over-tax the City's existing reserves and bonding capacity.

For a major emergency such as an earthquake, Pacific Gas and Electric (PG&E) has declared that in the event of an outage, power would be restored within a 24 hour period. For example, after the 1994 Northridge earthquake, Southern California Edison experienced extensive damage to several key power stations, yet was able to restore power within 19 hours.

8.9 Minimum Supply Next Three Years

Legal Requirements:

CWC 10632 (a) (2)
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's water supply.

Future demands include an assumed 2% annual growth in all water sectors (residential, commercial, industrial and large landscape).

The very large aquifer supplying the City acts much as a reservoir, able to provide substantially the same water supply in dry years and wet years. Accordingly, the City expects that the water supply available to its users over the next several years will be sufficient to meet demands without reduction. The values in **Table 8-7** show anticipated demands for the next five year (2016 to 2020), which the City would be able to meet, even during periods of minimal rainfall and runoff. The values in **Table 8-7** assume that the 2020 target of 196 gpcd is met each year. This is a reasonable assumption because 2015 usage (128 gpcd) was well below the 2020 Target.

Table 8-7: Water Shortage Contingency – Minimum Supply (2016-2020)

	2016	2017	2018	2019	2020
Available Water Supply (AF)	14,500	14,800	15,100	15,400	15,700

9 Demand Management Measures

In 1991, a Memorandum of Understanding (MOU) regarding urban water conservation in California formed the California Urban Water Conservation Council (CUWCC). Council members can submit their most recent Demand Management Measures (DMM) Report with their UWMP to address the urban water conservation issues in the UWMPA. The City is not currently a signatory of the MOU, and is therefore not a member of the CUWCC. However, the City realizes the importance of the DMMs to ensure a reliable future water supply, and the City strives to meet the DMM standards established by the CUWCC. In 2015, the City was implementing all the DMMs described in the CUWCC MOU and UWMP guidelines.

Legal Requirements:

CWC 10631 (f)
(A) …A narrative shall describe the water demand management measure that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.
(B)The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:
(i) Water waste prevention ordinances.
(ii) Metering.
(iii) Conservation pricing.
(iv) Public education and outreach.
(v) Programs to assess and manage distribution system real loss.
(vi) Water conservation program coordination and staffing support.
(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.
CWC 10631
(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:
(1) (A) … a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years.

9.1 DMMs

9.1.1 Water Waste Prevention Ordinances

The City's Water Shortage Contingency Plan (see **Appendix I**) identifies penalties for water waste or violating current drought regulations. The water waste ordinances can also be found in the Madera Municipal Code, Title 5, Chapter 5. The penalties associated with each stage of a water shortage are provided below.

- Level 1 Violations
  Penalties for violations were increased in 2015. They are currently as follows:
  - Violation 1 - $75 surcharge on next water bill
  - Violation 2 - $250 surcharge on next water bill
  - Violation 3 - $500 surcharge on next water bill
- Level 2 Violations
  - Penalties will be the same as Level 1, but a follow up letter will be sent after the second violation and an education visit and warning will be issued after the third violation. Further violation concerns will be met with staff contact to resolve

violations, with water service shutoff as a potential consequence. A reconnection fee will be issued in the event of a shutoff.

- Level 3 Violations
    - Penalties will be the same as Level 2, but violation 2 will be accompanied by an additional surcharge and educational visit from City Staff. Violation 3 will be accompanied by a second additional surcharge, possible installation of a water meter, a flow restriction devise on connection or discontinuation of service of situation if not resolved.
- Level 4 Violations
    - Penalties will be the same as Level 3, and City Council will consider increasing surcharges for violation of Water Use Regulations.

Further details on prohibitions and penalties are explored in Chapter 8, the Water Shortage Contingency Planning.

9.1.2 Metering

In compliance with State law, the City has nearly completed the process of placing meters on all customer water connections. As of the end of 2015, about 90% of the customer connections are metered. The City is expecting to be fully metered by 2017 or 2018. The City adopted a new rate structure in 2015 that includes commodity rates for metered connections (see Section on Conservation Pricing below). The City's current rate structure is included in **Appendix J**.

9.1.3 Conservation Pricing

In 2015, the City of Madera prepared the *City of Madera Utility Rate Study Report* (Raftelis, 2015). The major objectives of the study included:

1. Develop financial plans for the water and wastewater enterprises to ensure financial sufficiency, meet operation and maintenance costs, ensure sufficient funding for capital replacement and refurbishment needs, and maintain a strong financial outlook for the enterprises;
2. Develop sound and sufficient reserve fund targets;
3. Review current rate structures for the water and wastewater enterprises;
4. Develop a cost-of-service analysis for the water and wastewater enterprises; and
5. Develop fair and equitable utility rates.

The rate structure recommended in the rate study was adopted in 2015 and can be found in **Appendix J**. Prior to the new rate structure, customers with meters were charged a monthly fixed rate based on the size of the customers meter, and a variable (volume) charge based on usage. The City also has accounts that are not currently metered and these accounts are charged a flat monthly fee. Once these accounts are metered, they would be charged the corresponding metered rates.

The new rate structure includes a tiered rate system to promote conservation. The new system is described below:

- Single-Family Residential (SFR) water rates were modified from a uniform rate to a 3-tiered inclining rate structure. The tiers closely reflect the water demands of residential customers for indoor needs (Tier 1), outdoor needs (Tier 2), and any additional usage above Tiers 1 and 2 (Tier 3).
- Multi-Family Residential (MFR) water rates were modified from a uniform rate to a 2-tiered rate structure. Multi-family homes typically have no or low outdoor water usage, so Tier 1 reflects typical indoor usage, and Tier 2 includes usage above Tier 1.
- Non-Residential (commercial, industrial, etc.) accounts will remain on a uniform rate.

9.1.4 Public Education and Outreach

The City utilizes mass mailings and the City internet site to distribute information to all water service customers. Walk in customers are also provided with information at City Hall and at the Public Works Department Water Division. When called upon to distribute time sensitive notices and information, local print media is also used.

Mass mailings with information on regulations and Consumer Confidence Reports are performed every March. The City also provides additional information on conservation measures at this time. Display cases and public bulletin boards are utilized in the Public Works facility to display information that is mailed out.

The City staffs information booths at the annual Madera District Fair in September. The booths provide pamphlets and flyers with promotional and educational materials as well as updates on regulations and ordinances.

The City monthly water bill distributed to all water service customers also contains information regarding previous year water usage, conservation measures, and other updates.

The City makes staff available for guidance and educational tours of water system facilities. They have also developed a plan to enhance existing school education wherein students tour facilities and receive formal presentations at their schools. The City encourages local educators to include demand management education in their curriculum where appropriate. The City also makes presentations to neighborhood agencies and service clubs.

Table 9-1 summarizes the public outreach and education in 2015.

Table 9-1: Public Outreach and Education in 2015

Description	No. of Events
Schools	11
Swap Meets	2
Fairs/Festivals	4
Used Oil Events	2
Other Events	4
Madera Tribune	2
Monthly Newsletters	7
Television	1

9.1.5 Programs to Assess and Manage Distribution System Real Loss

The City operates a detection and repair program of its entire water distribution system. In addition, the City's distribution system includes a SCADA system to accurately record production quantities. All of the City's wells are metered; however, as of 2015, 10% of the City's water connections were not metered, and thus, a complete system water audit is not possible without assuming unmetered water usage. System audits to determine losses will be performed once meters are fully installed, which is expected in 2017 or 2018. Currently, water main records are maintained in a GIS system. The City has convenient access to historical data on each water main.

Although losses were estimated to be 7% to remain consistent with previous planning and engineering documents, water losses were also calculated using AWWA Free Water Audit Software. The AWWA spreadsheet is discussed further in Section 4.2. The AWWA spreadsheet breaks losses into various categories using assumed default percentages. These categories include unauthorized use (theft), metering inconsistencies, etc. The complete AWWA software spreadsheets can be viewed in **Appendix E**.

9.1.6 Water Conservation Program Coordination and Staffing Support

The City's Water Divisions Operations Manager has also served as the City's Water Conservation Coordinator since 1986. Water Conservation Coordinator duties include interdepartmental coordination, monitoring the practice and application of DMMs, supervision of the Conservation Water Patrol, and planning of community water conservation education projects. As the City's water Conservation efforts have expanded, additional staff have been used to implement water conservation measures. The City is in the process of hiring one full time person to oversee all of the water conservation programs, and guide other staff that help with those efforts.

9.1.7 Other Demand Management Measures

The City implements several other DMMs, which are described below.

Rebate Programs

The City operates numerous rebate programs to help defer costs for customers and encourage water conservation. Residents should check with the City to determine program qualifications and follow directions listed on the City website. These programs are described below.

High Efficiency Clothes Washer Residential Replacement Rebate Program

City residents may apply to receive a $50 rebate following the purchase of a qualifying High Efficiency Clothes Washer (HECW). An HECW can save up to 22 gallons of water per load. HECWs also have a higher load capacity reducing the number of loads required per household. HECWs are more energy efficient than standard washing machines reducing power bills and requiring less heated water, which will save on gas or electric depending on the customers' water heater fuel source. Residents should check with the City to see which models qualify for the rebate. Only non-HECWs can be replaced using this program and the HECW must remain in the home for 36 months.

High Efficiency Dishwasher Replacement Rebate Program
City residents may apply to receive a credit of $35 to their utility service account for purchasing a high efficiency (HE) dishwasher. HE dishwashers can save 2 gallons of water per load of dishes. They can also help reduce energy bills (gas or electric) due to reduced requirements for heated water. HE dishwashers must be Energy Star rated.

Drip Irrigation Kit and Irrigation Timer Rebate
City residents may apply to receive a credit of $30 for drip irrigation kits or irrigation timers. Drip irrigation eliminates over-watering problems by applying water only where and when it is needed, with less runoff and less evaporation from leaves and soil. The uniform application of water from drip irrigation systems can achieve high water savings. The conversion can save up to 9 gallons of water annually for each square foot of irrigated area converted. Irrigation timers turn a hose faucet into a programmed system and automatic watering scheduling. They help conserve water by providing a consistent watering schedule and help to avoid over-watering.

Mulch Rebate Program
The City provides a mulch rebate program for its customers. According to SaveOurWater.com 20-30 gallons of water can be saved per 1,000 square feet of mulch. Good mulch conserves water by significantly reducing moisture evaporation from the soil. It also reduces weed populations, prevents soil compaction, and keeps soil temperatures more moderate. The mulch rebate allows for a maximum of $50 per City of Madera utility customer.

Smart Irrigation Controller Replacement Program
The City is offering a $100 rebate for the purchase of an EPA WaterSense certified smart irrigation controller. Smart irrigation controllers automatically adjust their watering schedule according to the weather conditions to provide optimal moisture for healthy plants and lawns. Smart irrigation controllers purchased must be capable to be set for the City of Madera's scheduled water days. A pre-installation audit of your current irrigation system by City staff may be required.

High Efficiency Toilet Replacement Rebate Program
Residential customers may be eligible for a rebate when they replace their old high water use toilets with a new qualifying High Efficiency (HE) Toilet providing 1.28 gallons per flush (gpf) or less. Installing an HE toilet can save about 38 gallons of water per day for a family of four. All qualifying toilets must have a WaterSense label.

Turf Replacement Rebate Program
The City will pay customers $0.75 per square foot to remove up to 1,000 square feet of irrigated turf. Turf grass at homes and commercial landscapes consume large amounts of water. Water-efficient landscapes use 50% or less water than most turf. The amount saved depends on the amount of turf removed, type of plants installed, irrigation system, and soil type. A water-efficient landscape can use less water and may not require expensive maintenance.

Table 9-1 summarizes the City rebate program further. It also approximates the total number of gallons saved for each rebate program. By far, the most successful programs were the High Efficiency Toilet Replacement Program and the Turf Replacement Program saving an estimated 110,960 gallons/year and 205,079 gallons/year, respectively. These savings will continue for the life of the appliances. Assumptions for water savings from drip irrigation, timers, and smart timers were not available.

Table 9-2: Demand Management Measures - Rebate Program (2015)

Rebate Program	Rebate	Water Savings	Number of Rebates	Total Rebate	Annual Water Savings	Notes
High Efficiency Clothes Washers	$50	22 gallons per load	4	$200	32,120 gallons	Water savings estimated based on one load per home per day
High Efficiency Dishwashers	$35	2 gallons per load	5	$175	1,560 gallons	Water savings estimated based on 3 loads per home per week
Drip Irrigation Kits and Irrigation Timers	$30	NA	4	$120	-	-
Mulch	$50	30 gallons per 1,000 square feet	5 customers, 216 square feet of cover per home	$250	3,370 gallons	Assume 2 cubic yards per rebate, 3 inches deep and water 2x per week
Smart Irrigation Controllers	$100	NA	1	$100	-	-
High Efficiency Toilets	$50	38 gallons per day	8	$400	110,960 gallons	
Turf Replacement	$0.75 per ft^3	50% less outdoor water use	20 customers 16,872 total square feet replaced	$12,654	205,079 gallons	Assume an average of 0.75 inches of water per week[2].

[2] University of California Davis, Lawn Watering Guide for California http://anrcatalog.ucanr.edu/pdf/8044.pdf

Water Survey Programs for Single-Family and Multi-Family Residential Customers

The City offers water audits to residential customers when requested. Audits include reviewing water usage history with the customer, identifying leaks inside and outside the home, and recommending improvements. As a part of the audit, the City will also provide a water-conservation kit, which typically includes educational materials, faucet and shower aerators, toilet tank volume displacer, and leak detection tablets as available. The City does not currently track the number of water audits performed or record budget information for water audits separately.

Residential Plumbing Retrofit

While new construction requires low-flow water fixtures, there is no requirement to retrofit existing plumbing fixtures with low-flow water fixtures. The City's plan does mandate appropriate retrofitting of low-flow fixtures during remodeling.

As a part of its public information program, the City distributes educational material describing the importance of plumbing retrofits as an integral part of water conservation. Several studies suggest that water use savings resulting from miscellaneous interior retrofit fixtures can range between 25 and 65 gpd per housing unit. The studies also suggest that installation of retrofit fixtures in older single-family homes tend to produce more savings, while newer multi-family homes tend to produce lesser savings per housing unit.

System Water Audits

The City operates a detection and repair program of its entire water distribution system. In addition, the City's distribution system includes a SCADA system to accurately record production quantities. However, as of 2015, 10% of the City's water meters were not metered, and thus, a complete system water audit is not possible without assuming unmetered water usage. System audits to determine losses will be performed once meters are fully installed, which is expected n 2017 or 2018.

Large Landscape Conservation Programs

Most of the City's large landscape accounts are metered, and all will be metered within the next few years. The City offers water audits to large landscape customers when requested. Audits include reviewing water usage history with the customer, identifying leaks in the customers system, and recommending improvements. In addition, the City can assist large landscape customer's with programming of irrigation timers to promote water efficiency through irrigation scheduling.

Conservation Programs for Commercial, Industrial, and Institutional (CII) Accounts

CII accounts that have large landscape usage can get landscape water audits from the City upon request. Audits include reviewing water usage history with the customer, identifying leaks in the customer's system, and recommending improvements.

Another program which the City makes available to commercial, industrial, and institutional accounts is the Conservation Water Patrol. This group has the responsibility to educate commercial and industrial users that overuse water for irrigation purposes. The patrol can provide a variety of resources to help a commercial or industrial consumer conserve, including staff expertise, written materials, and the City's demonstration water conservation garden.

Wholesale Agency Programs

This DMM applies to wholesale agencies and defines a wholesaler's role in terms of financial, technical, and programmatic assistance to its retail agencies about implementing DMMs. The City is not a wholesale agency, so this DMM does not apply.

9.2 Planned Implementation to Achieve Water Use Targets

Legal Requirements:

CWC 10631
(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:
(1) (A) …The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

The DMMs currently implemented by the City have been effective in reducing water consumption. The City's historic per-capita and future projections are shown in **Figure 5-2** and **Table 4-3**. Conservation measures have substantially reduced water usage in the City over the past 20 years.

The water metering program, planned for completion in 2017-2018, will help to conserve water because metered accounts typically use 10-20% less water than unmetered accounts. The City has also adopted conservation pricing, implementing a partially volumetric, increasing tiered rate structure, which will further help to conserve water.

The City should prioritize its efforts towards expanding its large scale DMM programs to result in increased conservation gains. Continued support of residential retrofits is also essential because of the City's largely residential customer base. Although school and public education programs to not provide quantifiable water savings, they are considered an essential and effective part of creating a culture of water conservation in Madera and helping to meet the 2020 conservation target.

9.3 California Urban Water Conservation Council

Legal Requirements:

CWC 10631 (i) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivision (f) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.

The City is not a member of the California Urban Water Conservation Council. However, where practical, the City attempts to meet the water conservation standards documented in the Council's *Memorandum of Understanding Regarding Urban Water Conservation in California.*

10 Completed UWMP Checklist

CWC Section	UWMP Requirement	Subject	Guidebook Location[1]	UWMP Location
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	2.3.2
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	2.2
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	2.2, 2.3
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	3.1.1/3.1.2
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	3.1.3
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4	3.2
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	3.2
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	3.2
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	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	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	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	5.6
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	Ch 5
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	Baselines and Targets	Section 5.7.2	5.2.2/5.6.2

CWC Section	UWMP Requirement	Subject	Guidebook Location[1]	UWMP Location
	base GPCD is at or below 100.			
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E	5.6.3 / 5.6.4
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	5.7.2
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	NA
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	5.7.1
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6	6.9
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	6.2
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	6.2.3
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 6.2.1	6.2.1
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	6.2.4
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	6.2.4
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	6.2.5
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	6.9
10631(d)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 6.7	6.7
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	6.8
10631(h)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	6.6
10631(j)	Retail suppliers will include documentation that	System Supplies	Section	NA

CWC Section	UWMP Requirement	Subject	Guidebook Location[1]	UWMP Location
	they have provided their wholesale supplier(s) – if any - with water use projections from that source.		2.5.1	
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	NA
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	6.5.1
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	6.5.2
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	6.5.3
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	6.5.3
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	6.5.4
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	6.5.4
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	6.5.5
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	6.5.5
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	7.1
10631(c)(1)	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Section 7.1	7.2
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	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	7.2
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	7.4
10635(a)	Assess the water supply reliability during	Water Supply	Section 7.3	7.2

CWC Section	UWMP Requirement	Subject	Guidebook Location[1]	UWMP Location
	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.	Reliability Assessment		
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	8.1
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	8.9
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	8.8
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2	8.2
10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4	8.4
10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3	8.3
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	8.6
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7	8.7
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	8.5
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	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	NA
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	NA
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	2.3
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	Plan Adoption, Submittal, and Implementation	Section 10.2.1	2.3.1

CWC Section	UWMP Requirement	Subject	Guidebook Location[1]	UWMP Location
	considering amendments or changes to the plan.			
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	2.3.3
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 60 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	NA
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	2.3.4
10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Sections 10.2.1	2.3
10642	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1	2.3.2
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	2.3.3
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	NA
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 10.4.22	2.3.3
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	2.3.4

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12. Western Regional Climate Center. *Station 045233 - Madera.* Period January 1928 to January 2015.

CITY OF MADERA
URBAN WATER MANAGEMENT PLAN

APPENDIX A – URBAN WATER MANAGEMENT PLANNING ACT

Appendix A

California Water Code
Urban Water Management Planning

California Water Code Division 6, Part 2.6.

Chapter 1. General Declaration and Policy §10610-10610.4
Chapter 2. Definitions §10611-10617
Chapter 3. Urban Water Management Plans
Article 1. General Provisions §10620-10621
Article 2. Contents of Plans §10630-10634
Article 2.5. Water Service Reliability §10635
Article 3. Adoption And Implementation of Plans §10640-10645
Chapter 4. Miscellaneous Provisions §10650-10656

Chapter 1. General Declaration and Policy

SECTION 10610-10610.4

10610. This part shall be known and may be cited as the "Urban Water Management Planning Act."

10610.2. (a) The Legislature finds and declares all of the following:

(1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.

(2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.

(3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.

(4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.

(5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.

(6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.

(7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.

(8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.

(9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.

(b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

10610.4. The Legislature finds and declares that it is the policy of the state as follows:

(a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.

(b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.

(c) Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.

Chapter 2. Definitions

SECTION 10611-10617

10611. Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

10611.5. “Demand management" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

10612. "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

10613. "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

10614. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

10615. "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses,

reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

10616. "Public agency" means any board, commission, county, city and county, city, regional agency, district, or other public entity.

10616.5. "Recycled water" means the reclamation and reuse of wastewater for beneficial use.

10617. "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

Chapter 3. Urban Water Management Plans

Article 1. General Provisions

SECTION 10620-10621

10620. (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

(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.

(c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.

(d) (1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.

(2) Each urban water supplier shall 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.

(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

10621. (a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero, except as provided in subdivision (d).

(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.

(c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

(d) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

Article 2. Contents of Plan

SECTION 10630-10634

10630. It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

10631. A plan shall be adopted in accordance with this chapter that shall do all of the following:

(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of

water available to the supplier, all of the following information shall be included in the plan:

(1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.

(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(c) (1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

(A) An average water year.

(B) A single-dry water year.

(C) Multiple-dry water years.

(2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

(e) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural.

(J) Distribution system water loss.

(2) The water use projections shall be in the same five-year increments described in subdivision (a).

(3) (A) For the 2015 urban water management plan update, the distribution system water loss shall be quantified for the most recent 12-month period available. For all subsequent updates, the distribution system water loss shall be quantified for each of the five years preceding the plan update.

(B) The distribution system water loss quantification shall be reported in accordance with a worksheet approved or developed by the department through a public process. The water loss quantification worksheet shall be based on the water system balance methodology developed by the American Water Works Association.

(4) (A) If available and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

(B) To the extent that an urban water supplier reports the information described in subparagraph (A), an urban water supplier shall do both of the following:

(i) Provide citations of the various codes, standards, ordinances, or transportation and land use plans utilized in making the projections.

(ii) Indicate the extent that the water use projections consider savings from codes, standards, ordinances, or transportation and land use plans. Water use projections that do not account for these water savings shall be noted of that fact.

(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) (A) For an urban retail water supplier, as defined in Section 10608.12, a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years. The narrative shall describe the water demand management measures that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:

(i) Water waste prevention ordinances.

(ii) Metering.

(iii) Conservation pricing.

(iv) Public education and outreach.

(v) Programs to assess and manage distribution system real loss.

(vi) Water conservation program coordination and staffing support.

(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

(2) For an urban wholesale water supplier, as defined in Section 10608.12, a narrative description of the items in clauses (ii), (iv), (vi), and (vii) of subparagraph (B) of paragraph (1), and a narrative description of its distribution system asset management and wholesale supplier assistance programs.

(g) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water

use, as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

(h) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

(i) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivision (f) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.

(j) An urban water supplier that relies upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).

10631.1. (a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.

(b) It is the intent of the Legislature that the identification of projected water use for single-family and multifamily residential housing for lower income households will assist a supplier in complying with the requirement under Section 65589.7 of the Government Code to grant a priority for the provision of service to housing units affordable to lower income households.

10631.2. (a) In addition to the requirements of Section 10631, an urban water management plan may, but is not required to, include any of the following information:

(1) An estimate of the amount of energy used to extract or divert water supplies.

(2) An estimate of the amount of energy used to convey water supplies to the water treatment plants or distribution systems.

(3) An estimate of the amount of energy used to treat water supplies.

(4) An estimate of the amount of energy used to distribute water supplies through its distribution systems.

(5) An estimate of the amount of energy used for treated water supplies in comparison to the amount used for nontreated water supplies.

(6) An estimate of the amount of energy used to place water into or withdraw from storage.

(7) Any other energy-related information the urban water supplier deems appropriate.

(b) The department shall include in its guidance for the preparation of urban water management plans a methodology for the voluntary calculation or estimation of the energy intensity of urban water systems. The department may consider studies and calculations conducted by the Public Utilities Commission in developing the methodology.

10631.5. (a) (1) Beginning January 1, 2009, the terms of, and eligibility for, a water management grant or loan made to an urban water supplier and awarded or administered by the department, state board, or California Bay-Delta Authority or its successor agency shall be conditioned on the implementation of the water demand management measures described in Section 10631, as determined by the department pursuant to subdivision (b).

(2) For the purposes of this section, water management grants and loans include funding for programs and projects for surface water or groundwater storage, recycling, desalination, water conservation, water supply reliability, and water supply augmentation. This section does not apply to water management projects funded by the federal American Recovery and Reinvestment Act of 2009 (Public Law 111-5).

(3) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if the urban water supplier has

submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the water demand management measures. The supplier may request grant or loan funds to implement the water demand management measures to the extent the request is consistent with the eligibility requirements applicable to the water management funds.

(4) (A) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if an urban water supplier submits to the department for approval documentation demonstrating that a water demand management measure is not locally cost effective. If the department determines that the documentation submitted by the urban water supplier fails to demonstrate that a water demand management measure is not locally cost effective, the department shall notify the urban water supplier and the agency administering the grant or loan program within 120 days that the documentation does not satisfy the requirements for an exemption, and include in that notification a detailed statement to support the determination.

(B) For purposes of this paragraph, "not locally cost effective" means that the present value of the local benefits of implementing a water demand management measure is less than the present value of the local costs of implementing that measure.

(b) (1) The department, in consultation with the state board and the California Bay-Delta Authority or its successor agency, and after soliciting public comment regarding eligibility requirements, shall develop eligibility requirements to implement the requirement of paragraph (1) of subdivision (a). In establishing these eligibility requirements, the department shall do both of the following:

(A) Consider the conservation measures described in the Memorandum of Understanding Regarding Urban Water Conservation in California, and alternative conservation approaches that provide equal or greater water savings.

(B) Recognize the different legal, technical, fiscal, and practical roles and responsibilities of wholesale water suppliers and retail water suppliers.

(2) (A) For the purposes of this section, the department shall determine whether an urban water supplier is implementing all of the water demand management measures described in Section 10631 based on either, or a combination, of the following:

(i) Compliance on an individual basis.

(ii) Compliance on a regional basis. Regional compliance shall require participation in a regional conservation program consisting of two or more urban water suppliers that achieves the level of conservation or water efficiency savings equivalent to the amount of conservation or savings achieved if each of the participating urban water suppliers implemented the water demand management measures. The urban water supplier administering the regional program shall provide participating urban water suppliers and the department with data to demonstrate that the regional program is consistent with this clause. The department shall review the data to determine whether the urban water suppliers in the regional program are meeting the eligibility requirements.

(B) The department may require additional information for any determination pursuant to this section.

(3) The department shall not deny eligibility to an urban water supplier in compliance with the requirements of this section that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the water demand management measures described in Section 10631.

(c) In establishing guidelines pursuant to the specific funding authorization for any water management grant or loan program subject to this section, the agency administering the grant or loan program shall include in the guidelines the eligibility requirements developed by the department pursuant to subdivision (b).

(d) Upon receipt of a water management grant or loan application by an agency administering a grant and loan program subject to this section, the agency shall request an eligibility determination from the department with respect to the requirements of this section. The department shall respond to the request within 60 days of the request.

(e) The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities. In addition, for urban water suppliers that are signatories to the Memorandum of Understanding Regarding Urban Water Conservation in California and submit biennial reports to the California Urban Water Conservation Council in accordance with the memorandum, the department may use these reports to assist in tracking the implementation of water demand management measures.

(f) This section shall remain in effect only until July 1, 2016, and as of that date is repealed, unless a later enacted statute, that is enacted before July 1, 2016, deletes or extends that date.

10631.7. The department, in consultation with the California Urban Water Conservation Council, shall convene an independent technical panel to provide information and recommendations to the department and the Legislature on new demand management measures, technologies, and approaches. The panel shall consist of no more than seven members, who shall be selected by the department to reflect a balanced representation of experts. The panel shall have at least one, but no more than two, representatives from each of the following: retail water suppliers, environmental organizations, the business community, wholesale water suppliers, and academia. The panel shall be convened by January 1, 2009, and shall report to the Legislature no later than January 1, 2010, and every five years thereafter. The department shall review the panel report and include in the final report to the Legislature the department's recommendations and comments regarding the panel process and the panel's recommendations.

10632. (a) The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier:

(1) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions that are applicable to each stage.

(2) 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's water supply.

(3) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

(4) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.

(5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are

appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

(6) Penalties or charges for excessive use, where applicable.

(7) An analysis of the impacts of each of the actions and conditions described in paragraphs (1) to (6), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

(8) A draft water shortage contingency resolution or ordinance.

(9) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

(b) Commencing with the urban water management plan update due July 1, 2016, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:

(a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

(b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.

(c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.

(d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

(e) 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 pursuant to this subdivision.

(f) A description of actions, including financial incentives, 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.

(g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

10634. The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

Article 2.5. Water Service Reliability

SECTION 10635

10635. (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

(b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

(c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.

(d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

Article 3. Adoption and Implementation of Plans

SECTION 10640-10645

10640. Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630). The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

10641. An urban water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

10642. Each urban water supplier shall encourage the 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. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area.

After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

10643. An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

10644. (a) (1) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

(2) The plan, or amendments to the plan, submitted to the department pursuant to paragraph (1) shall be submitted electronically and shall include any standardized forms, tables, or displays specified by the department.

(b) (1) Notwithstanding Section 10231.5 of the Government Code, the department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part.

The report prepared by the department shall identify the exemplary elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

(2) A report to be submitted pursuant to paragraph (1) shall be submitted in compliance with Section 9795 of the Government Code.

(c) (1) For the purpose of identifying the exemplary elements of the individual plans, the department shall identify in the report water demand management measures adopted and implemented by specific urban water suppliers, and identified pursuant to Section 10631, that achieve water savings significantly above the levels established by the department to meet the requirements of Section 10631.5.

(2) The department shall distribute to the panel convened pursuant to Section 10631.7 the results achieved by the implementation of those water demand management measures described in paragraph (1).

(3) The department shall make available to the public the standard the department will use to identify exemplary water demand management measures.

10645. Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

Chapter 4. Miscellaneous Provisions

SECTION 10650-10656

10650. Any actions or proceedings to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

(a) An action or proceeding alleging failure to adopt a plan shall be commenced within 18 months after that adoption is required by this part.

(b) Any action or proceeding alleging that a plan, or action taken pursuant to the plan, does not comply with this part shall be commenced within 90 days after filing of the plan or amendment thereto pursuant to Section 10644 or the taking of that action.

10651. In any action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

10652. The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

10653. The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the State Water Resources Control Board and the Public Utilities Commission, for the preparation of water management plans or conservation plans; provided, that if the State Water Resources Control Board or the Public Utilities Commission requires additional information concerning water conservation to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan prepared to meet federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.

10654. An urban water supplier may recover in its rates the costs incurred in preparing its plan and implementing the reasonable water conservation measures included in the plan. Any best water management practice that is included in the plan that is identified in the "Memorandum of Understanding Regarding Urban Water Conservation in California" is deemed to be reasonable for the purposes of this section.

10655. If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.

10656. An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the department in accordance with this part, is ineligible to receive funding pursuant to Division 24 (commencing with Section 78500) or Division 26

(commencing with Section 79000), or receive drought assistance from the state until the urban water management plan is submitted pursuant to this article.

CITY OF MADERA
URBAN WATER MANAGEMENT PLAN

APPENDIX B – STANDARD UWMP TABLES

Table 2-1 Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
20010002	Madera-City	13,695	9,314
TOTAL		13,695	9,314
NOTES: Connections includes residential, commercial, industrial and landscape			

Table 2-2: Plan Identification (Select One)		
☑	Individual UWMP	
☐	Regional UWMP (RUWMP) *(checking this triggers the next line to appear)*	
	Select One:	
	☐	RUWMP includes a Regional Alliance
	☐	RUWMP does not include a Regional Alliance
NOTES:		

Table 2-3: Agency Identification	
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
If Using Fiscal Years Provide Month and Day that the Fiscal Year Begins (dd/mm)	
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF
NOTES:	

Table 3-1 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040*(opt)*
	64,810	71,555	79,003	87,226	96,304	106,328
NOTES: Assumes population growth rate of 2.0% per year						

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type *(Add additional rows as needed)*	2015 Actual		
Use Drop down list *May select each use multiple times* *These are the only Use Types that will be recognized by the WUEdata online submittal tool*	Additional Description *(as needed)*	Level of Treatment When Delivered *Drop down list*	Volume
Single Family		Drinking Water	5,295
Multi-Family		Drinking Water	1,596
Commercial	Includes Institutional	Drinking Water	1,503
Industrial		Drinking Water	44
Institutional/Governmental			
Landscape	Large Landscape Irrigation	Drinking Water	224
Losses		Drinking Water	652
Other			
Other			
Other			
Other			
		TOTAL	9,314

Table 4-2 Retail: Demands for Potable and Raw Water - Projected						
Use Type *(Add additional rows as needed)*	Additional Description *(as needed)*	Projected Water Use *Report To the Extent that Records are Available*				
Use Drop down list *May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool*		2020	2025	2030	2035	2040-opt
Single Family		8,900	9,900	10,900	12,000	13,300
Multi-Family		2,700	3,000	3,300	3,600	4,000
Commercial	Includes Institutional	2,500	2,800	3,100	3,400	3,800
Industrial		100	100	100	100	100
Landscape	Large Landscape	400	400	500	500	600
Losses		1,100	1,200	1,300	1,500	1,600
Other						
Other						
Other						
Losses						
Other						
TOTAL		15,700	17,400	19,200	21,100	23,400
NOTES:						

Table 4-3 Retail: Total Water Demands						
	2015	2020	2025	2030	2035	2040 *(opt)*
Potable and Raw Water *From Tables 4-1 and 4-2*	9,314	15,700	17,400	19,200	21,100	23,400
Recycled Water Demand *From Table 6-4*	0	0	0	0	0	0
TOTAL WATER DEMAND	9,314	15,700	17,400	19,200	21,100	23,400
NOTES:						

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss
01/2015	652
NOTES: Loss is calculated assuming 7% total losses	

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	No
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.	
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	Yes

Table 5-1 Baselines and Targets Summary *Retail Agency or Regional Alliance Only*					
Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	*1995*	*2004*	*245*	*220*	*196*
5 Year	*2003*	*2007*	*224*		
*All values are in Gallons per Capita per Day (GPCD)					
NOTES: Values from SBX Tables					

Table 5-2: 2015 Compliance

*Retail Agency or Regional Alliance Only**

Actual 2015 GPCD	2015 Interim Target GPCD	**Optional Adjustments to 2015 GPCD** "0" for adjustments not used				Enter *From Methodology 8*	2015 GPCD *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Extraordinary Events	Economic Adjustment	Weather Normalization	TOTAL Adjustments	Adjusted 2015 GPCD		
128	*220*	0	0	0	0	128	128	Yes

**All values are in Gallons per Capita per Day (GPCD)*

NOTES:

Table 6-1 Retail: Groundwater Volume Pumped						
☐	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type ***Drop Down List*** *May use each category multiple times*	Location or Basin Name	2011	2012	2013	2014	2015
Add additional rows as needed						
Alluvial Basin	Madera Sub-basin	11,396	11,743	10,855	10,636	9,314
	TOTAL	11,396	11,743	10,855	10,636	9,314
NOTES:						

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
100	Percentage of 2015 service area covered by wastewater collection system *(optional)*					
100	Percentage of 2015 service area population covered by wastewater collection system *(optional)*					
Wastewater Collection			**Recipient of Collected Wastewater**			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected in 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
Add additional rows as needed						
City of Madera	Metered	16,503	City of Madera	City of Madera Wastwater Treatment Facility	No	No
Total Wastewater Collected from Service Area in 2015:		16,503				
NOTES:						

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015										
☐	No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.									
Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number *(optional)*	Method of Disposal ***Drop down list***	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level ***Drop down list***	2015 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
Add additional rows as needed										
City of Madera Wastewater Treatment Facility	WWTF Percolation Ponds	280 acres at the WWTF		Percolation ponds	Yes	Secondary, Undisinfected	16,503	16,503	0	0
						Total	16,503	16,503	0	0
NOTES:										

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area

☑	Recycled water is not used and is not planned for use within the service area of the supplier. The supplier will not complete the table below.

Name of Agency Producing (Treating) the Recycled Water:	
Name of Agency Operating the Recycled Water Distribution	
Supplemental Water Added in 2015	
Source of 2015 Supplemental Water	

Beneficial Use Type *These are the only Use Types that will be recognized by the DWR online submittal tool*	General Description of 2015 Uses	Level of Treatment *Drop down list*	2015	2020	2025	2030	2035	2040 (opt)
Agricultural irrigation								
Landscape irrigation (excludes golf courses)								
Golf course irrigation								
Commercial use								
Industrial use								
Geothermal and other energy production								
Seawater intrusion barrier								
Recreational impoundment								
Wetlands or wildlife habitat								
Groundwater recharge (IPR)								
Surface water augmentation (IPR)								
Direct potable reuse								
Other: Type of Use								
		Total:	0	0	0	0	0	0

IPR - Indirect Potable Reuse

NOTES:

Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual			
☑	Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.		
Use Type *These are the only Use Types that will be recognized by the WUEdata online submittal tool*		2010 Projection for 2015	2015 actual use
Agricultural irrigation			
Landscape irrigation (excludes golf courses)			
Golf course irrigation			
Commercial use			
Industrial use			
Geothermal and other energy production			
Seawater intrusion barrier			
Recreational impoundment			
Wetlands or wildlife habitat			
Groundwater recharge (IPR)			
Surface water augmentation (IPR)			
Direct potable reuse			
Other			
Total		0	0

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☐	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
44	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
Add additional rows as needed			
Support Customers	Assist commercial and industrial customers with developing recycled water on-site	On-going	Unknown
Seek Funding	Seek funding for capital costs if economics of recycled water improve	Unknown	3300
		Total	3,300
NOTES:			

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
☐	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
☑	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
45	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type *Drop Down List User may select more than one.*	Expected Increase in Water Supply to Agency *This may be a range*
	Drop Down List (y/n)	*If Yes, Agency Name*				
Add additional rows as needed						
NOTES:						

Table 6-8 Retail: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2015		
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		Actual Volume	Water Quality *Drop Down List*	Total Right or Safe Yield *(optional)*
Add additional rows as needed				
Groundwater	Recovered from local groundwater wells	9,314	Drinking Water	
	Total	9,314		0
NOTES:				

Table 6-9 Retail: Water Supplies — Projected											
Water Supply	Additional Detail on Water Supply	Projected Water Supply *Report To the Extent Practicable*									
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		**2020**		**2025**		**2030**		**2035**		**2040** *(opt)*	
		Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*	Reasonably Available Volume	Total Right or Safe Yield *(optional)*
Add additional rows as needed											
Groundwater	Recovered from local groundwater wells	15,700		17,400		19,200		21,100		23,400	
Surface water											
Recycled Water											
Transfers											
Exchanges											
Exchanges											
Total		15,700	0	17,400	0	19,200	0	21,100	0	23,400	0
NOTES:											

Table 7-1 Retail: Basis of Water Year Data			
Year Type	Base Year	Available Supplies if Year Type Repeats	
		Agency may provide volume only, percent only, or both	
		Volume Available	% of Average Supply
Average Year	1992	11 inches	100%
Single-Dry Year	2013	2.47 inches	22%
Multiple-Dry Years 1st Year	2013	2.47 inches	22%
Multiple-Dry Years 2nd Year	2014	5.42 inches	49%
Multiple-Dry Years 3rd Year	2015	3.85 inches	35%
Multiple-Dry Years 4th Year *Optional*			
Multiple-Dry Years 5th Year *Optional*			
Multiple-Dry Years 6th Year *Optional*			
Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.			
Volume available is local precipitation, which is a general indicator of water availability.			

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 *(Opt)*
Supply totals *(autofill from Table 6-9)*	15,700	17,400	19,200	21,100	23,400
Demand totals *(autofill from Table 4-3)*	15,700	17,400	19,200	21,100	23,400
Difference	0	0	0	0	0
NOTES:					

Table 7-2 Wholesale: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 *(Opt)*
Supply totals *(autofill from Table 6-9)*	0	0	0	0	0
Demand totals *(autofill fm Table 4-3)*	0	0	0	0	0
Difference	0	0	0	0	0
NOTES:					

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	15,700	17,300	19,200	21,100	23,300
Demand totals	15,700	17,300	19,200	21,100	23,300
Difference	0	0	0	0	0
NOTES:					

Table 7-3 Wholesale: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals					
Demand totals					
Difference	0	0	0	0	0
NOTES:					

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	8,400	14,100	15,600	17,300	19,000
	Demand totals	8,400	14,100	15,600	17,300	19,000
	Difference	0	0	0	0	0
Second year	Supply totals	8,400	14,100	15,600	17,300	19,000
	Demand totals	8,400	14,100	15,600	17,300	19,000
	Difference	0	0	0	0	0
Third year	Supply totals	7,500	12,600	13,800	15,400	16,900
	Demand totals	7,500	12,600	13,800	15,400	16,900
	Difference	0	0	0	0	0
Fourth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
NOTES: No restrictions on pumping (Supply = Demand)						

Table 8-1 Retail Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Percent Supply Reduction[1] *Numerical value as a percent*	Water Supply Condition (*Narrative description)*
Add additional rows as needed		
1	0%	Existing Conditions
2	5-10%	Potential Moderate Shortage
3	10-35%	Serious Shortage
4	35-50%	Critical Emergency Shortage
[1] *One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.*		

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*	Penalty, Charge, or Other Enforcement? *Drop Down List*
Add additional rows as needed			
1,2,3,4 and A,B,C,D,E	Landscape - Limit landscape irrigation to specific days		Yes
1,2,3,4	Other - Prohibit use of potable water for washing hard surfaces		Yes
1,2,3,4 and A,B,C,D,E	Landscape - Limit landscape irrigation to specific times		Yes
1,2,3,4	Other	No water allowed to run into street or gutter	Yes
1,2,3,4	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Within 5 days	Yes
1,2,3,4	Other	Evaporative coolers must recirculate water	Yes
1,2,3,4	Other	No building washing except for painting and maintenance	Yes
1,2,3,4	Other water feature or swimming pool restriction	No continuous flow for recreational purposes	Yes
1,2,3,4	Other	New commercial car washes must recirculate water	Yes
2,3,4	Other	Stricter adherence to regulations	Yes
3,4	CII - Restaurants may only serve water upon request		Yes
3,4	Other	Existing carwashes to install recirulation system	Yes
4	Other	Install low flow showerheads and toilet tank displacement devices	Yes
NOTES:			

Table 8-3 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods		
Stage	Consumption Reduction Methods by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*
Add additional rows as needed		
1,2,3,4	Expand Public Information Campaign	
1,2,3,4	Increase Water Waste Patrols	
1,2,3,4	Other	Increase groundwater monitoring frequency
2,3,4	Other	Initiate annual water conservation program
2,3,4	Other	Rectruit and train volunteers for speaker's bureau
2,3,4	Other	Distribute conservation kits to all customers
3,4	Other	Declare Water Shortage Emergency
3,4	Implement or Modify Drought Rate Structure or Surcharge	
3,4	Other	Hire additional water conservation staff
3,4	Other	Publicize Stage 4 reduction requirements if conditions worsen
3,4	Decrease Line Flushing	Eliminate fire hydrant flushing, except when absolutely necessary
3,4	Other	Discontinue irrigation of selected turf areas at parks and schools
3,4	Other	Require low flow toilets and showerheads, and faucet aerators prior to property sale
3,4	Other	Require hot water re-circulating systems or on demand water heaters in new construction
3,4	Other	Initiate high visibility low flow toilet replacement program (elected officials, City Hall, etc.)
3,4	Other	Lower bowls on city wells (if needed)
4	Other	Implement City Water Quality Emergency Notification Plan
4	Moratorium or Net Zero Demand Increase on New Connections	
4	Other	Discontinue irrigation of park and school athletic fields
4	Other	Require all homes to install low flow showers/toilets and fix leaks. Hire compliance officer.
NOTES:		

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	14,500	14,800	15,100
NOTES: Assumes per capita demand meets 2020 goal in each year			

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
	☐	☐
	☐	☐
	☐	☐
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Madera County	☑	☑
	☐	☐
	☐	☐
NOTES:		

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
Acre Feet
**The unit of measure must be consistent with Table 2-3*
NOTES:

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries	13,901	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	1995	
	Year ending baseline period range[3]	2004	
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.

NOTES:

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
NOTES:	

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	1995	36,557
Year 2	1996	37,753
Year 3	1997	39,276
Year 4	1998	40,518
Year 5	1999	41,424
Year 6	2000	43,089
Year 7	2001	44,565
Year 8	2002	46,066
Year 9	2003	47,939
Year 10	2004	49,691
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2003	47,939
Year 2	2004	49,691
Year 3	2005	51,735
Year 4	2006	53,928
Year 5	2007	57,181
2015 Compliance Year Population		
2015		64,810
NOTES:		

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	1995	10,306			-		-	10,306
Year 2	1996	11,314			-		-	11,314
Year 3	1997	11,650			-		-	11,650
Year 4	1998	10,888			-		-	10,888
Year 5	1999	12,156			-		-	12,156
Year 6	2000	11,834			-		-	11,834
Year 7	2001	11,210			-		-	11,210
Year 8	2002	11,869			-		-	11,869
Year 9	2003	12,474			-		-	12,474
Year 10	2004	12,887			-		-	12,887
Year 11	0	-			-		-	-
Year 12	0	-			-		-	-
Year 13	0	-			-		-	-
Year 14	0	-			-		-	-
Year 15	0	-			-		-	-
10 - 15 year baseline average gross water use								**11,659**
5 Year Baseline - Gross Water Use								
Year 1	2003	12,474			-		-	12,474
Year 2	2004	12,887			-		-	12,887
Year 3	2005	12,819			-		-	12,819
Year 4	2006	13,166			-		-	13,166
Year 5	2007	14,050			-		-	14,050
5 year baseline average gross water use								**13,079**
2015 Compliance Year - Gross Water Use								
2015		9,314	-		-		-	**9,314**

* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3

NOTES: Exludes direct raw water deliveries to La Paloma Powerplant

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source	City 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	1995	10,306		10,306
Year 2	1996	11,314		11,314
Year 3	1997	11,650		11,650
Year 4	1998	10,888		10,888
Year 5	1999	12,156		12,156
Year 6	2000	11,834		11,834
Year 7	2001	11,210		11,210
Year 8	2002	11,869		11,869
Year 9	2003	12,474		12,474
Year 10	2004	12,887		12,887
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	12,474		12,474
Year 2	2004	12,887		12,887
Year 3	2005	12,819		12,819
Year 4	2006	13,166		13,166
Year 5	2007	14,050		14,050
2015 Compliance Year - Water into Distribution System				
2015		9,314		9,314

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

NOTES:

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	1995	36,557	10,306	252
Year 2	1996	37,753	11,314	268
Year 3	1997	39,276	11,650	265
Year 4	1998	40,518	10,888	240
Year 5	1999	41,424	12,156	262
Year 6	2000	43,089	11,834	245
Year 7	2001	44,565	11,210	225
Year 8	2002	46,066	11,869	230
Year 9	2003	47,939	12,474	232
Year 10	2004	49,691	12,887	232
Year 11	0	-	-	
Year 12	0	-	-	
Year 13	0	-	-	
Year 14	0	-	-	
Year 15	0	-	-	
10-15 Year Average Baseline GPCD				**245**
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	47,939	12,474	232
Year 2	2004	49,691	12,887	232
Year 3	2005	51,735	12,819	221
Year 4	2006	53,928	13,166	218
Year 5	2007	57,181	14,050	219
5 Year Average Baseline GPCD				**224**
2015 Compliance Year GPCD				
2015		64,810	9,314	**128**
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	245
5 Year Baseline GPCD	224
2015 Compliance Year GPCD	128
NOTES:	

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
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	**2020 Target GPCD**
245	**196**
NOTES:	

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**
224	213	196	**196**

[1] Maximum 2020 Target is 95% of the 5 Year Baseline 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.*

NOTES:

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**
196	245	**220**
NOTES:		

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				
128	220	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	-	128	128	**YES**
NOTES:								

CITY OF MADERA
URBAN WATER MANAGEMENT PLAN

APPENDIX C – ADOPTION RESOLUTION

RESOLUTION NO. 16-_

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA ADOPTING THE 2015 CITY OF MADERA URBAN WATER MANAGEMENT PLAN

WHEREAS, California Water Code Sections 10620 et seq. require the adoption of an Urban Water Management Plan (the "Plan"); and

WHEREAS, such legislation requires that once adopted that a copy of the Plan be filed with the California Department of Water Resources; and

WHEREAS, the City of Madera in compliance with such legislation has drafted a proposed Plan and circulated it for public review and held a duly noticed public hearing on such proposed plan; and

WHEREAS, public hearings on the PLAN were duly noticed and held on ____

NOW, THEREORE, THE COUNCIL OF THE CITY OF MADERA, hereby finds, orders, and determines as follows:

1. The Urban Water Management, a copy of which is on file in the office of the City Clerk and referred to for more particulars, is hereby adopted.
2. The Director of Public Works is hereby authorized and directed to file this Plan with the California Department of Water Resources
3. This Resolution is effective immediately upon adoption

****

PASSES AND ADOPTED by the City Council of the City of Madera this __ day of _____, 2016, by the following vote:

AYES:

NOES:

ABSENTIONS:

ABSENT:

CITY OF MADERA
URBAN WATER MANAGEMENT PLAN

APPENDIX D – NOTICE OF PUBLIC HEARINGS & NOTIFICATION LETTERS

EST. 1968
PROVOST& PRITCHARD
CONSULTING GROUP
An Employee Owned Company

286 W. Cromwell Avenue
Fresno, CA 93711-6162
Tel: (559) 449-2700
Fax: (559) 449-2715
www.ppeng.com

April 10, 2016

Mr. Ahmad Al-Khayyat,
Acting Director of Public Works
Madera County
200 W. 4th Street
Madera, CA 93637

Re: City of Madera Urban Water Management Plan Update

Dear Mr. Al-Khayyat:

On behalf of the City of Madera, we wish to inform you that we are currently updating the City's Urban Water Management Plan (UWMP) to meet new State guidelines.

The City of Madera welcomes your input and participation in regards to the preparation of 2015 UWMP. We anticipate sending out the Draft UWMP to you for review within the next few months. Please feel free to contact Provost & Pritchard Consulting Group with any questions.

Respectfully,

Owen Kubit, PE
Senior Water Resources Engineer

Provost & Pritchard Consulting Group
UWMP Contact: Owen Kubit, PE
okubit@ppeng.com
(559) 326-1100

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Tel: (559) 449-2700
Fax: (559) 449-2715
www.ppeng.com

April 10, 2016

Mr. Thomas Greci
General Manager
Madera Irrigation District
12152 Road 28 1/4
Madera, CA 93637-9199

Re: City of Madera Urban Water Management Plan Update

Dear Tommy:

On behalf of the City of Madera, we wish to inform you that we are currently updating the City's Urban Water Management Plan (UWMP) to meet new State guidelines.

The City of Madera welcomes your input and participation in regards to the preparation of 2015 UWMP. We anticipate sending the Draft UWMP to you for review within the next few months. Please feel free to contact Provost & Pritchard Consulting Group with any questions.

Respectfully,

Owen Kubit, PE
Senior Water Resources Engineer

Provost & Pritchard Consulting Group
UWMP Contact: Owen Kubit, PE
okubit@ppeng.com
(559) 326-1100

CITY OF MADERA
URBAN WATER MANAGEMENT PLAN

APPENDIX E – DISTRIBUTION SYSTEM WATER LOSSES

AWWA Free Water Audit Software v5.0

This spreadsheet-based water audit tool is designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. It provides a "top-down" summary water audit format, and is not meant to take the place of a full-scale, comprehensive water audit format.

Auditors are strongly encouraged to refer to the most current edition of AWWA M36 Manual for Water Audits for detailed guidance on the water auditing process and targetting loss reduction levels

The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons below.

Please begin by providing the following information

Name of Contact Person:	Danny Martin
Email Address:	dmartin@cityofmadera.com
Telephone | Ext.:	559-661-5465
Name of City / Utility:	Madera-City Public Water System
City/Town/Municipality:	Madera
State / Province:	California (CA)
Country:	United States
Year:	2015 Calendar Year
Audit Preparation Date:	5/24/2016
Volume Reporting Units:	Acre-feet
PWSID / Other ID:	2010002

The following guidance will help you complete the Audit

All audit data are entered on the ***Reporting Worksheet***

- Value can be entered by user
- Value calculated based on input data
- These cells contain recommended default values

Use of Option (Radio) Buttons: Pcnt: 0.25% Value:

Select the default percentage by choosing the option button on the left

To enter a value, choose this button and enter a value in the cell to the right

The following worksheets are available by clicking the buttons below or selecting the tabs along the bottom of the page

Instructions
The current sheet. Enter contact information and basic audit details (year, units etc)

Reporting Worksheet
Enter the required data on this worksheet to calculate the water balance and data grading

Comments
Enter comments to explain how values were calculated or to document data sources

Performance Indicators
Review the performance indicators to evaluate the results of the audit

Water Balance
The values entered in the Reporting Worksheet are used to populate the Water Balance

Dashboard
A graphical summary of the water balance and Non-Revenue Water components

Grading Matrix
Presents the possible grading options for each input component of the audit

Service Connection Diagram
Diagrams depicting possible customer service connection line configurations

Definitions
Use this sheet to understand the terms used in the audit process

Loss Control Planning
Use this sheet to interpret the results of the audit validity score and performance indicators

Example Audits
Reporting Worksheet and Performance Indicators examples are shown for two validated audits

Acknowledgements
Acknowledgements for the AWWA Free Water Audit Software v5.0

If you have questions or comments regarding the software please contact us via email at: wlc@awwa.org

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0
American Water Works Association.

? Click to access definition
+ Click to add a comment

Water Audit Report for: Madera-City Public Water System (2010002)
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

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:	9	9,314.000	acre-ft/yr	7		0.00%		acre-ft/yr
Water imported:	n/a		acre-ft/yr					acre-ft/yr
Water exported:	n/a		acre-ft/yr					acre-ft/yr
WATER SUPPLIED:		**9,314.000**	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	7,081.000	acre-ft/yr			
Billed unmetered:	7	1,581.000	acre-ft/yr			
Unbilled metered:	n/a	0.000	acre-ft/yr			
Unbilled unmetered:		116.425	acre-ft/yr	1.25%		acre-ft/yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

Use buttons to select percentage of water supplied OR value

AUTHORIZED CONSUMPTION: **8,778.425** acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption)

535.575 acre-ft/yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		23.285	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	9	71.525	acre-ft/yr	1.00%		acre-ft/yr
Systematic data handling errors:		17.703	acre-ft/yr	0.25%		acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **112.513** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **423.062** acre-ft/yr

WATER LOSSES: **535.575** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **652.000** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	7	200.0	miles
Number of active AND inactive service connections:	9	13,802	
Service connection density:		69	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:	7	41.0	psi	

COST DATA

Total annual cost of operating water system:	10	$6,128,228	$/Year	
Customer retail unit cost (applied to Apparent Losses):	6	$1.81	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	10		$/acre-ft	☑ Use Customer Retail Unit Cost to value real losse

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 81 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: Billed metered
3: Customer retail unit cost (applied to Apparent Losses)

AWWA Free Water Audit Software:
System Attributes and Performance Indicators

WAS v5.0

American Water Works Association.

Water Audit Report for: Madera-City Public Water System (2010002)

Reporting Year: 2015 | 1/2015 - 12/2015

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 81 out of 100 ***

System Attributes:

	Apparent Losses:	112.513	acre-ft/yr
+	Real Losses:	423.062	acre-ft/yr
=	**Water Losses:**	**535.575**	acre-ft/yr
?	Unavoidable Annual Real Losses (UARL):	144.77	acre-ft/yr
	Annual cost of Apparent Losses:	$88,709	
	Annual cost of Real Losses:		Valued at **Customer Retail Unit Cost**

Return to Reporting Worksheet to change this assumpiton

Performance Indicators:

Financial:	Non-revenue water as percent by volume of Water Supplied:	7.0%	
	Non-revenue water as percent by cost of operating system:	8.4%	Real Losses valued at Customer Retail Unit Cost
Operational Efficiency:	Apparent Losses per service connection per day:	7.28	gallons/connection/day
	Real Losses per service connection per day:	27.36	gallons/connection/day
	Real Losses per length of main per day*:	N/A	
	Real Losses per service connection per day per psi pressure:	0.67	gallons/connection/day/psi
	From Above, Real Losses = Current Annual Real Losses (CARL):	423.06	acre-feet/year
?	Infrastructure Leakage Index (ILI) [CARL/UARL]:	2.92	

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

AWWA Free Water Audit Software: Water Balance

WAS v5.0

American Water Works Association.

Water Audit Report for:	Madera-City Public Water System (2010002)	
Reporting Year:	2015	1/2015 - 12/2015
Data Validity Score:	81	

	Water Exported *0.000*	Billed Water Exported			
Own Sources (Adjusted for known errors) *9,314.000*	Water Supplied *9,314.000*	Authorized Consumption *8,778.425*	Billed Authorized Consumption *8,662.000*	Billed Metered Consumption (water exported is removed) *7,081.000*	Revenue Water 8,662.000
				Billed Unmetered Consumption *1,581.000*	
			Unbilled Authorized Consumption *116.425*	Unbilled Metered Consumption *0.000*	Non-Revenue Water (NRW) 652.000
				Unbilled Unmetered Consumption *116.425*	
		Water Losses *535.575*	Apparent Losses *112.513*	Unauthorized Consumption *23.285*	
				Customer Metering Inaccuracies *71.525*	
				Systematic Data Handling Errors *17.703*	
Water Imported *0.000*			Real Losses *423.062*	Leakage on Transmission and/or Distribution Mains *Not broken down*	
				Leakage and Overflows at Utility's Storage Tanks *Not broken down*	
				Leakage on Service Connections *Not broken down*	

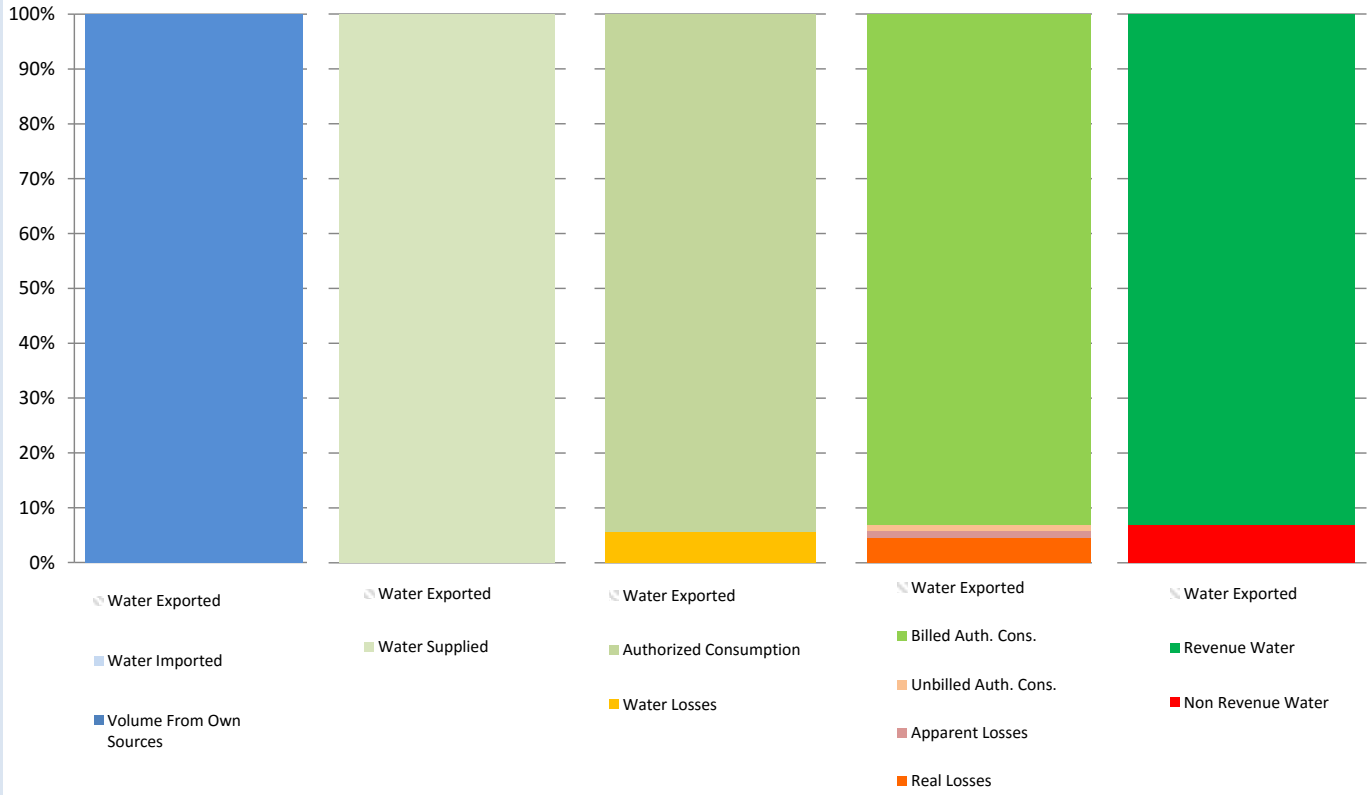
AWWA Free Water Audit Software:
Dashboard

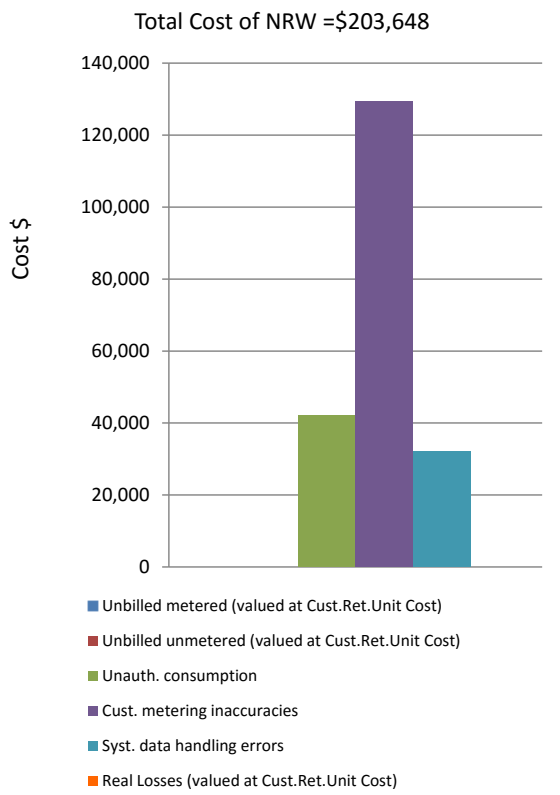
WAS v5.0
American Water Works Association.

The graphic below is a visual representation of the Water Balance with bar heights propotional to the volume of the audit components

Water Audit Report for:	**Madera-City Public Water System (2010002)**	
Reporting Year:	**2015**	**1/2015 - 12/2015**
Data Validity Score:	**81**	

○ Show me the VOLUME of Non-Revenue Water
◉ Show me the COST of Non-Revenue Water





CITY OF MADERA
URBAN WATER MANAGEMENT PLAN

APPENDIX F - GROUNDWATER BASIN INFORMATION

San Joaquin Valley Groundwater Basin
Madera Subbasin

- Groundwater Subbasin Number: 5-22.06
- County: Madera
- Surface Area: 394,000 acres (614 square miles)

Basin Boundaries and Hydrology

The San Joaquin Valley is surrounded on the west by the Coast Ranges, on the south by the San Emigdio and Tehachapi Mountains, on the east by the Sierra Nevada and on the north by the Sacramento-San Joaquin Delta and Sacramento Valley. The northern portion of the San Joaquin Valley drains toward the Delta by the San Joaquin River and its tributaries, the Fresno, Merced, Tuolumne, and Stanislaus Rivers. The southern portion of the valley is internally drained by the Kings, Kaweah, Tule, and Kern Rivers that flow into the Tulare drainage basin including the beds of the former Tulare, Buena Vista, and Kern Lakes.

The Madera subbasin consists of lands overlying the alluvium in Madera County. The subbasin is bounded on the south by the San Joaquin River, on the west by the eastern boundary of the Columbia Canal Service area, on the north by the south boundary of the Chowchilla Subbasin, and on the east by the crystalline bedrock of the Sierra Nevada foothills. Major streams in the area include the San Joaquin and Fresno Rivers. Average annual precipitation is 11 inches throughout the majority of the subbasin and 15 inches in the Sierran foothills

Hydrogeologic Information

The San Joaquin Valley represents the southern portion of the Great Central Valley of California. The San Joaquin Valley is a structural trough up to 200 miles long and 70 miles wide. It is filled with up to 32,000 feet of marine and continental sediments deposited during periodic inundation by the Pacific Ocean and by erosion of the surrounding mountains, respectively. Continental deposits shed from the surrounding mountains form an alluvial wedge that thickens from the valley margins toward the axis of the structural trough. This depositional axis is below to slightly west of the series of rivers, lakes, sloughs, and marshes, which mark the current and historic axis of surface drainage in the San Joaquin Valley.

Water Bearing Formations

Hydrogeologic units in the Madera Subbasin consist of unconsolidated deposits of Pleistocene and Holocene age. These deposits are divided into continental deposit of Tertiary and Quaternary age, and continental deposits of Quaternary age. Continental deposits of Quaternary age include older alluvium, lacustrine and marsh deposits and younger alluvium. The continental deposits of Quaternary age crop out over most of the area and yield probably more than 95 percent of the water pumped from wells.

Although younger alluvium and flood-basin deposits yield small quantities of water to wells, the most important aquifer in the area is the older alluvium. It consists mostly of intercalated lenses of clay, silt, sand, and some gravel.

The lacustrine and marsh deposits (which contain the E-clay) do not crop out in the area but occur within the older alluvium and underlie the western portion of the subbasin at depths ranging between 150 and 300 feet (DWR 1981). These deposits restrict the vertical movement of ground water and divide the water-bearing deposits into confined and unconfined aquifers. Continental deposits of Tertiary and Quaternary age include the Ione Formation which outcrops on the Subbasin's eastern margin. This unit may yield small quantities of water to wells but is not an important aquifer.

The estimated average specific yield of this groundwater subbasin is 10.4 percent (based on DWR San Joaquin District internal data and that of Davis 1959).

Restrictive Structures

Groundwater flow is generally southwestward in the eastern part of the subbasin and to the northwest in the southern portion, away from the recharge area along the San Joaquin River. During 1999, a groundwater mound occurred in the northwest portion of the subbasin with accompanying depressions to the north and south, and a large depression in the subbasin's southeast corner (DWR 2000). Based on current and historical groundwater elevation maps, groundwater barriers do not appear to exist in the subbasin.

Groundwater Level Trends

Changes in groundwater levels are based on annual water level measurements by DWR and cooperators. Water level changes were evaluated by quarter township and computed through a custom DWR computer program using geostatistics (kriging). On average, the subbasin water level has declined nearly 40 feet from 1970 through 2000. The period from 1970 through 1978 showed steep declines totaling about 30 feet. The nine-year period from 1978 to 1987 saw stabilization and rebound of about 25 feet, taking the water levels close to where they were in 1970. 1987 through 1996 again showed steep declines, bottoming out in 1996 at about 45 feet below 1970 levels. Water levels rose about 8 feet from 1996 to 2000. Water levels declines have been more severe in the eastern portion of the subbasin from 1980 to the present, but the western subbasin showed the strongest declines before this time period.

Groundwater Storage

Estimations of the total storage capacity of the subbasin and the amount of water in storage as of 1995 were calculated using an estimated specific yield of 10.4 percent and water levels collected by DWR and cooperators. According to these calculations, the total storage capacity of this subbasin is estimated to be 18,500,000 af to a depth of 300 feet and 40,900,000 af to the base of fresh groundwater. These same calculations give an estimate of 12,600,000 af of groundwater to a depth of 300 feet stored in this subbasin as of 1995 (DWR 1995). According to published literature, the amount of stored groundwater in this subbasin as of 1961 is 24,000,000 af to a depth of $\leq$ 1000 feet (Williamson 1989)

Groundwater Budget (Type B)

Although a detailed budget was not available for this subbasin, an estimate of groundwater demand was calculated based on the 1990 normalized year and data on land and water use. A subsequent analysis was done by a DWR water budget spreadsheet to estimate overall applied water demands, agricultural groundwater pumpage, urban pumping demand and other extraction data.

Natural recharge was estimated to be 21,000 af. Artificial recharge and subsurface inflow were not determined. Applied water recharge was calculated to be 404,000 af. Annual urban extraction and annual agricultural extraction were estimated as 15,000 af and 551,000 af, respectively. There were no other extractions, and subsurface outflow was not determined.

Groundwater Quality

Characterization. The majority of this subbasin is generally a calcium-sodium bicarbonate type, with sodium bicarbonate and sodium chloride at the western margin of the subbasin along the San Joaquin River (Mitten 1970). TDS values range from 100 to 6,400 mg/L, with a typical range of 200 to 400 mg/L. The Department of Health Services, which monitors Title 22 water quality standards, reports TDS values in 40 wells ranging from 100 to 400 mg/L, with an average value of 215 mg/L. EC values range from 180 to 600 μmhos/cm, with an average value of 251 μmhos/cm (based on 15 wells).

Impairments. There are localized areas of high hardness, iron, nitrate, and chloride. One well is currently undergoing GAC filtration for the removal of EDB/DBCP (Glos 2001).

Water Quality in Public Supply Wells

Constituent Group[1]	Number of wells sampled[2]	Number of wells with a concentration above an MCL[3]
Inorganics – Primary	44	0
Radiological	44	0
Nitrates	43	1
Pesticides	46	3
VOCs and SVOCs	45	0
Inorganics – Secondary	44	7

[1] A description of each member in the constituent groups and a generalized discussion of the relevance of these groups are included in *California's Groundwater – Bulletin 118* by DWR (2003).
[2] Represents distinct number of wells sampled as required under DHS Title 22 program from 1994 through 2000.
[3] Each well reported with a concentration above an MCL was confirmed with a second detection above an MCL. This information is intended as an indicator of the types of activities that cause contamination in a given basin. It represents the water quality at the sample location. It does not indicate the water quality delivered to the consumer. More detailed drinking water quality information can be obtained from the local water purveyor and its annual Consumer Confidence Report.

Well Characteristics

	Well yields (gal/min)	
Municipal/Irrigation	Range: 40 – 4,750	Average: 750 – 2,000
	Total depths (ft)	
Domestic		
Municipal/Irrigation	Range: 100 - 600	

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
DWR (incl. Cooperators)	Groundwater levels	378 Semi-annually
Department of Health Services (including cooperators)	Title 22 water quality	127 Varies

Basin Management

Groundwater management:	Discussions taking place between purveyors to create draft AB3030 Plan.
Water agencies	
Public	Gravelly Ford W.D., Madera I.D.; Root Creek W.D.
Private	None

References Cited

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Errata

Changes made to the basin description will be noted here.

CITY OF MADERA
URBAN WATER MANAGEMENT PLAN

APPENDIX G – GROUNDWATER MANAGEMENT PLAN

(appendices not included due to their length)

MADERA REGIONAL GROUNDWATER MANAGEMENT PLAN

A partnership between:
City of Chowchilla
Chowchilla Water District
City of Madera
Madera County
Madera Irrigation District
South-East Madera County United

Date Signed: 12-9-2014

DECEMBER 2014

PREPARED BY:

EST. 1968
PROVOST& PRITCHARD
CONSULTING GROUP
An Employee Owned Company

In cooperation with

WOOD RODGERS

KDSA
Est. 1972

NOTICE

Gravelly Ford Water District was initially part of the stakeholder group as a Groundwater Management Plan Participant, but withdrew in March 2014. This Groundwater Management Plan may still contain references to Gravelly Ford Water District.

EXECUTIVE SUMMARY

ES-1. Goals of the Groundwater Management Plan

The goal of this Plan is to provide the framework and technical data to allow for effective groundwater management which moves to restore, where possible, and maintain a high quality and dependable groundwater resource. This Plan documents the existing groundwater management efforts throughout the Groundwater Management Plan (GMP) area and planned efforts to improve groundwater management. The GMP Participants include Chowchilla Water District, City of Chowchilla, City of Madera, Madera County, Madera Irrigation District, and South-East Madera County United.

The goals of the Plan are supported by each of the participants, though not every agency will find it necessary or appropriate to implement every mitigation measure identified in this Plan. The Plan is written to address area-wide issues, but specific measures may only be feasible (technically or economically) in certain subareas. The Plan identifies the measures that may be feasible for each partner agency and leaves the final decisions on implementation to the individual boards of directors and city councils.

ES-2. Basin Management Objectives

The GMP Participants have adopted several overarching Basin Management Objectives which have guided preparation of the recommendations in this Plan. These consist of:

- Collaborative Governance
- Stabilization of Groundwater Levels
- Subsidence Mitigation
- Recovery of Groundwater Levels
- Public Awareness
- Economic Viability

ES-3. Groundwater Overdraft and Sustainability

Of the several Basin Management Objectives, the most critical and the one that drives all the others is the objective of achieving groundwater sustainability, which is defined as "*development and use of groundwater in a manner that can be maintained for an indefinite time without causing unacceptable environmental, economic, or social consequences*." (Alley et al. 1999) A large list of projects has been identified by the GMP Participants to initiate a program for implementation and work towards maintaining groundwater levels. These are listed in **Section 9.3**.

Determination of an available groundwater supply in a groundwater region (groundwater that can be pumped without causing overdraft) is a complex effort; an estimation was made using data including imported surface water, water used throughout the region by municipal and agricultural uses, water returned to the aquifer via natural and intentional

recharge, and the calculated change in underground water storage as measured by the changes in groundwater elevation over the region to approximate an area-wide water balance.

In **Section 2.5,** the Plan discusses region-wide overdraft. The 2008 IRWMP calculated the cumulative overdraft in the Valley area to be 99,000 AF/year. The area covered by this Plan does not include the entire Valley area of the County, since it excludes several active districts that did not participate in the Plan. Overdraft was estimated to average 143,000 AF/year over the period from 1980-2011. Future overdraft (2014 and beyond) is estimated to be 259,000 AF/year. The increase in overdraft can be attributed primarily to increased cropping, maturation of existing tree crops, and impacts from the San Joaquin River Restoration.

ES-4. Land Subsidence

Within certain portions of the GMP area, land subsidence results from excessive groundwater pumping over time. Unabated, such pumping can cause unwanted land surface disruptions. In reviewing work performed by the Department of Water Resources (DWR) and the United States Bureau of Reclamation (USBR) related to the San Joaquin River Restoration Project, it appears that substantial land subsidence is occurring in the Red Top area of Madera County, and that the rate of subsidence has increased in recent years with increased groundwater pumping in the area. The Red Top area is located in the west-northwest portion of the GMP area near the axis of the valley where the majority of the historic land subsidence has been documented.

DWR and USBR are both very interested in the subsidence issues in the Red Top area as it relates to the San Joaquin River Restoration Project and to capacity of the existing flood control channels. Neighboring agencies are concerned as well with what is happening and what can be done to limit land subsidence. Subsidence in this area, and across the valley in general, is a subject at the center of discussions within the state and the State Legislature regarding potential legislation to address groundwater and possible State regulation. **Section 2.7** describes the historical background of this subject in more detail. The basin management objectives set forth in **Section 3** include a specific objective regarding subsidence limitation and mitigation.

In **Section 7**, the Plan discusses factors that affect groundwater sustainability and provides a list of over twenty strategies for mitigating groundwater overdraft, for consideration by the GMP Participants as may be appropriate for each.

ES-5. Groundwater Monitoring

Of all the factors affecting groundwater sustainability mentioned above, overdraft and calculated direction from changes in groundwater storage over time is the most direct method of determining the state of a groundwater basin. No matter the other factors, over a long time period, if the groundwater elevation is declining, the groundwater basin is in a state of overdraft. If the groundwater elevation is increasing, uses and natural groundwater discharge are less than supplies and the basin is recovering. It should be noted that the Madera and Chowchilla sub basins are used conjunctively, meaning that

groundwater and surface water are used collectively for municipal and agricultural purposes and the groundwater basin is used as a storage reservoir. During wet years, less groundwater pumping is required and recharge is practiced so that excess surface water supplies can be added to water into below-ground storage. In dry years, less surface water is available, more groundwater is pumped to meet demands and groundwater levels decline. Because of this variable use, it is expected that water levels will rise and fall, but in a balanced groundwater basin those levels will be relatively stable over a longer time period.

Section 6 of the Plan describes current groundwater monitoring efforts, both as to groundwater surface elevation and groundwater quality, and describes recommended improvements to the program to help the partner agencies have a more thorough understanding of how the state of the aquifer is changing. The Plan finds that groundwater monitoring data is actually less comprehensive now than it was several years ago, since numerous wells that had been previously monitored are no longer being monitored. Intensification of a semi-annual monitoring program will give each of the GMP Participants strong data from which to make informed decisions regarding groundwater management, and will be the foundation of achieving the overall Basin Management Objectives.

Section 7 expands that recommendation and describes how the groundwater in the region must be protected from contamination due to transport of contaminants occurring as a result of over-pumping in areas of high-quality water. Several potential mitigation measures are included for consideration by each GMP Participant.

ES-6. On-Going Groundwater Operations and Management

An on-going groundwater overdraft as large as the one this region must manage means that significant and broad-based action will be required to bring the region to the point of groundwater sustainability. Review of the water use numbers shows that the issue is too large to be solved by any individual agency or economic sector. It is expected that solving the problem will need to be accomplished in a regional context across all economic sectors and industries in a manner consistent with the boundaries identified in the State's Bulletin 118 consistent with the Madera and Chowchilla sub basins.

Managing the region's groundwater resource to a sustainable level fairly and equitably will require ongoing cooperation among all the stakeholders in the region, as well as real sacrifices on a number of fronts. These upcoming policy and management decisions have led the GMP Participants to recommend formation of a region-wide groundwater management authority, in the form of a Joint Powers Authority (JPA) amongst the partner agencies. This JPA would be a powerful tool for the accomplishment of the goals set forth in this Plan, vested with the authority to make region-wide policy with respect to groundwater use, short of imposing groundwater use moratoria on properties or land uses within the region. The JPA could also be granted the power to levy and collect groundwater pumping charges and other fees meant to provide incentives to reduce groundwater use and increase overall water conservation.

Similar JPAs have been created in over a dozen areas of California. The details of the JPA agreements vary widely, and the GMP Participants will have a high degree of latitude in designing a JPA that will be best suited to the Madera region. These JPAs have proven to be effective tools in those regions for creating equitable and effective groundwater management without resorting to adjudication of the basins. In other words, the regions have maintained local control by their willingness to submit to the controls and policies necessary to reach sustainability.

Section 5 deals in more detail with how a JPA could be set up and what might be the extents and limitations of its authorities.

Readers are cautioned that it was beyond the scope of this project to perform a detailed water budget for each participant. While data exists to make water budget calculations at the sub-regional level, making them at the agency footprint level would require groundwater flow data that are not available without constructing an extensive network of monitor wells throughout the region. Interpolating the sub-regional calculations to the agency footprint level without that supplementary data would be an approximation beyond the prudent use of the available information. It is recommended that as the regional groundwater effort advances, a detailed water budget should be performed to the agency level. This will be helpful in identifying more-detailed information about each agency and the associated impacts that occur from actions by its neighbors. Trends may also become more visible.

TABLE OF CONTENTS

EXECUTIVE SUMMARY ES-1
1. INTRODUCTION 1
1.1. Overview 1
1.2. Report Organization 3
1.3. Background Information 3
1.4. Goals and Objectives of Groundwater Management Plan 19
1.5. Groundwater Rights and Statutory Authority for Groundwater Management 20
1.6. Groundwater Management Plan Components 24
1.7. Adoption of Plan 25
2. GEOLOGY AND HYDROGEOLOGY 27
2.1. Groundwater Basins and Subbasins Description 27
2.2. Geomorphology and Soils 30
2.3. Geology and Hydrogeology 32
2.4. Groundwater Elevations and Flow Direction 39
2.5. Groundwater Overdraft and Available Groundwater Supplies 46
2.6. Geologic Potential for Groundwater Recharge 54
2.7. Groundwater Quality 57
2.8. Land Subsidence 64
3. BASIN MANAGEMENT OBJECTIVES 71
4. STAKEHOLDER INVOLVEMENT 75
4.1. Groundwater Advisory Committee / Groundwater Management Agency 75
4.2. Relationships with Other Agencies 80
4.3. Plan to Involve the Public and Other Agencies 81
5. MONITORING PROGRAM 84
5.1. Groundwater Level Monitoring 84
5.2. Groundwater Quality Monitoring 88
5.3. Groundwater Monitoring Protocols 91
5.4. Land Surface Subsidence Monitoring 93
6. GROUNDWATER RESOURCES PROTECTION 96
6.1. Well Abandonment 96
6.2. Wellhead Protection 96
6.3. Saline Water Intrusion 98
6.4. Migration of Contaminated Groundwater 99
6.5. Groundwater Quality Protection 101
7. GROUNDWATER SUSTAINABILITY 103
7.1. Issues Impacting Groundwater Sustainability 103
7.2. Overdraft Mitigation 106
7.3. Groundwater Replenishment 113
7.4. Conjunctive Use of Water Resources 118
7.5. Land Subsidence Mitigation 119
7.6. Water Conservation and Education 121
7.7. Water Recycling 125
8. GROUNDWATER OPERATIONS 128

8.1. Well Construction Policies 128
8.2. Operation of Facilities 130
9. GROUNDWATER PLANNING AND MANAGEMENT 136
9.1. Land Use Planning..... 136
9.2. Groundwater Reports..... 140
9.3. Plan Implementation 141
9.4. Plan Re-evaluation..... 142
9.5. Dispute Resolution..... 143
9.6. Program Funding and Fees 143
10. REFERENCES 150

Figures

Figure 1.1 – Participating Agency Map
Figure 1.2 – Major Hydrologic Features and Water Conveyance Facilities
Figure 1.3 – Crop / Land Use Data
Figure 2.1 – Groundwater Sub-basins
Figure 2.2 – Near Surface Hydrologic Soils Groups
Figure 2.3 – Simplified Geologic Map – Madera County
Figure 2.4 – Simplified Geologic Map – Groundwater Management Plan Area
Figure 2.5 – Corcoran Clay Extent
Figure 2.6 – Estimated Groundwater Elevation Contours
Figure 2.7 – Western Subsidence Area – Upper Aquifer – Groundwater Elevation and Flow Direction (Jan-Feb 2013)
Figure 2.8 – Western Madera Subsidence Area – Lower Aquifer - Groundwater Elevation Contour and Flow Direction (Jan-Feb 2013)
Figure 2.9 – Average Annual Rates and Total Groundwater Level Declines from 1980-2011
Figure 2.10 – Sub-Areas and Overdraft in Valley Flood Area
Figure 2.11 – Natural and Artificial Groundwater Recharge Areas
Figure 2.12 – Base of Freshwater Map
Figure 2.13 – Historical Land Surface Elevations along Highway 152 Transect
Figure 2.14 – Subsidence Area
Figure 3.1 – Basin Management Objectives

Tables

Table 1.1 – Previous Groundwater Management Plans
Table 1.2 – Groundwater Management Plan Topics Addressed in Multiple Sections
Table 1.3 – Groundwater Management Plan Participant Areas
Table 1.4 – Comparison of Unimpaired Runoff in Normal and Dry Years
Table 1.5 – Domestic Water Demands
Table 1.6 – County-wide Cropping and Agricultural Water Demands
Table 1.7 – Agency Cropping and Agricultural Water Demands (2013)
Table 1.8 – Average Annual Groundwater Pumpage (2004-2013)

Table 1.9 – Historical Surface Water Supplies in the Groundwater Management Plan Area
Table 1.10 – Location of Groundwater Management Plan Components
Table 1.11 – Public Participation in Groundwater Management Plan Update
Table 2.1 – Groundwater Overdraft in Subareas (2006)
Table 2.2 – Summary of Regional Hydrologic Parameters
Table 7.1 – Estimated Losses to Friant Water Contracts from San Joaquin River Settlement (units in AF/year)
Table 7.2 – Strategies for Addressing Groundwater Overdraft
Table 7.3 – High Priority Strategies for Addressing Groundwater Overdraft
Table 7.4 – General Groundwater Recharge Assumptions
Table 9.1 – Implementation Plan
Table 9.2 - Potential Funding Sources

Appendices

A - Agricultural Water Demands
B - Sustainability from the Ground Up: Groundwater Management in California
C – Public Participation in Plan Adoption
D – Groundwater Quality Maps
E – Proposed Groundwater Monitoring Program for Madera County
F – Regional Groundwater Levels (Kenneth D. Schmidt and Associates)
G – Groundwater Exporting and Banking Regulations (County of Madera and MID)
H – Well Construction Policies (City of Chowchilla and County of Madera)

List of Abbreviations

AB	Assembly Bill
AF	acre-feet
AFY	acre-feet/year
bgs	below ground surface
BMO	basin management objective
BNSF	Burlington Northern Santa Fe Railway
CASGEM	California State Groundwater Elevation Monitoring program
CCID	Central California Irrigation District
CDPH	California Department of Public Health
CEQA	California Environmental Quality Act
CFU	colony forming unit
CGPS	continuous global positioning satellite
CSD	community services district
CVP	Central Valley Project
CWD	Chowchilla Water District
DBCP	dibromochloropropane
DOGGER	California Division of Oil, Gas and Geothermal Resources
DPH	Department of Public Health
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EC	electrical conductivity
EDB	ethylene dibromide
EPA	Environmental Protection Agency
GAC	Groundwater Advisory Committee
GAMA	Groundwater Ambient Monitoring and Assessment Program
GFWD	Gravelly Ford Water District
GMP	Groundwater Management Plan
GPS	global positioning system
HPC	heterotrophic plate count
HSA	Hydrologic Study Area
ID	Irrigation District
InSAR	Interferometric synthetic aperture radar
IRWMP	Integrated Regional Water Management Plan
JPA	Joint Powers Agreement / Joint Powers Authority
KDSA	Kenneth D. Schmidt and Associates
KDWCD	Kaweah Delta Water Conservation District
LLNL	Lawrence Livermore National Laboratory
mAF	million acre-feet
MCL	Maximum contaminant level
MD	Maintenance District
MG	million gallons
MGD	million gallons per day
MID	Madera Irrigation District
MOA	Memorandum of Agreement

MOU	Memorandum of Understanding
msl	mean sea level
mya	million years ago
NAVSTAR	Navigation Satellite Timing and Ranging
NGS	National Geodetic Survey
OBGMA	Ojai Basin Groundwater Management Agency
P&P	Provost & Pritchard Consulting Group
PBO	plate boundary observatory
RCD	Resource Conservation District
RCWD	Root Creek Water District
RWQCB	Regional Water Quality Control Board
SA	Service Area
SB	Senate Bill
SCADA	Supervisory Control and Data Acquisition
SEMCU	South-East Madera County United
SGA	Sacramento Groundwater Authority
SJJRP	San Joaquin River Restoration Project
SLDMWA	San Luis & Delta-Mendota Water Authority
SMWA	Sacramento Metropolitan Water Authority
TAC	Technical Advisory Committee
TDS	total dissolved solids
TID	Tulare Irrigation District
UNAVCO	University NAVSTAR Consortium
USACE	United States Army Corps of Engineers
USBR	United States Bureau of Reclamation
USGS	United States Geologic Survey
WCD	Water Conservation District
WHPA	wellhead protection area
WSJV	Western San Joaquin Valley
WWTP	wastewater treatment plant

1. INTRODUCTION

1.1. Overview

This Groundwater Management Plan (GMP or Plan) is a collaborative effort between the City of Chowchilla, City of Madera, Madera Irrigation District, Chowchilla Water District, Madera County and South-East Madera County United. These agencies will hereafter be called the Plan Participants or GMP participants. Other agencies or entities that may have an interest in the plan will be called Stakeholders. This GMP addresses regional groundwater management issues, as well as local groundwater management by each participating agency. Each participant maintains sovereign groundwater management over their respective service areas. Refer to Section 1.5 for more details on the groundwater management authority of the GMP Participants.

This Groundwater Management Plan satisfies the new requirements for GMPs created by the September 2002 California State Senate Bill No. 1938 and 2011 Senate Bill 359, which amended Sections 10753 and 10795 of the California Water Code. This Plan also addresses recommended components for a Groundwater Management Plan described in Appendix C of Department of Water Resources Bulletin 118 (2003 Update). Section 1.6 shows the required and recommended components for GMPs.

In September 2014, the State of California passed Senate Bill 1168, Assembly Bill 1739, and Senate Bill 1319, which are collectively known as the Sustainable Groundwater Management Act. These bills impose mandates for sustainable groundwater management on local agencies in high- and medium-priority groundwater basins, and require development of Groundwater Sustainability Plans, which will supplant Groundwater Management Plans such as this one. The State must develop detailed guidelines for what to include in the Groundwater Sustainability Plans. This GMP will not fully satisfy the requirements of this new legislation, but much of the information herein will be useful in developing a Groundwater Sustainability Plan in coming years.

The primary purpose for this plan is to demonstrate that local groundwater management efforts can be meaningful. Adjudication of the groundwater basin by the State may be likely in the near future if a coordinated, regional effort is not implemented to improve groundwater conditions, and to limit subsidence along the San Joaquin River in northwestern Madera County. Additional purposes for preparing this regional GMP include:

1. Satisfy new State requirements for GMPs.
2. Update and document the region's goals and objectives for groundwater management.
3. Update information on local groundwater conditions so the GMP is a useful reference document.

4. Maintain the participant's eligibility for certain State grants, loans and special drought assistance that require an updated GMP.
5. Continue each of the participant's authority to responsibly manage local groundwater with the intent to sustainably meet local water needs.
6. Improve water management on a regional basis to avoid adjudication of the local groundwater basin by the State.

This plan outlines the framework for regional and local groundwater management efforts in the valley floor portion of Madera County and the portion of Merced County covered by Chowchilla Water District. Several of the GMP participants have previously prepared Groundwater Management Plans, but those plans do not satisfy all the current GMP requirements. The Participants have chosen to prepare a regional GMP so the plan can more effectively address topics that are regional in nature, such as groundwater overdraft and land subsidence, or are better addressed with a regional approach, such as data collection and public education. It is intended that each participant will implement the appropriate regional concepts in their local jurisdictions. **Table 1.1** shows the previous GMPs and when each was developed.

Table 1.1 – Previous Groundwater Management Plans

Participant	Date of Previous GMP
City of Chowchilla	1997
Chowchilla Water District	1997
Gravelly Ford Water District	1998
City of Madera	None
Madera County	2002
Madera Irrigation District	1999
South-East Madera County United	None

Hereafter in this report, the terms 'region' and 'regional' refer to the cumulative jurisdictional areas covered by these agencies.

The other public water agencies in the valley portion of Madera County were offered the opportunity to participate in this plan, but chose not to for a variety of reasons. These areas include Madera Water District, Root Creek Water District, Clayton Water District, Progressive Water District, Sierra Water District, New Stone Water District and Columbia Canal Company. Of these, Madera Water District, Columbia Canal Company, Aliso Water District and Root Creek Water District have Groundwater Management Plans that comply with recent State laws. The other districts are inactive or do not have a GMP, and are included in the County's tabulations.

1.2. Report Organization

This report is organized according to the required content for GMPs outlined in the California Water Code. General categories that are addressed include descriptions of the regional geology and hydrogeology, basin management objectives, stakeholder involvement, groundwater monitoring, groundwater resources protection, groundwater sustainability, groundwater operations, and groundwater planning and management. Within these categories, specific groundwater management elements are described including existing activities and planned actions to improve groundwater management.

Some of these topics are discussed in more than one section, which is a reflection of Water Code requirements. Specifically groundwater quality, land subsidence and groundwater overdraft are discussed in multiple sections, as shown in **Table 1.2**.

Table 1.2 – Groundwater Management Plan Topics Addressed in Multiple Sections

Topic	Related GMP Sections
Groundwater Quality	2.7 – Groundwater Quality
	5.2 – Groundwater Quality Monitoring
	6.3 – Saline Water Intrusion
	6.4 – Migration of Contaminated Groundwater
	6.5 – Groundwater Quality Protection
Land Subsidence	2.7 – Land Subsidence
	5.4 – Land Subsidence Monitoring
	7.5 – Land Subsidence Mitigation
Groundwater Overdraft	2.5 – Groundwater Overdraft and Available Groundwater Supplies
	2.6 – Geologic Potential for Groundwater Recharge
	7.2 – Overdraft Mitigation
	7.3 – Groundwater Replenishment
	7.4 – Conjunctive Use of Water Resources

1.3. Background Information

This section provides an overview of each of the GMP Participants as well as the region's geography, climate, hydrologic features, geology, land use, water demands, groundwater supplies and surface water supplies. Information is provided for each agency, and collectively the data is used in a regional analysis of groundwater conditions. Refer to Section 8.2 - Operation of Facilities for more details on water-related infrastructure in the region. A map showing the locations of each participating agency is shown as **Figure 1.1**.

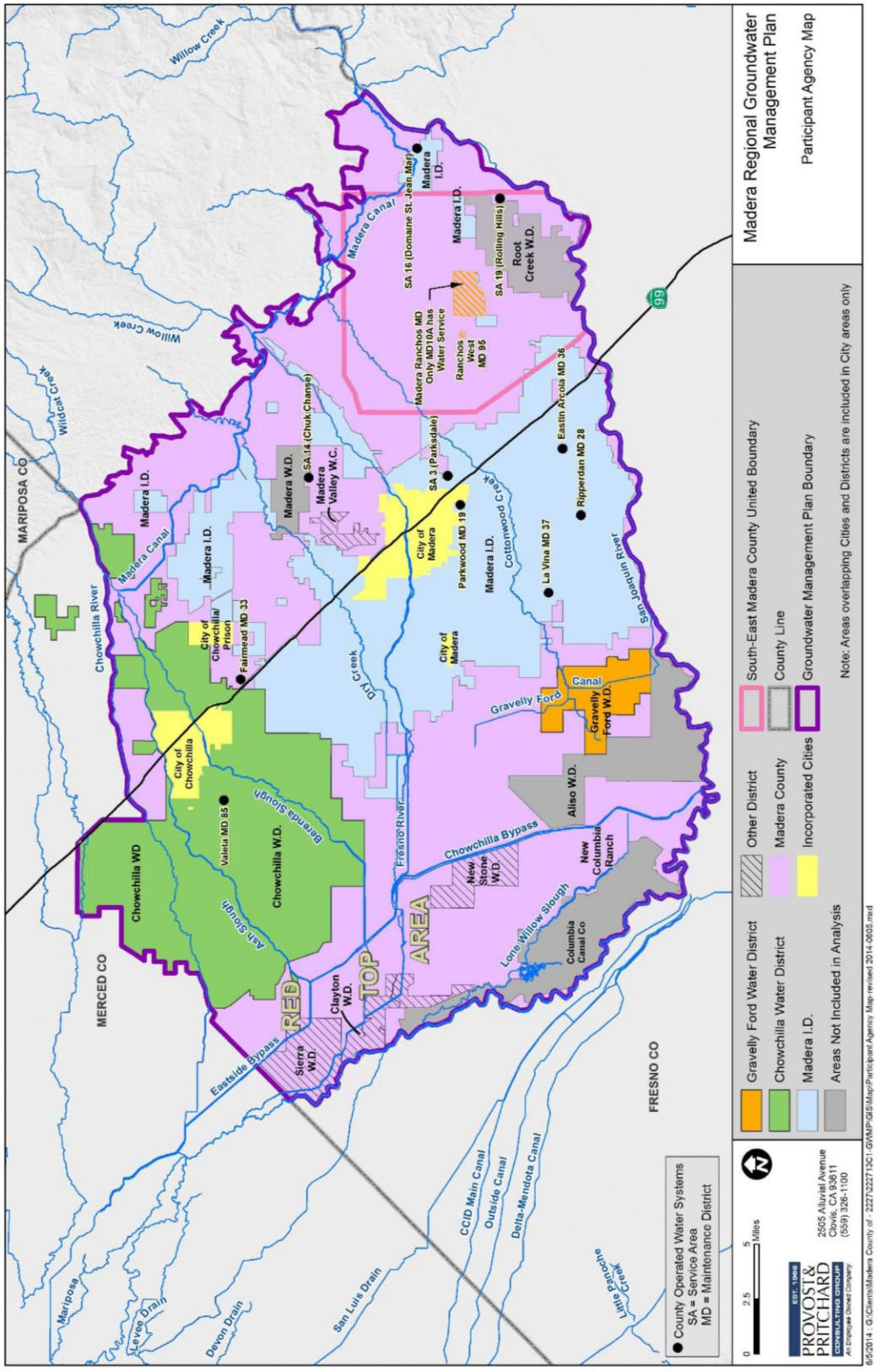

Figure 1.1 – Participating Agency Map

1.3.1 Participants Overview

City of Chowchilla

The City of Chowchilla, incorporated in 1923, covers approximately 11.72 square miles (7,500 acres) and has a population of 19,000 (US Census, 2013), including about 6,600 inmates at two local prisons. The two local prisons are surrounded by County of Madera lands, effectively creating a 1,323-acre city island east of the main city limits. The prisons together farm about 780 acres and provide their own water and sewage services.

The City of Chowchilla is governed by a five member City Council which sets policy for city government, city services, and economic development. The City Council has the authority to pass emergency ordinances for the immediate preservation or protection of public health, property or safety. Various commissions and committees, including the Airport Advisory Committee, Heritage Preservation Commission, Parks & Recreation Commission, and the Planning Commission, act in advisory capacities to the City Council.

Chowchilla Water District

Irrigation in the Chowchilla region began in the late 1800s using artesian wells, but by the 1940s diminished groundwater supplies threatened the area's continued economic viability. The Chowchilla Water District was formed in 1949 for the purpose of furnishing a supplemental water supply for agriculture within its boundaries. Until that time, the lands within the District boundaries had been part of the Madera Irrigation District. In the ensuing years, additional acreage was added to the District. In 1988, the LaBranza Water District and Chowchilla Water District consolidated into the current Chowchilla Water District.

In 1950, the District signed its original water service contract with the U.S. Bureau of Reclamation, for water delivery from the Friant Division of the Central Valley Project. In 1968, the District signed a second water service contract with the U.S. Bureau of Reclamation, for water delivery from the Buchanan Unit of the Central Valley Project.

Since its inception, the District has provided consistent and reliable surface water to its constituents, resulting in improvements to local groundwater conditions. The District currently consists of approximately 129.2 square miles (88,700 acres), which includes an overlap of 6,100 acres with the City of Chowchilla. The District includes lands in both Madera and Merced counties.

The mission of the Chowchilla Water District is to protect, enhance, and manage surface and groundwater resources of the District in order to meet present and future water demands within the District. The District is governed by a five-member Board of Directors.

City of Madera

The City of Madera is the largest city in Madera County and serves as the County seat. The City had an estimated 2013 population of 62,200. Laid out in 1876 at the end of a lumber flume and incorporated in 1907, it now occupies approximately 10,000 acres (15.8 square miles). Utilizing a Council and Manager form of government, six City Council members and a separately-elected Mayor address the legislative needs of the city. The City Manager is appointed by the City Council to administer the overall city organization. Madera is a full-service city, operating its own water and wastewater systems, and hosting a full range of community-based programs and services. Strategic planning in the City is driven by Vision Madera 2025, a community-based visioning program completed in 2006, and by the City's Comprehensive General Plan.

Madera County

Madera County was formed in 1893 and encompasses 2,174 square miles (1.4 million acres). The valley portion of the County is covered by this GMP, excluding Cities and Irrigation/Water Districts with adopted GMPs (see **Figure 1.1**). This area covers 432 square miles (277,000 acres) and has a population of about 27,000 with about 19,700 residing in eight Maintenance Districts and four Service Areas that are provided water by the County. Large areas of unincorporated lands are cropped or grazed and operate on private domestic and irrigation wells. A large portion of the eastern end of Madera County (within the valley) has high bedrock, limited alluvium and little groundwater supply, despite being in a DWR defined groundwater basin. Local wells in this area have limited groundwater yield, and groundwater is typically only pumped from small stockwater wells.

A five member Board of Supervisors (BOS) oversees the duties and functions of Madera County government. Supervisors work with the elected department heads and hire other department heads to run the various departments. The BOS may set County policy, but works within the constraints of State and Federal law. It is the duty of the BOS to submit a balanced budget to the State. The Board meets regularly on the first four Tuesdays of the month and any member of the public may bring matters before the Board if the item is placed on the meeting agenda. The BOS is the governing body for the following: Madera County Flood and Water Conservation Agency, Maintenance Districts and Service Areas, Public Finance Authority, and Redevelopment Agency.

Madera Irrigation District

Madera Irrigation District (MID) is a public agency, established by the State Legislature as a Special Act District. It is governed by a five-member Board of Directors who are elected at large but who must reside within the division they serve. A large segment of the City of Madera (City) is included within the District as well as portions of Madera Water District. Each registered voter who resides within the City has the opportunity to vote for the Director of his or her choice and may opt to run for the directorship. In addition to the services rendered to the lands within the District, the District also conveys agricultural water to the Gravelly Ford Water District. The District is also a partner in the Madera-Chowchilla Water and Power Authority.

The District was formed in 1920 to bring surface water to the Madera area. The District presently encompasses an area of about 129,000 acres, with about 9,400 acres overlapping with the City of Madera. About 10,800 acres within MID are known as "subordinate lands," which have a lower priority to surface water than other lands in the District. Excluding the City of Madera overlap area, MID has a population of 11,900 according to the 2013 census.

The District has a Central Valley Project (CVP) repayment contract with United States Bureau of Reclamation (USBR) providing up to 85,000 acre-feet (AF) of Class 1 and 186,000 AF of Class 2 water per year from the Friant Division (Millerton Lake). CVP water is released from Millerton Lake through the Friant Dam, and then conveyed through the Madera Canal for delivery into the District's service area. The District also entered into a CVP repayment contract with the USBR for the yield from the Hidden Unit (Hensley Lake). The average annual supply available to the District under the Hidden Unit contract is approximately 24,000 AF per year.

The District has Pre-1914 rights to divert water from Big Creek, known as the Big Creek Diversion, and the North Fork of Willow Creek, known as the Soquel Diversion. The Big Creek Diversion originates in Big Creek, a tributary of the Merced River. This Diversion is located just upstream of Fish Camp, CA, and redirects water to flow down Lewis Creek, a tributary of the upper Fresno River. The Soquel Diversion originates in North Fork Willow Creek, a tributary of the San Joaquin River. This Diversion is located approximately nine miles upstream of Bass Lake, where the Diversion can redirect water to flow through the Soquel Ditch to Nelder Creek, a tributary of the upper Fresno River. Alternatively, water can be left in North Fork Willow Creek, and allowed to flow to Bass Lake and eventually to the San Joaquin River, where it can be diverted in Friant Dam. MID also has a Pre-1914 water right on the Fresno River. MID expects surface water supplies to increase by 10,000 AF/year in the future as they sell less of their water, and some growers import some surface water.

South-East Madera County United

South-East Madera County United (SEMCU) is a non-profit mutual benefit organization dedicated to representing the interests of the residents, property owners, and businesses in the SEMCU Area. It is bounded to the north by Highway 145, on the south by the San Joaquin River, on the east by Highway 41, and on the west by the Burlington Northern Santa Fe Railway ("BNSF") and by Avenue 32 1/2 north of its intersection with the BNSF Railway. It occupies an area of 97.6 square miles (~62,500 acres). There are two identified communities within the SEMCU area. The larger is the Madera Ranchos with about 12,000 people and around 3,500 homes. Most residential lots are either 2.5 or five acres in size, although there are some one-acre lots and a number of larger parcels. Rural residential development is common in the area. The smaller community is Rolling Hills, located on the west side of SR 41, between Avenue 10 and Avenue 11-1/2. It is comprised of 300 homes; virtually all lots are one acre in size. Both of these areas are unincorporated and represented by Madera County. The population within the SEMCU area was estimated to be 10,500 in 2013.

SEMCU is a participant in the GMP but does not own or operate groundwater extraction, recharge or conjunctive use facilities. It is a non-profit educational organization and has no land-use planning authority. However, SEMCU represents numerous public and private interests in its area and provides input and comments on water related land-use policies. In representing local interests, SEMCU studies issues facing its members, such as access to water, transportation, schools, and energy, and works with local governments and private entities to find working solutions to regional problems. Additionally, SEMCU strives to advocate for its members wherever and whenever the opportunity arises and to obtain grant funding to help address area needs. More information on SEMCU can be found on their website: http://semcu.com/about.php).

1.3.2 Geography

The Madera Regional GMP area is located in the geographic center of California in the San Joaquin Valley. The GMP area generally includes the valley portion of Madera County and a portion of Chowchilla Water District that is within Merced County. The borders of the GMP area are generally defined by the DWR Groundwater Basin boundaries to the east, the San Joaquin River on the south and west, and the Chowchilla River on the north. The GMP area considered under the jurisdiction of Madera County includes County lands that are not under the jurisdiction of a City, or active water district or irrigation district. Areas excluded from the GMP include Root Creek Water District, Madera Water District, Aliso Water District and Columbia Canal Company. The area of each GMP participant is shown in **Figure 1.1** and summarized in **Table 1.3.**

Table 1.3 – Groundwater Management Plan Participant Areas

Participant	Area		Notes
	Square Miles	Acres	
Chowchilla Water District	129	82,700	Excludes City areas, includes subordinate lands
City of Chowchilla	12	7,500	Includes prisons
City of Madera	16	10,100	
County of Madera	432	277,000	Includes unincorporated areas outside of Cities and districts
Madera Irrigation District	187	119,600	Excludes City areas; includes subordinate lands
South-East Madera County United	98	62,500	Overlaps with Cities, districts and county
Total (excluding SEMCU overlap)	776	496,900	

1.3.3 Climate

The climate of the GMP area is characterized by cool, mild winters and hot, dry

summers. Temperatures in the summer often exceed 100 degrees Fahrenheit. Fog can be experienced for long periods in the winter, with low temperatures typically in the mid-30's and occasionally dropping into the 20's. Average annual precipitation is about 10 inches, with 80 percent of the rainfall occurring in the winter months. The frost-free growing season averages around 250 days per year.

Water supplies can vary substantially year to year due to wide variations in precipitation in the GMP area and its upper watersheds. The California Department of Water Resources created an index that provides a comparison of normal, single-dry and multiple-dry years in the San Joaquin Valley. The data is presented as the Chronological Reconstructed Sacramento and San Joaquin Valley Water Year Hydrologic Classification Indices (Index), and covers the period from 1901 to 2013. DWR has defined certain base years as average, single-dry and multiple-dry. These are presented in **Table 1.4** with the estimated unimpaired runoff each year.

Table 1.4 – Comparison of Unimpaired Runoff in Normal and Dry Years

Description	Base Year	Runoff (mAF)	Percentage of Average Year	Water Supply Index
Average Water Year	1921	5.90	100%	3.23
Single-Dry Water Year	1977	1.05	18%	0.84
Multiple-Dry Water Years	1929-1931	2.58[1]	44%	1.74[2]
Single-Dry Year	2012	2.76	47%	2.18
Single-Dry Year	2013	3.05	52%	1.76

Notes: [1] Average runoff for 3 year period.
[2]Average index over 3 year period

Table 1.4 shows that water supplies can be substantially lower than average in dry years, and less than half of normal for as long as three consecutive years. As well, to illustrate the most current condition in the region, water supplies in 2012 and 2013 have been about one-half of the average and it is likely that due to a lack of storage in the watershed, in terms of lack of soil moisture and minimal snow pack, that 2014 may be as dry a year as 1977.

1.3.4 Hydrologic Features

The major hydrologic features in the GMP area, including reservoirs, rivers, streams, flood bypass channels, and canals are shown in **Figure 1.2**. Major rivers include the San Joaquin River, Fresno River and Chowchilla River. The Eastside Bypass and Chowchilla Bypass are the backbone of the flood control conveyance facilities. MID and CWD have extensive irrigation canal systems.

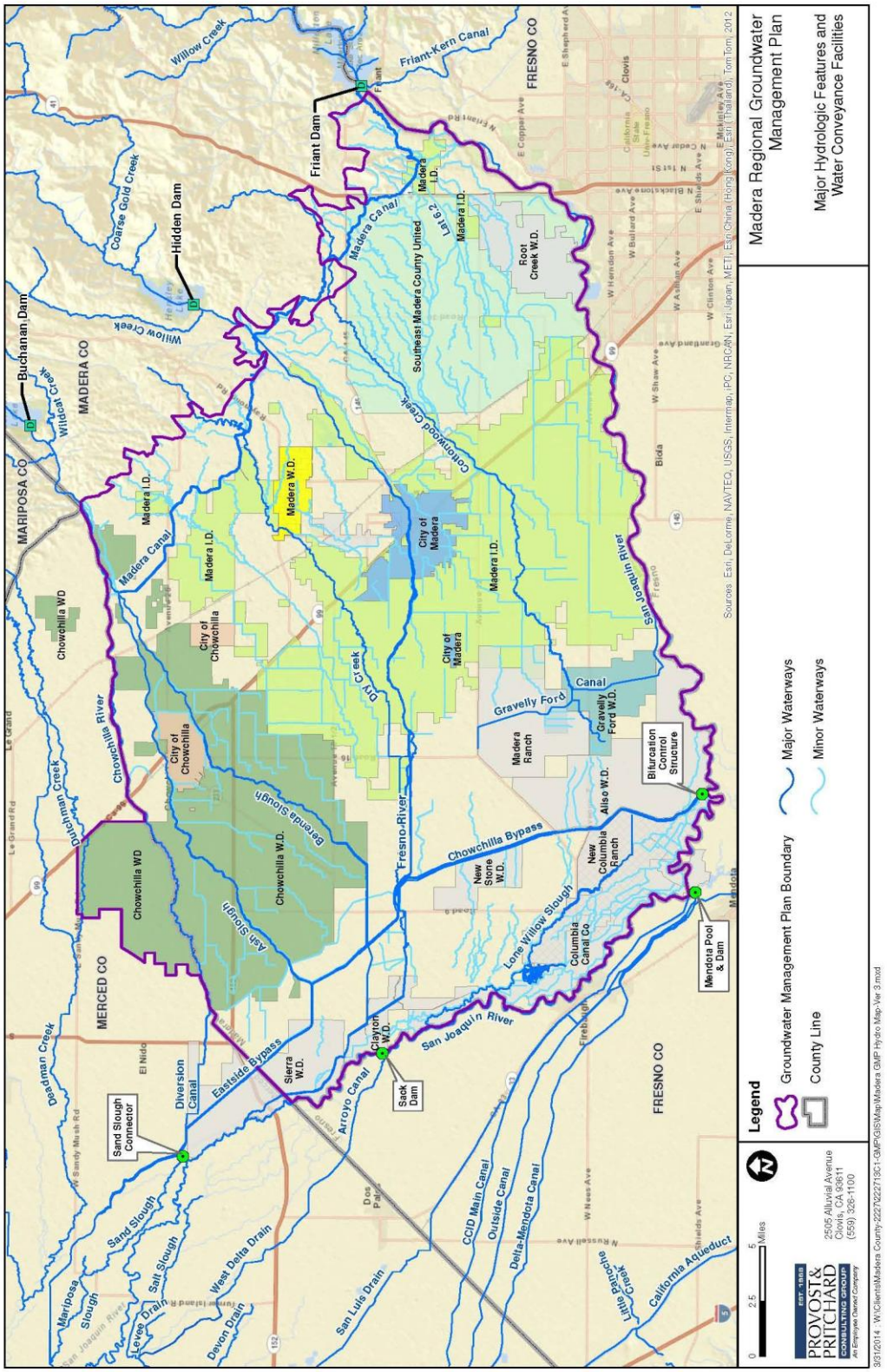

Figure 1.2 – Major Hydrologic Features and Water Conveyance Facilities

1.3.5 Geology

The GMP area encompasses the majority of the Madera Groundwater Sub-basin, and portions of the Chowchilla and Delta Mendota Groundwater Sub-basins (a map and discussion of the extent of these groundwater basins is provided in Section 2.1). These Sub-basins are defined by the California Department of Water Resources Bulletin 118-80. These Sub-basins are within the San Joaquin Valley Groundwater Basin and the San Joaquin Basin Hydrologic Study area.

The Madera and Chowchilla Sub-basins are considered to be 'critically overdrafted' by the California Department of Water Resources. Groundwater levels in the GMP area have gradually declined over time. The Corcoran Clay, a major confining bed in the San Joaquin Valley, is present in the western portion of the Plan area. See Section 2 for more details on the geology of the GMP area.

1.3.6 Domestic Water Demand

Domestic water demands are defined as water used for domestic (indoor and landscape) purposes in urban and rural areas. The Cities directly provide water to their residents, and the County provides water to residents of the 12 Maintenance Districts and Service Areas in the Plan area. Rural residents living in the irrigation districts, water districts and other unincorporated areas also pump domestic water from their private wells. **Table 1.5** summarizes domestic water demands in the GMP area based on the most recent statistics

Table 1.5 – Domestic Water Demands

Area	Per Capita Usage (gal/day)	Annual Demand (AF/year)
City of Chowchilla	311	3,500
City of Madera	195	12,700
County Maintenance Districts / Service Areas	168	3,700
Unincorporated County lands	168	1,400
Madera Irrigation District	168	2,200
Chowchilla Water District	168	600
Gravelly Ford Water District	168	20
	Total	24,100

The per capita water usage values were obtained from the City's Urban Water Management Plans, 2008 Madera County IRWMP, and current water use and population statistics.

Urban growth was relatively high in the early and mid-2000's in Madera County but recently has been relatively flat. Evaluating future population growth is beyond the scope of this Plan. However, it is recommended that population growth be evaluated in a separate study to forecast the impacts it may have on future groundwater overdraft. Important factors that may impact population growth include available water supplies, local economic activity, and improvement in local schools.

1.3.7 Agricultural Water Demands

Cropping Data

Agricultural cropping data was collected to estimate agricultural water demands in the GMP area. Several sources of cropping data were found including:

1. California Department of Water Resources (DWR) - Land Use Data
2. California Department of Conservation – Farmland Mapping and Monitoring Data
3. Madera County Agricultural Commissioner's office
4. USDA CropScape
5. Local Irrigation and Water District cropping records

The DWR Land Use Data is generally considered the most accurate and reliable source because it is collected by trained staff who use a combination of aerial photographs and field verification. However, DWR surveys are only performed in each County about once every six years, and the most recent survey was performed in 2011. DWR data was also used in crop demand estimates in the 2008 IRWMP and it can provide a meaningful comparison to changes since 2007. As a result, the 2011 DWR data was projected to 2013 based on historical cropping changes since 2003.

The Madera County Agricultural Commissioner's Office had 2013 cropping data, which is based on pesticide permit applications. This data is not field verified, but is the most recent data available. The data does not include records for organic farms since they do not require pesticide permits, although these cover a relatively small part of the County. Nevertheless, the larger organic farms and dairies were identified, and cropping was assumed to be similar to the year before they converted to organic operations.

During the preparation of this report, the Irrigated Lands Regulatory Program was contacted as a potential source of cropping data. However, ILRP members were still in the process of organizing and collecting data and none was available for release.

Crop Water Demands in GMP Area

General land use in the GMP area is shown in **Figure 1.3.** The cropping data for **Figure 1.3** was acquired from the Madera County Agricultural Commissioner's Office and can be found in **Appendix A**. **Figure 1.3** shows that almost 54% of the land is planted in permanent crops, and 69% of the total land is cropped. There is potential for further agricultural development since 21% of the land has not been developed.

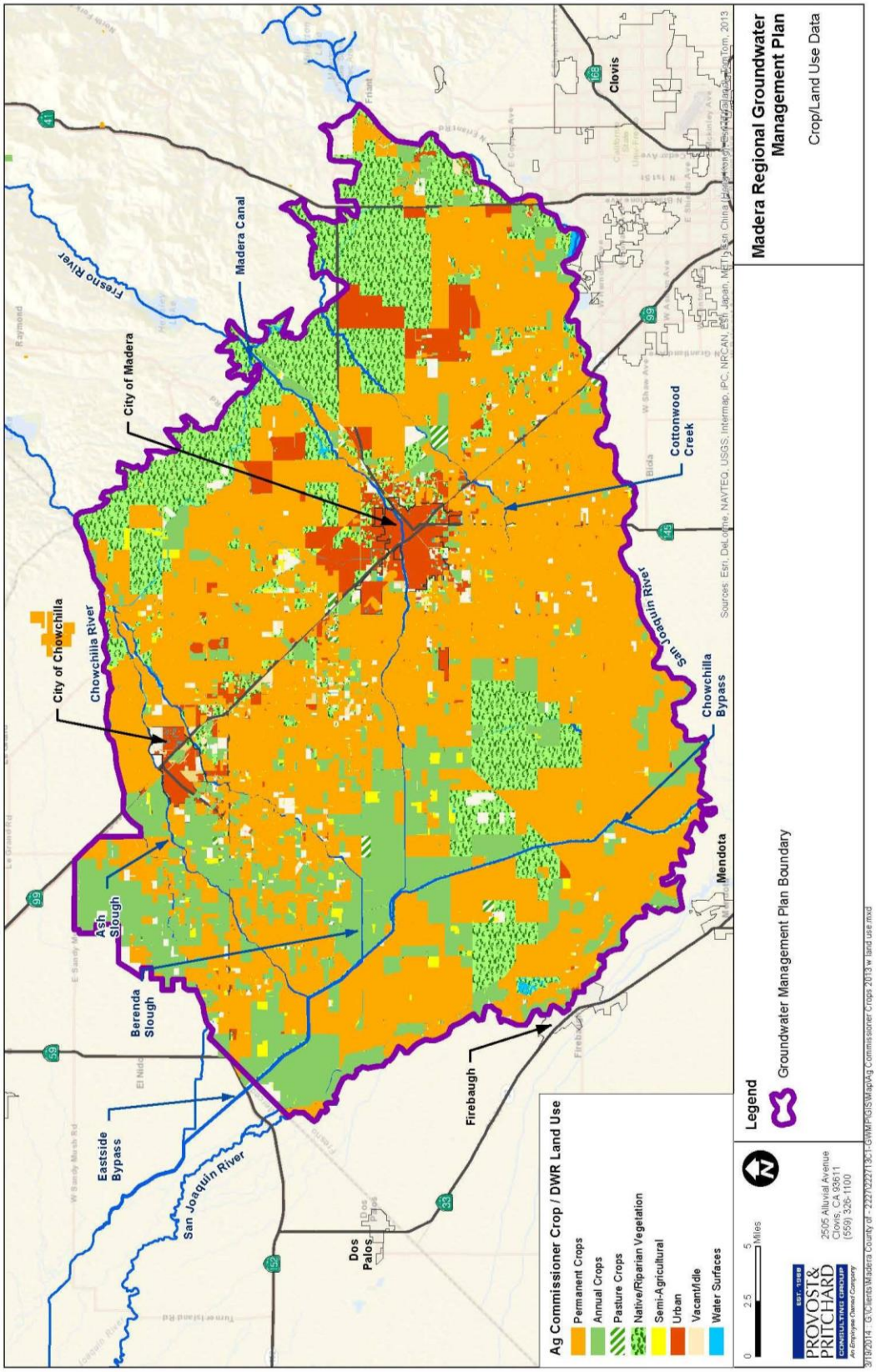

Figure 1.3 – Crop / Land Use Data

Countywide cropping data is shown in **Table 1.6** for several years. DWR data from 2011 was projected to 2013 based on average annual historical changes between 2003 and 2011. The estimated water demands are within 0.5% of those estimated using the 2013 data from the Madera County Agricultural Commissioner's Office.

Table 1.6 – County-wide Cropping and Agricultural Water Demands

Year	Cropping Data Source	Acreage	Applied Water Demands (AF/year)
2003	DWR	314,800	1,010,000
2011	DWR	360,900	1,022,000
2013	DWR (projected)	372,600	1,050,000
2013	County Agricultural Commissioner's Office	357,700	1,044,000

The projected DWR data and County Agricultural Commissioner's Office have similar applied water demands, but the acreage varies by approximately 4%. A review of the data shows that 2013 included a reduction in low-water-use crops, such as grains, and an increase in medium- and high-water use crops, including corn and truck crops, thus explaining the discrepancy.

Agricultural plantings have increased substantially in recent years. Much of the plantings have been tree crops that cannot be fallowed in dry years. In addition, the demand for certain crops, such as almonds, is very strong and may encourage further development. An evaluation of future agricultural water demands is beyond the scope of this plan, but is needed to assess the impacts of future irrigation demands on groundwater overdraft.

Crop Water Demands in Participating Agencies

Table 1.7 shows cropped area and agricultural water demands for each agency. Refer to **Appendix A** for water demand calculations. Both Cities include small areas that are cropped and hence have some agricultural water demand.

Table 1.7 – Agency Cropping and Agricultural Water Demands (2013)

Area	Cropped Acreage	Annual Demand (AF/year)
City of Chowchilla	1,500	4,000
City of Madera	1,100	2,500
Unincorporated County Lands	141,000	418,000
Madera Irrigation District	104,000	286,000
Chowchilla Water District	68,500	215,000
Gravelly Ford Water District	7,600	20,400
Total	**323,700**	**945,900**

Note: The values for MID and CWD exclude areas that overlap with the Cities. This was done to avoid double-counting areas and water demands.

The total cropped area in **Table 1.7** differs from the acreage presented in **Table 1.6** because certain areas which have adopted Groundwater Management Plans (Root Creek Water District, Aliso Water District, Columbia Canal Company and Madera Water District) were excluded from the latter summary.

1.3.8 Groundwater Supplies

All of the GMP Participants use groundwater to meet at least a portion of their water demands. Groundwater serves an important reserve supply to supplement surface water deliveries. Below is a summary of groundwater usage in each agency, including groundwater used directly by the agency and groundwater pumped from private wells within the agency boundaries. Groundwater pumpage is directly measured by some municipal agencies, but is not measured on domestic or agricultural wells. Domestic groundwater pumping was based on population and typical per capita use rates (see **Table 1.5**). Groundwater pumping in agricultural areas was estimated as the difference between water demands and surface water deliveries.

Table 1.8 - Average Annual Groundwater Pumpage (2004-2013)

Agency	Agency Groundwater Pumpage (AF)	Private Groundwater Pumpage (AF)	Total Pumpage (AF)
Chowchilla Water District	0	118,600	118,600
City of Chowchilla	4,100	2,600	6,700
City of Madera	12,700	600	13,300
County of Madera	3,700	398,800	402,500
Gravelly Ford Water District	0	16,300	16,300
Madera Irrigation District	0	185,000	185,000
Total	20,500	721,900	742,400

Notes:

1. Values are total groundwater pumpage. Net pumpage is less due to deep percolation of irrigation and percolation of wastewaters.
2. These are historical values. Future pumping will likely increase due to reductions in surface water deliveries as a result of the San Joaquin River Restoration settlement.

1.3.9 Surface Water Supplies

Madera Irrigation District, Chowchilla Water District and Gravelly Ford Water District each meet significant portions of their water demands with surface water. The County of Madera provides a small amount of surface water to one of their Service Areas. In addition, an estimated 10,000 AF/year of riparian water is delivered to other private lands in unincorporated areas of Madera County.

The Cities of Madera and Chowchilla do not have surface water rights or contracts. However, within the limits of each City there are cropped lands that receive some surface water from local water or irrigation districts. Owners of those parcels pay assessments to the districts, and as a result partially fund the importation of surface water to the GMP area. The City of Madera also purchased 300 AF of floodwater in 2009 from MID as a pilot study on groundwater recharge. **Table 1.9** summarizes the historical surface water deliveries in the GMP area, followed by more detailed descriptions of those supplies.

SEMCU does not have the authority to hold water rights or water contracts.

Table 1.9 – Historical Surface Water Supplies in the Groundwater Management Plan Area

Agency	Average Annual Supplies (2004-2013)	Notes
Chowchilla Water District	135,000	Excludes CWD lands in City of Chowchilla
City of Chowchilla	1,400	CWD water delivered to cropped land in City
City of Madera	1,900	MID water delivered to cropped land in City
County of Madera	20,000	Sumner Hills Service Area, riparian agricultural water, some MID water
Gravelly Ford Water District	10,500	
Madera Irrigation District	188,000	Excludes MID lands in City of Madera
Total	**356,800**	

Note: Values include surface water that is delivered directly to growers and recharge basins, and lost as canal seepage.

These surface water supplies have been and will continue to be reduced to provide water for the San Joaquin River Restoration. Those impacts are described in Section 7.1 – Issues Impacting Groundwater Sustainability.

Chowchilla Water District

Irrigation in the Chowchilla region began in the late 1800s with artesian wells, but by the 1940s diminished groundwater supplies threatened the area's continued economic viability. The Chowchilla Water District was formed in 1949 for the purpose of furnishing a supplemental water supply for agriculture within its boundaries. Until that time, the District had been part of the Madera Irrigation District.

In the ensuing years additional acreage was added to the District. In 1988, the LaBranza Water District and Chowchilla Water District were consolidated into the current Chowchilla Water District. In 1950, the District signed its original water service contract with the U.S. Bureau of Reclamation (USBR) for water delivery from the Friant Division of the Central Valley Project (Friant CVP). In 1968, the District signed a second water service contract with USBR for water delivery from the Buchanan Unit of the Central Valley Project.

Since its inception, the District has provided consistent and reliable surface water to its constituents, resulting in improvements to groundwater conditions. The District services

over 400 landowners on about 88,000 acres of land in southern Merced and northern Madera counties.

Chowchilla Water District (CWD) receives water from three main sources: the San Joaquin River, the Chowchilla River and Merced Irrigation District. Chowchilla Water District's current Friant CVP contract provides for an annual maximum of 55,000 AF of Class 1 water and an annual maximum of 160,000 AF of Class 2 water, all supplied via the Madera Canal. The District receives an annual average of 48,500 AF from its Buchanan Unit contract, and purchases surplus water from Merced Irrigation District in varying quantities when it is available.

Gravelly Ford Water District

Gravelly Ford Water District's contract with the USBR is for 14,000 AF of Class 2 water, delivered through the San Joaquin River. The District has also been able to take some water from Cottonwood Creek, and buy additional water from Madera Irrigation District and the USBR. The average annual surface water supply between 2004 and 2013 was 10,500 AF, and in some years no water has been available.

Madera Irrigation District

The Madera Irrigation District purchases and wheels or delivers water to growers within its boundaries. Madera Irrigation District has a Central Valley Project (CVP) repayment contract with United States Bureau of Reclamation (USBR) providing up to 85,000 acre feet (AF) of Class 1 and 186,000 AF of Class 2 water per year from the Friant Division (Millerton Lake). The CVP water is released from Millerton Lake through the Friant Dam, and then conveyed through the Madera Canal for delivery into the District's service area. The District also entered into a CVP repayment contract with the USBR for the yield from the Hidden Unit (Hensley Lake). Under the Hidden Unit contract, the average annual supply available to the District is approximately 24,000 AF per year.

The District has Pre-1914 rights to divert water from Big Creek via the Big Creek Diversion and from the North Fork of Willow Creek via the Soquel Diversion. The Big Creek Diversion originates in Big Creek, a tributary of the Merced River. This Diversion is located just upstream of Fish Camp, CA, and redirects water to flow down Lewis Creek, a tributary of the upper Fresno River. The Soquel Diversion originates in North Fork Willow Creek, a tributary of the San Joaquin River. This Diversion is located approximately nine miles upstream of Bass Lake, and can divert water to flow through the Soquel Ditch to Nelder Creek, a tributary of the upper Fresno River. Alternatively, water can be left in North Fork Willow Creek, allowed to flow to Bass Lake and eventually to the San Joaquin River, and diverted at Friant Dam into the Madera Canal. MID also has a Pre-1914 water right on the Fresno River.

County of Madera

The County of Madera manages Sumner Hills Service Area (SA-16) which is supplied with first-priority water released into the San Joaquin River from Millerton Lake by the USBR, under the terms of Holding Contract 7. Sumner Hills' average annual demands

are 120 AF. In addition, an estimated 10,000 AF of other riparian water is delivered to unincorporated lands each year.

1.4. Goals and Objectives of Groundwater Management Plan

The purpose of this GMP is to develop a coordinated and comprehensive approach to the evaluation and management of groundwater resources in the area covered by the GMP. The goal of this Plan is to provide the framework and technical data to allow for effective groundwater management which moves to restore, where possible, and maintain a high quality and dependable groundwater resource. The goals and proposed actions in this plan will likely evolve as other concerns and issues arise.

This Plan documents the existing groundwater management efforts in the GMP area and planned efforts to improve groundwater management. The objective the GMP is to help the GMP Participants meet the following goals:

1. Develop a collaborative relationship with all the GMP participants to address groundwater management issues on a regional scale.
2. Identify policies, priorities and goals for a collaborative approach to regional management of the groundwater.
3. Develop new surface water sources and the necessary infrastructure to bring the groundwater within the GMP area to a balance.
4. Stabilize groundwater levels in order to minimize pumping costs and energy use, and to provide groundwater reserves for use in droughts.
5. Maximize the use of surface water, including available flood water, for beneficial use, and thus reduce stress on groundwater resources.
6. Prevent groundwater degradation by protecting groundwater quality, importing clean surface water, and preventing intrusion of poor quality groundwater.
7. Preserve, and, where feasible, enhance the existing quality of the area's groundwater.
8. Address potential impacts to groundwater from changes in surface water supplies resulting from surface water losses in the region (i.e. San Joaquin River Restoration), urban and agricultural development, and drought.
9. Prevent surface water or groundwater exports that would reduce the long-term reliability of groundwater.
10. Coordinate groundwater management efforts between regional water users.
11. Responsibly manage the local groundwater resources so adjudication is unnecessary.
12. Maintain a groundwater-monitoring program to provide an early warning system to future problems.
13. Increase knowledge of the local geology and hydrogeology to better understand threats to groundwater quality and quantity.
14. Minimize land subsidence caused by groundwater pumping through in-lieu groundwater recharge, direct recharge, and wise and conservative use of pumped groundwater.

1.5. Groundwater Rights and Statutory Authority for Groundwater Management

Basic Groundwater Rights in California

The following discussion of current California Law regarding groundwater is excerpted from *Sustainability from the Ground Up, Groundwater Management in California – A Framework*, published by Association of California Water Agencies (ACWA) in 2011. In the Foreword of this document, the authors state "*the challenge of providing sustainable groundwater management must be met by local and regional agencies and not by centralized state regulation*." The authors continue "..*the job is far from done. While there are numerous case studies in successful management, efforts must be expanded in many parts of the state to achieve sustainable outcomes*." This document is included as **Appendix B**.

Under current California law, landowners are entitled to pump and use reasonable amounts of groundwater from a basin underlying their land. *Correlative rights* and *appropriative rights* are the two foundational principles of California law germane to groundwater use. Under the doctrine of "correlative rights," landowners overlying a common source of groundwater are limited to using a reasonable share of the resource. "Reasonable" groundwater use is relative to the amount of overlying land owned by the landowner and the physical condition of the groundwater basin. When there is insufficient water to meet the cumulative demands of the overlying landowners, those users are expected to reduce their demands *correlatively* to bring groundwater extractions within the safe yield of the basin and prevent overdraft.

Entities other than overlying users, such as cities, may be entitled to "*appropriative*" water from the basin for use as a municipal supply when water surplus to the needs of the overlying users is available. Unless otherwise permitted, appropriators must curtail their use when there is no surplus.

Summary of Groundwater and Surface Water Law

Under California law, water is characterized as either groundwater or surface water. Groundwater is divided into subterranean stream or percolating groundwater. Surface water and subterranean streams are subject to the permitting authority of the State Water Resources Control Board, while percolating groundwater is not. In areas where there is a hydrologic connection between surface water and groundwater, a number of early cases provide foundational legal doctrine. The following three points are excerpted from ACWA (2011) and the reader is referred to that document or the actual case law for more details.

- User of percolating groundwater may diminish flows in a surface stream only if the groundwater is put to reasonable use on lands overlying the groundwater basin.
- Overlying owners may extract groundwater for use on overlying lands, despite impacts on downstream riparians and down-gradient overlying pumpers.
- Riparian and overlying rights are treated as extracting water from a common source and so have joint rights to reasonable shares of the resource.

Key Definitions

The brief overview of the basic concepts of groundwater use under current California Law provided must be understood in the context of several terms which are defined below, including "safe yield," "surplus" and "overdraft." This GMP will use these terms, with the exception of "safe yield," as defined by ACWA (2011) throughout the remainder of the Plan. Other terms regarding groundwater are included here and most are from the 2011 ACWA document with the appropriate reference cited. In place of "safe yield," this GMP uses the term "Available Groundwater."

- Adjudication – product of a judicial process involving parties in a groundwater basin to determine the nature and quantity of each producer's share of the basin's safe yield. ACWA 2011.

- Applied Water – the amount of water, from any source, needed to meet the demand for beneficial use by the user. (DWR California Water Plan Update, 2005)
- Available Groundwater – The volume of groundwater that can be presently pumped without causing groundwater overdraft.
- Conjunctive Use – the coordinated and planned use of both surface water and groundwater resources to maximize the availability and reliability of water supplies in a region to meet various management objectives. (ACWA, 2011)
- Consumptive Use – quantity of applied water that is not available for immediate or economical reuse. (DWR California Water Plan Update, 2005)
- Deep Percolation – water applied to crops and landscaped areas that exceeds evapotranspiration demands and percolates to the groundwater, sometimes referred to as Applied Water Recharge
- Groundwater Banking – a water management tool designed to increase water supply reliability. Makes use of dewatered aquifer space to store water during wet years, so that stored water can be pumped and used during dry years. (ACWA, 2011)
- Intentional Recharge – surface water purposely recharged into a groundwater aquifer
- Natural Groundwater Recharge – water from any natural source such as rainfall or seepage from rivers and streams that recharges groundwater resources
- Overdraft – "….*overdraft occurs when extractions exceed safe yield* Safe Yield – S*afe yield refers to "the maximum quantity of water which can be withdrawn annually from a groundwater supply under a given set of conditions without causing an undesirable result". California Supreme Court, Los Angeles v. San Fernando case, 1975*. The phrase *"undesirable result" is understood to refer* to "*a gradual lowering of the groundwater levels resulting in depletion of the supply."*

(This term is not used in this GMP because no groundwater supply is considered safe or sustainable in the long-term, and the groundwater yield is dynamic and constantly changing. Instead the term Available Groundwater (see above) is used).

- Subsidence – the gradual settling or sudden sinking of the Earth's surface due to changes that take place underground. (ACWA, 2011)
- Surplus – Surplus refers to "*the amount of water in a groundwater basin in excess of safe yield*." (San Fernando Court, City of Los Angeles v. City of San Fernando, 1975)
- Sustainability – "*development and use of groundwater in a manner that can be maintained for an indefinite time without causing unacceptable environmental, economic, or social consequences*." (Alley, W. M., Reilly, T.E., and Franke, O.L, 1999)

Legislation Authorizing Groundwater Management Plans

California Assembly Bill No. 3030 (AB 3030), which became law on January 1, 1993, authorized local agencies that are within groundwater basins as defined in California Department of Water Resources (DWR) Bulletin 118-80, and that meet certain other criteria, to prepare and adopt Groundwater Management Plans. Each of the Plan Participants (with the exception of SEMCU, which is a private not-for-profit organization) qualifies under the law.

The law created by AB 3030, now codified in California Water Code Section 10753, et. Seq., was amended by 2002 California Senate Bill 1938 (SB 1938), which also identified new requirements for GMPs. In 2011, Senate Bill 359 added additional requirements, mostly related to public outreach. This GMP meets the requirements of AB 3030, SB 1938 and SB 359.

Local Sovereignty

This GMP serves as both a regional planning document and a local GMP for each of the GMP Participants. Each agency maintains sovereign control over groundwater in its service area, and no agency, including Madera County, is granted rights or permission to manage groundwater in another jurisdiction. This reservation of sovereignty is supported by California Water Code Section 10750.8 (a) which states "*A local agency may not manage groundwater pursuant to this part within the service area of another local agency without the agreement of that other entity*."

Powers Granted to Adopting Agencies

The powers granted to each agency adopting a GMP are codified in the California Water Code and existing state legislation. These powers include:

1. The agency may take any actions needed to replenish the groundwater within the GMP area, including buying and selling water, delivering water in lieu of

groundwater pumping, and spreading water for recharge.

2. The agency may take actions needed to protect or prevent interference with water, water quality, or water rights within the agency.

3. Using water quality goals, the agency may take any action needed to preserve the water within the agency for beneficial uses. These actions include preventing contaminants from entering agency groundwater supplies, removing contaminants, locating and characterizing contaminants within the agency's groundwater supply, identifying parties responsible for contamination of groundwater, and performing studies relative to the listed water quality goals.

4. The agency may enter into agreements with other local agencies or private parties to manage mutual groundwater supplies, including those existing in overlapping areas.

5. The agency may levy and collect general groundwater replenishment assessments, as well as water extraction fees based on the amount of groundwater extracted from the aquifer. However, these fees must be ratified by a majority vote in an election, according to the election rules applicable to the agency.

6. The agency may sue to recover the amount of agency expenditures for protection of groundwater quality from parties responsible for contamination.

7. The agency is granted additional powers of a Replenishment Agency, which allows it to:
   a) Acquire and operate facilities, waters and rights needed to replenish the groundwater supplies;
   b) Store water in groundwater basins, acquire water rights, import water into the Agency, and conserve water;
   c) Participate in legal proceedings as required to defend water rights, and water supplies, and to prevent unlawful exportation of water from the agency;
   d) Under certain conditions, to exercise the right of eminent domain;
   e) Act jointly with other entities in order to economically perform required activities;
   f) Carry out investigations required to implement programs;
   g) Fix rates for water for replenishment purposes;
   h) Recapture and reclaim water as provided for in Water Code Section 60221; and
   i) Fix the terms and conditions of contracts for use of surface water

in-lieu of groundwater.

1.6. Groundwater Management Plan Components

This GMP includes the required and voluntary components for a GMP as identified in California Water Code Section 10753, et. seq. This Plan is also consistent with the recommended elements for a GMP as identified in DWR Bulletin 118 (2003), Appendix C. **Table 1.10** identifies the appropriate section of the GMP where each component is addressed.

Table 1.10 – Location of Groundwater Management Plan Components

Description		Plan Section(s)
California Water Code Mandatory Requirements (10750 et seq.)		
1.	Documentation of public involvement	1.5, **Appendix C**
2.	Groundwater basin management objectives	1.2, 3
3.	Monitoring and management of groundwater elevations, groundwater quality, land subsidence, and surface water	5.1 – 5.4
4.	Plan to involve other agencies located in the groundwater basin	4.3
5.	Monitoring protocols	5.3
6.	Map of groundwater basin and agencies overlying the basin	**Figure 2.1**
California Water Code Voluntary Components (10750 et seq.)		
7.	Control of saline water intrusion	6.3
8.	Identification and management of wellhead protection areas and recharge areas	6.2, 7.2, 7.3
9.	Regulation of the migration of contaminated groundwater	6.3, 6.4
10.	Administration of well abandonment and well destruction program	6.1
11.	Mitigation of overdraft conditions	7.2, 7.3
12.	Replenishment of groundwater extracted by water users	7.3
13.	Monitoring of groundwater levels and storage	5.1, 9.2
14.	Facilitating conjunctive use operations	7.4
15.	Identification of well construction policies	8.1
16.	Construction and operation by local agency of groundwater contamination cleanup, recharge, storage, conservation, water recycling, and extraction projects	8.2
17.	Development of relationships with state and federal regulatory agencies	4.2, 4.3
18.	Review of land use plans and coordination with land use planning agencies	9.1
Additional Components Recommended by DWR (App. C of Bulletin 118)		
19.	Advisory committee of stakeholders	4.1
20.	Description of the area to be managed under the Plan	1.1, 2
21.	Descriptions of actions to meet management objectives and how they will improve water reliability	4 – 9
22.	Periodic groundwater reports	9.2
23.	Periodic re-evaluation of Groundwater Management Plan	9.4

1.7. Adoption of Plan

Refer to **Appendix C** for documentation on the adoption of the GMP and the public process that was followed.

Groundwater Advisory Committee

The Regional Groundwater Advisory Committee (GAC or Committee) is comprised of representatives from the six entities that sponsored the GMP and who worked collaboratively to prepare this GMP. Each Plan Participant also has its own governing body to address local groundwater issues within their service area. GAC meetings were held regularly during the preparation of the GMP.

Plan adoption

As required by California Water Code Section 10753.2(a), the Plan Participants published a series of public notices, held public meetings, and adopted resolutions required for preparing and adopting this GMP. Public notices were published in local newspapers. The public was provided a 30-day period to review the draft GMP. No comments were received from the public. These public outreach efforts are summarized in **Table 1.11** below.

Table 1.11 – Public Participation in Groundwater Management Plan Update

Phase of Public Noticing	Description	Date
Intent to update GMP	Notice of hearing published	September 2013
	Hearing held. Resolution adopted.	September 24, 2013
Public Review	Notice of hearing published	November 8, 15, 2014
	Hearing held.	December 9, 2014
GMP Adoption	Final GMP adopted by GMP Participants[1]	Varies

1 – The GMP was adopted by the Plan Participants at six separate Board and council meetings. The respective resolutions can be found in **Appendix C**.

2. GEOLOGY AND HYDROGEOLOGY

This section discusses the geology and hydrogeology of GMP area and immediate surrounding areas. The purpose of this section is to provide general background information on the local hydrogeology that will aid in selecting and implementing groundwater management programs.

The following sections include technical discussions on the region's groundwater. These are intended to provide geologists, engineers, and water managers a greater understanding of the area's stratigraphy, groundwater conditions, and hydrogeologic parameters. The content of this chapter requires a basic understanding of some geologic principles and terminology. Less technical discussions on groundwater management programs can be found in Sections 3-9.

2.1. Groundwater Basins and Subbasins Description

The GMP area is underlain by the San Joaquin Valley Groundwater Basin. The San Joaquin Valley Groundwater Basin covers a vast area and encompasses the alluvial deposits under the valley floor from the Sierra Nevada Mountains to the east, the Coast Range mountains to the west, the Sacramento Valley and Delta to the north, and the San Emigidio and Tehachapi mountains to the south. The San Joaquin Valley Groundwater Basin lies within the San Joaquin River and Tulare Lake Hydrologic Regions and covers approximately 13,900 square miles and has been divided into 16 subbasins. The GMP area is within the San Joaquin River Hydrologic Region and is underlain by three groundwater subbasins (**Figure 2.1**) as defined by the California Department of Water Resources (DWR) in "*California's Groundwater, Bulletin 118 – Update 2003*". These subbasins are the Chowchilla, Madera, and Delta-Mendota subbasins. A subbasin is defined as follows:

> "A groundwater basin is defined as an alluvial aquifer or a stacked series of alluvial aquifers with reasonably well-defined […] features that significantly impede groundwater flow such as rock or sediments with very low permeability or a geologic structure such as a fault. […]
>
> "A subbasin is created by dividing a groundwater basin into smaller units using geologic and hydrologic barriers or, more commonly, institutional boundaries […]. These subbasins are created for the purpose of collecting and analyzing data, managing water resources, and managing adjudicated basins."

DWR was directed by legislation to define critical overdraft in 1978 and report which subbasins were in critical overdraft. The *California Water Plan Update* of 2009 restates that the eastern San Joaquin (County), Chowchilla, and Madera subbasins as being in critical condition of overdraft. A comprehensive assessment of overdraft in California's subbasins has not been completed since 1980.

Bulletin 118-80 defined critical overdraft as:

> *"A basin is subject to critical conditions of overdraft when the present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts."*

Chowchilla Subbasin

The Chowchilla subbasin is shown in **Figure 2.1**, and is identified as Basin 5-22.05 by DWR. As defined in DWR Bulletin 118, the subbasin covers an area of 248 square miles and is located in Madera County and a small portion of Merced County. The subbasin is bound by the Columbia Canal Company Service Area on the east and the San Joaquin River on the west. To the north, the subbasin is bound by the southern portion of the Merced subbasin. The southern boundary consists of an irregular pattern and borders the northern portion of the Madera subbasin. This basin has been characterized as being critically overdraft since 1980 by DWR. Groundwater recharge is primarily from deep percolation of applied irrigation water (DWR, 1995).

Madera Subbasin

The Madera subbasin is shown in **Figure 2.1** and is identified as Basin 5-22.06 by DWR. As defined in DWR Bulletin 118, the subbasin covers an area of 614 square miles and is located entirely within Madera County. It is bound on the south by the San Joaquin River, on the west by the eastern boundary of the Columbia Canal Service Area, on the north by the south boundary of the Chowchilla subbasin, and on the east by the crystalline basement bedrock of the Sierra Nevada foothills. DWR Bulletin 118 characterizes this basin as being in critical overdraft since 1980 by DWR.

Delta-Mendota Subbasin

The Delta-Mendota Subbasin is shown in **Figure 2.1** and is identified as Basin 5-22.07 by DWR. As defined in DWR Bulletin 118, the subbasin covers an area of 1,170 square miles and encompasses a small portion of western Madera County and is largely in Fresno County and portions of Stanislaus and Merced counties. It is bound on the west by the Coast Ranges, on the north by the Stanislaus/San Joaquin county line, and on the east generally by the San Joaquin River. The southern boundary is irregular and consists of portions of the western Kings subbasin and the Westside subbasin. DWR Bulletin 118 states that groundwater levels within the Delta-Mendota subbasin have been relatively stable and this subbasin is not considered to be in overdraft.

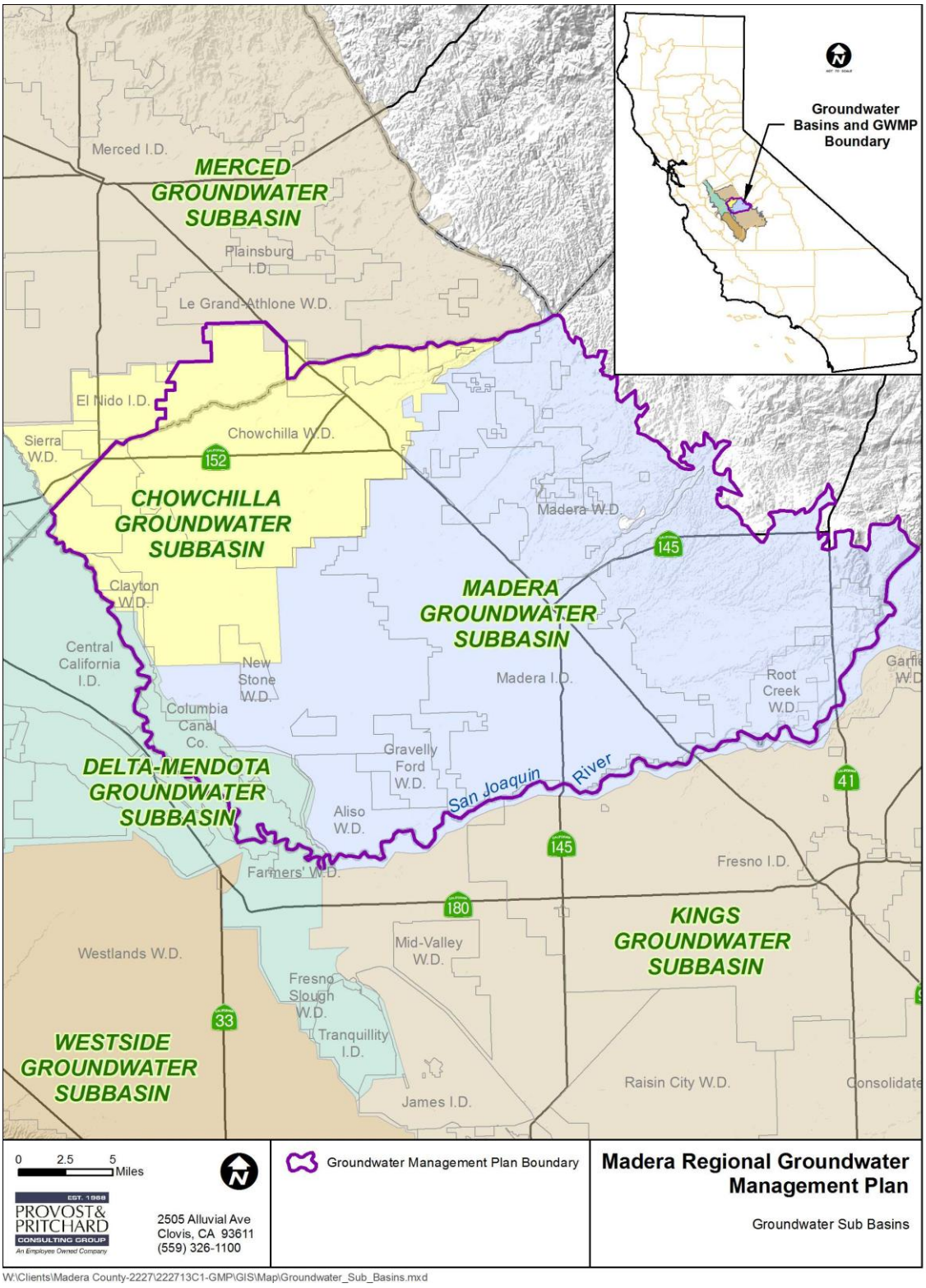

Figure 2.1 – Groundwater Sub-basins

2.2. Geomorphology and Soils

The GMP area consists of generally flat agricultural land, sloping to the west, with the Sierra Nevada Mountains rising to the east. Fluvial and alluvial processes have formed the landforms within the San Joaquin Valley portion of GMP plan area. Precipitation in the Sierra Nevada Mountains adjacent to the GMP area has drained westward and deposited sediments into the San Joaquin Valley, creating the dominant geomorphic features in the valley. Three major drainages developed east of the Madera area, the Chowchilla, Fresno, and San Joaquin Rivers. Each stream transported sediment out and onto the valley floor developing overlapping alluvial fans. The alluvial fan size appears to increase to the south. In cross section, alluvial fans are wedge-shaped or lens-shaped. Sediments in alluvial fans decrease in grain size with increasing distance from the source.

The Chowchilla River flows west along the northern portion of Madera County and spills into the Berenda and Ash Sloughs. The Fresno River flows west through the central portion of the county where it joins the San Joaquin River in the west. The San Joaquin River flows west along the southern portion of Madera County before turning north in the axial portion of the valley, creating the western boundary of Madera County. Each river deposited sediments on the valley floor. There tends to be a larger amount of coarse-grained sediments near the valley margin and more fine-grained sediments downstream. As flood events occurred, the streams would overbank their channels and deposit fine-grained sediments to the north and south of each river channel. Alluvial fans form multiple stream channels over the cycle of formation and often overlap with other alluvial fans.

The flood plain deposits of each of the major alluvial fans increase in size from north to south. The flood plain of the Chowchilla River is half a mile wide and less than five (5) miles long (Bertoldi, 1970). The flood plain of the Fresno River is near one-mile wide and 10 miles long (Bertoldi, 1970). The flood plain of the San Joaquin River is the largest and has a maximum width of about two miles and extends 25 miles below Friant Dam (Bertoldi, 1970).

Soils that have developed on top of the alluvial fans have varying degrees of infiltration characteristics. The development and extent of soils are dependent on the degree of weathering of the source material. **Figure 2.2** depicts the soils in the Madera area based on infiltration rates. A prominent soil designation throughout the eastern valley in the GMP plan area is Hydrologic Group Soil D, indicated by the red color as shown in **Figure 2.2**. This type of soil is primarily located in-between the major drainages of the county and has the lowest infiltration rate. It is apparent that soil with the greatest infiltration rate, Hydrologic Soil A, are within the main channels of the major stream systems. The soils become less permeable further from the alluvial fan deposits.

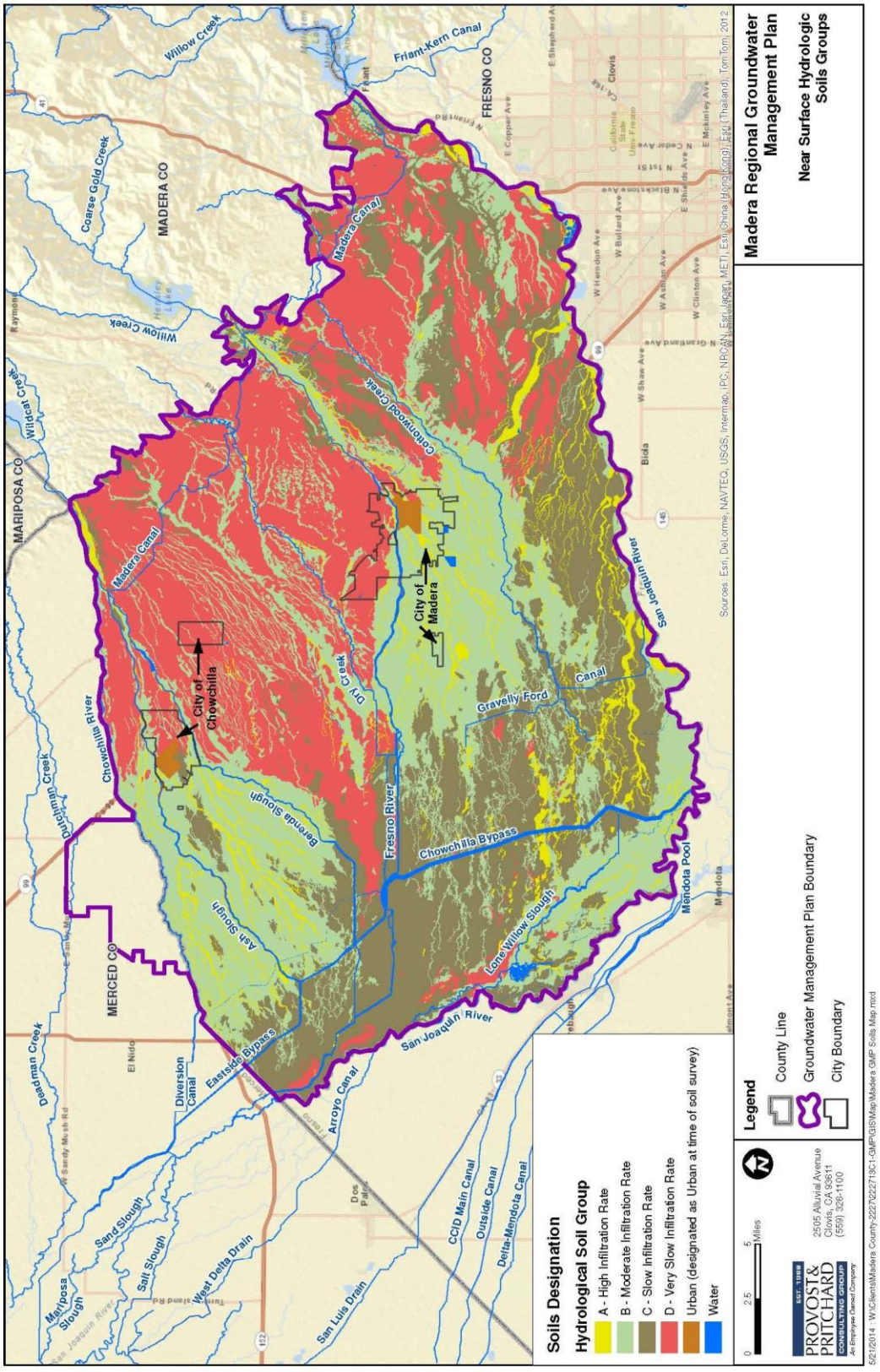

Figure 2.2 – Near Surface Hydrologic Soils Groups

2.3. Geology and Hydrogeology

The Great Valley of California is an asymmetrical structural trough filled with Mesozoic (deposited 248 million years ago [mya] to 99 mya) and Cenozoic (65 mya to present) sediments that reach a thickness of approximately 30,000 feet. The Great Valley consists of the Sacramento Valley in the north and the larger San Joaquin Valley in the south. The San Joaquin Valley represents the lower two-thirds of the Great Valley of California and is approximately 200 miles long and up to 70 miles wide, bound on the north by the Sacramento-San Joaquin Delta, the Sierra Nevada mountains on the east, the Coast Range Mountains on the west, and the Tehachapi and San Emigdio Mountains to the south.

The freshwater aquifer systems underlying the GMP area consist of the younger alluvium and older alluvium and are contained in the Late Tertiary and Quaternary continental deposits (Page, 1986). These deposits increase with thickness from north to south and are up to 3,000 feet thick in the GMP area (USGS, 2012). Sediments generally are coarser at the proximal sides of the fans, closest to the Sierra Nevada Mountains, and become finer towards the center of the valley. Below is a discussion on the regional geologic formations identified in the subsurface in the GMP area as well as their water bearing capacities.

Stratigraphy

Mitten, LeBlanc, and Bertoldi (1970) characterized the subsurface geology underlying the GMP area. The geologic units, from deep to shallow (oldest to youngest), consist of crystalline basement rock, marine sediments, marine and undifferentiated continental sediments, consolidated continental sediments (including the Ione Formation and Mehrten Formation), and unconsolidated sediments. The stratigraphic succession of deposits in the valley include, from oldest to youngest: crystalline basement rock, marine and continental sedimentary rocks, Ione Formation, Mehrten Formation, continental deposits of tertiary and quaternary age, and continental deposits of quaternary age. The youngest formation is further divided into the Older Alluvium and the Younger Alluvium.

Crystalline Basement Rock

The basement complex of pre-Tertiary age consists of mostly granitic and metamorphic rocks (Bateman *et. al.,* 1963). As shown on **Figure 2.3**, the basement complex outcrops east of the older alluvium. The crystalline basement rock underlies the entire GMP plan area at depth. The crystalline basement rock is comprised of the Sierra Nevada batholith (map symbol grMz) and partly the western metamorphic belts, consisting of meta-volcanic and meta-sedimentary (map symbol J) strata (Bateman *et. al*., 1963). This formation likely contains groundwater in fractures, but does not provide significant groundwater to the GMP area.

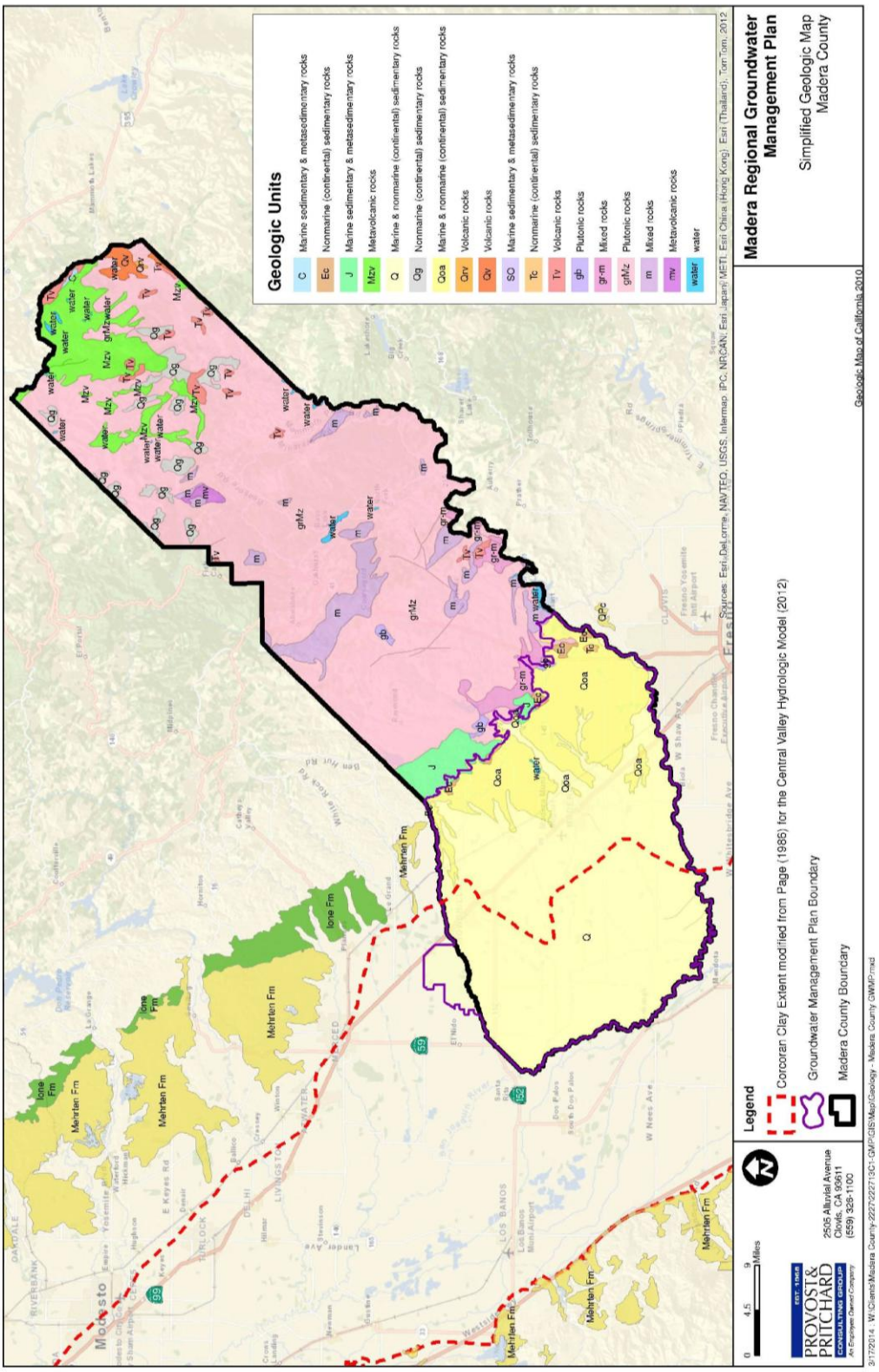

Figure 2.3 – Simplified Geologic Map – Madera County

Marine and Continental Sedimentary Rocks
The marine and continental rocks of pre-Tertiary and Tertiary age overlie the basement complex and underlie the western part of the Madera area. The formations do not outcrop in the area, but can be tracked in the subsurface (Mitten *et. al*. 1970). These rocks consist mostly of sandstone, claystone, siltsone, and shale. The marine sedimentary rocks most likely contain connate saline water and do not provide useable groundwater to the GMP area.

Ione Formation
The Ione Formation outcrops in the eastern portion of the valley and caps many of the hills northwest of Friant Dam (Mitten et. al. 1970). The Ione Formation is a sedimentary formation and was deposited in both a marine and non-marine environment. The Eocene Ione Formation outcrops discontinuously along the western margin of the Central Valley and consists of sandstone and conglomerates. During the late Cenozoic, a period of erosion eroded the Ione Formation in the Chowchilla River area (Helley, 1978). The Ione Formation does not provide groundwater to the GMP area. This is significant because the absence of the Ione Formation reduces the recharge potential of the groundwater basin in the GMP area.

Mehrten Formation
The Mehrten Formation is a significant geologic formation within the San Joaquin Valley. The Mehrten Formation is Mio-Pliocene in age and consists of a sequence of volcaniclastic and volcanic rocks. The Mehrten Formation unconformably overlies the Ione Formation. The Mehrten Formation is comprised of two distinct geologic units. The first consists of sediments deposited under alluvial and fluvial conditions and are comprised of gravel, sand, silt, and clay size sediments. The second unit consists of dense volcanic flows of tuff breccia with some interbedded conglomerates and sandstones. As shown in **Figure 2.3**, the Mehrten Formation outcrops north of the GMP plan area but is not present in Madera County. Sierra Nevada uplift and a period of erosion thought to occur at a higher rate in the south, and glaciation and the associated alluvial fans are thought to have eroded the Mehrten Formation (Helley, 1978). Exposures of the Mehrten Formation have not been identified in the area of the alluvial fan created by the Chowchilla River (Helley, 1978) or in the Madera area. The Mehrten is an important aquifer that stretches from Merced County north to Sutter County. The fact that it is not present in the eastern portion of the GMP area is a significant reason that groundwater recharge does not occur at a rate as it does in the subbasins north of the GMP area. Three miles southeast of Chowchilla, a recent test hole drilled to a depth of 1,000 feet encountered black sand that could be the Mehrten Formation; however, the geophysical surveys indicated that the water in this formation was not fresh as the formation above and could be slightly brackish (personal communication Larry Ernst). The depth to brackish water was reported at approximately 710 feet below ground surface at this location, or an elevation of approximately -510 feet MSL. The base to fresh water map (Page, 1977) predicts the depth between -600 to -800 feet MSL, slightly deeper than was observed in this test hole.

Continental Deposits of Tertiary and Quaternary age
The continental deposits of Tertiary and Quaternary age underlie most of Madera County, but do not crop out at the surface. The formation dips gently southwest and overlies the marine and continental rocks (Mitten *et. al*., 1970). The deposit consists of interbedded, poorly sorted sand, silt, clay and conglomerate, with layers of hardpan. The deposits becomes finer grained with depth and distance from the foothills. The lower part of the deposits contains blue and green clays and the upper portion contains red, yellow, and brown clays, which are interpreted to have been deposited under reducing and oxidizing conditions, respectively. In the past, few water wells penetrated the continental deposits. The water bearing capacity of this formation is unclear at this time; however, many new agricultural wells are drilling deeper into this formation to produce additional groundwater. As these wells are put into production over the next several years, additional information with regard to well yields, water quality, and aquifer recharge will become available.

Continental Deposits of Quaternary Age (Older Alluvium)
The older alluvium of Pleistocene and Holocene age underlies most of the GMP area (Mitten *et. al*., 1970). As shown in **Figure 2.4**, the older alluvium (map symbol Qoa) outcrops south of the San Joaquin River and north of the Chowchilla River. Janda (1965) correlated the formation near Little Table Mountain with the Turlock Lake, Riverbank, and Modesto Formations of Davis and Hall (1959). The older alluvium dips gently southwest and ranges in thickness from zero to about 1,000 feet (Mitten *et. al*. 1970). It overlies the continental deposits of Tertiary and Quaternary age and overlaps the Ione Formation (where present) and the basement complex. The older alluvium consists mostly of interbedded lenses of clay, silt, sand, and some gravel. Cemented hardpan occurs throughout the area near the ground surface. The source of the older alluvium is from the Sierra Nevada (Mitten *et. al*. 1970). The older alluvium decreases in grain size with depth and grades into the underlying fine-grained continental deposits of Tertiary and Quaternary age (Mitten *et. al*. 1970). The base of the older alluvium is defined where the resistivity on electric logs reflect a change from relatively coarse to fine grained sediment (Mitten *et. al*. 1970).

Mitten *et. al.* (1970) summarized aquifer characteristics based on aquifer tests made by the USGS in the late 1960's and reported aquifer transmissivity values ranging from 18,000 to 99,000 gallons per day per foot (gpd/ft) of drawdown in the Madera area. Based on multiple well tests throughout the Madera area, transmissivities of deposits above a depth of 500 feet (with significant coarse-grained deposits) range in transmissivities from 50,000 to 250,000 gpd/ft of drawdown. The underlying continental deposits normally range in transmissivities from about 10,000 to 30,000 gpd/ft of drawdown (Boyle, 2008).

Continental Deposits of Quaternary Age (Younger Alluvium)
The younger alluvium is a well-sorted sedimentary formation and overlies the older alluvium. It does not contain cemented hard pan, which differentiates it from the older alluvium. As shown in **Figure 2.4**, the younger alluvium (map symbol Q) overlies the

older alluvium and covers a significant portion of the GMP plan area. The younger alluvium is indistinguishable from the older alluvium in the subsurface. The estimated thickness ranges from zero to 50 feet and is unsaturated, except when saturated near streams and channels (Mitten *et.al* 1970).

Corcoran Clay (E Clay)

To better depict the aquitards in the southern San Joaquin Valley, Croft (1972) identified several extensive clay layers in the subsurface that he designated, youngest to oldest, by letters A through F. The A and E clays are the most significant clay layers in the vicinity of the GMP area, but only the E clay is present in the GMP area based on Crofts mapping. The E clay is the thickest and most laterally extensive of the clay layers identified and mapped by Croft. The A clay has been mapped locally at shallow depths southwest of the GMP area at depths of 10 to 60 feet and is generally less than 60 feet thick (Croft, 1972). Elevated groundwater salinity has been identified west of the GMP area, and north of the mapped A clay in the subsurface. This potentially indicates that the A clay extends further north than previously mapped. This correlation will require additional studies.

The E Clay, which includes the Corcoran Clay Member of the Tulare Formation, is a regional confining layer and underlies approximately 3,500 square miles in the San Joaquin Valley (Croft, 1972). Within the upper portion of the Older Alluvium, the Corcoran Clay divides the San Joaquin Valley freshwater aquifer system into an unconfined to semi-confined upper system and a largely confined lower system (USGS, 2012). The Corcoran Clay has been identified in the subsurface in the western portion of the GMP area, as shown in **Figure 2.5**. The Corcoran Clay ranges in depth between 80 and 350 feet, however, it does not outcrop in the GMP area (Croft, 1972). The E clay dips gently from a depth of 80 feet below ground surface near Chowchilla to a depth of 400 feet below ground surface towards the southwestern portion of the GMP area. It consists mostly of clay, silty clay, or silt and divides the Older Alluvium into confined and unconfined aquifers. In contrast to other clays in the subsurface, the Corcoran Clay appears gray, greenish gray, or bluish gray (Mitten *et. al*. 1970). Water well drillers commonly referred to this clay as the “blue clay”. Portions of the Corcoran Clay consist of a matrix of diatomaceous clays, which are compressible when the pore pressure is reduced by dewatering. The compression of the diatom rich matrix is thought to be the main reason for the extreme inelastic compression and the associated land subsidence overlying the Corcoran Clay.

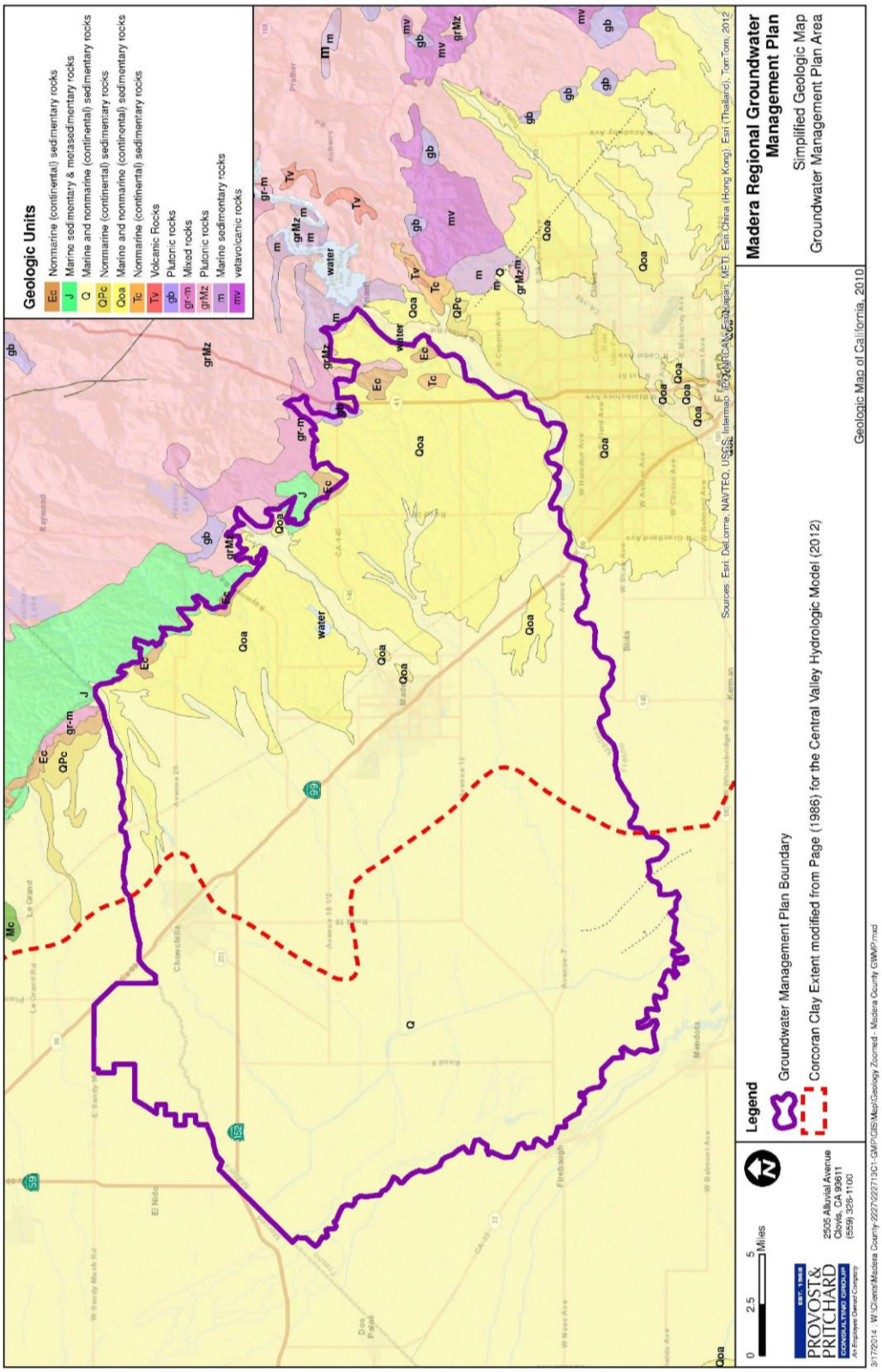

Figure 2.4 – Simplified Geologic Map – Groundwater Management Plan Area

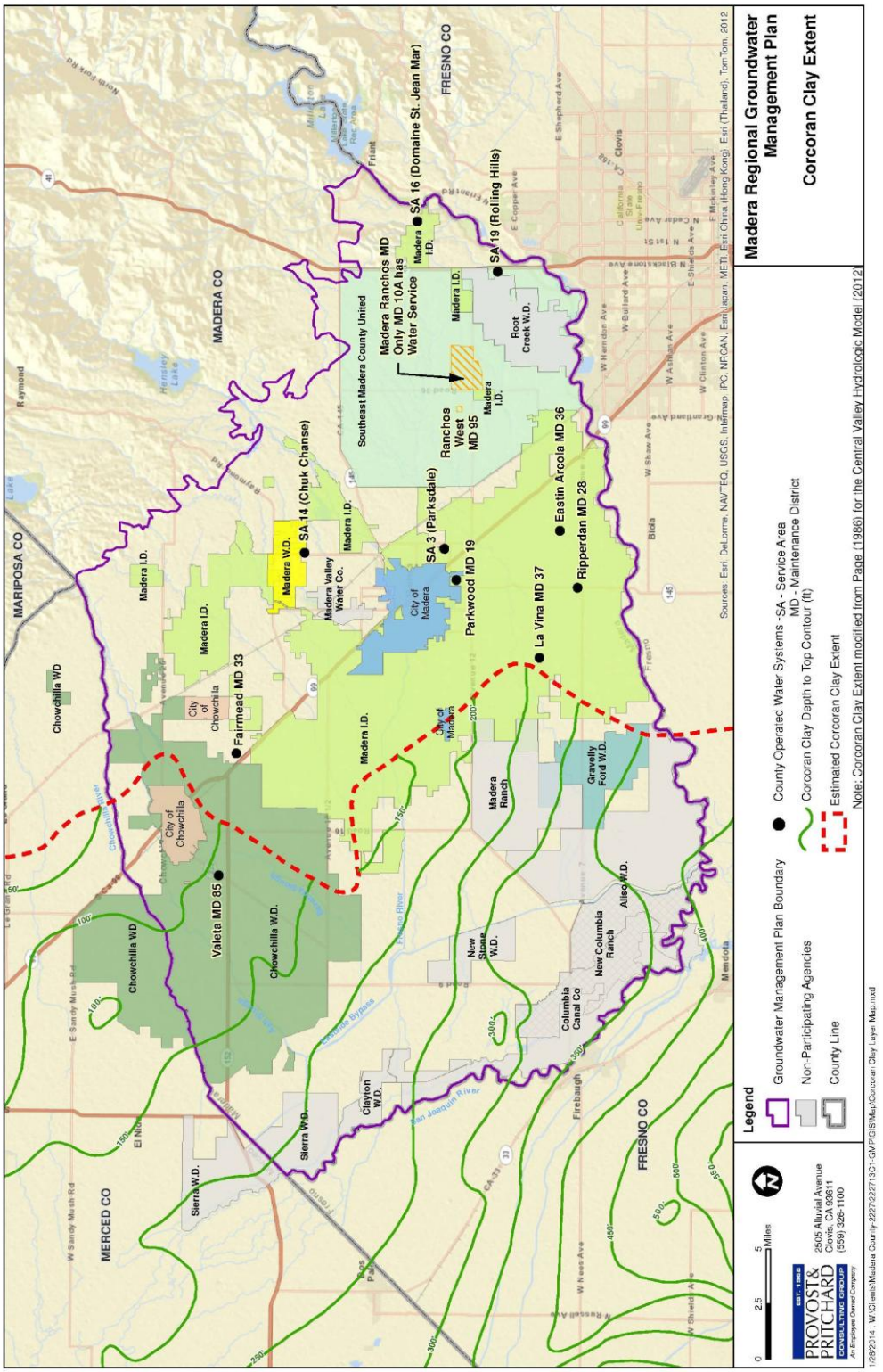

Figure 2.5 – Corcoran Clay Extent

2.4. Groundwater Elevations and Flow Direction

This section discusses the available groundwater level data, recent groundwater elevation contours, groundwater flow direction and existing cones of depression. Existing groundwater level data is limited and recommendations are given for improving monitoring.

Groundwater Levels

Recent and readily available groundwater level data was obtained from several GMP Participants for the fall 2013 season. Although not a GMP Participant, fall 2013 water level data was also obtained for Root Creek Water District. Fall 2013 data was used because it: 1) provides the most recent data, and; 2) illustrates the condition of the aquifer after a summer of groundwater withdrawals. Groundwater elevation contours were estimated based on the data provided (**Figure 2.6**). The following should be noted concerning the data sources used for the groundwater level information:

- Chowchilla Water District monitors 142 wells, of which 79 have fall 2013 water level data.
- Madera Irrigation District monitors 161 wells, of which 85 have fall 2013 water level data.
- Root Creek Water District – water level data available for 22 wells.
- Madera County supplied information from eight wells in valley-floor Maintenance Districts and Service Areas.
- The City of Madera and City of Chowchilla monitor groundwater levels, but the data was not readily available for the analysis.
- No fall 2013 groundwater level data was collected for the Western Madera County Subsidence Study. The participants in the study only measure groundwater levels in the spring.
- The California Department of Water Resources no longer measures wells in Madera County (personal communication with DWR staff, March 2014).
- The USBR reports their water level data to the DWR, and only eight of those wells are available on CASGEM.
- No readily available data in the un-districted areas of the county, except for data from Madera County.

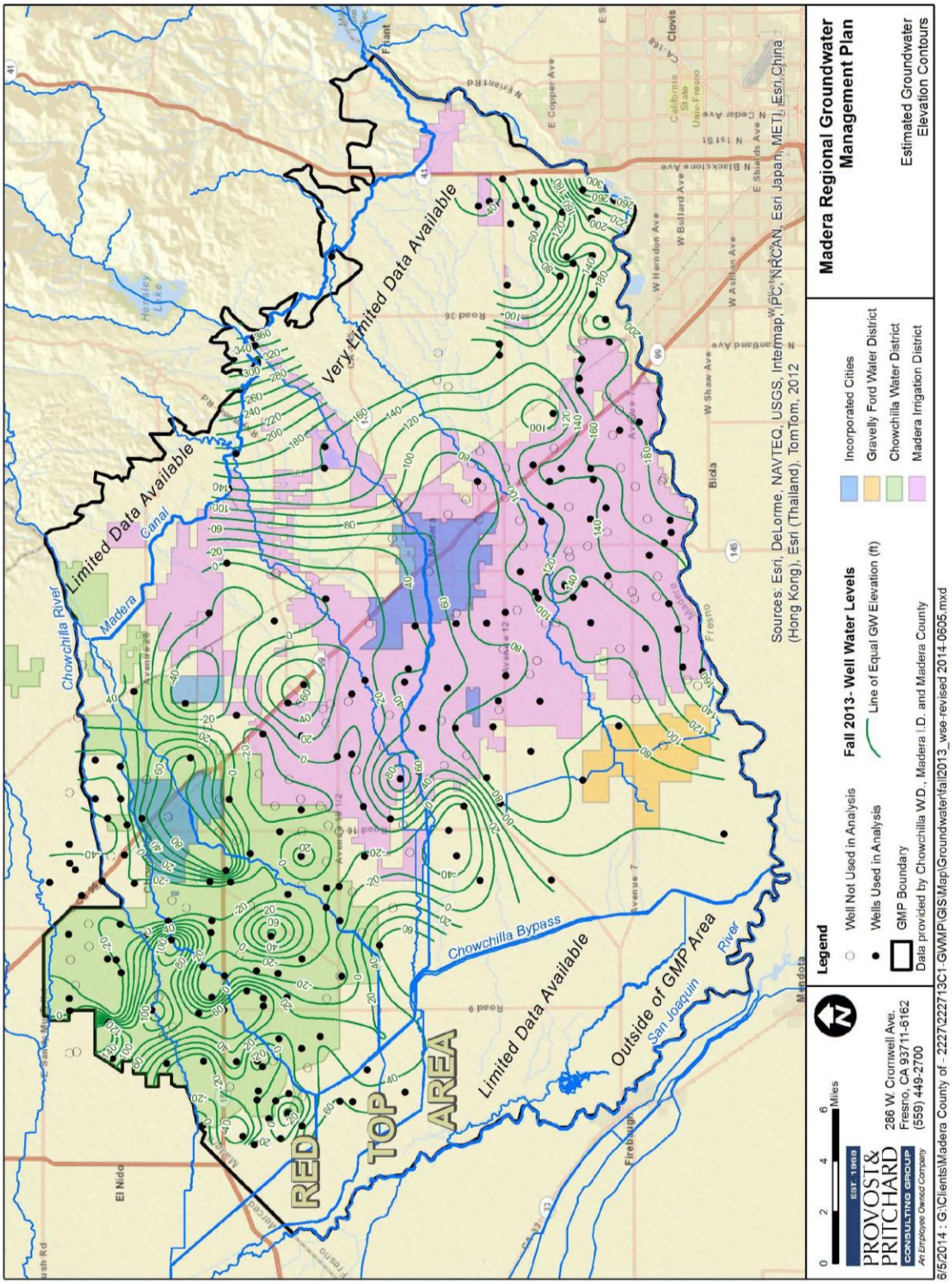

Figure 2.6 – Estimated Groundwater Elevation Contours

Groundwater Monitoring

The majority of the water level data available falls within MID and CWD. Outside of the districted areas readily available water level data is sparse. Water level monitoring programs in the un-districted areas, or areas that receive little or no surface water, are as a whole deficient. Much fewer water level measurements are available in the east part of the valley floor, where the greatest water level declines are occurring. As well, as shown on **Figure 2.6** very little water-level data was available in the cities. The City of Madera does monitor groundwater levels annually, but the data was not readily available or organized/formatted in a manner that would allow it to be used in the evaluation. The relative paucity of data outside of the Districted areas, coupled with a general lack of knowledge concerning well construction details, stresses the importance of implementing a robust regional groundwater level monitoring program as described in **Section 5.1 – Groundwater Level Monitoring Program**. The following items should be considered when reviewing the estimated groundwater contours and will need to be considered when developing a regional groundwater monitoring network:

- Well construction details are lacking for most of the wells, and determining the perforated interval and aquifer being measured will require a separate detailed study; therefore groundwater contours were developed without knowledge of specific aquifers monitored by a given well.
- The supplied water level data sheets do not indicate the aquifer(s) monitored by a given well.
- Only the eight CASGEM wells, supplied by the County of Madera, and the Root Creek WD wells have measuring point elevation data, therefore the depth to water information from the MID and CWD wells were estimated from a GIS elevation model.
- KDSA indicates that confined groundwater, caused by local confining clay layers, is found east of the Corcoran Clay.
- KDSA also indicates that below depths of several hundred feet, usually below 200 feet, groundwater is confined regardless of whether or not the Corcoran Clay is present.

Derivation of Groundwater Elevation Contours

Groundwater elevation contours were estimated from available water level data. As **Figure 2.6** shows, wells in relatively close proximity to one another can have significantly different water elevations. This is likely caused by several factors 1) groundwater elevations in wells across the study area appear to be affected to varying degrees by confining conditions, 2) water level measurements are taken with different types of measuring devices 3) water levels taken within a season may be several months apart and 4) groundwater level data taken when a well is running or to soon after the well was shutoff will affect the data. This emphasizes the importance of

developing standard protocols to be used throughout the GMP area to measure groundwater levels.

Groundwater Flow and Cones of Depression

The most consistent and reliable groundwater elevation contours are found along the San Joaquin River from the Root Creek area to about 5 miles west of Highway 145. Through this area groundwater flows northwest into the region due to recharge from the San Joaquin River. Generally flow is west to southwest across the study area with numerous groundwater mounds and depressions indicating that groundwater can locally flow in any direction-either towards a depression or away from a mound. This is readily apparent in areas west of Highway 99, where confining conditions are more prevalent. However, it should be noted that groundwater elevation contours based on fall readings often show more groundwater depressions due to prolonged pumping during the growing season. These seasonal affects to groundwater are partly ameliorated when analyzing spring water level data.

Past groundwater contour maps indicate that one of the largest groundwater depressions in the area is south of Highway 145 northeast of the Santa Fe railroad. This depression coincides with a large area with limited surface water. This groundwater depression is not evident on **Figure 2.6** due to a lack of recent data in this area. In the area east of Fairmead another groundwater depression is evident which also coincides with an area with limited groundwater supplies (MID annexed lands and Chowchilla Correctional Facilities). This groundwater depression is evident on **Figure 2.6**. Historically several additional groundwater depressions were present in the un-districted areas west of MID and CWD. These depressions are not evident on **Figure 2.6** due to lack of recent data for this area, but are evident on historic DWR groundwater elevation contour maps (not included).

Subsidence Area Groundwater-level Monitoring

KDSA contoured equal groundwater elevations for the upper and lower aquifers underlying the west side of the County for January-February of 2013. This work was performed as part of an expanded monitoring program in areas experiencing subsidence. This program does not measure water levels in the fall. As shown in **Figure 2.7**, the direction of groundwater flow in the upper aquifer in this part of the County is towards the northeast, away from the San Joaquin River. Groundwater in the lower aquifer was moving from the south, southwest and southeast toward a pumping depression in the area of Highway 152 and the Merced/Madera County line, as shown in **Figure 2.8**. Groundwater elevation contour maps for the lower aquifer exist only for the western portion of the Madera area, due to lack of measurements in deep wells on the eastern side. Of note on the groundwater elevation maps, **Figures 2.7 and 2.8** is similar groundwater elevations in both the upper and lower aquifers in the area north of the confluence of Ash Slough and the Eastside Bypass. South of this area, near the T10S R14E and T11S R14E line, water elevations in the upper aquifer are much as 50 feet higher than in the lower aquifer. This, coupled with the steep northeasterly groundwater gradient in the upper aquifer, indicates that water elevations in the upper

aquifer have declined in the area north of the Ash Slough and the Eastside Bypass confluence. Based on this information, upper aquifer groundwater elevations in this area have been reduced significantly over historic conditions.

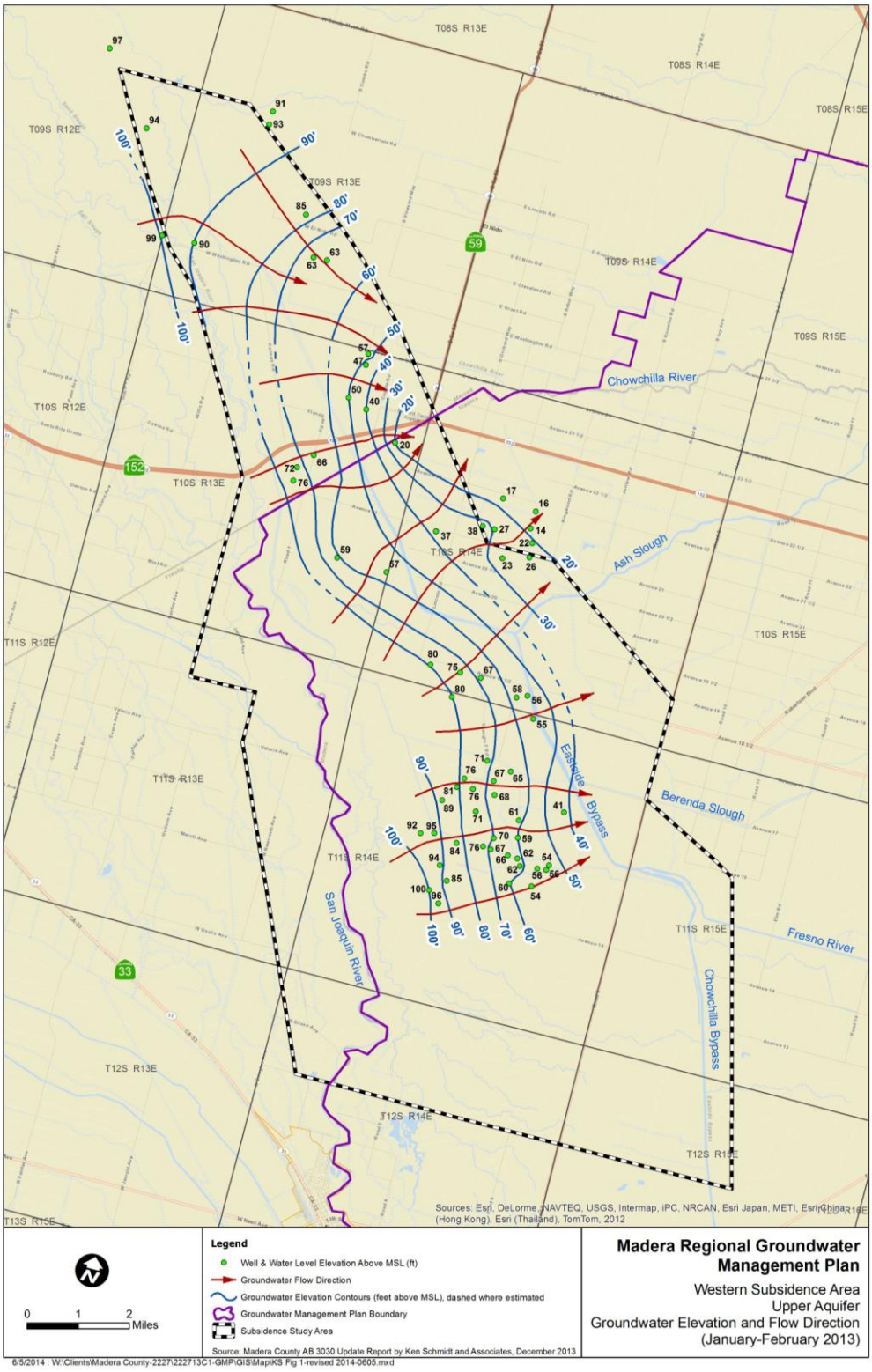

Figure 2.7 – Western Subsidence Area – Upper Aquifer – Groundwater Elevation and Flow Direction (Jan-Feb 2013)

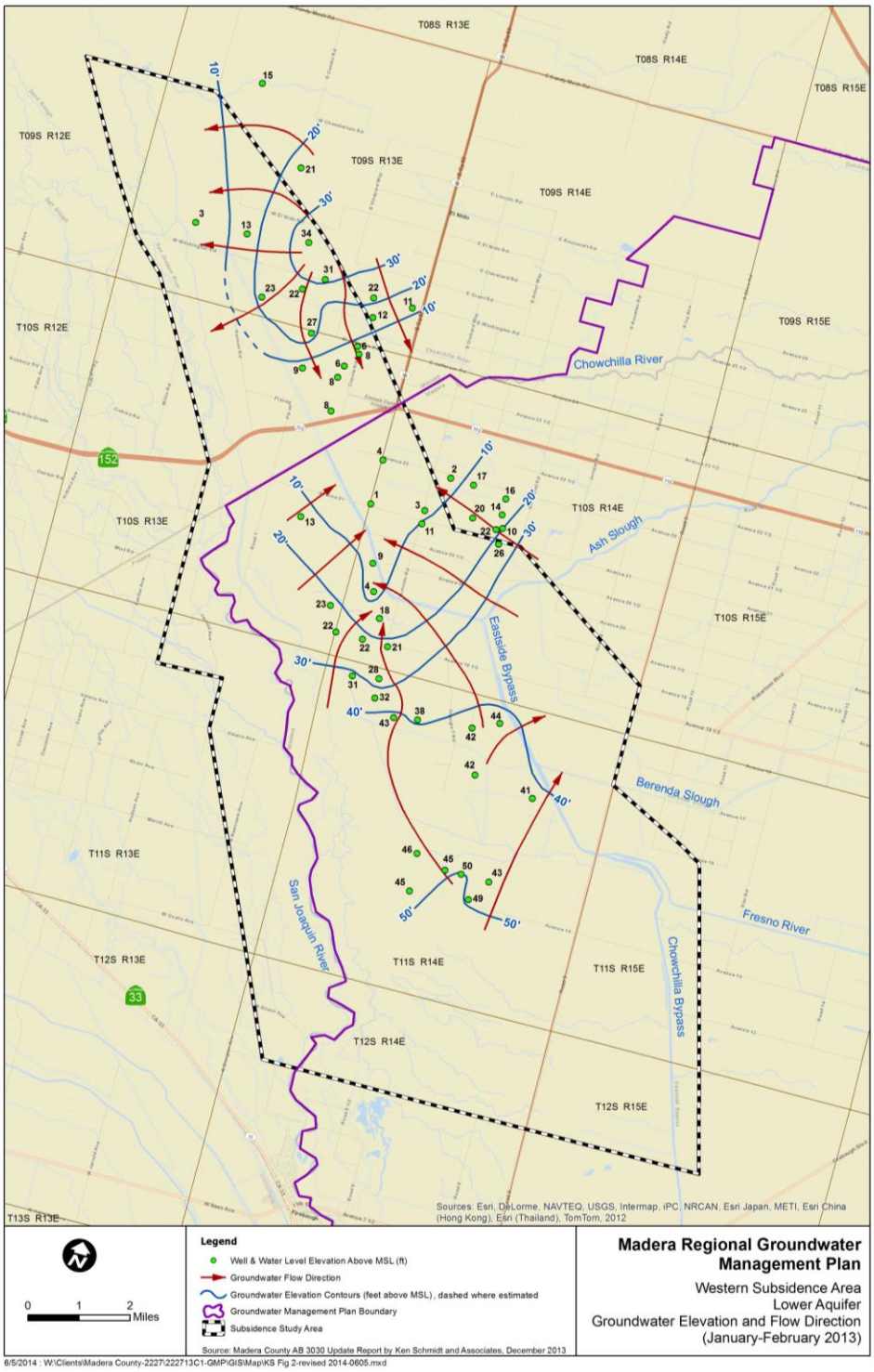

Figure 2.8 – Western Madera Subsidence Area – Lower Aquifer - Groundwater Elevation Contour and Flow Direction (Jan-Feb 2013)

2.5. Groundwater Overdraft and Available Groundwater Supplies

Overview

This section discusses current groundwater level trends, historical and projected future overdraft, and estimates of available groundwater. Groundwater overdraft was estimated for the entire GMP area. Available groundwater, defined as the amount of groundwater that can be withdrawn without causing overdraft, was also estimated for the GMP area. The estimates are preliminary and should be refined with more detailed agency-specific water balance studies including monitoring of groundwater flow between agency service areas.

Groundwater overdraft can be estimated based on an evaluation of long-term groundwater levels. Calculation of the available groundwater supply is more complex. In addition to changes in groundwater levels, this calculation must also consider water demands, surface water supplies, natural and artificial recharge, and groundwater flows in and out of the area being considered. The calculation therefore includes some inherent uncertainty. Available groundwater may change over time as natural recharge, groundwater inflows/outflows and practices in neighboring areas change. Overdraft is recommended as a more reliable parameter because it is derived from water level changes that reflect groundwater inflows, outflows and unknown stressors to the resource, and should be the quantitative measurement for making ongoing groundwater management and planning decisions.

Readers are cautioned that it was beyond the scope of this GMP to perform a detailed water budget for each participant. While data exists to make water budget calculations at the sub-regional level, making them at the agency footprint level would require groundwater flow data that are not available without constructing an extensive network of monitor wells throughout the region. Interpolating the sub-regional calculations to the agency footprint level without that supplementary data would be an approximation beyond the prudent use of the available information.

Average Annual Groundwater Level Decline

Over the past 30 years, groundwater levels in the GMP area have experienced significant declines due to overdraft. **Figure 2.9** shows the average annual rate of groundwater level decline in feet from 1980 to 2011 in the GMP area. These declines were determined by using trend lines for the decline of the shallowest levels each year and another set of lines for the deepest levels each year. The average of these two lines for each hydrograph was used to represent the average water-level declines.

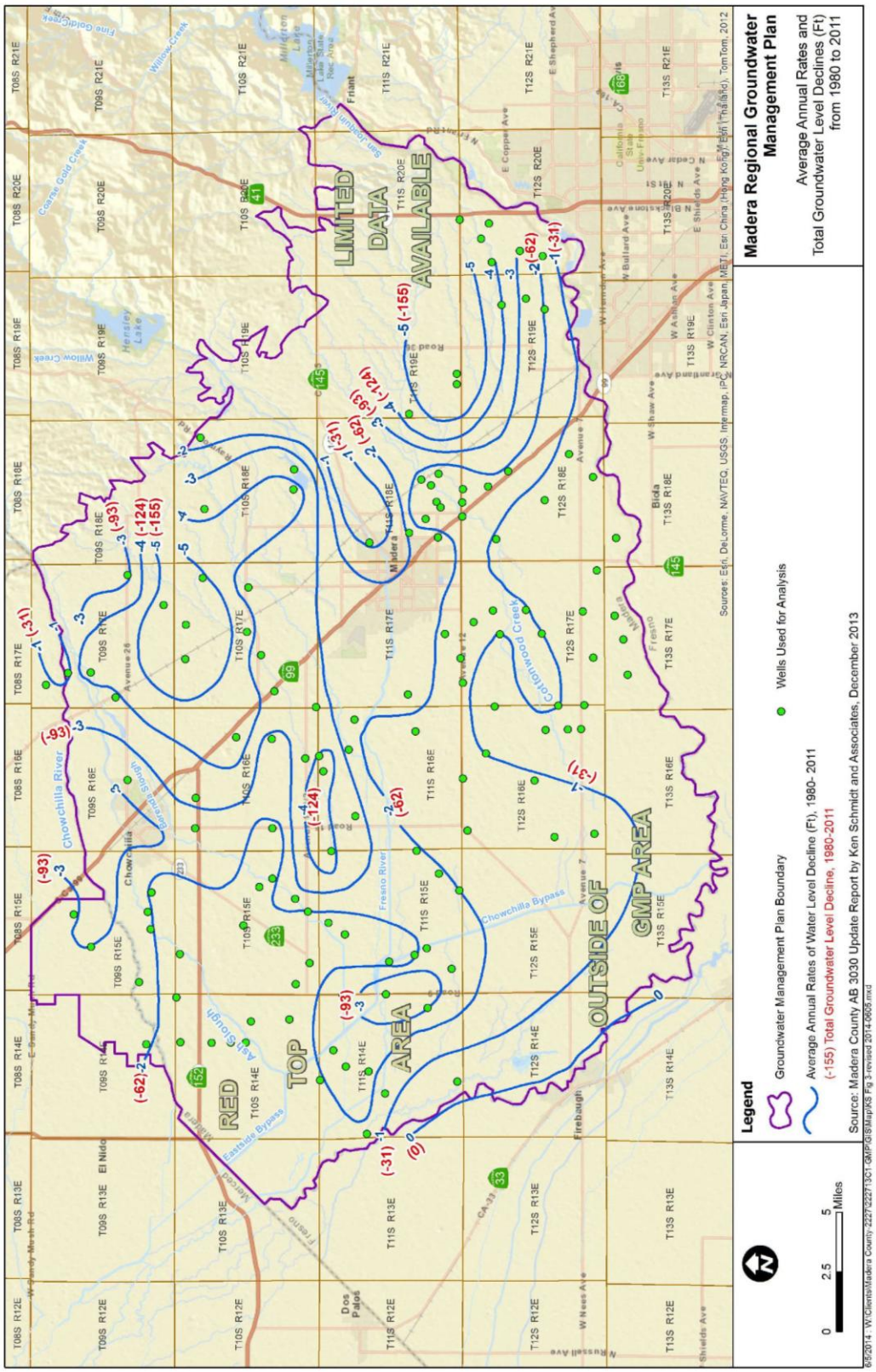

Figure 2.9 – Average Annual Rates and Total Groundwater Level Declines (ft) from 1980 to 2011

Long-term hydrographs with reliable trends were not available in certain areas, and the map represents the best available data in the GMP area. These data were used to establish historical overdraft and available groundwater through 2011. More recent data (up to 2013) were available for only a subset of the important hydrographs that show reliable long-term trends, so a comprehensive map through 2013 cannot be made. However, the estimates were projected to 2013 based on current conditions, which are discussed in the following section.

In general, average annual declines are greater on the eastern side of the GMP area, at up to five (5) feet or even more in the southeast and northeast. Increased agricultural demands, particularly the conversion of native grasslands to permanent crops, has increased the rate of decline in the eastern portion of the GMP area.

There have been virtually no water-level declines during the past three decades near the San Joaquin River downstream of Mendota Pool. There is insufficient long-term data to make the same conclusion upstream of Mendota Pool along the San Joaquin River. Rates of water-level decline generally increase with distance from the Chowchilla River, Fresno River and San Joaquin River, confirming the importance of recharge from river seepage. For example, near the Fresno River east of the City of Madera, the average water-level decline has been less than one foot per year.

It is clear that increased and intensified agricultural development has made a major impact on groundwater levels. Since 2003, about 80,000 acres of new orchards have been developed. A substantial percentage of these new plantings occurred along the western edge of the Valley floor. Some orchards replaced existing annual crops, but many were planted on previously fallow land. While the trees have a lower irrigation demand than annual crops when they are immature, water use from those orchards will continue to increase over the next few years as the trees grow to maturity. That means that even absent additional plantings in coming years, agricultural water demands in those areas of new plantings will increase from the present rate and are estimated to peak around the year 2017.

The contours in **Figure 2.9** are intended to pertain primarily to the unconfined aquifer, or the upper aquifer. However, many of the wells are composite, and tap the unconfined and confined aquifer. Information on which wells tap which aquifer is not readily available without an extensive investigation. Experience indicates that water levels in composite wells are usually closer to water levels in the lower aquifer than those in the upper aquifer (Kenneth D. Schmidt Associates, **Appendix F**). As a result, the estimated changes in groundwater levels, and the overdraft values presented below, may be overestimated.

Previous Overdraft Estimates

In the 2008 Madera County IRWMP (Boyle, 2008), groundwater overdraft was estimated in six specific areas in the Valley portion of Madera County. The six subareas are shown in **Figure 2.10**. These subareas were identified in the 2008

IRWMP for Madera County (Boyle, 2008) and generally cover the valley portion of Madera County. The exact basis for the boundaries was not documented, but they do represent areas with different hydrologic conditions and separate political governance. Some small areas in the eastern portion of the GMP area were not included when the subareas were delineated in 2008 because they generally have little to no groundwater supply from wells completed in valley alluvium; the majority of wells are completed in hardrock and have very little water supply. It should also be noted that some of the lands in the Northeast and Westerly Undistricted areas are within water districts, portions of irrigation districts or water companies (**Figure 2.10**). The subareas also do not include the Merced County portion of Chowchilla Water District, which was evaluated in this GMP. As part of the 2008 IRWMP, overdraft was estimated for the subareas for 2006. The 2006 overdraft is shown in **Figure 2.10** and summarized in **Table 2.1.**

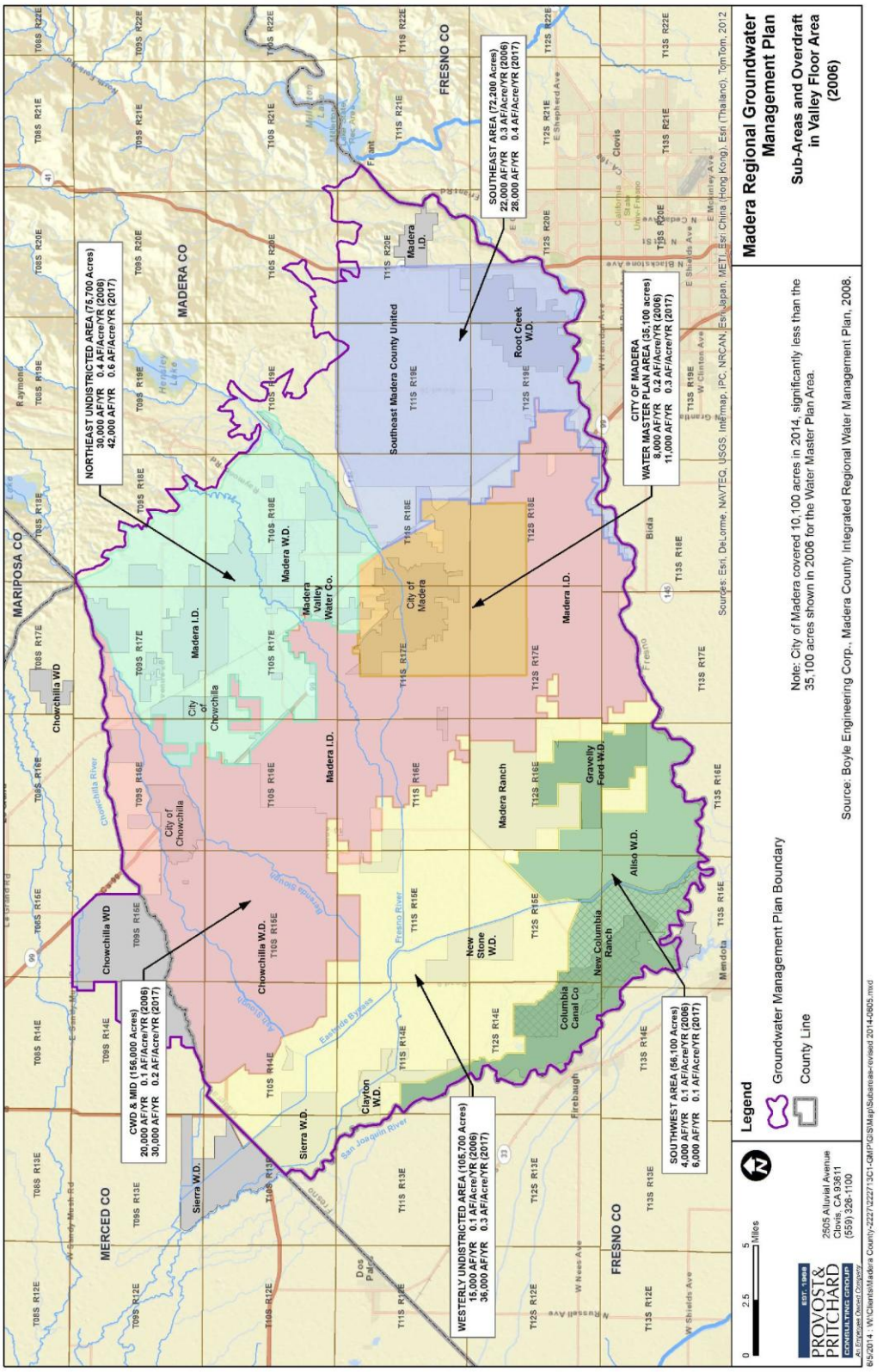

Figure 2.10 – Sub-Areas and Overdraft in Valley Floor Area (2006)

Table 2.1 – Groundwater Overdraft in Subareas (2006)

Subarea	Acreage	2006 Overdraft (AF/year)[1]
Chowchilla Water District and Madera Irrigation District	156,000	20,000
Westerly Undistricted Area	105,700	15,000
Southwest Area	56,100	4,000
City of Madera Water Master Plan Area[2]	35,100	8,000
Southeast Area	72,200	22,000
Northeast Undistricted Area	75,700	30,000
Total	**508,000**	**99,000**

1 – Value from 2008 Madera Integrated Regional Water Management Plan
2 – This area is considerably larger than the current City limits which cover 10,100 acres, and even includes lands outside of the City's sphere of influence and planning area. It is reported here as it was shown in the 2008 IRWMP.

Other previous overdraft estimates included 74,000 AF/year from 1970-1991 (Swanson, 1998) and 68,000 AF/year from 1990-1998 (Todd Engineers, 2002).

Below are discussions on an overdraft estimate for the entire GMP area. The footprints evaluated for the subareas in **Table 2.1**, and for the total area evaluated in this GMP, differ. The subareas generally includes the valley portion of Madera County, minus some areas in the east that are not considered to have groundwater supplies. The area evaluated in this GMP encompasses all of the GMP Participants, including the Merced County portion of CWD. The area evaluated in this GMP excludes the areas covered by Root Creek Water District, Madera Water District, Aliso Water District and Columbia Canal Company.

Historical Overdraft

Historical overdraft was estimated using groundwater hydrographs that had continuous or near continuous data from 1980-2011. Overdraft was based on the following formula:

Estimated Overdraft = Avg. Annual Water Level Decline x Avg. Specific Yield x Acreage

= 2.4 feet/year (from **Figure 2.9**) x 0.13 x 458,900 acres = 143,000 AF/year

The specific yield value is an average determined from previous reports by Kenneth D. Schmidt and Associates, values used in previous MID studies, values used in the San Joaquin River Restoration litigation, and experience with test holes, wells and groundwater evaluations in Madera County.

The area with a groundwater supply (451,900 acres) is slightly less than the total area of the GMP (496,900 acres). A portion of the eastern end of Madera County lands is considered to have no alluvial groundwater supply despite being within a DWR-defined groundwater basin. This area is estimated at 45,000 acres. This area has shallow soils, high bedrock, no groundwater elevation data, and lack of irrigated agriculture. The area only supports small domestic and livestock wells with limited capacity. In the 2008 IRWMP, a similar area of limited groundwater supply was recognized and considered in overdraft calculations.

Projected Overdraft and Available Groundwater Supplies by Agency

Future groundwater overdraft and Available Groundwater were estimated for the GMP area. 'Available Groundwater' is defined as the amount of groundwater that can be pumped without causing groundwater overdraft. As discussed above, historical overdraft was determined for the period of 1980-2011 based on long-term groundwater level declines. Future overdraft was estimated based on these values and consideration of the following:

1. Recent changes in cropping patterns and acreages
2. Maturation of all existing orchards by 2017
3. Surface water reductions from the San Joaquin River Restoration
4. Additional seepage due to San Joaquin River Restoration flows
5. The difference in hydrology between the historical period 1980-2011 (considered about 10% wetter than normal) and an average hydrologic period.

Available groundwater was determined based on a preliminary water budget analysis, and how much groundwater can be pumped without causing overdraft. Available groundwater cannot be precisely determined for a variety of reasons, including uncertainty in data, and limited groundwater level records, but estimates are provided.

Table 2.2 shows the estimated overdraft, available groundwater and several other parameters for the overall GMP area.

Table 2.2 – Summary of Regional Hydrologic Parameters

Description	Units	Value
Total Area	acres	496,900
Area with Groundwater Supply	acres	451,900
Irrigable Area	acres	315,100
Surface Water	AF/year	314,300
Water Demands (urban and ag.)	AF/year	970,000
Future Overdraft	AF/year	259,000
Available Groundwater	AF/year	438,400

Note: This table lists some of the primary hydrologic parameters in the region. It does not provide all the components of a water budget.

The future overdraft predictions assume no significant increase in agricultural or urban water demands, and no further reductions in surface water supplies beyond those predicted for the San Joaquin River Restoration Project (see Section 7.1). Further studies are needed to validate these assumptions or estimate future changes in supplies and demands. The analysis also does not consider potential impacts on water supplies from climate change, which should also be addressed in separate studies.

Recharged groundwater does not recognize political boundaries and agencies that import surface water often see their groundwater flow to other areas. Thus groundwater supplies can change over time as neighboring areas change their practices, so the available groundwater and overdraft needs to be periodically re-evaluated.

Overdraft and available groundwater can both be used to manage groundwater, but overdraft is recommended for several reasons. For example, groundwater management in Arizona has been focused on progressively reducing groundwater overdraft for more than three decades, without specifically evaluating the available groundwater. Groundwater overdraft is much simpler to determine, as it can be calculated by examining water-level trends and specific yields. To the contrary, 'available groundwater' by its nature depends on items such as river seepage, groundwater flows, well pumping, and deep percolation of applied waters that cannot be directly measured with any precision from agency to agency, and can only be estimated. Data is even lacking for accurate estimates for some of these variables. Presently, there are not adequate water-level maps or values for aquifer transmissivity at the right locations (i.e. at the boundaries between entities) to do this. Because groundwater overdraft estimates already take these other items into consideration (i.e. as reflected by water-level trends), overdraft estimates are highly useful in groundwater management.

There are many inadequacies in the data needed to perform a water budget, which emphasizes the need for improved monitoring to provide better overdraft and available groundwater estimates. This evaluation should be viewed as the first in a series of water resources evaluations needed to manage the region's groundwater.

2.6. Geologic Potential for Groundwater Recharge

Groundwater recharge is the process by which groundwater is replenished. The geologic formations that comprise the aquifer system underlying the GMP area extend well beyond the local agencies' jurisdictional boundaries. Several processes are responsible for natural recharge of the groundwater basin. On a regional scale, surface water flowing over the surface expression of the geologic formations (surface outcrops) allows for direct infiltration into the hydrogeologic system. Locally, groundwater recharge occurs where surface water flows over permeable sediment (gravels and sand) in the river channels, allowing for direct infiltration of surface water (see **Figure 2.11**). Deep percolation of applied irrigation water also recharges the groundwater basin in areas where impermeable formations do not exist.

The amount of groundwater that can be recharged is dependent on the available storage space within the aquifer(s). Depending on the separation of the bottom of the river or stream and that of the groundwater, streams can either "lose" water into the underlying aquifer(s) or "gain" water. Where groundwater levels are at or above the elevation of the surface water, groundwater will flow into the stream (gaining stream). Where there is separation between the groundwater and surface water, water flowing downstream will recharge into the groundwater basin (losing stream). Conversely, if groundwater levels are at the land surface, there will be refusal of any "new" water in the subsurface. Throughout the GMP area, there is significant available storage due to low groundwater levels.

DWR groundwater contour maps, as shown in **Figure 2.6,** above, indicate that the groundwater basins underlying the GMP area received recharge through under seepage from the San Joaquin and Fresno Rivers. As shown in **Figure 2.6**, above, water recharge occurs beneath the San Joaquin River. Local agricultural interests are increasingly implementing localized groundwater recharge programs using both percolation basins and in-lieu recharge. Due to the hardpan and low infiltration rates in the eastern portion of the County within the GMP area, the majority of surface runoff during storm events flows overland and most water does not percolate into the subsurface. Section 2.2 – Geomorphology and Soils, provides some discussion on the surficial soils and potential for recharge.

Those areas conducive to recharge, i.e. underlain by soils with moderate to high infiltration rates, are mainly found west to southwest of the Cities of Madera and Chowchilla. Other areas with soils of high infiltration rates are intermittently found as stream or river deposits radiating from the San Joaquin River and to a lesser extent the Chowchilla River. Along the major rivers and streams areas with the potential for recharge exists as relatively narrow outcrops of soils with moderate infiltration rates that extend easterly to the edge of the groundwater basin. From a regional groundwater recharge perspective these area are very important areas to focus recharge programs. These areas are primarily up gradient from the majority of the valley floor area, thus water recharge in the eastern portions of the major stream and rivers will eventually flow

down gradient and recharge the area's aquifer to the west. Seepage from streams is the primary source of groundwater recharge for the Madera area, but as climatic conditions change, available recharge opportunities are reduced. Several possibilities exist to promote groundwater recharge.

- Percolation basins, or storm water retention basins, in conjunction with dry wells, can enable storm water to infiltrate into the subsurface. Dry wells are shallow wells, completed up to 100 feet or more below the land surface, which are constructed in the unsaturated zone and can provide for direct recharge into the underlying hydrogeologic system. Where the impermeable hardpan is located, as along the eastern portion of the GMP area, the base of any retention basins needs to be below the elevation of the hard pan. The location of percolation basins should be considered near dry riverbeds, where the soils and geology will allow higher rates of infiltration.
- Direct aquifer storage by constructing wells to inject water into specific aquifers
- Uncontrolled flood releases and year-round flows in the San Joaquin, Chowchilla and Fresno Rivers would enhance recharge of the underlying groundwater basin.

Currently, limited site-specific information on recharge potential is available, or the information has not been gathered and summarized. Some limited recharge studies have been performed, including some for the proposed Madera Water Bank, but overall much of the GMP area has not been studied in detail for recharge potential. Additional investigations are needed to develop large scale recharge projects. These studies would have merit for each GMP Participant. The studies could investigate soils, geology, proximity to conveyance facilities, and include soil testing, exploratory drilling and cone penetration testing. This information would assist in identifying and prioritizing the best locations for recharge. These studies are recommended to identify the most efficient sites and address the critical rate of overdraft in the GMP area.

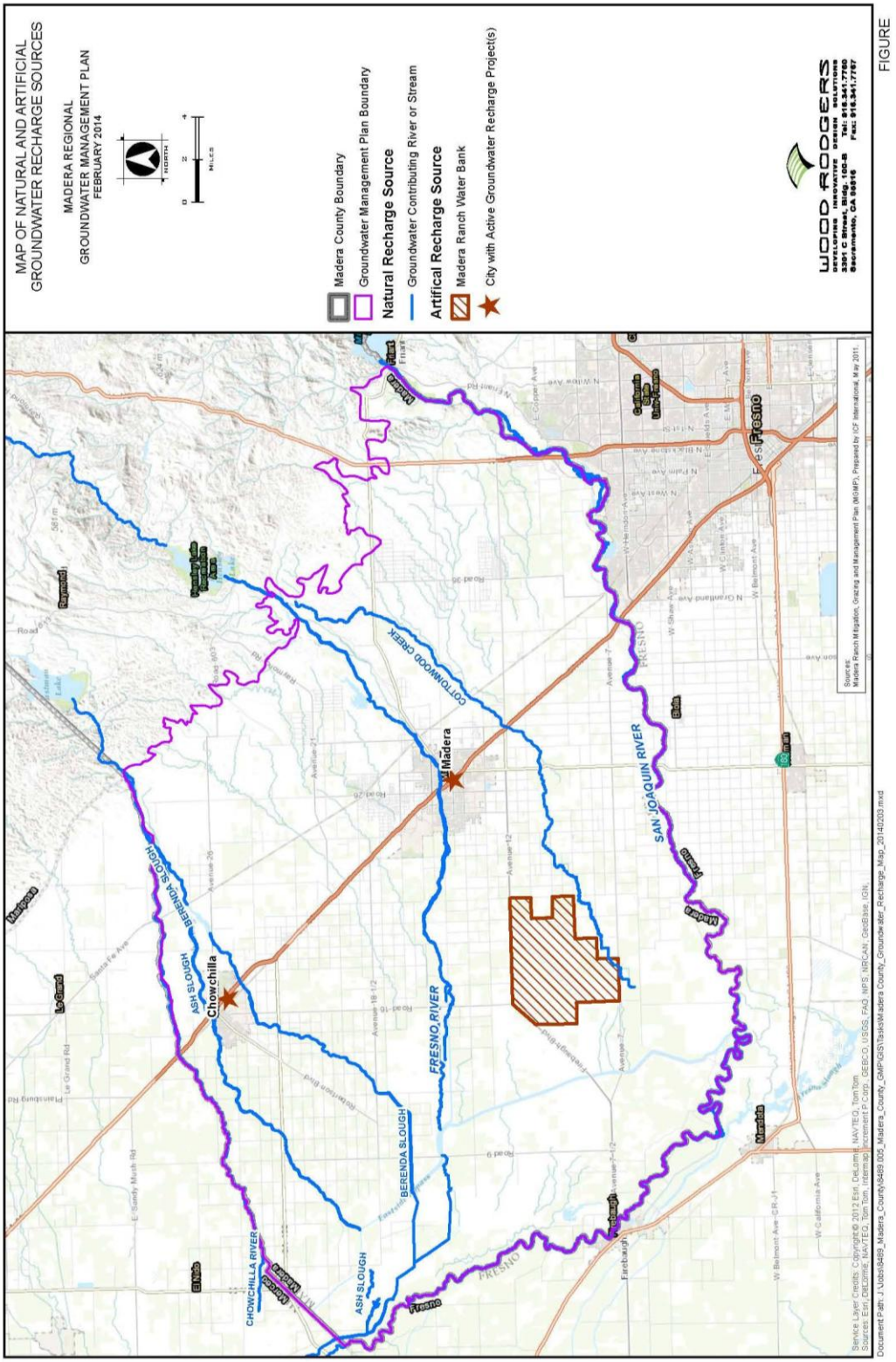

Figure 2.11 – Natural and Artificial Groundwater Recharge Sources

2.7. Groundwater Quality

Groundwater quality within the GMP area is generally good for both domestic supply and agricultural use. However, variations in groundwater quality can make it unacceptable without treatment. Groundwater contamination can be a result of naturally occurring, point source contamination, and/or regional contamination. Some common elements of concern include dissolved salts (as measured by the specific conductance or electrical conductance [EC]), boron, manganese, arsenic, iron, hexavalent chromium, bacteria, uranium, and methane. In many cases, these are naturally occurring, but could also be related to regional or point sources of contamination. Typical sources of anthropogenic contamination originate from gas stations, dry cleaners, high-density animal enclosures, applied fertilizers, leaky sewer lines, wastewater treatment plants, and septic systems.

Water quality data collected by the California Department of Water Resources (DWR), California Department of Public Health (CDPH) database (up to 2013), and local City and County water agencies for wells located within the County were analyzed to characterize spatial and depth-dependent water quality trends within the GMP sub-areas used in the 2008 IRWMP (see **Figure 2.10**). The sub-area boundaries are based on a combination of political and hydrologic boundaries, and are considered appropriate for reporting water quality data.

In 2001, the State of California passed the Groundwater Quality Monitoring Act of 2001 to assess and monitor the quality of groundwater in California (State of California, 2001b, Sections 10780– 10782.3 of the California Water Code, Assembly Bill 599). AB 599 required that the California State Water Resources Control Board (SWRCB) work in coordination with various State of California public agencies and a Public Advisory Committee to integrate existing monitoring programs and design and establish a comprehensive statewide groundwater quality monitoring program (USGS, 2013). In order to assess groundwater quality and establish baseline groundwater quality conditions in aquifers within the State, the SWRCB, in collaboration with the U.S. Geological Survey (USGS) and Lawrence Livermore National Laboratory (LLNL), implemented the Groundwater Ambient Monitoring and Assessment (GAMA) Program (California State Water Resources Control Board, 2010, website at http://www.swrcb.ca.gov/gama/). Currently, the GAMA program consists of four projects:

1. GAMA Priority Basin Project, conducted by the USGS (website at http://ca.water.usgs.gov/gama/)
2. GAMA Domestic Well Project, conducted by the SWRCB
3. GAMA Special Studies, conducted by LLNL
4. GeoTracker GAMA online database, conducted by the SWRCB (USGS, 2013).

Groundwater quality in the Madera, Chowchilla, and Delta-Mendota Subbasins were investigated as part of the GAMA Priority Basin Project Program. The primary objective of the Priority Basin Project within the Madera-Chowchilla and the Western San Joaquin Valley (WSJV) study units, which included the Delta-Mendota and Westside subbasin, was to provide an assessment of water quality in the primary aquifer system. The assessments conducted in the Madera-Chowchilla and WSJV study relied on water-quality and ancillary data collected by the USGS from 35 wells during April–May 2008 for the Madera-Chowchilla study unit, 58 wells during March to July 2010 for the WSJV study unit, and water-quality data reported in the California Department of Public Health (CDPH) database (USGS, 2013). Analysis of the water quality data from these wells was used to characterize both spatial and depth dependent water quality trends within the GMP sub-areas.

Below is a general description of the water quality parameters selected for the characterization of the groundwater basins underlying the GMP area. The data was separated by total well depth into three categories: less than 400 feet deep, 400 to 600 feet deep and greater than 600 feet deep, as delineated on the water quality maps in **Appendix D**. The selected depth intervals are based on the variations observed in the stratigraphic units within the GMP area.

The selected constituents include arsenic, boron, specific conductance, manganese, and nitrate (as NO_3). The spatial and vertical trends in each GMP sub-area are discussed with regard to suitability for agriculture and domestic use.

Arsenic

Arsenic is a naturally occurring element commonly found in groundwater. Its presence in groundwater is a result of the dissolution of the element in sediments containing minerals containing arsenic. Exposure to arsenic above the CDPH maximum contaminant level (MCL) can cause both short and long-term health effects. Long-term exposure to arsenic has been linked to cancer, while short-term exposure to high doses of arsenic can cause other adverse health effects. The CDPH has established a primary MCL of 10 micrograms per liter (µg/L) for arsenic, which was reduced from 50 µg/L in 2008.

Boron

Boron is a necessary element for agriculture, but may become toxic to very sensitive crops above 500 µg/L. For public drinking water systems, the CDPH has established a notification level of 1,000 µg/L for boron.

Specific Conductance

Specific conductance is a property of groundwater that is relatively simple to measure and collect in the field at the wellhead and can help identify and characterize the condition of the freshwater bearing aquifer system. Specific conductance is a measure of how effectively water will conduct electricity in units of both micromhos per centimeter (µmhos/cm) and microsiemens (µS/cm) per centimeter (which are analogous), and

provides for the indirect measurement of the amount of dissolved salts in groundwater. Lower specific conductance values indicate less salt, while higher specific conductance values indicate more salt.

Applied irrigation water with fertilizers as well as water softeners can add salts to the hydrogeologic system, which can increase the specific conductance of the groundwater.

Elevated specific conductance values can also be attributed to naturally occurring brackish or saline water, such as geologic formations which are, or have been in the past, directly connected to a salt water body or where geologic formations were deposited under marine (salt water) conditions which have inherently high dissolved salt concentrations. **Figure 2.12** shows the elevation of the base of fresh water, which is discussed in more detail in Section 6.3 – Saline Water Intrusion. The data comes from Page (1973) and is the most recent published study to evaluate the base of fresh water in Madera County. Data is only available in some of the GMP area.

Manganese
Manganese is a naturally occurring element found in rocks and minerals. Its presence in groundwater is a result of the dissolution of the naturally occurring element. In lower concentrations (below the secondary CDPH MCL of 50 µg/L), manganese may cause aesthetic problems (odor or staining) for domestic and municipal uses, but generally would not pose a health risk.

Nitrate (as NO_3)
Nitrate (as NO_3) is a contaminant which does not naturally occur in the subsurface. Elevated concentrations of nitrate are widespread in the San Joaquin Valley. The CDPH has established a primary MCL of 45 milligrams per liter (mg/L) for nitrate as NO_3. Where elevated concentrations of nitrates are present, it is likely a result of overlying land uses, such as applied fertilizer, septic systems, leaky sewer systems (including transmission lines, storage, and wastewater treatment plants), and high-density animal enclosures, such as dairies.

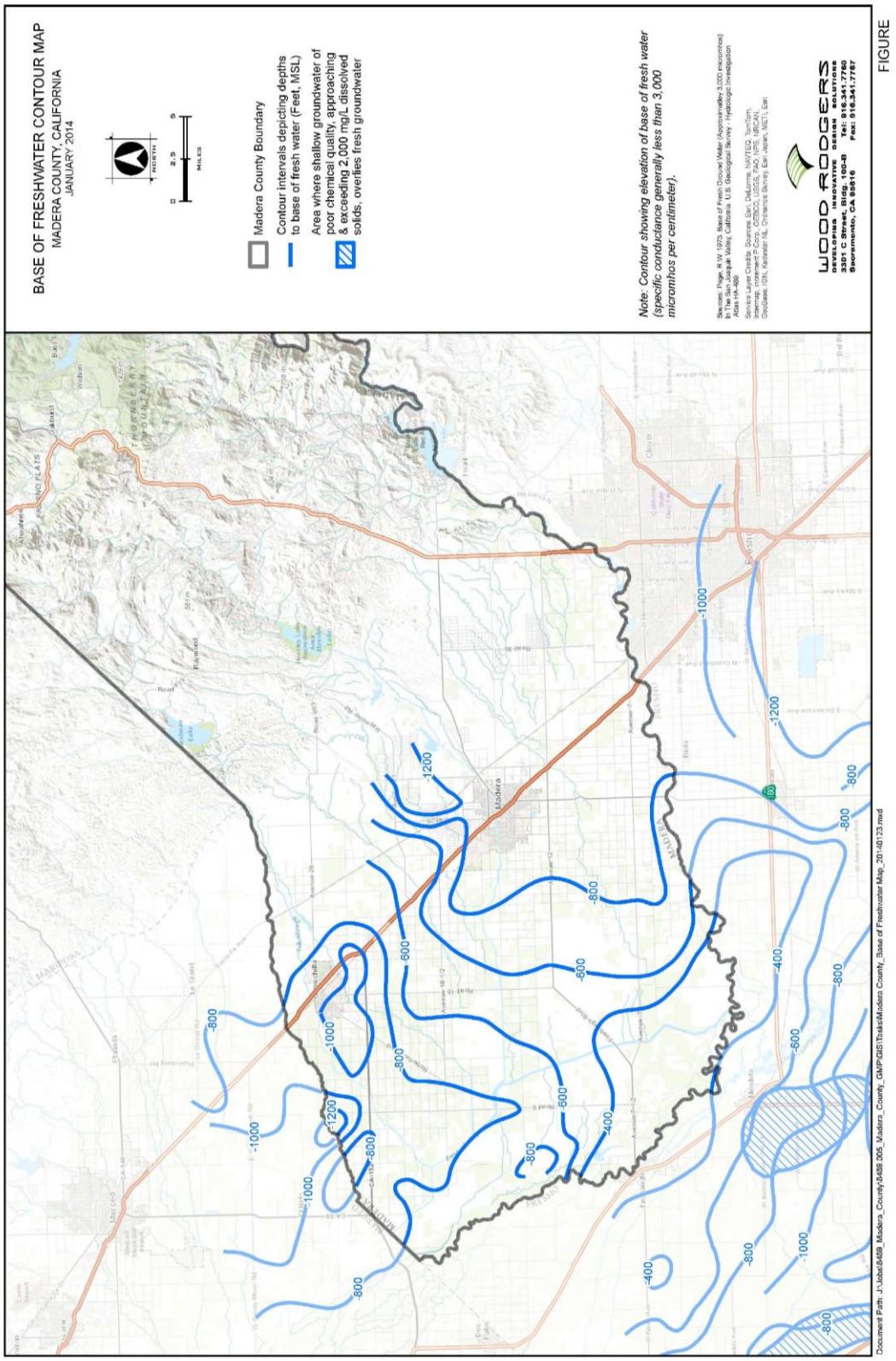

Figure 2.12 – Base of Freshwater Contour Map

Chowchilla Water District and Madera Irrigation District Sub-Area

The Chowchilla Water District (CWD) and Madera Irrigation District (MID) sub-area consists of the central portion of the GMP area (**Figure 2.10**). As illustrated in **Appendix D**, available water quality data indicate that:

- **Arsenic –** concentrations do not exceed the MCL of 10 µg/L.
- **Boron –** concentrations are generally acceptable, with the exception for one data point southwest of Road 16 and Avenue 18½, where boron concentrations ranged from 1,000 to 2,000 µg/L (well construction information for this well is unknown).
- **Specific Conductance –** in a few areas located to the west and southwest of Chowchilla, elevated values for specific conductance near to and/or exceeding the recommended MCL[1] for domestic use are observed in the shallow and intermediate aquifers. A closer examination into the potential source for the elevated specific conductance concentrations revealed that high-density animal enclosures and/or fertilizer plants were in close proximity. Elevated concentrations of specific conductance could be problematic for agricultural and domestic use.
- **Manganese –** concentrations are generally acceptable in this sub-area, with the exception of the area south of the City of Madera in the aquifers less than 400 feet. Concentrations were reported in the remainder of the area between the secondary MCL of 50 µg/L and 150 µg/L.
- **Nitrate (as NO_3) –** wells located west and south of the City of Chowchilla have reported nitrate concentrations that exceed the MCL of 45 mg/L in the shallow aquifer. The occurrence of elevated concentrations observed within these shallow wells can be directly correlated to their close proximity to high-density animal enclosures and fertilizer plants.

Northeast Undistricted Sub-Area

The Northeast Undistricted sub-area generally includes the portions of the GMP area east of Highway 99 and north of the City of Madera (**Figure 2.10**). As illustrated in **Appendix D**, available water quality data indicates that:

- **Arsenic –** concentrations are elevated and exceed the MCL of 10 µg/L in several wells, completed in both the shallow and deep aquifers.
- **Boron –** concentrations are generally acceptable in this sub-area, with values primarily below 500 µg/L.
- **Specific conductance –** concentrations are generally acceptable in this sub-area, with average values ranging between 600 and 900 µmhos/cm.
- **Manganese –** concentrations are generally below the secondary MCL of 50 µg/L

[1] Recommended CDPH MCL for Specific Conductance is 900 µS/cm; upper limit is 1,600 µS/cm; short term is 2,200 µS/cm

throughout the sub-area, with the exception of one well exceeding the secondary MCL (well construction information was unavailable for this data point)
- **Nitrate (as NO_3) –** concentrations are acceptable in this sub-area, with reported concentrations below the MCL of 45 mg/L.

Southeast Undistricted Sub-Area

The Southeast Undistricted sub-area generally includes the portions of the GMP area east of Santa Fe Avenue and south of the Fresno River (**Figure 2.10**). As illustrated in **Appendix D**, available water quality data indicate that:

- **Arsenic –** concentrations are generally acceptable with regard to the MCL of 10 µg/L in the shallower aquifers. Elevated concentrations over 10 µg/L appear to be concentrated in the aquifers below 600 feet.
- **Boron –** concentrations are acceptable for the sub-area, with values ranging from less than 500 to 1,000 µg/L.
- **Specific conductance –** concentrations are acceptable (less than 900 µmhos/cm) with the exception of one data point northwest of the Madera Ranchos (unknown well depth).
- **Manganese –** concentrations appear to be acceptable in the underlying aquifers. One data point in the shallow aquifer indicates elevated manganese concentrations, but is most likely a result of a turbid sample (which results in anomalously high results).
- **Nitrate (as NO_3) –** Elevated concentrations near to or above the MCL of 45 mg/L is of concern for this sub-area and have been documented in the shallow aquifers. This is of concern primarily for domestic wells, which are usually constructed in the shallow aquifers. The primary reason for the elevated concentrations of nitrates in this sub-area is likely the high density of septic systems in the Madera Ranchos.

City of Madera Water Master Plan Sub-Area

The City of Madera Water Master Plan sub-area includes the City of Madera and significant amounts of primarily agricultural lands that surround the City mainly to the south (**Figure 2.10**). This was the area identified in the 2008 IRWMP. According to the City of Madera, it extends beyond their current sphere of influence and planning area. As illustrated in **Appendix D**, available water quality data indicate that:

- **Arsenic –** concentrations are acceptable and below the MCL of 10 µg/L in the sub-area.
- **Boron –** concentrations are below 500 µg/L in the entire sub-area.
- **Specific conductance** – concentrations are generally acceptable within the sub-area, with the exception of several wells in the western portion with elevated concentrations over 1,600 µmhos/cm. These wells do not have construction

information associated with them, but the wells are located to the southwest of the City and are located in an industrial area. Elevated specific conductance concentrations could be problematic for agricultural and domestic use.

- **Manganese** – concentrations appear to be acceptable and below the secondary MCL of 50 µg/L in the sub-area.
- **Nitrate (as NO_3)** – concentrations appears to be under the MCL of 45 mg/L, with the exception of the area southwest of the City where land use potentially affects the shallow aquifer water quality. A closer examination into the potential source for the elevated nitrate concentrations revealed that at these locations, high-density animal enclosures and/or fertilizer plants were in close proximity. Elevated nitrate concentrations can be harmful for domestic use.

Southwest Area Sub-Area

The Southwest Area sub-area encompasses the southwest portion of the GMP area (**Figure 2.10**). As illustrated in **Appendix D**, available water quality data indicate that:

- **Arsenic** – water quality data is inconclusive for the underlying aquifers. West of the sub-area in Firebaugh, the data indicate elevated concentrations of arsenic above the MCL of 10 µg/L, but the depth is unknown for the sampled well.
- **Boron** – appears to be acceptable, with concentrations less than 500 µg/L throughout the sub-area; however, well depths are not known.
- **Specific conductance** – is elevated in the northeastern portion of the sub-area in the shallow aquifer and appears to increase towards the west.
- **Manganese** – water quality data is inconclusive for the underlying aquifers.
- **Nitrate (as NO_3) –** concentrations appear to be at or near the MCL of 45 mg/L in the eastern portion of the sub-area, and decrease in concentration to the west.

Westerly Undistricted Area Sub-Area

The Westerly Undistricted Area sub-area encompasses the portions of the GMP area north of the Southwest Area sub-area and west of the CWD and MID sub-area (**Figure 2.10**). Water quality data is sparse, with the exception for specific conductance and nitrate (as NO_3). As illustrated in **Appendix D**, available water quality data indicate that:

- **Arsenic –** water quality data is inconclusive for the underlying aquifers; however, from the available data points, arsenic appears to be acceptable.
- **Boron** – water quality data is inconclusive for the underlying aquifers; however, from the available data points, boron appears to be acceptable.
- **Specific conductance –** concentrations have been documented to be above 1,600 µmhos/cm in the central portion of the sub-area in the intermediate aquifer and generally increase in concentration towards the southwest portion of the sub-area.

- **Manganese –** water quality data is inconclusive for the underlying aquifers; however, the available data points suggest manganese is acceptable.
- **Nitrate (as NO_3) –** concentrations appear to be above the MCL of 45 mg/L near the central portion of the sub-area in the shallow aquifer. The northwestern portion of the sub-area has elevated concentrations of nitrate (as NO_3) between 30 and 45 mg/L, near to or at the MCL. For the rest of the sub-area, concentrations are below the MCL.

2.8. Land Subsidence

Land subsidence occurs when groundwater levels in confined aquifers decline due to excessive withdrawals of water. This results in compaction of fine-grained sediments (clays) above and within the aquifer system as water is removed from pores between the grains of the sediments. Over time, as more water is removed from the area, the ground level sinks. Land subsidence can lead to reduced conveyance capacity in canals, and damage to structures such as canals, levees, buildings and wells. Subsidence can also cause flooding by creating low spots or reducing gradients in natural channels.

This section discusses the causes of land subsidence and impacts from recent land subsidence. Land subsidence monitoring is discussed in Section 5.4, and land subsidence mitigation measures are discussed in Section 7.5.

Cause of Local Land Subsidence

Land subsidence in the GMP area is caused by pumping groundwater from the deeper confined aquifer that is separated from the shallower unconfined aquifer by the Corcoran Clay. The Corcoran Clay is the regional aquitard throughout the San Joaquin Valley, and is prevalent throughout the western half of the GMP area (see **Figure 2.14**). The area of greatest land subsidence in the GMP area coincides with the area underlain by the Corcoran Clay. The greatest land subsidence has also occurred in western Madera County, particularly in areas along the Eastside Bypass.

History of Land Subsidence in Area

Land subsidence in the GMP area is of historic and ongoing significance. Between 1926 and 1972, subsidence resulted in between -1 and -4 feet of ground surface elevation change (drop) within the western half of the GMP area. The area of greatest subsidence occurred roughly along the path of the East Side Bypass flood control structure of the San Joaquin River (Bull, 1975). The majority of the subsidence has occurred since 1940, when large turbine pumps came into widespread use for extracting water from the deeper confined aquifer which underlies the western half of the GMP area (KDSA, 2013). Surface water from the Delta Mendota Canal (early 1950s) and the California Aqueduct (early 1970s) resulted in decreased groundwater demand, stabilization of groundwater levels and a reduced rate of compaction. Drought conditions during 1976-1977 and 1987-1992 resulted in increased demand for groundwater supply and also an increase in subsidence rates. Drought and regulatory reductions in surface water

deliveries from 2007 through 2013 have forced unprecedented withdrawals of water from the lower aquifer to meet local water demand.

Loss of Storage due to Subsidence

The primary cause of land subsidence in the Sacramento and the San Joaquin Valleys has been the compaction of fine-grained sediments (predominantly clay) in the aquifer system following severe, long-term withdrawal of ground water in excess of recharge (USGS, 1995). Subsidence due to compaction of fine-grained sediments began in the San Joaquin Valley in the 1920's. As water levels declined severely during the 1960's, fine-grained sediments lost water from pore spaces and became compacted. When withdrawal rates decreased and water levels were allowed to recover, compaction rates slowed significantly (USGS 1995). Increased withdrawals during the 1976-77 drought caused additional subsidence, some of which was the result of compaction of coarse-grained sediments. When water levels recovered, the fine-grained sediments remained compacted; however, the land surface rebounded in 1978 because the compacted coarse-grained sediments regained some of their original volume when the former or near former pore pressure was attained (USGS, 1995). During the 1976-77 drought, compaction occurred only in the sand and gravel and was relatively insignificant and, to a degree, reversible (USGS, 1995).

Overall loss of storage space in the GMP area's aquifer can be directly correlated to the amount of subsidence seen at the land surface. However, as is indicated above, subsidence due to aquifer compaction is a result of compaction of the fine grained sediments of the aquifer. The fine grained portions of the aquifer are not typically considered water producing portions. As noted above, the coarser grained sediments, i.e., the sands and gravels, may compact but this compaction is elastic, and is largely reversed with increased water levels. This indicates that while overall the aquifer has compacted and lost storage space, the majority of the loss is in the fine grained layers which do not contribute appreciable water to wells nor are the clay layers usable for the storage of recharged water. The minimal amount of storage loss in the coarser grained sediments, the usable part of the aquifer, is for the most part recoverable and is not considered an appreciable loss of storage space in the usable parts of the aquifer.

Recent Land Subsidence Impacts

Groundwater pumping that results in renewed compaction and land subsidence in the Valley could cause serious operational, maintenance, and construction-design problems for the California Aqueduct, the San Luis & Delta-Mendota canals, and other water-delivery and flood-control canals in the San Joaquin Valley. Subsidence has reduced the flow capacity of several canals that deliver irrigation water to farmers and transport floodwater out of the valley. Several canals managed by the San Luis & Delta-Mendota Water Authority (SLDMWA) and the Central California Irrigation District (CCID) have had reduced freeboard and structural damages that have already required millions of dollars worth of repairs, and more repairs are expected in the future (Sneed, et al. 2013). These instances of land subsidence are not in the GMP area but are adjacent to the westerly portions of the area in the vicinity of the San Joaquin River, and indicate

that subsidence is occurring in broad area of the central part of the San Joaquin Valley. Within the GMP area, subsidence in the vicinity of the San Joaquin River and its flood control structures may cause flooding of Hwy. 152, and a local grade school, threaten valuable farmland and dairies, and jeopardize the San Joaquin River Restoration Program (Provost & Pritchard, 2013).

Recent work by the USGS, USBR, DWR and Kenneth D. Schmidt and Associates (KDSA) indicates that the greatest amount of subsidence in the GMP area is in the area of the East Side Bypass. This is also referred to as the Red-Top Area, which is located in the west-northwest portion of the GMP area near the axis of the valley where the majority of the historic land subsidence has been documented. The land surface elevation transect along Highway 152, **Figure 2.1** shows subsidence along this section since 1972. The maximum subsidence near the Eastside Bypass has amounted to approximately -7 feet. Most of the subsidence west of Highway 33 has occurred since 1988, while subsidence along the eastern portion of the transect occurred before 1988. (KDSA, 2013) **Figure 2.14** shows contours of equal subsidence between 2008 and 2010. It should be noted that during this two-year period the ground surface dropped between -0.1 and -1.7 feet, with the greatest declines in elevation occurring along the East Side Bypass.

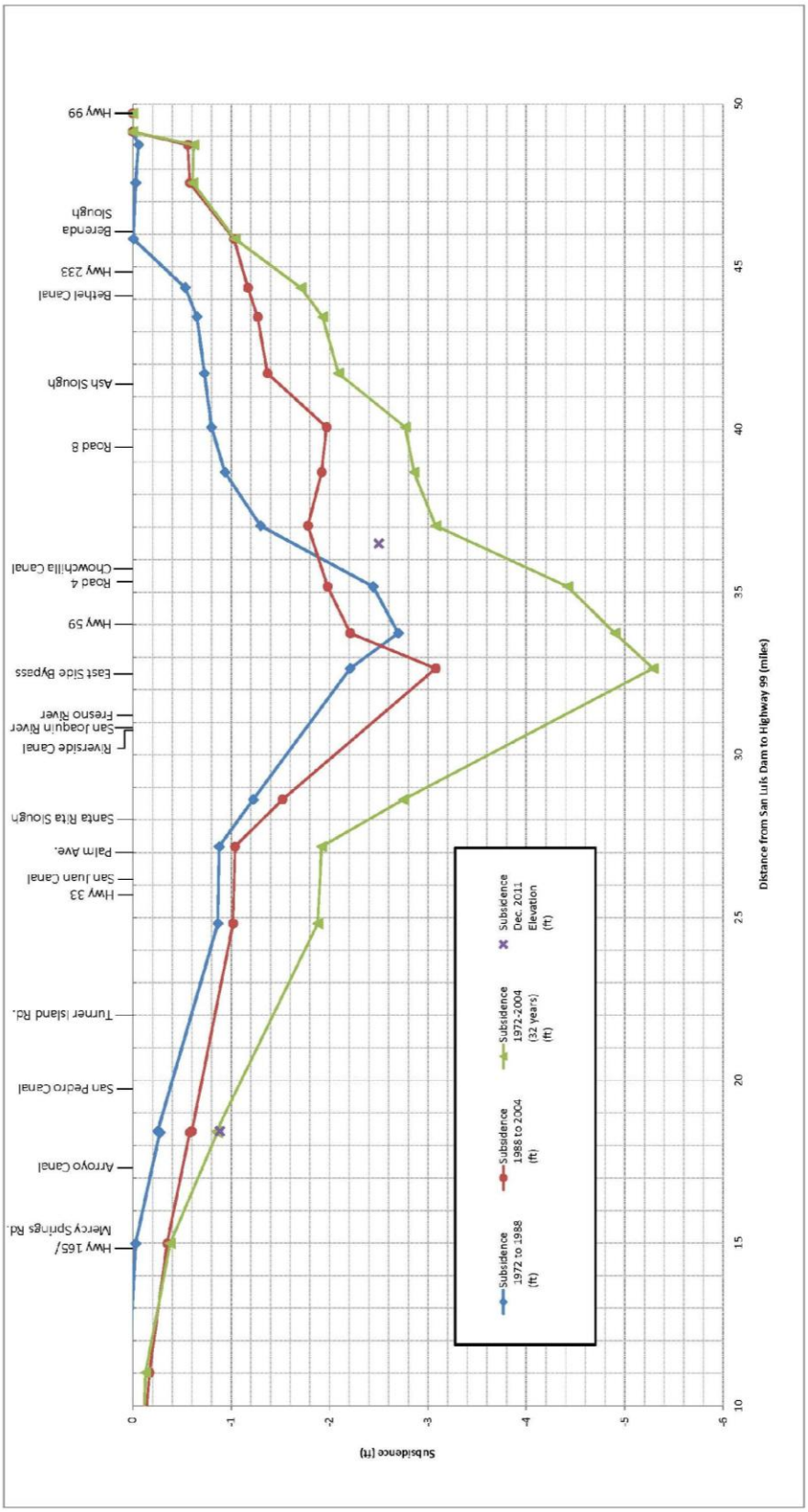

Figure 2.13 – Historical Land Surface Elevations along Highway 152 Transect

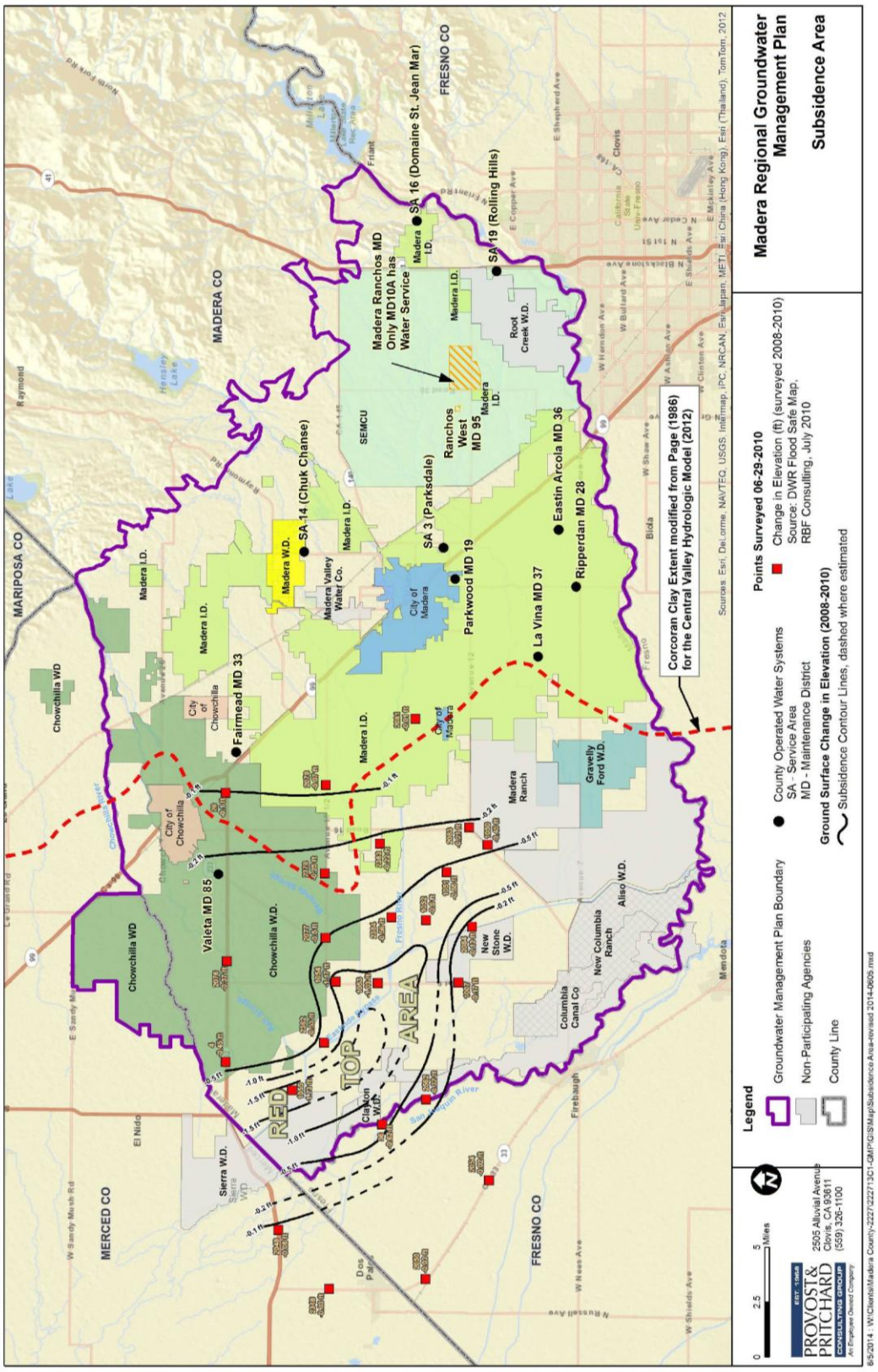

Figure 2.14 – Subsidence Area

Recent information on continued subsidence in this area, as draft maps produced by the USBR, indicates that subsidence in this area has continued through 2013. These maps are not included here because they are draft and have not been reviewed by the Western Madera County Subsidence Project. Over the period from December 2011 to 2012 as much as 0.6 feet of subsidence occurred in the area and from December 2011 to December 2013, subsidence in the area of the Eastside Bypass has been as much as 0.75 feet. However, a draft map of the same area for the period December 2012 to December 2013 indicates that as much as 1.05 feet of subsidence occurred in this area. It is unclear why there is a discrepancy in the draft maps but it is clear that land subsidence has continued in the area.

Department of Water Resources Subsidence Study

In November 2013, DWR generated a detailed study entitled "*Evaluation of the Effects of Subsidence on Flow Capacity in the Chowchilla and Eastside Bypasses.*" The bypasses are major flood control structures that parallel the San Joaquin River along the western edge of the GMP area. The DWR study focuses on changes in levee freeboard (the height of the top of the levee above the water level) and changes in flow capacity in the bypasses that have occurred between 2008 and 2011, and makes projections of potential changes in freeboard and capacity due to continuing subsidence through 2016. The goal of the study was to provide a planning tool for use by the San Joaquin River Restoration Program (SJRRP) in identifying potential impacts on the design and implementation of the projects to achieve the goals of that program.

Subsidence issues impacting the SJRRP are addressed by USBR in "*Subsidence Design Criteria for the San Joaquin River Restoration Program (DRAFT)*." That study used and compared subsidence data from the USGS, US Army Corps of Engineers (USACE), USBR, RBF Consulting and DWR. The agencies used InSAR (USGS), LiDAR (USACE), spirit leveling and GPS instrumentation (DWR/Reclamation/RBF). Topographic data collected by USGS using Interferrogram (InSAR) data between 2008 and 2010 show similar trends as the RBF Consulting data. Bi-annual survey data collected by Reclamation between 2011 and 2012 show similar trends, but subsidence rates vary along the bypass depending on season, year type, and land use. However, general subsidence trends indicated by USBR data are similar to the latest trends indicated by RFB Consulting and USGS data. Differences in subsidence data were attributed to placement of material on top of the levees after the USGS surveys, time frames that the data were taken (RBF 2008-2010, USGS 2008-2010, USBR 2011-2012, and DWR 2008-2012), the accuracy and geographical coverage of the data and the number of control points used in the ground surveys.

The study used the USACE Hydraulic Engineering Center's River Analysis System (HEC-RAS) software to model the bypasses with 2008 topography and 2010 bathymetry where available. Using the annual estimated subsidence rates determined by DWR, two versions of the model were developed, to reflect 2011 and 2016 conditions. The model results indicate the following:

> "*Water surface elevations declined between 2008 and 2011, and are predicted to continue to decline in 2016. Because the changes in topography represent the only variable between the model runs, changes in water surface elevation are caused by the lowering of the ground which, in turn, is the result of subsidence. The results show that freeboard in 2008 and 2011 is generally above 3 to 5 feet along most of the bypass except between Sand Slough and West Washington Road, which is an area of recurring sediment deposition. From 2011 to 2016, it is expected that the continuing subsidence will reduce the freeboard in this area by about 0.5 feet. In the peak subsidence area between Road 4 and Avenue 21, ongoing subsidence is estimated to decrease the freeboard from 2011 to 2016 an additional 1.5 feet. For Highway 152, the projected decrease in freeboard is about 0.7 feet. The opposite is true within the proximity of Avenue 18-1/2, where freeboard is expected to increase from 2011 to 2016 by about 0.7 feet due to the increase of the channel slope, resulting in higher channel capacity, as the result of the subsidence*."

DWR also modeled flow capacity of the bypasses in the study. In that analysis, flow capacity above Ash Slough will still handle published flood design flows. However, in the Eastside Bypass below Ash Slough, flow capacity is less than the assumed flood design flow. Continuing subsidence will further reduce the Eastside Bypass' ability to convey flood flows. The flow capacity in the Eastside Bypass from Ash Slough to Sand Slough was 5,000 cfs less in 2008 than published design flows and 500 cfs less than design from Sand Slough to the Mariposa Bypass. For 2011 and 2016 conditions, subsidence further reduces the flow capacity in these segments of the Bypass.

Due to backwater conditions caused by flood flows from the Kings River, maximum flow capacity in the Ash Slough to Sand Slough section of the Eastside Bypass is reduced to 7,500 cfs and 6,000 cfs in 2011 and 2016, respectively. This is a significant reduction from the flood design flow of 17,500 cfs in this segment of the Bypass. Likely causes include historical subsidence and sediment deposition in this reach, as illustrated from the already-reduced 2008 flood capacity of 9,500 cfs. Along the Eastside Bypass from Sand Slough to the Mariposa Bypass, the 2008 17,000 cfs flow capacity at 4 feet of freeboard was reduced by about 2,500 cfs to 14,500 cfs in 2011, and by another 1,500 cfs to 13,000 cfs in 2016.

Subsidence is reducing the amount of available freeboard in the two bypasses, which affects their abilities to convey flows. Flow capacity in the bypasses has been reduced by up to 2,500 cfs as a result of subsidence since 2008. If subsidence continues, it is estimated that there will be an additional loss in flow capacity from 2011 to 2016, up to 1,500 cfs depending on the segment of Bypass. If future subsidence occurs as expected, additional negative impacts on future flood operations would result.

3. BASIN MANAGEMENT OBJECTIVES

Basin Management Objectives (BMOs) are broad goals for improving the management of a local groundwater basin. BMOs were developed through a collaborative process with the GMP Participants. This process included several general meetings on the GMP, and three focused workshops specifically on BMOs, potential projects and future goals. The BMOs fall into the five main categories shown in **Figure 3.1** with Stabilization of Groundwater Levels by 2024 as the central or overarching Basin Management Objective.

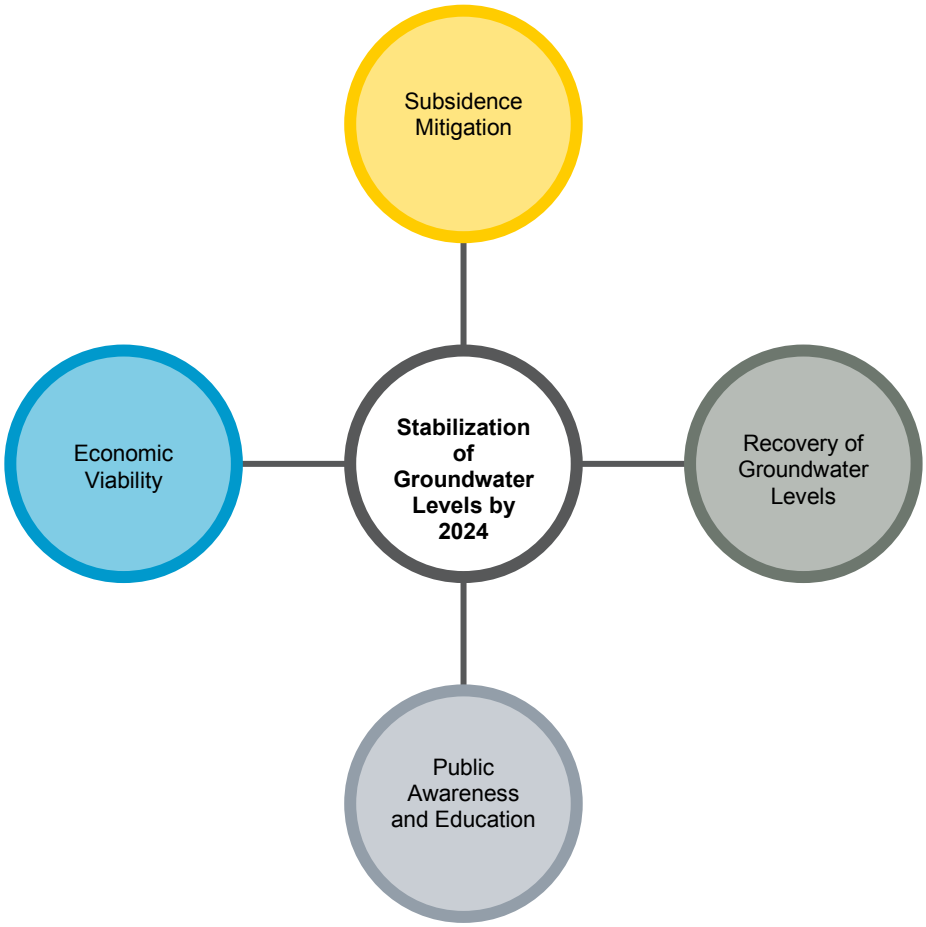

Figure 3.1 – Basin Management Objectives

Following is a description of each BMO.

Stabilization of Groundwater Levels (by 2024)

The overarching and highest-priority goal of the Participant Agencies is to stabilize the groundwater levels by 2024, by approximately 250,000 AF/year. This amount of overdraft reduction by 2024 is based on the estimated projected future overdraft of 259,000 AFY as discussed in Section 2.5. This includes 150,000 AFY reduction in overdraft by reducing groundwater demands, and an additional 100,000 AFY reduction in overdraft through recharge and acquisition of new surface water supplies.

Short Term Goals (1-5 years)

- Implement demand reduction measures to reduce 150,000 AFY of groundwater overdraft
- Identify, develop and construct storm water capture facilities to perform recharge with a minimum yield of 50,000 AFY

Long Term Goals (5-10 years)

- Perform additional recharge, identify and acquire new surface water supplies (50,000 AFY), such as Temperance Flat, watershed management, and storm water capture.
- Prevent degradation of potable water supplies and improve ground water quality where feasible.

Subsidence Mitigation

Continued unabated subsidence may potentially cause un-recoverable damages to groundwater storage capacity, existing infrastructure such as existing flood conveyance and irrigation conveyance facilities, future infrastructure such as future wells, restoration flows and High Speed Rail. Subsidence mitigation is critical in stemming the continued impacts to the western region of Madera County.

Short term Goal (1-5 years):

- Implement demand reduction measures in subsidence areas to reduce the rate of subsidence by half.
- Develop well construction and destruction policies in subsidence areas
- Develop recharge and flood irrigation projects

Long Term Goals (5-10 years):

- Significantly reduce rate of subsidence (near zero)

Recovery of Groundwater Levels after 2024

The goal is the recovery of groundwater levels to sustain a 5 year drought. The recovery of groundwater levels will inherently have multiple benefits such as improved groundwater quality, and reduced pumping cost. The storage needed to accommodate

a 5-year drought will vary by area and drought severity, but could be 15 to 20 feet of groundwater.

Public Awareness and Education

The goal is to provide public education and awareness of groundwater conditions, preparation for the next drought, better understanding of water resources, and causes and impacts of subsidence. A major focus of the educational program will be on K-12 education. Another benefit to this goal is it will enable the timely transfer of accurate and up to date information to public officials so they can make better informed decisions about water and groundwater resources in the Madera region.

Economic Viability

One of the primary goals is to maintain and improve the economic viability of the Madera region. Continued unabated groundwater extractions and continued overdraft is unsustainable and will ultimately lead to depletion of groundwater and a declining water table. Significant demand reductions will be needed during drought years when surface water supplies are significantly reduced and groundwater supplies are not reliable. Demand reduction may lead to some agricultural properties having to fallow lands, municipalities curtailing outdoor water usage, loss of well production in public and private wells, loss of property values, increased unemployment and poverty, and loss of property tax revenues as a result of lower property values.

Properties that have a reliable groundwater supply will generally have increased property values and will be in higher demand. A reliable water supply will allow property owners and investors to make informed investment decisions.

Collaborative Governance

While not considered a standalone objective, the Partners understand that collaborative and regional solutions and management of the groundwater basin is essential to successfully addressing the groundwater resource issues within the basin. Formation of an agency to manage groundwater and promote collaboration among all the stakeholders within the groundwater basin is a key component to that collaboration.

The Partners have determined that formation of a Joint Powers Authority (JPA) may be the most direct and effective way to create such a collaborative governance structure. A JPA is an entity permitted under California Constitution (Section 6502 of the Government Code), whereby two or more entities (local governments, utilities or special districts), may jointly exercise any power common to all of them. JPAs may be used where:

- An activity naturally transcends the boundaries of existing public authorities, such as groundwater management authorities given to local agencies by the state following the agencies' adoption of AB 3030- and SB 1938-compliant groundwater management plans.

- The authority will receive existing powers from the creating governments.
- By combining their efforts, public authorities can achieve economies of scale, generally achieve consensus, improved effectiveness, and improve efficiencies.

A Joint Powers Authority would be distinct from the member authorities; it would have an independent board of directors and its own staff. The JPA Board can be given any of the powers inherent in all of the participating agencies. The authorizing agreement would state the powers the new authority would be allowed to exercise. The term, membership, and standing orders of the Board of the authority must also be specified. The JPA may employ staff and establish policies independently of the constituent authorities. The JPA could also provide a one-stop repository for data collection and sharing of groundwater and water resources data. Through a collaborative effort in collecting and monitoring groundwater data, the region would benefit from scale of economy and efficiencies.

A regional groundwater management authority and definitive mitigation measures would help prevent a state mandated adjudication of the groundwater basin.

Short Term Goals (1-5 years)

- Formation of a collaborative governance/JPA within one year of adoption of the GMP.
- Identify and secure short term funding for operation of JPA

Long Term Goals

- Identify long term funding for operation of JPA

The Basin Management Objectives are reflected in the strategies listed in **Section 7.2 – Overdraft Mitigation** and a list of projects provided in **Section 9.3 – Plan Implementation**.

4. STAKEHOLDER INVOLVEMENT

4.1. Groundwater Advisory Committee / Groundwater Management Agency

This section discusses the existing Groundwater Advisory Committees that oversaw development of this GMP, and potential Groundwater Management Agencies that could be formed to implement the GMP. A Groundwater Advisory Committee is a required component of Groundwater Management Plans and serves to guide and inform decision makers on groundwater related projects and policies.

4.1.1 Regional Groundwater Advisory Committee

The GMP Participants serve as the regional Groundwater Advisory Committee (GAC or Committee) for the Madera Regional Groundwater Management Plan. The GAC is composed of members from Madera County, Madera Irrigation District, Chowchilla Water District, City of Chowchilla, City of Madera, and South-East Madera County United. These participants serve as the GAC on regional groundwater issues.

The main role of the GAC is to provide regional oversight of groundwater concerns and address these concerns through preparation and implementation of this GMP. GAC meetings were held regularly during the preparation of the GMP and will be held as needed to discuss progress towards meeting the goals contained in this GMP.

The GAC will discuss the progress in implementing the Groundwater Management Plan in each regularly scheduled meeting and will have the following responsibilities:

- Review trends in groundwater levels and available information on groundwater quality;
- Evaluate the effectiveness of current groundwater management policies and facilities;
- Discuss the need for new groundwater supply/enhancement facilities;
- Educate landowners on groundwater management issues;
- Assess the overall progress in implementing the programs outlined in the GMP;
- Recommend updates or amendments to the GMP;
- Identify regional and multi-party groundwater projects;
- Review and comment on the Annual Groundwater Report (see Section 9.2); and
- If needed, form special committees or task forces to undertake special groundwater management tasks.

4.1.2 Local Groundwater Advisory Committees

Each participating agency also has their own individual GAC, which is comprised of their respective Boards of Directors/Supervisors or City Councils that serve to inform the respective GMP Participants on groundwater issues. Madera County also has a separate Water Advisory Commission that advises the Madera County Board of Supervisors on water and groundwater issues in the County's service area. Each

member agency currently maintains its own sovereignty for groundwater issues within its boundaries.

4.1.3 Development of Regional Groundwater Management Agency

The first step in developing a regional program should include educating the general public, growers, politicians and other water agencies in Madera County on the need for a regional management entity. As discussed in Section 3, the GMP Participants are planning to create a Joint Powers Authority to provide regional groundwater management within the Plan area. This JPA would provide greater powers in funding and implementing regional solutions to groundwater problems. Such an agency would also supplant the exiting GAC.

If a JPA is formed, each Participating Agency could still maintain local control of their groundwater depending upon the powers and authorities ceded to the JPA. This is a decision the Partner Agencies will need to make during the formation of the JPA.

While the Partner Agencies have already expressed interest in forming a JPA, there are other legal organizations available to manage groundwater. They vary from voluntary agreements to improve cooperation to formation of a new special district. Several examples are provided below:

- **Cooperative Agreements and Memoranda of Agreements**. Cooperative Agreements and Memoranda of Agreement (MOA) are documents written between parties to cooperate on an agreed-upon project or meet an agreed objective. The purpose of an MOA is to have a written understanding of the agreement between parties.

- **Water Conservation Districts.** Water Conservation Districts (WCD) are entities formed under the California Water Conservation District Law of 1931 which superseded the Water Conservation District Law of 1927. According to the law the purposes of water conservation districts are to:

  "*Conserve and store water by dams, reservoirs, ditches, spreading basins, sinking wells, sinking basins, etc.; appropriate, acquire and conserve water and water rights for any useful purpose; obtain water from wells; sell, deliver, distribute or otherwise dispose of water; make surveys; provide recreational facilities; provide flood protection. May reclaim sewage and storm waters. The whole or a part or parts of one or more watersheds of any stream of water or unnavigable river or rivers, or territory adjacent thereto or deriving a water supply therefrom; may be entirely within unincorporated territory or partly within incorporated territory; may be within one or more counties; need not be contiguous*." (DWR, 1977)

  Revenues can come from water sales, sales and leases of property, and charges for use of recreational facilities. Additionally, a WCD can issue general obligation bonds and levy an ad valorem tax on lands and/or property within the district.

- **Other Special Districts.** The formation of other special districts requires the enactment of a new law by the California Legislature. There is precedent for this in that the Legislature has created a number of groundwater management districts to meet the special needs in particular areas of the state. (Correspondence between Kronick, Moskovitz, Tiedemann & Gerard and Eastern Kern County Resource Conservation District; Indian Wells Valley Cooperative Groundwater Management Group, June 11, 1991)

The following are examples of existing legal entities or agreements used for groundwater management in other areas of California.

Indian Wells Valley Cooperative Groundwater Management Group
The Indian Wells Valley Cooperative Groundwater Management Group is a public water data-sharing group consisting of most of the major water producers, other government agencies, and concerned citizens in the Indian Wells Valley in Kern County, CA. In the past, efforts by the individuals or agencies involved were often duplicated. This group was formed to coordinate efforts, share data, and avoid the redundancy of effort. Signatories to the agreement include: U.S. Bureau of Land Management, City of Ridgecrest, County of Kern, Eastern Kern County Resources Conservation District, Indian Wells Valley Airport District, Indian Wells Valley Water District, Inyokern Community Services District, Kern County Water Agency, China Lake Naval Air Weapons Station, and Searles Valley Minerals.

A Technical Advisory Committee (TAC) continually reviews and monitors on-going efforts to better understand the local water resources. This group is also responsible for an extensive well monitoring program and a water recharge study. Numerous studies have been conducted to better understand the groundwater resource in the Valley. Rain and stream gages have been placed in strategic locations in the basin, and over 100 wells are monitored. More information can be found at their website: (http://iwvgroundwater.org/).

Sacramento Groundwater Authority
The Sacramento Groundwater Authority (SGA) is a joint powers authority (JPA) created to manage the Sacramento region's North Area Groundwater Basin (North Area Basin). The SGA's formation in 1998 resulted from a coordinated effort by the Sacramento Metropolitan Water Authority (SMWA) and the Sacramento Area Water Forum (Water Forum) to establish an appropriate management entity for the basin. The SGA is recognized as an essential element to implement a comprehensive solution for preserving the lower American River and ensuring a reliable water supply through the year 2030.

The SGA draws its authority from a joint powers agreement signed by the cities of Citrus Heights, Folsom, and Sacramento and the County of Sacramento to exercise

their common police powers to manage the underlying groundwater basin. In turn, these agencies chose to manage the basin in a cooperative fashion by allowing representatives of the 14 local water purveyors and representatives for agricultural and self-supplied pumpers to serve as the SGA Board of Directors. At the core of the SGA's management responsibility is a commitment to not exceed the average annual sustainable yield of the basin, which was estimated to be 131,000 acre-feet.

To date the SGA has engaged in groundwater studies, monitoring, grant applications, education, and project promotion. They have enacted limited restrictions or controls on groundwater extractions in specific areas where overdraft is occurring. The SGA has also developed policies for groundwater banking, exchanges in the form of credits, a monitoring program and processes to report groundwater extractions on a monthly basis. More information on the SGA can be found on their website: (www.sgah2o.org).

Kaweah Delta Water Conservation District

The Kaweah Delta Water Conservation District (KDWCD) was formed in 1927, under the provisions of California state law known as the Water Conservation Act of 1927, for the purpose of conserving and storing waters of the Kaweah River and for conserving and protecting the underground waters of the Kaweah Delta. Later the Water Conservation Act, as well as the purpose of the District, was expanded to include power generation and distribution.

The District is located in the south central portion of the San Joaquin Valley and lies in portions of both Tulare and Kings Counties. The total area of the District is about 340,000 acres.

The District and the Kaweah River groundwater basin have experienced long-term groundwater overdraft estimated in 2007 to be as much as 40,000 AF/year. The District has performed several groundwater overdraft studies. There are currently over 40 recharge basins within the District covering approximately 5,000 acres. KDWCD owns and operates many of these groundwater recharge basins. The District also performs education, water resources studies and facilitates project development in their area. More information can be found on their website at: (http://kdwcd.com/).

Ojai Basin Groundwater Management Agency

The mission of the Ojai Basin Groundwater Management Agency (OBGMA) is derived from its enabling legislation, the Ojai Basin Groundwater Management Agency Act, which became law in 1991. The act was approved as a response to the needs and concerns of local water agencies, water users, and well owners of the Ojai Basin, located in Ventura County, CA. The Agency was established in the fifth year of a drought, amidst concerns for potential basin overdraft. More information on the agency can be found at their website: http://www.obgma.com/.

The OBGMA has enacted ordinances that specify the requirements for new well permitting, notification of intent to construct, registration of extraction facilities, metering,

reporting of groundwater extractions, and the recordation of wells within the boundaries of the Agency. To date it has not initiated mandated restrictions on groundwater pumping, but it does charge an extraction fee of $17.75 per AF of water.

San Luis Obispo County

On August 27, 2013, the San Luis Obispo County Board of Supervisors adopted County Ordinance No. 3246, which is an "*Urgency Ordinance establishing a moratorium on new or expanded irrigated crop production, conversion of dry farm or grazing land to new or expanded crop production and new development dependent upon a new well in the Paso Robles Groundwater Basin unless such uses offset their total projected water use, including certain exemptions*." On October 8, 2013, The Board of Supervisors continued the Urgency Ordinance for two years (San Luis Obispo County Ordinance No. 3246; 2013).

The Ordinance requires large land uses to offset new water use at a 2:1 ratio, prohibit the creation of new parcels in the basin, and requires changes to the County General Plan to be water-neutral. The Ordinance will not affect the cities of Paso Robles and Atascadero or the towns of Templeton, San Miguel or Shandon, the drilling of wells, or the building of single family homes. Additionally, water from the Nacimiento or State Water Projects shall not be used for development in the rural area of the Paso Robles Groundwater Basin.

Net offsets for agricultural uses can be accomplished by showing that existing water use has been upgraded to achieve water savings equal to the future proposed water use. It can also be accomplished by removing irrigated agricultural land from production. For residential or other development, this can be done by showing that enough fixtures in other residences have been replaced to achieve water savings equal to the proposed future water use. This can also include offsetting of proposed outdoor water use. More information can be found at the following website: (http://www.slocounty.ca.gov/planning/commguidelines/PRgroundwater.htm)

Existing Activities

- Continue groundwater management through local groundwater advisory committees

Planned Actions

- Develop a regional groundwater management authority, agency or organization
- Develop a framework to equitably manage groundwater resources to achieve the Basin Management Objectives
- Develop mechanisms to fund a regional groundwater management authority, staff and program activities to sustainably manage groundwater resources
- Avoid state adjudication of the Madera regional groundwater basin by demonstrating the effectiveness of local and regional efforts

4.2. Relationships with Other Agencies

The development of relationships between water agencies is important as the GMP Participants implement a regional approach to groundwater management with this GMP. The GMP plan area is located in three separate groundwater sub-basins (see **Figure 2.1**) which extend beyond many political boundaries and includes numerous municipalities, irrigation districts, water districts, private water companies, and private water users (see **Figure 1.1**). This network of interests emphasizes the importance of inter-agency cooperation, and the GMP Participants have historically made efforts to work conjunctively with many other water management agencies. Below is a list of some groups and organizations that they have worked with in managing the local groundwater**:**

- Madera Regional Water Management Group
- Madera-Chowchilla Basin Regional Groundwater Monitoring Group
- Chowchilla Red-Top-City Joint Powers Authority
- South-East Madera County United

A description of each organization and its role in managing groundwater in the GMP area is provided below.

Madera Regional Water Management Group

The Madera Regional Water Management Group (RWMG) was formally organized under a Memorandum of Understanding (MOU) in 2010. There are currently 15 MOU signatories, and all of the GMP Participants are MOU signatories. The RWMG has developed an Integrated Regional Water Management Plan, successfully secured funding for water resources projects, and meets monthly to discuss water related issues and share ideas. The goals of the RWMG overlap strongly with this plan as they both seek benefits from regional cooperation in addressing groundwater issues. More information on the RWMG can be found on their website (http://madera-id.org/index.php/rwmg).

Madera-Chowchilla Basin Regional Groundwater Monitoring Group

The Madera-Chowchilla Basin Regional Groundwater Monitoring Group (Monitoring Group) was formed in 2010 to monitor groundwater levels in the Madera Groundwater sub-basin and Chowchilla Groundwater sub-basin in compliance with California Statewide Groundwater Elevation Monitoring (CASGEM) program, which is described in Section 5.1. The group consists of Madera Irrigation District, Chowchilla Water District, Madera County, Madera Water District, Root Creek Water District, and Gravelly Ford Water District. The monitoring area covers 789 square miles. The group has worked cooperatively to establish a regional groundwater-level monitoring network.

Chowchilla Red-Top-City Joint Powers Authority

The Chowchilla Red-Top-City Joint Powers Authority (JPA) includes the Chowchilla Water District, City of Chowchilla and Chowchilla Red-Topy Resource Conservation District. The JPA was formed in 1997 to develop and implement a groundwater management plan. This is a sub-regional effort to address groundwater issues in the area covered by the three agencies.

South-East Madera County United

South-East Madera County United (SEMCU) is not a water agency, but educates and advocates for responsible and sustainable water management in southeast Madera County. SEMCU is interested in pursuing groundwater recharge projects, particularly in the southeast area of the county where their groundwater subbasin would directly benefit. SEMCU members have been working on a variety of specific projects in collaboration with Madera County Engineering and with some of the development interests in the area. SEMCU is working to collaborate with all agencies and organizations to enhance that aspect of future grant applications. SEMCU leadership is currently working to get a statement from Madera County that the two agencies are working together on groundwater issues, which could help in their efforts to secure additional planning and construction grants, especially where the collaboration will lead to multi-faceted, multi-disciplinary projects with a range of measurable benefits.

Proposed efforts to involve other public agencies and develop new relationships are discussed in Section 4.3.

Existing Activities

- Continue existing relationships with local, state and federal agencies

Planned Actions

- Madera County is a participant of the US Bureau of Reclamation's Sacramento-San Joaquin Basin wide Study and Update

4.3. Plan to Involve the Public and Other Agencies

The GMP Participants are already involved with many neighboring and regional agencies on groundwater management projects. Existing relationships that pertain to groundwater management are described in Section 4.2. Nevertheless, they are always interested in building new relationships with other agencies that share the same groundwater basin. They will also strive to involve the public in groundwater management decisions. Additional cooperative relationships can be achieved through data sharing, inter-agency committees, inter-agency meetings, memorandums of understandings, formal agreements, and collaborations on groundwater projects.

Several water management agencies in the valley portion of Madera County are not involved with this GMP. The GMP Participants will seek to gain support for regional groundwater management from these agencies.

Specific goals for involving the public and other agencies include:

1. Contact neighboring counties to discuss the impacts they are having on the area's groundwater levels

2. Recruit other water agencies to participate in future regional efforts, such as Joint Powers Authorities, or formation of a county-wide groundwater management district.

3. Engage in dialogue with the public and other agencies within, adjacent to or near Madera County, such as:

    a. Madera Water District
    b. Sierra Water District
    c. Aliso Water District
    d. Columbia Canal Company
    e. Progressive Water District
    f. Clayton Water District
    g. New Stone Water District
    h. Madera Oversight Coalition
    i. Madera County Farm Bureau
    j. Lower San Joaquin Levee District
    k. Revive the San Joaquin
    l. Chowchilla Red-Top Resource Conservation District
    m. Madera Valley Water Company
    n. Conservation Districts
    o. Merced County
    p. Fresno County
    q. Central California Irrigation District (CCID)
    r. San Joaquin River Exchange Contractors
    s. City of Fresno
    t. Friant Water Authority
    u. Mendota Pool Group

4. Involve Other State and Federal Agencies. The GMP Participants plan to engage other state and federal agencies, such as:

    a. California Department of Water Resources
    b. The US Bureau of Reclamation (through their 2013 Basin Wide Update)
    c. US Geological Survey (through subsidence elevation monitoring data)
    d. California Department of Public Health (through well construction and destruction)
    e. US Fish and Wildlife
    f. California Fish and Wildlife
    g. Regional Water Quality Control Board
    h. Natural Resource Conservation Service

Existing Activities
None

Planned Actions

- Provide copies of an annual groundwater reports (see Section 9.2) to the public and interested public agencies at their request.
- Recruit other water agencies to participate on regional groundwater management efforts.
- Work with and involve agencies in Madera County on groundwater management such as Root Creek Water District, Madera Water District, Aliso Water District, New Stone Water District, Columbia Canal Company, Clayton Water District, Sierra Water District, Chowchilla Red-Top Resource Conservation District, Madera Valley Water Company, Madera Oversight Coalition, and Lower San Joaquin Levee District.
- Work with adjacent counties and agencies (County of Merced, County of Fresno, City of Fresno, and Friant Water Authority) on groundwater management along county borders to reduce impacts from surrounding regions.
- Work with adjacent water districts and irrigation districts on groundwater management along county borders to reduce offsite impacts, such as CCID, and the Exchange Contractors.
- Continue to work with DWR, Bureau of Reclamation, USGS, California Department of Fish and Wildlife, US Department of Fish and Wildlife, and CDPH.

5. MONITORING PROGRAM

This section discusses monitoring of groundwater levels, groundwater quality, and land surface subsidence. Monitoring is considered critical to future management decisions, and the region's monitoring programs are intended to:

1. Provide warning of potential future problems;
2. Use data gathered to generate information for water resources evaluations;
3. Develop meaningful long-term trends in groundwater characteristics; and
4. Provide data comparable from place to place in the GMP area.

5.1. Groundwater Level Monitoring

Following is a discussion of groundwater level monitoring efforts in the areas served by the GMP participants, and a discussion of a regional groundwater-level monitoring program.

City of Chowchilla
The City of Chowchilla does not regularly measure groundwater levels, but does measure them when they perform maintenance on wells, which is frequent.

City of Madera
The City of Madera measures groundwater levels annually in 19 wells.

Chowchilla Water District
Chowchilla Water District measures groundwater levels in about 140 wells each spring and fall.

Gravelly Ford Water District
Gravelly Ford Water District does not perform groundwater level monitoring, but is a member of local CASGEM group and other agencies measures groundwater levels in their service area.

Madera Irrigation District
The Madera Irrigation District monitors groundwater levels each spring and fall in about 230 wells.

Madera County
Madera County monitors groundwater levels at 14 special districts operated by the county. Twenty five wells are monitored annually and one well has a data logger to provide continuous measurements. No monitoring is performed in other unincorporated areas of the County. There is especially a dearth of data in undistracted areas.

South-East Madera County United
SEMCU does not perform groundwater-level monitoring, but some agencies within the SEMCU area do monitor groundwater levels.

California State Groundwater Elevation Monitoring Program
The California State Groundwater Elevation Monitoring Program (CASGEM) was created by SBx7 6, Groundwater Monitoring, a part of the 2009 Comprehensive Water Package. By passing the bill, the Legislature established for the first time a statewide program to collect groundwater elevations, facilitate collaboration between local monitoring entities and the DWR, and report this information to the public.

In 2010, DWR approved the Madera-Chowchilla Basin Groundwater Monitoring Group (CASGEM Group) as the local monitoring entity. The Group includes Madera Irrigation District, Chowchilla Water District, Gravelly Ford Water District, and Madera County. The group also includes Root Creek Water District and Madera Water District, who are not part of this regional GMP. The total monitoring area covers 789 square miles and includes all of the Madera sub-basin and most of the Chowchilla sub-basin. The Group submits groundwater level data each spring and fall to the DWR.

In 2011, the CASGEM Group submitted a Groundwater Monitoring Plan to DWR. This plan describes:

- Well Network Design
    - Shallow versus deep aquifer wells
    - Minimum well density
    - Spatial distribution of the wells
    - Water level history for wells
    - Inclusion of wells in DWR Water Data Library
    - Use of dedicated monitoring wells
- Well selection criteria
- Addition of future wells to network
- Monitoring frequency
- Field methods for data gathering and reporting of data

Proposed Groundwater Monitoring Program for Madera County
In 2008, Kenneth D. Schmidt and Associates prepared a *Proposed Groundwater Monitoring Program for Madera County*. It included recommendations for monitoring groundwater levels and groundwater quality. Although it was prepared for the County of Madera, the recommendations envision a county-wide monitoring plan including the

GMP Participant service areas, not just the County districts and unincorporated areas outside of special districts. A copy of the plan can be found in **Appendix E**.

The plan states that DWR monitors groundwater levels in about 60 wells in the Valley floor, primarily in undistracted areas. However, these efforts have been scaled back in the anticipation that they will be replaced by CASGEM. DWR staff stated that they no longer measure groundwater levels in Madera County (personal communication with Chris Guevara, DWR, March 2014).

Schmidt cited several challenges with monitoring groundwater levels in the area:

1. Depth and/or perforated interval are not available for many wells being monitored, which complicates interpretation of the water-level records
2. Groundwater level data is not extensive enough in the non-Districted areas, especially the southeast part of the valley floor
3. Some wells tap multiple aquifers (i.e. composite wells) and have water levels intermediate between those in the different aquifers

Schmidt recommended the following:

- Develop two separate water level monitoring networks; one for relatively shallow wells (i.e., about 250 to 330 feet deep or shallower) and the other for deeper wells (commonly about 500 to 900 feet deep, and including only those wells without shallow perforations).
- Install data loggers to provide continuous measurements on at least one dozen wells in the county.
- Add new wells to the monitoring network. Sources of information can include private residential, private agricultural, landfills, wastewater treatment facilities, dairies, gasoline leak sites, and newly constructed dedicated monitoring wells.
- Prepare spring and fall water-level elevation maps for both the shallow and deep groundwater on an annual basis, with an evaluation of groundwater overdraft at least every three years.

In addition, a large number of deep wells have been drilled in the last decade to tap the confined aquifer. Long-term and even recent water-level changes from most of this deep groundwater are unknown in most of the area. Water levels in the deep aquifer are only well known in the Red-Top area (see **Figure 2.7 and 2.8**), which has implemented a detailed groundwater monitoring program and identified the perforated interval for the monitored wells.

Recommendations

The recommendations in Schmidt's report have not been implemented, but would substantially improve the groundwater monitoring network in the GMP area. It is recommended that the GMP Participants develop a regional groundwater level monitoring program similar to Schmidt's recommendations. The program would be more comprehensive than the CASGEM group, include a greater density of wells, and include all the GMP Participants. This could be accomplished through an expansion of the CASGEM program or a new separate program. The program would require participation from numerous agencies including the GMP Participants, and possibly other water agencies in the Madera area. The program would include collection of groundwater level data each spring and fall, and development of groundwater contour and groundwater level maps for the GMP area.

Figure 2.10 shows the network of wells with long-term hydrographs in the DWR database. There is a dearth of data in several areas, especially those outside of special districts. As a result, additional wells should be added to the network. These could be private wells that grant permission to be monitored, or preferably dedicated monitoring wells with data loggers.

Existing Activities

- Measure groundwater levels according to existing monitoring plans in each agency.

Planned Actions

- Require, as a condition of obtaining a well permit, that all new wells will be added to the monitoring grid.
- Add private domestic wells to the monitoring network since they are almost always known to be in the unconfined aquifer.
- Create County-wide groundwater contour maps (elevation and depth) each spring and fall for both the shallow unconfined aquifer and the deep confined aquifer.
- Generate a representative set of long-term hydrographs showing groundwater surface elevation and depth for both the shallow unconfined aquifer and the deep confined aquifer.
- Annually estimate the change in groundwater storage from groundwater contour maps, and compare it to reductions in groundwater pumping and the volume of surface water imported.
- Periodically review the monitoring network to determine if it provides sufficient areal coverage to evaluate groundwater levels.
- Maintain at least the same number of wells in the monitoring network by constructing monitoring wells, or adding new private wells to the network when existing wells are taken out of the monitoring network.
- Protect wells in monitoring program from being abandoned or destroyed.
- Encourage landowners and developers to convert unused wells to monitoring wells. Inform them through existing educational outreach programs that their abandoned well(s) could be useful to monitoring programs.

- Seek grant funds to install dedicated monitoring wells with data loggers.
- Prepare enhanced groundwater level maps after improved groundwater level data is available for the confined and unconfined aquifers
- Conduct aquifer tests along agency boundaries to determine aquifer transmissivity and storativity.
- Request as part of the well replacement/abandonment process that existing wells not be abandoned and utilized as monitoring wells.
- Madera County to consider development of a groundwater monitoring fee associated with the well permits, to partially subsidize groundwater monitoring program.
- Madera County shall develop policy as part of well permits that all new wells have meters installed to allow for possible future data gathering.

5.2. Groundwater Quality Monitoring

Groundwater quality monitoring is an important aspect of groundwater management in the GMP area. Monitoring groundwater quality serves the following purposes:

1. Spatially characterize water quality according to soil types, soil salinity, geology, surface water quality, and land use;
2. Establish a baseline for future monitoring;
3. Compare constituent levels at a specific well over time (i.e. years and decades);
4. Determine the extent of groundwater quality problems in specific areas;
5. Identify groundwater quality protection and enhancement needs;
6. Determine water treatment needs;
7. Identify impacts of recharge and surface water use on water quality;
8. Identify suitable crop types that are compatible with the water characteristics; and
9. Monitor the migration of contaminant plumes.

Groundwater quality in the GMP area is discussed in Section 2.7 – Groundwater Quality. Following are descriptions of monitoring programs in the GMP area.

Irrigation and Water Districts

MID, CWD and GFWD do not perform groundwater quality testing on a regular or periodic basis because they do not provide drinking water. Testing is sometimes performed for project specific purposes, such as when new groundwater banking facilities are being studied. Testing is also performed in the City of Chowchilla, which is within CWD, and the City of Madera, which is partially within the MID service area.

Urban Water

The City of Madera operates 19 wells, and the City of Chowchilla operates 7 wells. The County of Madera operates 12 small public water systems in the GMP area, each of which operates from one to four wells. These public water systems are all operated as either Maintenance Districts (MD) or Service Areas (SA). Eleven of the districts rely entirely on groundwater with a total of 22 wells. One system, Sumner Hills (SA 16) uses surface water from Friant Dam releases to the San Joaquin River. The County analyzes the water quality from each water supply well in Madera Ranchos (MD 10A), Parkwood (MD 19), Ripperdan (MD 28), Fairmead (MD 33), Eastin Arcola (MD 36), La Vina (MD 37), Valeta (MD 85), Parksdale (SA 3), Chuck Chanse (SA 14), Rolling Hills (SA 19) and Ranchos West (MD 95).

The Cities and County test water quality on a routine basis for state- and federally-regulated inorganic and organic constituents, as well as coliform bacteria, as required by the California Department of Public Health (CDPH). The period of sampling varies from quarterly (bacteria) to annually (nitrate), bi-annually (nitrite) to greater than bi-annually for those constituents that meet drinking water standards and do not show changes in concentrations. The two cities and each County district prepare annual Consumer Confidence Reports to inform the public of water quality issues, as required by the State of California.

Water Quality Coalition

The East San Joaquin Water Quality Coalition (Coalition) is a group of agricultural interests and growers formed to represent all “dischargers” who own or operate irrigated lands east of the San Joaquin River within Madera, Merced, Stanislaus, Tuolumne and Mariposa Counties and portions of Calaveras County. In the past monitoring efforts focused on surface water, but are being expanded to groundwater. The goals of the coalition include:

1. File required reports with the Central Valley Regional Water Quality Control Board (Regional Board) to provide conditional waiver coverage for members of the coalition
2. Develop and implement an economical and scientifically valid water monitoring program for area rivers and agricultural drains (as required by the waiver)
3. Spread costs equitably among farm land owners/operators who are coalition members;
4. Communicate to landowners where water monitoring indicates problems and work to solve those problems.

Mendota Pool Group

The Mendota Pool Group is a collection of interests who work together to manage surface water, groundwater, and water quality, and resolve water conflicts in the Mendota Pool area. Mendota Pool is located at the southwestern tip of Madera County,

actually in the County of Fresno. As part of their efforts, an extensive groundwater quality monitoring program has been undertaken by the Pool Group, including a number of wells in the southwest part of the valley floor area and in adjoining areas in Fresno County. Annual monitoring reports are available for this program that provide and interpret this information. The Mendota Pool is an important hydrologic feature in central California because it is hydrologically connected to the San Joaquin River, Kings River, and numerous irrigation canal systems. It is feasible that future flood water, above the capacity of the Madera Canal, can be stored in Mendota Pool and later delivered downstream of Mendota Pool via the San Joaquin River to lands in the western part of Madera County near the San Joaquin River.

Landowner Monitoring

Many landowners test the water quality of their domestic and irrigation wells. Some landowners may provide the test results to the GMP Participants, however, the results are proprietary, and the landowners may ask that the data is used for informational purposes only, and not be released to the general public.

Other Agency Monitoring

Numerous other agencies play important roles in the monitoring and mitigation of groundwater quality. These agencies include the Regional Water Quality Control Board, Environmental Protection Agency, Department of Toxic Substances Control, USGS, and State Water Resources Control Board. The GMP participants make efforts to collect and review pertinent water quality data published by these agencies.

Proposed Improvements

Schmidt (2008) evaluated the current groundwater quality monitoring in the GMP area. Monitoring is performed in urban areas, but otherwise there is no routine mapping of groundwater quality issues, nor plotting of time trends for changes in concentrations of specific constituents. Schmidt recommends collecting data from private wells and regularly developing maps of groundwater quality issues, including high TDS, nitrate, DBCP, alpha activity, manganese, arsenic and high heterotrophic plate counts. In addition, information on vertical trends in groundwater quality (i.e. water quality changes with depth) should be gathered from cities, communities and schools.

Existing Activities

- Perform required groundwater quality testing for potable water systems.
- Regularly collect new water quality information from other agencies and review it to identify any impending groundwater quality problems.

Planned Actions

- Protect wells in monitoring program from being abandoned.
- Develop a central data repository for all available groundwater quality data in the GMP area.

5.3. Groundwater Monitoring Protocols

Monitoring protocols are necessary to ensure consistency in monitoring efforts and are required for monitoring evaluations to be valid. Consistency should be reflected in factors such as location of sample points, sampling procedures, testing procedures, and the time of year when the samples were taken. Without such common ground, comparisons between reports must be carefully considered. Consequently, uniform data gathering procedures are important. The monitoring protocols used are not attached to this GMP due to their length, but they can be found at the website links provided below.

Groundwater Level Monitoring Protocols
Members of the CASGEM Group (CWD, MID, GFWD and Madera County) follow DWR protocols for monitoring groundwater levels. The other GMP participants, City of Chowchilla and City of Madera, do not follow specific protocols, but do follow standard procedures similar to those documented by DWR.

In 2011, the CASGEM Group submitted a Groundwater Monitoring Plan to the DWR. In that plan, the Group's monitoring protocols "*will follow those described in Groundwater Elevation Monitoring Guidelines"* prepared by the DWR in December 2010. Those protocols can be found on the CASEGEM website:
(http://www.water.ca.gov/groundwater/casgem/)

The CASGEM protocols include requirements for:

- Well location data
- Establishing wellhead elevation (reference point)
- Water level measurement devices
- Calibration and maintenance of water level measurement devices
- Field data sheets for water level measurements

Groundwater Quality Monitoring Protocols
Protocols for obtaining groundwater quality samples can vary depending on the type of monitoring program. Routine sampling of constituents for municipal wells will differ from dedicated monitoring wells, private wells and agricultural wells in the sampling interval and types of constituents analyzed as well as the reporting agency overseeing the program (if any). Operators of municipal wells are required to report to and follow protocols set by the California Department of Public Health
(http://www.cdph.ca.gov/Pages/default.aspx).

Any set of protocols for sampling should "*require that ground-water monitoring programs include measurement, sampling, and analytical methods that accurately assess ground-water quality, and that provide early detection of hazardous constituents released to groundwater. Measurement, sampling and analytical methods that are part*

of the ground-water quality program should be documented in the operating record and should include quality assurance and quality control procedures." (U.S. Environmental Protection Agency, 1992)

Two other sources for groundwater quality monitoring protocols include:

1. Ground-Water Data-Collection Protocols and Procedures for the National Water-Quality Assessment Program: Collection and Documentation of Water-Quality Samples and Related Data Open-File Report 95-399; United States Geological Survey, 1995, http://pubs.usgs.gov/of/1995/ofr-95-399/

2. RCRA Ground-water Monitoring: Draft Technical Guidance; U.S. Environmental Protection Agency, 1992. http://www.epa.gov/region9/qa/fieldsamp.html

The following list is compiled from both documents and should be included in the protocols for all groundwater quality monitoring programs:

- Equipment setup
- Well purging, grab samples and field measurements
- Assessment of chemical stability
- Sample collection and processing
- Sample preservation
- Decontamination of field equipment
- Preparation of blank samples
- Chain-of-Custody and records management
- Sample labels
- Sample handling and shipping

Existing Activities

- Continue using standard monitoring protocols developed by DWR, USGS and EPA.

Planned Actions

- Review the adequacy of the water quality monitoring protocols annually and revise them when necessary.
- Develop a standard set of water quality monitoring protocols for all GMP participants.
- Protect wells in monitoring program from being abandoned.
- Develop a standard set of water level monitoring protocols for all GMP participants to follow, especially a common time of year to measure water levels.
- Develop a central data repository for all available groundwater quality and groundwater level data.
- Survey all wells used for water level measurements in subsidence areas for change in ground surface elevation every two years.

5.4. Land Surface Subsidence Monitoring

High groundwater pumping can contribute to land subsidence across a broad area, resulting in aquifer compaction, loss of storage capacity, and adverse effects to surface features such as canals, flood control systems, and water supply pipelines which rely on gravity flow. Land subsidence in the western half of the GMP area is an historic and significant on-going problem. The USGS, California DWR and Kenneth D. Schmidt and Associates have each generated numerous studies documenting the subsidence problems in this area. Land surface elevation surveys which can be used for subsidence studies date back to the 1920s. According to KDSA, studies have centered on the periods 1926 through 1972, and 1992 to the present. Measurement and monitoring for subsidence is performed by a variety of agencies including USGS, DWR, USBR, USACE, San Luis & Delta-Mendota Water Authority (SLDMWA), Central California Irrigation District (CCID), California Department of Transportation (Caltrans), National Geodetic Survey (NGS), University NAVSTAR (Navigation Satellite Timing and Ranging) Consortium (UNAVCO), and various private contractors**.**

Geologic aspects of land subsidence and the results of land subsidence monitoring efforts are presented in Section 2.7 – Land Subsidence. Potential mitigation measures are discussed in Section 7.5 - Land Subsidence Mitigation. Below are discussions on existing and potential land subsidence monitoring techniques.

Current Subsidence Monitoring Programs

Currently, USBR in conjunction with DWR, USGS and USACE obtain subsidence data twice yearly in December and June, and publish maps of the results in January and July as part of the San Joaquin River Restoration Project (SJRRP). SJRRP is developing a technical memorandum entitled "*Subsidence Design Criteria for the San Joaquin River Restoration Program (DRAFT)*."

To address subsidence issues in the Red-Top area of Madera County, the Western Madera County Subsidence Solution Project was formed. It includes Central California Irrigation District, San Luis Canal Company, Washington Area Growers, Red Top Area Growers, Merced County and Madera County. This group gathers and reviews subsidence data collected by other agencies (see **Figure 2.14**). They are also performing technical studies and evaluating subsidence mitigation projects.

Existing subsidence areas may expand, and areas that currently lack subsidence may soon experience subsidence. It is recommended that all agencies in the GMP area that are not actively monitoring subsidence develop a monitoring plan that includes surveying several local benchmarks annually.

Subsidence Monitoring Methods and Technology

Surveying. In the past, subsidence measurement relied upon optical (spirit level) surveying devices and later laser and global positioning satellite (GPS) survey

equipment. This type of measurement is still done today, usually along established highways and water conveyance facilities such as levees and canals.

Extensometers. In the 1950s and 1960s, the USGS, DWR and other agencies installed a number of borehole extensometers which allow for continuous measurement of subsidence. Extensometers are costly to install and require frequent maintenance and calibration. There are presently no extensometers within the GMP area; the closest is a few miles south of the southwest corner of the study area.

Continuous Global Positioning Satellites. Subsidence can also be measured using continuous global positioning satellite (CGPS) data. Various USGS studies obtain CGPS data from the UNAVCO Plate Boundary Observatory (PBO) network of continuously-operating GPS stations. The PBO is the geodetic component of UNAVCO, a consortium of research institutions whose focus is measuring vertical and horizontal plate boundary deformation across the western United States using high-precision measurement techniques.

InSAR. During the last decade the USGS and other groups have been using data from radar emitting satellites in a technique called InSAR (interferometric synthetic aperture radar). This form of remote sensing compares radar images from each pass of an InSAR satellite over a study area to determine changes in the elevation of the land surface (USGS, 2013).

LiDAR. DWR and USBR utilize LiDAR coupled with land elevation surveys to monitor subsidence. LiDAR utilizes a laser device that is flown from an airplane.

Existing Activities

- The US Bureau of Reclamation in conjunction with DWR, and USGS, beginning in 2010 have been measuring subsidence twice yearly in the western half of the GMP area.
- Periodically look for visual signs of land subsidence, such as loss of freeboard in canals and levees, collapsed wellheads, and other damaged infrastructure.
- Development of the Western Madera County Subsidence Solution Project, which includes Central California Irrigation District, San Luis Canal Company, Washington Area Growers, Red Top Area Growers, Merced County and Madera County.
- Continue to acquire subsidence information from various agencies.

Planned Actions

- Participate in any regional efforts to monitor and evaluate land subsidence.
- Educate local growers on the potential for land subsidence and visual indicators of possible subsidence.
- Review newly published land subsidence reports and information prepared by the USGS, DWR, USBR, Caltrans and other organizations.

- Coordinate with cooperative efforts by government agencies, water districts and water users to establish subsidence mitigation measures.
- Develop a cooperative management group to deal with subsidence issues on a regional basis.
- Develop a central repository for all available data and documents concerning subsidence in the region.
- In areas that are not actively monitoring subsidence, identify and monitor several benchmarks for subsidence annually.

6. GROUNDWATER RESOURCES PROTECTION

6.1. Well Abandonment

Existing State law and Madera County ordinance require that owners or lessees properly destroy their abandoned wells. Proper destruction of abandoned wells is necessary to protect groundwater resources since abandoned or improperly destroyed wells can result in contaminated surface water entering the well, and water of different chemical qualities from different strata mixing. In both cases, groundwater can be degraded. The administration and enforcement of the well ordinance is the responsibility of Madera County.

Madera County currently oversees all aspects of water well abandonment in the GMP area, including private wells in unincorporated areas, cities, irrigation districts and water districts. The County requires that wells be abandoned according to State standards documented in Water Well Standards, State of California (DWR, 1981).

Before a property owner can construct a new well, the County requires that abandoned or out of service wells be properly destroyed. Alternatively, they can be converted to dedicated monitoring wells if they are found suitable based on their condition, total depth, perforated interval, location and other criteria.

The City of Madera requires that existing wells be destroyed in conformance with the County's Environmental Health Department standards before a property can connect to the City's municipal water system.

Existing Activities

- Encourage landowners to abandon wells according to State and County standards.

Planned Actions

- Educate landowners through public outreach programs about well abandonment standards, and possible conversion of abandoned wells to monitoring wells.
- Perform inventory of retired wells that have not been properly abandoned to help in enforcing proper abandonment, and identifying potential wells to add to a monitoring network.
- When possible, convert unusable production wells to monitoring wells.

6.2. Wellhead Protection

A Wellhead Protection Area (WHPA) is defined by the Safe Drinking Water Act Amendment of 1986 as "*the surface and subsurface area surrounding a water well or wellfield supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield*." The WHPA may also be

the recharge area that provides the water to a well or wellfield. Unlike surface watersheds that can be easily determined from topography, WHPAs can vary in size and shape depending on subsurface geologic conditions, the direction of groundwater flow, pumping rates and aquifer characteristics. There are several different methods typically used to delineate the lateral boundaries of a WHPA.

The Federal Wellhead Protection Program was established by Section 1428 of the Safe Drinking Water Act Amendments of 1986. The purpose of the program is to protect groundwater sources of public drinking water supplies from contamination, thereby eliminating the need for costly treatment to meet drinking water standards. The program is based on the concept that the development and application of land use controls, usually applied at the local level in California, and other preventative measures, can protect groundwater.

Under the Act, States are required to develop an EPA-approved Wellhead Protection Program. To date, California has no state-mandated program, but instead relies on local agencies to plan and implement programs. This is one of the factors that prompted the State Legislature to enact AB 3030. Wellhead Protection Programs are not regulatory in nature, nor do they address specific sources. They are designed to focus on the management of the resource rather than control a limited set of activities or contaminant sources.

Wellhead protection is performed primarily during design and can include requiring annular seals at the well surface, providing adequate drainage around wells, constructing wells at high locations, and avoiding well locations that may be subject to nearby contaminated flows. Wellhead protection is required for potable water supplies and is not generally required, but is still recommended, for agricultural wells.

Neither the County of Madera water well ordinance nor the City of Chowchilla water well ordinances have sections pertaining directly to wellhead protection areas for public drinking water wells. Both ordinances contain sections pertaining to placement of annular seals to prevent groundwater migration between aquifers. The City of Madera relies on the County's standards.

Existing Activities

- Design new wells with appropriate wellhead protection features.

Planned Actions

- Manage potential sources of contamination to minimize their threat to drinking water sources.
- Develop a contingency plan to prepare for an emergency well closing and to plan for future water supply needs.
- Encourage the establishment of wellhead protection areas for non-municipal wells.

- Develop more detailed wellhead protection standards for Madera County, the City of Chowchilla and the City of Madera.

6.3. Saline Water Intrusion

Saline (or brackish) water intrusion is the induced migration of poor quality water into a freshwater aquifer system. Saline water intrusion is typically observed in coastal aquifers where over pumping of the freshwater aquifer causes salt water from the ocean to encroach inland, contaminating the fresh water aquifer. The proximity of the GMP area to the Pacific Ocean would negate the possibility of saltwater intrusion from the ocean into the underlying freshwater aquifers. However, groundwater with naturally occurring elevated concentrations of salts exist in the aquifers underlying the GMP area.

The base of freshwater, or the depth at which elevated specific conductance is encountered, has been characterized as the boundary where the concentration of specific conductance is over 3,000 µS/cm (Page, 1973). **Figure 2.12** depicts the base of freshwater in the subsurface. Figure 2.12 shows data from the most recent published study to evaluate the base of the freshwater. Figure 2.12 indicates that the base of freshwater becomes shallower towards the southwest boundary of the GMP area and deeper beneath the San Joaquin River on the south and the Chowchilla River to the north. In the deeper portions of the groundwater basins within the GMP area, specific conductance concentrations in excess of 3,000 µS/cm are present. The base to freshwater map also indicates areas southwest of the GMP area where brackish shallow water overlies freshwater. As discussed in Section 2.3, a shallow aquitard (the A clay) is likely associated with the perched water table.

The depth to saline, or brackish water, varies with depth throughout the GMP area (see **Figure 2.12**). The base of freshwater is commonly referred to when discussing the depth of brackish water. Brackish water is also present in the western portion of the GMP area as discrete pockets at shallower depths. Groundwater wells constructed in multiple aquifers can provide a conduit for the upward (or downward) migration of brackish water into freshwater aquifers. Oil and gas wells, which are required to have cemented annular seals throughout the freshwater bearing aquifers, but could also provide a conduit for saline water to migrate upward into the freshwater aquifers if improperly constructed or destroyed.

Preventing the intrusion of brackish water into the freshwater bearing aquifers is critical to protecting the groundwater resources in the GMP area. It is critical to identify and characterize the aquifers with brackish, or saline, waters when constructing new wells. Utilizing exploratory test holes with geophysical surveys or depth specific water quality sampling (monitoring wells) can identify zones of poor quality water. This information can be used to identify the depths of brackish water and to properly design wells to help ensure that aquifers with brackish water are not connected to freshwater aquifers.

Existing Activities
None

Planned Actions

- Update the County's well standards to add additional levels of protection to ensure that the design of new wells prohibits the migration of saline/brackish water into the freshwater bearing aquifers by requiring approved sealing methods to properly seal test holes, which were drilled below the known base to freshwater.
- Amend the County's well standards to require exploratory test holes, or borings, to be abandoned with approved sealing materials from the total depth to ground surface.
- Require, through the well permitting process, the use of geophysical surveys in all new boreholes that have the potential to encounter saline water to enhance groundwater protection by identifying the aquifer zone(s) with elevated concentrations of specific conductance, as well as the depths of confining layers, to design adequate sanitary/annular seals. With this data, future wells can be designed to be isolated from poor water quality and provide aquifer protection.

6.4. Migration of Contaminated Groundwater

Groundwater contamination can be the result of naturally occurring contaminants, point sources contaminants, or regional contaminants.

Improperly constructed groundwater wells (domestic, agricultural, or industrial) and oil and gas wells can become conduits resulting in the migration of poor quality groundwater into aquifers containing good quality water. Groundwater wells constructed with insufficient sanitary/annular seals can result in the downward migration of shallow/near surface contamination through the annulus (the area between the borehole wall and the well casing). Proper sealing methods include cement annular seals strategically placed to prevent the vertical migration of poor quality groundwater in the annulus. Additionally, groundwater wells that connect multiple aquifers of differing water quality and static water levels (head) can cause the vertical migration of contamination between aquifers. Migration of contaminated groundwater can also occur in unsecured abandoned wells or improperly destroyed wells. Unsecured wells are also susceptible to the illegal disposal of hazardous materials. Improperly destroyed wells have the potential to allow contaminants to flow between aquifers.

Several State of California maintained online databases provide information and data on known groundwater contamination, planned and current corrective actions, investigations into groundwater contamination, and groundwater quality from select water supply wells and environmental monitoring wells. These databases are discussed below:

California Water Resources Control Board

The State of California Water Resources Control Board (SWRCB) maintains an online database that identifies known contamination cleanup sites, known leaky underground storage tanks, and permitted underground storage tanks. The online database contains records of investigation and action related to site cleanup activities and groundwater contamination and can be accessed at http://geotracker.waterboards.ca.gov.

The Department of Toxic Substance Control

The State of California Department of Toxic Substance Control (DTSC) provides an online database with access to detailed information on hazardous waste permitted sites, corrective action facilities, as well as existing site cleanup information. Information available through the online database includes investigation, cleanup, permitting, and/or corrective actions that are planned, being conducted or have been completed under DTSCs oversight. The online database can be accessed at http://www.envirostor.dtsc.ca.gov.

Groundwater Ambient Monitoring and Assessment Program

The State Water Resources Control Board GAMA (Groundwater Ambient Monitoring and Assessment) program, as mentioned in Section 2.7, collects data by testing untreated raw water for naturally occurring and man-made chemicals and compiles all of the data into a publicly accessible online database. The online database can be accessed at http://geotracker.waterboards.ca.gov/gama/.

Existing Activities

- As Part of the permitting process for new well construction, require sanitary seal and annular seal depths to avoid creating a conduit for downward migration of shallow contaminated groundwater or co-mingling of aquifers of different water quality (current County regulation).
- As part of process to connect to a municipal water system, require existing wells to be properly abandoned prior to connection to municipal water system to prevent inter-aquifer contamination (current County regulation).

Planned Actions

- Review online databases for existing contaminant plumes, or investigations into groundwater contamination. Ensure that existing well operations and new well operations do not induce downward migration of contaminants.
- As part of the permitting process for new well construction, require sanitary seal and annular seal depths to avoid creating a conduit for downward migration of shallow groundwater contamination or the co-mingling of aquifers of different water quality.
- Design a well abandonment program to identify abandoned wells and develop a plan to properly destroy wells.

6.5. Groundwater Quality Protection

The intent of protecting the quality of groundwater is to minimize activities that could potentially reduce the long-term availability of high-quality groundwater in the GMP area. A brief discussion on the potential impacts of oil and gas development on the GMP area's groundwater resources is also included, as California is in the process of reviewing existing regulations regarding development of these resources.

Updating the County's well standards to add additional levels of protection will help prohibit the downward migration of surface/shallow contaminants or cross connection of aquifers. The County has adopted standards set forth in Chapter II of the State Department of Water Resources Bulletin 74-81, and as supplemented by Bulletin 74-90, entitled "Water Well Standards: State of California", except as otherwise provided in Chapter 13.52 "Well Standards" of the Madera County Municipal Code. Some amendments that could be made to the existing well standards are: (1) require the use of geophysical surveys for all new well projects, (2) increase the required minimum sanitary seal depths (currently 50 feet for municipal supply and 20 feet for agricultural wells), and (3) update the well destruction requirements.

Groundwater Quality Impacts of Oil and Gas Field Development

Hydraulic Fracturing. Hydraulic fracturing, also called fracking, includes stimulating a geologic formation to increase oil production. Hydraulic fracturing has been practiced in California for many years, but has become much more common in recent years. Most oil wells are now fracked. The process of fracking involves pumping water, sand and small concentrations of chemicals (some of which are toxic) underground at high pressure to break up oil-bearing rock formations, allowing the oil to flow more freely. There is some concern that this process can impact the quality of water in usable aquifers above the oil producing formations. Fracking is typically performed at considerable depths, well below usable aquifers. Currently, there are fairly stringent state guidelines that must be met before a well can be stimulated. Among other things, baseline water quality and water quality benchmarks in the usable aquifer must be established before a fracking operation can be permitted. Groundwater quality monitoring wells must be constructed and monitored before, during and after the fracking operation. The oil well must be sealed through and below the bottom of the usable aquifer. In addition to the regulations currently in place, California lawmakers are considering additional regulations and safeguards regarding future fracking in California. Oil companies are also working towards developing safer, bio-degradable chemicals to use in the process.

Disposal of Oilfield Brine and Hydraulic Fracturing Chemicals (wastewater). Oil well development can also impact water quality through disposal of brine wastewater. When oil wells are pumped, large quantities of water are also produced. The water derived from oil field operations can have very high salinity (~50,000 to 100,000 ppm

total dissolved solids) and chemicals post hydraulic fracturing, and there is little demand for treating and recycling the water due to the high costs. Most of this water is disposed in deep injection wells built for this purpose.

Oil and Gas Fields in the GMP Area. There are currently six gas fields in the western portion of the GMP area: Any Field, Ash Slough Gas Field, Gill Ranch Gas Field, Merril Avenue Gas Field, Merril Avenue Southeast Gas Field; and Moffat Ranch Gas Field. To date, 296 gas wells have been drilled and completed. Of this total, 31 wells are actively producing gas, 6 are new with no production data, 3 are idle with the potential for production and 252 have been plugged and abandoned.

All oil, gas and geothermal resource exploration, development, stimulation and production are overseen by the California Division of Oil, Gas and Geothermal Resources (DOGGR). Additionally, all oil/gas field brine disposal is overseen by DOGGR. Information for each well can be obtained through the DOGGR interactive website: http://www.conservation.ca.gov/dog/Pages/Index.aspx.

Existing Activities

- Implement DWR Bulletin 74-84 and 74-91 Water well standards for the construction of new wells.

Planned Actions

- Educate growers on the proper use of pesticides, herbicides and fertilizers.
- Seek funding to improve security at participant facilities and reduce the potential for contamination from acts of vandalism or terrorism.
- Follow State and County well construction standards for wellhead protection to protect groundwater quality.
- Construct, abandon and destroy wells according to State and County standards.
- Assess and identify the availability of high-quality surface water supplies to augment groundwater use, to recharge the groundwater basin, and to create a conjunctive use program.
- Update the County's well standards to reduce the risk of cross contamination or degradation of good quality water, refer to Section 8.1 for more details.

7. GROUNDWATER SUSTAINABILITY

7.1. Issues Impacting Groundwater Sustainability

A number of activities, both natural and man-made can impact groundwater sustainability. Long-term availability of the GMP area's groundwater resource will ensure that present and future demands are met. Establishing responsible groundwater use will help protect groundwater rights and maintain local control. Basin adjudication of the groundwater basin is possible if long-term groundwater sustainability cannot be achieved. Several issues that can impact the long-term groundwater sustainability are discussed below.

Groundwater Overdraft

Groundwater overdraft results in a net loss of the available groundwater resource. The overdraft in the GMP area is projected to be about 259,000 AF per year by 2017 when exiting orchards are mature as discussed in Section 2.5 and calculated in **Table 2.3**. This estimate assumes that no further increases in demands due to cropping or population growth. (It is beyond the scope of this document to forecast future growth but should be performed in a separate study). As overdraft continues, groundwater users are required to pump water from deeper depths and groundwater quality may decline in some areas as deeper water is extracted.

Regional Groundwater Recharge

Large portions of the Madera area geology and climatology is not conducive to groundwater recharge in quantities sufficient to offset the current rate of groundwater use. Large portions of the GMP area, especially in the east, have soils with very slow infiltration rates (**Figure 2.2**). The limited areas with groundwater recharge potential are described in Sections 2.2 and 2.6. Artificial groundwater recharge programs to capture storm water runoff and river flows that would otherwise be lost in flood releases to the sea will be an important tool to help reduce the current rate of depletion of the groundwater basin.

Agricultural/Urban Development

Agriculture is important to the economic viability of the GMP area. Changes in cropping patterns, such as converting dry pasture to permanent crops, have increased overall water demands in recent years. In addition, permanent crops cannot be fallowed in dry years, leading to a hardening of demand regardless of the type of water year. Where groundwater is the sole source for irrigation needs for water-intensive crops, pumping depressions have formed and will enlarge. Pumping depressions result in a reduction of the available resource as well as increased electrical costs to pump the water to the surface.

Every acre of previously-fallow land that is developed, whether for agricultural or urban uses, potentially places a greater demand upon the groundwater aquifer. Currently there are no restrictions on conversion of fallow land to new agricultural uses, and

landowners are entitled to drill water supply wells on their own properties to support such plantings. Urban uses, on the other hand, are regulated not only by each local agency's land use authority but by State Water Code and CEQA. Madera County, for instance, has used these requirements in combination to help assure that proposed new residential developments, particularly in the southeast unincorporated areas of the County, demonstrate groundwater balance plans before project entitlements are granted.

Land Subsidence

Land subsidence is the gradual decline or sudden lowering of the land surface elevations due to inelastic compaction of the underlying sediments. Although there are several causes of inelastic land subsidence, the compression of clay as a result of groundwater extraction is most likely the cause of subsidence documented in the San Joaquin Valley.

Once water is removed (mined) from the compressible clay, the clay compresses, resulting in the lowering of the overlying land surface. The compressed clay can no longer store water, thus there is no opportunity to reverse the subsidence in these areas. Compressible Clays, such as the Corcoran Clay Member of the Tulare Formation, has been mapped over much of the western side of the San Joaquin Valley. The subsidence documented extends over a very large area, with ground surface declines of over 30 feet recorded in some areas. Recent investigations have indicated that subsidence is accelerating in parts of the San Joaquin Valley. Refer to Section 2.7 for more details on land subsidence in the GMP area.

Water Quality Degradation

Conserving the quality of the groundwater resource is a main goal of the GMP participants to ensure enough water of high quality is available for both urban and agricultural uses. A major concern is that the confined fresh water aquifer overlies a second confined aquifer containing extremely saline water with TDS in some areas measured in excess of 10,000 ppm. Water quality degradation could occur if wells are drilled deeper into these marine sediments, thereby tapping the underlying saline waters beneath the fresh water aquifers.

Below the saline water there are deposits of methane gas stored in natural rock formations. Wells completed deep enough could potentially cause upflow of saline water and in some areas methane gas might begin to migrate upward into the fresh water aquifer. Wells that are perforated across multiple aquifer zones can allow water of poor quality to migrate into aquifers with good water quality. As well, direct recharge of surface water in certain areas can cause migration of plumes of contamination. One of the main goals of the GMP Participants is to maintain the high quality groundwater to continue to meet drinking and agricultural standards.

Reductions in Surface and Imported Water

The San Joaquin River Restoration project will continue to reduce available surface

water to the County of Madera, Chowchilla Water District, Gravelly Ford Water District and Madera Irrigation District. Declines in surface water allotments will likely result in additional groundwater extraction to meet water demands.

Reduction in imported surface water deliveries can cause a shift to increasing reliance on groundwater supplies to provide for total water demand. Reductions related to year-to-year climatic changes (drought years and wet years) and environmental issues could reduce the amount of water delivered each year. As surface water imports decline, increased groundwater pumping can cause groundwater levels to decline at an increased rate, as well as increase the incidence of land subsidence.

The San Joaquin River Settlement will reduce water deliveries to water contract holders and leave more water in the river for environmental flows. This will directly impact Friant Division CVP water supplies available to Madera Irrigation, Chowchilla Water District, and Gravelly Ford Water District. Madera County has a Friant contract for 200 AF/year but the water is used in the foothills outside of the GMP area.

Several forms of mitigation were promised to the water contractors, both in terms of water and monies. However, the water contractors have seen limited mitigation so far and the reliability and consistency of future mitigation is questionable. **Table 7.1** shows the anticipated impacts to the districts with and without mitigation.

Table 7.1 – Estimated Losses to Friant Water Contracts from San Joaquin River Settlement (units in AF/year)

District	Total Losses	Losses after all mitigation waters are received
Gravelly Ford WD	1,700	500
Madera ID	27,500	7,500
Chowchilla WD	22,600	6,200
Total	**51,800**	**14,200**

Source: Provost & Pritchard, San Joaquin River Restoration Water Supply Impact Tool, 2007. Losses were estimated using a spreadsheet model based on the anticipated settlement. Impacts to CVP Class I, Class II, and Section 215 water supplies were estimated for each Friant CVP contractor. Mitigation waters were estimated for '$10 water' (additional water provided to contractors for $10/AF), re-circulated San Joaquin River water, and assumed $50 million for recharge projects

The Gravelly Ford Water District has historically been able to purchase about 2,000 AF/year of additional water, beyond their water contract, from USBR. This is water which, in the past, would have flowed past GFWD to a dry portion of the San Joaquin River. The water was sold to GFWD since it did not appear to have habitat benefits to a dry reach of the river. With the advent of the River Restoration program, these water sales have ceased. Since this water was not part of regular CVP supplies, the impact of its loss is not shown in **Table 7.1.** However, the cessation has had a real impact on the regional groundwater overdraft, and a very significant impact on GFWD.

Groundwater Management Funding

Any new property tax assessments will be subject to a Proposition 218 election requiring 2/3 voter approval in order to be imposed. Therefore raising revenues to fund groundwater management, replacement, and monitoring activities would require 2/3 voter approval. In addition, an engineering study would need to be provided identifying the benefits received by each parcel, and the amount of the proposed assessments for each parcel. These requirements add additional cost and make it very difficult to levy any assessments. Other funding alternatives are discussed in Section 9.6 – Program Funding and Fees.

7.2. Overdraft Mitigation

This section provides a list of strategies to mitigate groundwater overdraft, identifies the high priority strategies for each GMP Participant, and describes several of the strategies.

Groundwater overdraft can be mitigated both by reducing demands and increasing surface water supplies. MID, CWD and GFWD all make substantial impacts on groundwater overdraft by importing, on average, a cumulative of about 320,000 AF of surface water each year between 2004 and 2013. Surface water delivered to the City of Madera, City of Chowchilla and Madera County averaged 23,400 AF/year between 2004 and 2013. This water comes from MID, CWD and San Joaquin River riparian rights.

7.2.1 Summary of Overdraft Mitigation Strategies

Numerous alternatives are available to mitigate groundwater overdraft. Identifying strategies to address overdraft is one of the main goals of the Madera Regional Groundwater Management Plan. **Table 7.2** lists over 20 strategies with some potential to help alleviate overdraft. These strategies fall into seven groups, including conjunctive use, surface water, land management, groundwater use restrictions, water conservation, funding and public education. **Table 7.2** also provides the section of the GMP in which the individual strategies are discussed, and the estimated length of time to implement each of the various strategies.

Table 7.2 – Strategies for Addressing Groundwater Overdraft

No.	Category	Description	GMP Section	Estimated Time to Potential Implementation (years)		
1	Conjunctive Use	Groundwater Recharge	7.3, 7.4		1 - 5	
2		Groundwater Banking	7.4		1 - 5	
3		Intentional Irrigation Field Flooding	7.3		1 - 5	
4	Surface Water	Flood and Storm Water Capture (recharge or direct use)	7.3		1 - 5	
5		Identify and Import New Surface Water Supplies	7.2		1 - 5	
6		Increase Surface Water Storage	7.2			>5
7		Increase Conveyance Capacity	7.2		1-5	
8		Surface Water Treatment	7.2			>5
9	Land Management	Agricultural Land Conversion / Reserve Open Space	9.1		1 - 5	
10		Expand Districts/Form New Districts	9.1			>5
11		Crop Conversion (salt tolerant or low water use)	7.6	0 - 1		
12		Land Use Planning Regulations	9.1	0 - 1		
13		Disclaimer for Property Purchases	9.1	0 - 1		
14		Work with Adjacent Entities	4.2, 4.3	0 - 1		
15	Groundwater Use Restrictions	Prohibit Groundwater Exports	7.2	0 - 1		
16		Groundwater Pumping Restrictions	8.1	0 - 1		
17		Restrictions on Well Permits	8.1	0 - 1		
18	Water Conservation	Water Use Restrictions in Droughts	7.6	0 - 1		
19		Agricultural Water Conservation	7.6	0 - 1		
20		Urban Water Conservation	7.6	0 - 1		
21		Water Recycling	7.7			>5
22	Funding	New Fees to Fund Recharge Projects	9.6		1 - 5	
23		Groundwater Pumping Fees	9.6	0 - 1		
24	Education	Public Education	7.6	0 - 1		

These strategies are addressed at a planning level throughout this GMP. They are discussed in various sections because many of them relate to other required sections of GMPs, as dictated by the California Water Code. Those strategies that are not part of a GMP Section are discussed below. When implemented, each of these strategies will

provide a certain amount of overdraft mitigation, but it is certain that numerous strategies will be needed to arrest the total current and projected overdraft.

7.2.2 Proposed Overdraft Mitigation Strategies for GMP Participants

Each strategy listed in **Table 7.2** has geographic and legal limitations. Some are not applicable to certain types of agencies or in certain geographic areas covered in this plan. In addition, some geographic areas have higher rates of overdraft than others and will need to use a larger portfolio of mitigation measures. **Table 7.3** lists the 'high-priority' strategies that apply to each GMP Participant. Some strategies are not listed under a GMP Participant, but they are still considered viable alternatives and may be considered in the future. The GMP Participants determined the high priority strategies in **Table 7.3** through a series of interactive workshops. The Participants considered economic feasibility, practicality of a given strategy, past experience and local knowledge during deliberations.

Table 7.3 – High Priority Strategies for Addressing Groundwater Overdraft

Description	Madera Co.	MID	CWD	City of Chowchilla	City of Madera	SEMCU
Groundwater Recharge	x	x	x		x	x
Groundwater Banking		x				
Intentional Irrigation Field Flooding	x	x	x			
Flood and Storm Water Capture (recharge or direct use)	x	x	x		x	x
Identify and Import New Surface Water Supplies	x	x	x		x	
Increase Surface Water Storage	x	x	x		x	x
Increase Conveyance Capacity	x	x	x		x	
Surface Water Treatment	x	x			x	
Agricultural Land Conversion / Reserve Open Space	x	x	x		x	
Land Use Planning Regulations	x					
Disclaimer for Property Purchases	x					
Work with Adjacent Entities	x	x	x		x	
Prohibit Groundwater Exports	x	x				
Water Use Restrictions in Droughts				x	x	
Agricultural Water Conservation	x	x	x			
Urban Water Conservation	x			x	x	
Water Recycling	x					x
New Fees to Fund Recharge Projects	x	x	x		x	
Public Education				x		x

7.2.3 Description of Overdraft Mitigation Strategies

Following are discussions on several overdraft mitigation strategies that are not covered in other State mandated Sections of the GMP. However, the GMP Participants recognize that the following overdraft mitigation strategies will be important components of addressing overdraft. Refer to **Table 7.2** for the locations within this Plan where the other strategies are addressed.

Increase Surface Water Storage

Increasing surface water storage can have a large positive impact on total annual water supplies. In the region, the three main reservoirs with Sierra Nevada watersheds are Millerton Lake, Hensley Lake, and Eastman Lake. In addition, Madera Lake is a

medium-sized reservoir used for storage and regulation for MID. Building new dams on the local rivers could substantially increase water storage.

The proposed Temperance Flat project, which includes a new dam located upstream of Friant Dam on the San Joaquin River, would conserve about 175,000 AF/year. The GMP area would not receive or be entitled to all of this water. Other interests including the Friant Water Users Authority, San Joaquin River Restoration Project and the San Joaquin River Exchange Contractors would be also be recipients of portions of the water. However, new dams are certainly long-term projects and face significant funding and regulatory hurdles. Raising existing dams may be a more realistic option, but would still be a long-term option and require a minimum of five to ten years to implement.

Dam raising projects are relatively-large endeavors that entail detailed planning, environmental and engineering studies. However, as evidenced by the recent raising of Terminus Dam on the Kaweah River, these projects can be viable. Raising the Terminus Dam spillway by 21 feet increased the available storage in Lake Kaweah by 42,000 AF, from 143,000 AF to 185,000 AF. No recent dam-raising studies for the local reservoirs are available. MID has considered raising Madera Lake Dam, but has not performed any studies to date. Raising Friant Dam, if technically feasible, would not be practically feasible if the Temperance Flat project is constructed since the two facilities would then overlap.

Increase Conveyance Capacity

Increasing conveyance capacity can help increase water deliveries for intentional recharge, and allow delivery of water to lands that rely solely on groundwater. If large-scale recharge and banking projects are developed, existing conveyance facilities may be a limiting factor. For example, Kings River and San Joaquin River floodwaters are available approximately once every three years for about 120 days at a time. If the recharge target is an average of 100,000 AF/year, then facilities capable of accepting 300,000 AF within 120 days would be required. This would require a conveyance capacity of 1,250 cfs for the 120 days. This exceeds the capacity of portions of even the Madera Canal, which is the largest canal in the area, and its capacity ranges from 1,275 cfs down to 625 cfs. Three separate siphons on the Canal are limited to 1,500 cfs each. Estimating the cost of expanding the Madera Canal, or providing alternative reliable conveyance to recharge facilities, would require a detailed feasibility study that evaluates existing demands on the canal, anticipated future demands with San Joaquin River Restoration impacts, choke points, hydraulic grades and right of way issues.

Expand Area Served by Surface Water

Some land areas do not have facilities to receive surface water. Developing infrastructure to allow surface water delivery to these lands would not create new water supplies, but would allow districts to take greater advantage of surplus waters in wet years. The GMP area evaluated for this study includes about 223,000 acres of land that have surface water contracts (CWD, MID and GFWD) and about 295,000 acres of land

that have little to no surface water (unincorporated County, City of Madera, City of Chowchilla).

Chowchilla Water District In-lieu Recharge Study. Fugro (2006) evaluated the benefits of new infrastructure that could deliver surface water to certain areas in CWD that currently lack the ability to use surface water. The Fugro study demonstrated that supplemental deliveries of surface water in-lieu of groundwater pumping would provide significant benefits to the groundwater resources. The study showed that increases in water levels and groundwater storage achieved during wet years do not completely diminish during dry years. Groundwater level increases of 5 to 10 feet were predicted over large portions of CWD even after four dry years.

The Fugro report also included the annual theoretical amount of CVP supplies available to but not purchased by CWD over the base period of 1993 to 2004. This amount ranged from 0 AF in dry years to as much as 40,000 AF in 1995 when Class 1, Class 2, and floodwaters were available. Over the base period, an estimated 127,220 AF, or about 10,600 AF/year, of available surface water went unused. This water was not purchased or used by the District mainly because of insufficient interests by local farmers to purchase the water. District staff noted to Fugro that many farmers believe CVP water was either too expensive or too inconvenient to physically receive into their irrigation systems. Several model scenarios were evaluated, showing water supply benefits ranging from 3,000 AF to 28,000 AF/year. These quantities of unused water supplies, and the benefits of new delivery infrastructure, will likely decrease with the impacts from the San Joaquin River Restoration.

Prohibit Groundwater Exports

Madera County and Madera Irrigation District (MID) both have regulations governing the exportation of groundwater from their service areas (see **Appendix G**). The potential impacts from exporting groundwater are summarized in the Madera County ordinance as follows:

> "*The direct or indirect transfer of groundwater from Madera County may have significant environmental impacts on Madera County including, but not limited to, increased groundwater overdraft; land subsidence; uncontrolled movement of contaminated groundwater, uncontrolled movement of poor quality groundwater; the lowering of groundwater levels; increased groundwater or soil degradation; and loss of aquifer capacity due to land subsidence*" (Article V of Title 13, Madera County Code).

These regulations provide Madera County and MID with regulatory controls over the exportation of groundwater, but also address regulation of groundwater banking. Generally groundwater cannot be exported from the County unless an equivalent amount of other water supplies are imported.

The regulations do not give the County jurisdiction over lands within the boundary of a local water agency or incorporated city. Rather, within these areas, regulatory powers reside with the local water agencies or incorporated cities which are governed by various statutes and regulations, including CEQA, that ensure that groundwater exports address potential environmental impacts. Therefore, all of the GMP Participants have, under existing Codes and Statutes, the regulatory authority to limit groundwater exports. Nevertheless, it is recommended that the other GMP Participants adopt a specific ordinance or regulation, similar to those adopted by Madera County and MID, to restrict groundwater exports.

Identify and Import New Surface Water Supplies

Most of the surface water supplies naturally flowing into the GMP area are fully allocated. The only available unallocated supplies are flood flows, which could potentially be used for groundwater recharge or banking. However, new water supplies could be imported to the GMP area from other parts of the Valley and the State. These may require complex exchanges and would likely have high costs compared to current local water prices.

One example is the long-term water purchase by Root Creek Water District (RCWD), located in southeastern Madera County. RCWD has agreed to purchase up to 7,000 AF/year from the Westside Mutual Water Company, located in Kern County, with prices starting at $600/AF and escalating over time. The water will be delivered to RCWD through a series of exchanges. This is an example of a recent water purchase in Madera County, and illustrates that large water transfers into the area are feasible. The agreement in RCWD will ultimately be absorbed by urban developments. Such costs are probably not realistic for irrigation water.

Potential water purchases are not identified here, but would require personal discussions with other water agencies. There may be some potential in purchasing additional water (above what is currently purchased by CWD) from Merced Irrigation District or the members of the San Joaquin River Exchange Contractors Water Authority.

Regional Surface Water Treatment Plant

A regional surface water treatment plant could be constructed at the base of Madera Lake and send water to the Cities of Madera and Chowchilla, as well as the Madera Ranchos area. The treatment plant would likely use MID and/or CWD surface water supplies. Such a surface water treatment plant could help reduce groundwater pumping in the two Cities and have some positive impact on groundwater levels in CWD and MID. A regional surface water treatment plant has been discussed but no formal studies have been performed. One obstacle is the lack of year-round surface water; this could be addressed by increasing storage space in a local reservoir. MID and CWD currently have contracts for agricultural water, but do not have authority to deliver municipal and industrial water. Amending the contracts may be difficult and face public opposition from local growers. Estimating the cost of a treatment plant

would require a detailed study, but it could be on the order of $50 million to $100 million.

Existing Activities

- Restrict groundwater exports from the GMP area

Planned Actions

- CWD, MID and GFWD will pursue the transfer of surface water supplies into the County
- CWD, MID, and Madera County will increase the number of surface water users
- SEMCU will continue to assist with the demonstration project at Liberty High School
- Madera County and SEMCU will continue efforts for a surface water treatment plant for the Madera Ranchos
- Madera County will continue to pursue removal of vegetation from conveyance facility channels to reduce evapotranspiration to make that water available for delivery and groundwater recharge
- MID to perform analysis of increasing capacity of Madera Canal to convey floodwaters when available

7.3. Groundwater Replenishment

Replenishment of groundwater is an important technique in management of a groundwater supply to mitigate a condition of overdraft. Replenishment of groundwater underlying the Madera region occurs both naturally and through intentional means including deep percolation of crop and landscape irrigation, wastewater effluent percolation, intentional recharge and river seepage. The total recharge in the GMP area is estimated to be about 500,000 AF/year based on data from 2003-2014. Much of the recharge comes from imported surface waters (deep percolation of irrigation and intentional recharge).

Intentional Irrigation Field Flooding, and Flood and Storm Water Capture are identified in **Table 7.2** as strategies to increase groundwater replenishment and are discussed below.

Intentional Irrigation Field Flooding

Intentional irrigation field flooding (field flooding) for groundwater recharge occurs when agricultural fields are flooded with water in excess of the crop water demand. This is not widely practiced in the GMP area, but has some potential to increase the total area of lands that could be utilized for recharge in wet years. Field flooding is normally done on agricultural lands planted to annual crops, especially when the land is fallow. Field flooding would generally be performed on a voluntary basis by growers who wish to contribute to overdraft reduction; as a result some education and promotion may be

necessary. They may also be interested if the flooding can provide pre-irrigation and salt leaching benefits. Generally growers would not flood their fields unless the water is free. It should be noted that intentional field flooding will only benefit groundwater resources if the source of water used to flood fields is not locally pumped groundwater.

The viability of field flooding in the GMP area is further limited by the complex soil profile common throughout the Valley area. Numerous subsurface clay lenses are present, and these impermeable layers restrict the effective percolation of applied surface water to the aquifer.

Field flooding is less viable on lands planted with permanent crops; mainly orchards. Several concerns that would need to be considered are the propensity for root rot, timing of pruning/shredding, and application of insecticide/herbicides. Another main concern, especially for shallow-rooted trees like almonds, is that when the field is saturated, even moderate winds can cause trees to blow over. As well, on lands that have been converted from annual crops to permanent crops, the infrastructure may no longer be in place to facilitate field flooding. Consequently, field flooding probably has limited potential in the GMP area.

Flood and Storm Water Capture

The local cities and districts currently have the facilities to capture significant amounts of flood and storm water. These could be expanded with additional recharge facilities. The following strategies could be used to capture more water for recharge:

- Construct additional stormwater detention and groundwater recharge basins
- Hold stormwater in basins as long as feasible to promote recharge
- Districts could provide water to Cities to recharge in their stormwater basins
- Expand districts so more land is accessible for the capture, storage and recharge of surplus waters
- Develop a maintenance program for existing streams, canals, and recharge basins to maintain and/or improve recharge rates
- Implement LID (Low Impact Development) and green infrastructure to maximize opportunities to infiltrate storm water within urbanized areas
- Coordinate with municipal agencies to encourage coordination of municipal storm water planning with the goals of this GMP

The three main water sources include San Joaquin River, Fresno River and Chowchilla River flows.

1. San Joaquin River. Historical flood releases from the San Joaquin River, and the adjacent Kings River, have typically flowed about once every third year, for about 120 days at a time. This is a good general estimate of available flood water on the San Joaquin River. A proprietary analysis that considers river

restoration impacts estimates that San Joaquin River flood flows will average about 55,000 AF/year in the future.

2. Chowchilla River. Fugro (2006) estimates that flood releases from Buchanan Dam on the Chowchilla River averaged 23,000 AF/year between 1993 and 2004. According to the San Joaquin Valley Water Year Hydrologic Classification Index (http://cdec.water.ca.gov/cgi-progs/iodir/wsihist), this period is hydrologically similar to the period from 1993 to 2013 (indexes of 3.48 versus 3.55). Therefore, 23,000 AF/year is considered a reasonable long-term estimate of available floodwater.

3. Hidden Dam. No studies are readily available on spills from Hidden Dam. Estimating the available water would require a detailed study including a hydrologic simulation of a minimum of 10 years of data and associated water demands. Lacking such a study, the flood flows from Hidden Dam are preliminarily estimated to average about 15-20,000 AF/year, based on basic information on the river, dam and watershed.

Developing accurate estimates of available flood flows would require a detailed study that investigates dam releases over a minimum 10-year period, contract water demands, demands for the flood waters from other agencies, minimum environmental flows, diversion capacities, and the timing of the releases. Such a study can provide a more accurate assessment of available water and recharge potential in the Madera Area.

Estimated Costs to Recharge Water

The cost to develop recharge basins varies, but conceptual costs for general discussion can be estimated using the basic assumptions in **Table 7.4**.

Table 7.4 – General Groundwater Recharge Assumptions (2014 dollars)

Description	Value	Notes
Recharge Basin Cost (Land and facilities)	$25,000/acre	Blend of average cost of several rural recharge projects in Fresno County ($20,000 for land and facilities), and land costs in the City of Madera ($66,000/acre)
Operation and Maintenance Cost	$100/acre/year	
Water Purchase Cost	$50/AF	Typical cost for surplus & flood water in Madera area
Water Availability	120 days every third year	Typical availability of Kings River and San Joaquin River floodwater
Infiltration Rate	0.25 ft/day	Assumed average

The infiltration rate of 0.25 ft/day used in this analysis is a conservative estimate of the long-term infiltration rate. This assumed infiltration rate is estimated based on local experience, the general lack of good recharge sites in the county, and the fact that lands with high infiltration rates may not be available for acquisition, and there has been no county-wide study of infiltration rates. The actual costs per AF to recharge water will need to be determined on a site by site basis during the feasibility phase prior to acquiring property for the purpose of groundwater recharge. In addition, several recent local recharge facilities were not sited based on the infiltration rate of site soils, but rather on the availability of that land for purchase. This clarifies the importance of identifying areas with high potential for recharge as these areas will provide more effective and cost efficient recharge.

Using the data as presented in **Table 7.4**, a one acre basin could recharge on average 10 AF per year or 300 AF over a 30-year life expectancy. This calculation is based on the assumption that water would be available for recharge on average for 120 days per year, and flood waters available for recharge occur on average once every 3 years (120 days/365 days per year X 1 year/3 years) X 0.25 ft/day infiltration rate = ~10 AF per year. The operation, maintenance and water purchase costs would be $10,500/acre over a 30-year period. This results in a unit cost of ($25,000 (land and facilities) + $15,000 (water cost) +3,000 (O&M cost)/300 AF = $143/AF or approximately $145/AF. This does not include the cost to convey water. The cost to develop recharge basins varies geographically and by project, so this number should be considered approximate, but can be useful for general planning purposes. The City of Madera has estimated that the cost to purchase land in the City is $66,000 per acre, however the majority of recharge basins developed in the Plan Area will be on lower value agricultural land; therefore the costs per acre provided above is a blended

estimate.

Approximately 5,000 acres of recharge basins will be needed to mitigate an overdraft of 50,000 AF/year, pursuant to the short term goal of recharging 50,000 AF/year. This short term goal is meant to be achievable in the 1 to 5 year time frame and is a significant step towards the overarching BMO of Stabilization of Groundwater Levels by 2024. The annual cost to mitigate 50,000 AF/year of overdraft would be $7,250,000. Over a 30 year period (the life expectancy of the recharge basins) the total cost would be $218 million.

The estimated cost to mitigate the total overdraft of 259,000 AF/year (at $145/AF) through recharge would be $36.5 million/year, if sufficient surplus waters were available. However, as stated above, the anticipated surplus waters from the Fresno, Chowchilla and San Joaquin Rivers will be on the order of only 100,000 AF/year, and there will be other demands for this water and the timing of the flows will restrict how much can be captured. The GMP Participants have therefore set a goal of increasing recharge by 50,000 AF/year. A detailed study is needed to refine this number. Recharging more water may require importing water from other areas or constructing/raising dams. It is clear that recharge can make a significant contribution to mitigating overdraft, but it must be combined with other alternatives if overdraft is to be arrested.

Existing Activities

- Continue existing recharge programs

Planned Actions

- City of Madera will pursue recharge in the Schmidt Creek Flood Control and Groundwater Recharge Project
- GFWD will analyze expansion of Franklin Secara Basin
- GFWD will expand recharge opportunities in the Gravely Ford Canal-recharge basin
- Madera County and MID will pursue the viability of a dam on the Fresno River
- Madera County and the City of Madera will pursue recharge at Ellis Basin
- Madera County will pursue recharge at the SWC Road 29 and Avenue 29 Basin
- Madera County, MID, and City of Madera will continue to pursue recharge opportunities at the Air Port Basin and Avenue 12 Basin
- Madera County, MID, CWD, and GFWD will make efforts to implement an Irrigation Field Flooding program
- MID, CWD, and City of Madera will pursue recharge opportunities at golf course basins
- Perform detailed study to estimate the ability to capture and recharge floodwaters from the Fresno, Chowchilla and San Joaquin Rivers.

- Perform feasibility studies on existing streams, rivers, and recharge basins to develop strategies to increase recharge rates.
- Plan Participants, except the City of Chowchilla, will pursue future storm water collection/recharge projects

7.4. Conjunctive Use of Water Resources

Conjunctive use or management refers to the coordinated and planned use of both surface water and groundwater resources to maximize the availability and reliability of water supplies in a region to meet various management objectives (ACWA, 2011). Currently, surface water is limited in Madera County. The County of Madera, Chowchilla Water District, Gravelly Ford Water District, and Madera Irrigation District have and utilize surface water supplies to various extents. As GMP Participants secure additional surface water supplies, conjunctive use can be an effective management practice to ensure a long-term groundwater supply. For example, in years of reduced surface water availability, more groundwater could be used and groundwater levels might decline. Conversely, in years of full surface water availability, groundwater use could be curtailed and groundwater levels allowed to recover. Whenever possible, surface water should be used to the fullest extent practical, with groundwater serving as secondary supply. This practice will help maximize the available water supply because unused surface water generally flows downstream and is lost, but unused groundwater remains in the ground and would be available for later use.

Several steps can be taken to help ensure that surface water is fully utilized including: 1) construction of recharge basins; 2) selling or delivering surplus surface water to other agencies in the GMP area; 3) pricing surface water so it is competitive with groundwater pumping costs; and 4) expanding surface water delivery systems so more land can be served.

Implementing the use of recycled water to help offset groundwater withdrawals will reduce demand on the groundwater system. Regional wastewater treatment plants can provide recycled water for irrigation needs to agricultural customers or for landscaping. Recycled water can also be utilized to provide a “new” source of water to aid in incidental groundwater recharge.

Some existing conjunctive use programs in the GMP area are described below:

Madera Irrigation District

The MID Water Supply Enhancement Project (Project) as proposed involves water-banking facilities to recharge groundwater for water supply enhancement. The Project is located on Madera Ranch and consists of approximately 13,646 acres, located in southwestern Madera County south of the Fresno River, approximately five miles southwest of the City of Madera (**Figure 2.12**). The water bank will ultimately have capacity to store up to 250,000 AF/year. The water will recharge the groundwater basin through natural swales (ancient creek beds) and with 323 acres of recharge basins.

The Project aims to bank available surplus surface water in wet years for use in dry years. Currently, the Project is in the planning phase. MID also percolates surface water in the unlined portions of their canal systems and in various basins throughout MID and the City of Madera.

Chowchilla Water District
The CWD percolates water in their unlined canals, local sloughs, recharge basins and City of Chowchilla stormwater basins.

City of Madera
The City of Madera Waste Water Treatment Facility provides primary and secondary treatment with a capacity of 10.1 million gallons per day. The plant has 320 acres of land for effluent incidental recharge and evaporation. The City of Madera storm water system also drains flows to rivers and creeks and detention and retention basins.

City of Chowchilla
The City of Chowchilla provides for incidental recharge and evaporation of secondary effluent from its wastewater treatment facility.

Existing Activities

- Surface water recharged in existing City storm water basins
- Surface water recharged in existing MID basins and canals
- Surface water recharged in CWD canals and sloughs

Planned Activities

- MID's Water Supply Enhancement Project
- CWD will attempt to develop additional surface water storage
- MID and Madera County will evaluate feasibility of increasing storage in Lake Madera
- Identify and preserve lands with the potential for recharge
- Seek funding to develop additional regional recharge capacity
- Annex lands near existing water districts to provide surface water deliveries to meet demands

7.5. Land Subsidence Mitigation

Land subsidence in the GMP area is caused by pumping groundwater from the deeper confined aquifer that is separated from the shallower unconfined aquifer by the Corcoran Clay, the regional aquitard throughout the San Joaquin Valley. Subsidence is a process that can be slowed or stopped, but the inelastic subsidence that occurs in fine-grained layers such as those present in the western part of Madera County cannot be reversed. Any effort to mitigate land subsidence must substantially reduce or eliminate reliance on deep aquifers (those beneath the Corcoran clay) as a water

source.

A coordinated effort in northwestern Madera County, specifically the Red-Top area (see **Figure 1.1** for the location of the Red-Top area), has been implementing methods to mitigate land subsidence. This effort is funded by the local growers, Madera County and Central California Irrigation District. As part of these efforts, the following activities were implemented in 2013 to reduce pumping from the deep aquifer:

- Convert pumping from primarily deep wells to primarily shallow wells on Triangle T Ranch.
- Substitution of two deep wells on Vlot Property for two shallow wells on Triangle T Ranch.
- Fallow late-year forage crops and purchase feed from an outside source.
- Secure and distribute a supplemental water supply from an outside source.

These activities resulted in a 6,000 AF/year reduction in deep well pumping (estimated by CCID District Manager pursuant to observations and conversations with local growers, 2013). These efforts represent a good model of regional cooperation among local agencies to address land subsidence.

Telescoping compression sections can also be used in new wells to reduce the impacts to well casings and well foundations. These do not mitigate the rate of subsidence but reduce collateral damage and impacts. They are typically only affordable on large capacity wells.

Additional long term solutions to achieve a reduction in deep well pumping have been suggested by the Land Subsidence Solution Program, USGS, DWR, Reclamation and other stakeholders. These include:

- Existing wells:
    - Convert to more efficient irrigation practices
    - Convert to crops with a lower water demand
- New Wells
    - Allow only shallow wells to be drilled in subsidence areas
- Development of a groundwater bank in the shallow aquifer (above Corcoran Clay) for overlying farming utilizing all available flood flows from local sources
- Secure a supplemental water supply from an outside source
- Develop a water distribution system to areas not served by surface water

Ultimately, reducing land subsidence comes down to reducing groundwater overdraft. Numerous overdraft mitigation alternatives, including those listed above, are discussed in more detail in Section 7.2 – Overdraft Mitigation.

Existing Activities

- Interagency monitoring and study of subsidence: USGS, USBR, DWR, USACE, and various stakeholders.
- Formation of Western Madera County Subsidence Project, which includes Central California Irrigation District, San Luis Canal Company, Washington Area Growers, Red Top Area Growers, Merced County and Madera County.
- Monthly subsidence coordination meetings between agencies and stakeholders.

Planned Actions

These planned actions primarily apply to CWD and unincorporated areas of Madera County where subsidence is occurring, however, they would apply to other areas if subsidence is observed in the near future:

- Develop a shallow groundwater banking program.
- Develop recharge basins to make use of available flood waters.
- Develop a water well replacement strategy.
- Explore potential to inject flood waters into the deeper aquifer.
- Construct internal conveyance infrastructure improvements to provide surface water to more areas.
- Implement other overdraft mitigation strategies identified in Section 7.2.
- Re-activate existing water districts, or annex into existing nearby water districts to import surface water supplies where feasible.
- Develop an enhanced conjunctive use program to perform intentional recharge in the lower aquifer.
- Madera County plans to develop policies for new well permits in the proximity of the subsidence area, to require wells to be constructed so they extract from the upper aquifer only, and limit the deep well extractions.

7.6. Water Conservation and Education

Water conservation can help reduce water demands and stress on groundwater resources. Below are discussions on agricultural and urban water conservation potential in the GMP area.

Agricultural Water Conservation

Agricultural water conservation through conversion to high efficiency drip and micro-sprinkler systems has limited potential in the GMP area. According to the California Department of Water Resources Land Use Data, Water Conservation and Land and Water Use Section, 66% of the crops in the GMP area already have high efficiency irrigation systems. This reflects the large percentage of the total area planted with

permanent crops. Moreover, local irrigators and water managers have found that these systems do not conserve total water consumed over time, because they result in less deep percolation, and their precise water application paradoxically increases yields and thereby increases evapotranspiration demands. These systems have also allowed sloped land that is unsuitable for flood or furrow irrigation to be developed, thus increasing water demands. In summary, these systems have helped to increase agricultural output, but have not likely reduced water consumption.

Growers of annual crops may be able to change to crops or varieties that are more salt tolerant, drought tolerant or require less water. This can result in significant water savings if performed over a wide area, but may require conversion to less-valuable crops, which could have negative economic impacts. In California, such changes have typically only been made when there are severe water shortages or the high local cost of water has merited such conversions.

The districts already perform a wide variety of other water conservation programs. These include education, volumetric pricing, and numerous other methods. These are already summarized in their Agricultural Water Management Plans submitted to the United States Bureau of Reclamation.

Urban Water Conservation

Both the cities of Chowchilla and Madera currently have urban water conservation plans, as components of state-mandated Urban Water Management Plans.

City of Chowchilla. The City of Chowchilla's water conservation programs are described in their Urban Water Management Plan (Boyle, 2008). They include year-round water scheduling restrictions, enforcement of plumbing efficiency standards, leak detection, public education, water metering, and a drought preparedness plan. The City will also be installing time-of-use smart meters that can assist in detecting leaks, water waste, and watering violations. Lastly, the City plans to increase efforts to enforce their existing regulations through a Conservation Water Patrol. The City's per capita demand is estimated to be about 310 gallons/capita/day, which is high for a metered system in the Valley. A reduction of 20% through conservation is considered reasonable, and matches the goal set by the State of California through the 20 x 2020 Water Conservation Plan. This would reduce City water demands (excluding the prison population) by 700 AF/year.

City of Madera. The City of Madera's water conservation program is described in their Urban Water Management Plan (Carollo Engineers, 2011). They use a variety of methods to encourage conservation, including a water shortage contingency plan, residential water surveys, water system audits, metering, large landscape conservation programs, high-efficiency washing machine and low-water-use toilet rebates, public education, and water waste prohibitions. The City also has a 4-stage water conservation program that requires up to 50% reduction in water use during severe droughts. The City installed water meters 10 to 15 years ahead of State requirements. Conservation

efforts have helped reduce per capita water demands by over 20% since 1996, and per capita water demands are currently less than 200 gallons/capita/day. The City is also examining a modification to their rate structure to encourage conservation. Additional conservation is possible, but anticipated improvements would be smaller than for the City of Chowchilla.

Unincorporated Areas. Unincorporated areas were estimated to have a per capita consumption of 168 gallons/day in the 2008 IRWMP. These estimates are difficult to perform and confirm since most of this water is pumped from private unmetered wells. There are no more recent studies to provide additional data. This is a relatively low per-capita consumption, and conservation potential in these areas is probably still limited.

Various urban water conservation measures are available (metering, low-flow appliances, public education, etc.) to help reduce urban water demands. Requiring the use of native California plants that are drought tolerant and use very little water in new developments could help to reduce water demands. In addition, new buildings are required to have higher water efficiency standards and may have less per capita water demand than older buildings. According to Southwest Hydrology (2009), conservation methods range in cost from about $75/AF to $1,200/AF, with several options around $400/AF. Assuming an average cost of $400/AF, the cost to conserve every 1,000 AF would be $400/AF x 1,000 AF = $400,000. Some of the measures, such as plumbing rertrofits, would have life expectancies of 10 to 15 years. Other measures, such as ordinances and education, would be longer term.

Water Use Restrictions in Droughts

The irrigation and water districts are allocated lower water supplies in dry years and as a result must reduce deliveries to growers. Unit water prices usually increase in dry years since there are some fixed overhead costs that must be paid, regardless of the water allocation. The cities of Madera and Chowchilla both have water shortage contingency plans documented in their Urban Water Management Plans. Madera County is currently developing demand management measures for their water-serving Maintenance Districts and County Service Areas to implement in dry and multiple-dry years.

Public Education

An effective means to conserve water is through educating the public on water conservation methods, elevating awareness of the critical overdraft and land subsidence issues, and increasing awareness of severe water shortages.

Urban Areas. The cities provide information on water conservation programs to their customers though mass mailings (often in the form of utility bill inserts), their websites, and occasionally in the printed media. In addition, the cities also support water conservation programs for public schools. Educating young people has been shown to be an effective means of making the general public aware of certain issues. Students also tend to bring the water conservation message home to their family. The GMP

Participants could work with the local school districts to develop an educational program that specifically addresses groundwater overdraft and the importance of water conservation.

Agricultural Areas. Public awareness and educational programs should also be offered to the local farming and industrial communities. These should include awareness of overdraft and land subsidence issues and their consequences, as well as focused education on increasing irrigation efficiency, conversion to drought tolerant crops, conservation easements, and other methods to reduce crop water demand.

South-East Madera County United. SEMCU has recognized the need for much greater public awareness and knowledge of an entire spectrum of water-related issues, and has begun acting to address that need. SEMCU has published a series of articles in the Ranchos Independent, authored by SEMCU leadership, addressing groundwater decline, overdraft, future water quality issues and more.

As well, SEMCU is planning a "demonstration project" in collaboration with the Golden Valley School District, the California Water Institute at California State University Fresno, Provost & Pritchard Consulting Group and Valley Teen Ranch. The project, which is not yet fully defined, will be designed to provide education to students at Liberty High School about the school's wastewater treatment plant, the benefits of using recycled water, and water-efficient irrigation practices. The project will also be used to educate the general public, although the format for that program has not been determined. An MOU has been signed by the parties and the group is currently working to develop a final scope and curriculum for the project.

Existing Activities

- Various urban and agricultural water conservation efforts performed by the GMP participants

Planned Actions

- City of Chowchilla will implement a conservation voucher/rebate program for low flow plumbing fixtures, smart irrigation controllers, turf removal and replacement with drought tolerant vegetation
- City of Madera and Madera County will develop commercial metering and water rates
- Develop a demonstration project at Liberty High School on wastewater effluent recycling
- Perform studies to evaluate the potential for further water conservation, and estimate the impact of population growth on urban water demands.
- Educate general public on groundwater overdraft and land subsidence issues.
- Focused education on growers to help increase irrigation efficiency and reduce water demands

- Madera County and City of Chowchilla will increase water wasting enforcement programs
- Madera County and City of Madera will implement a residential metering and water rates program, and water conservation outreach programs
- Cities of Chowchilla and Madera will encourage water conservation in landscaping in both existing and new developments

7.7. Water Recycling

Urban wastewater effluent can be reused in several ways. The water can be percolated and returned to the aquifer. If the water receives tertiary level treatment, it can be directly recycled for unrestricted landscaping, agriculture or industrial use. Sprayfields, often irrigating grass or natural open spaces that would not otherwise be irrigated, have been preferred in the past by the Regional Water Quality Control Board for effluent disposal at certain locations in Madera County, but due to higher evaporation losses they have fewer incidental recharge benefits than percolation ponds and are much less effective than direct recycling of water in replacement of pumped groundwater irrigation. The Central Valley Regional Water Quality Control Board encourages reclamation wherever feasible, and in some locales, where irrigated agriculture is not in proximity and there is limited land available for percolation ponds, sprayfields are a preferred method of effluent disposal.

Water returned to the aquifer through incidental effluent recharge of septic systems, or incidental infiltration of treated effluent, is generally about 35% of the demand. Thus there is large potential for capturing this water and directly using it in areas of need. Following is a discussion of water recycling practices and future goals in the City of Madera, City of Chowchilla, Madera County Special Districts, and other unincorporated communities.

City of Madera

The City of Madera currently discharges all treated wastewater to percolation ponds. The incidental recharge helps to recharge the local groundwater west of the City. The City has installed a well intended to recover percolated effluent and deliver it to MID Canals for direct irrigation use. Although this water would not be considered “recycled” in accordance with definitions in California Code, it would be a relatively effective method of water reuse by the City. In order to meet water quality standards set by MID, the groundwater pumped from underneath the percolation ponds would need to be blended with MID’s surface-sourced canal water. This project is partially developed, but it has encountered some water quality issues with the Regional Water Quality Control Board, and has not been implemented at this time.

The City of Madera also performed a recycled water feasibility study (Montgomery Watson Harza, 2013). Recycling wastewater was found to be technically feasible and the study found there would be demand for the recycled water. However, all alternatives

were considered to be cost-prohibitive at this time; the cost to treat and distribute the water would be far more than potential water fees collected at the rates the City believes could be charged. The report instead recommended that City Well 27, which has required treatment before potable use, be used to provide non-potable water to certain customers, thus conserving the City's supply of potable well water.

City of Chowchilla

The City of Chowchilla currently discharges its secondary wastewater effluent to percolation ponds that incidentally returns to groundwater. The volume discharged is estimated to be about 365 MG/year (1,120 AF/year) with evaporation losses estimated at 10%. The City owns land southwest of the main City Limits intended for a new WWTP. If and when funding becomes available, the City plans to build a tertiary treatment plant and recycle the effluent to park landscaping or farmland.

County Service Areas

Madera County Service Areas and Maintenance Districts operate 16 small sewer systems. Seven of these are located in the Valley floor and the remaining nine are in the Foothills and Mountains subarea. Effluent disposal methods for the Valley districts within the Plan area are by either percolation ponds or sprayfields. No effluent from these districts is directly applied to agricultural crops. None of the WWTPs produce the tertiary-level effluent necessary for application to public landscape areas. The communities served by these districts range from 31 to 259 residential lots each.

Madera Ranchos

SEMCU plans to perform a privately-funded feasibility study to show the severity of the local groundwater quality problems in the Madera Ranchos area, where there is already some community interest in construction of a wastewater treatment system. Should the study demonstrate that a collection and treatment system is technically and financially feasible, the next step would be to apply for funding, either through the Clean Water State Revolving Fund or IRWMP Implementation funds, to design and construct the project. The Regional Water Quality Control Board will likely require recycling of treated waste water to the extent possible for any new waste water treatment facility.

Other Unincorporated Areas

Other unincorporated areas in the GMP area generally use septic systems. All of the wastewater is returned to the underground, and there is no practical way to recycle the water unless sewer systems are installed. In these areas it is assumed that 35% of water is used indoors and returned to groundwater through septic system percolation, with the remaining 65% used for outdoor irrigation and not effectively reused.

Existing Activities

- Percolate wastewater effluent to recharge the groundwater supplies.

Planned Actions

- Develop relationships between urban and agricultural water agencies to use more wastewater effluent for crop irrigation.
- Potentially use recycled water for city landscaping, golf courses, and parks
- Perform feasibility study to evaluate the severity of local groundwater quality problems in Madera Ranchos.
- Madera County and SEMCU will continue efforts to develop a waste water treatment plant for Madera Ranchos

8. GROUNDWATER OPERATIONS

8.1. Well Construction Policies

The GMP Participants follow State standards for well construction as documented in DWR Bulletins 74-81 and 73-90. Madera County and the City of Chowchilla supplement those standards with additional requirements (see **Appendix H**). The City of Madera defers to the County's well standards. Well construction policies fall into three general areas: 1) Policies to protect groundwater quality; 2) Policies to conserve groundwater and prevent land subsidence, and 3) Policies to promote and improve groundwater monitoring and data collection.

8.1.1 Groundwater Quality Protection

Improperly constructed wells can result in contaminated groundwater by creating pathways for pollutants to enter a well through drainage and percolation from the surface, by allowing mixing between aquifers of varying water quality, and through the unauthorized disposal of waste into a well.

The City of Chowchilla municipal water code section 8.20.050, Special Groundwater Protection, states that the City may designate areas where groundwater quality problems are known to exist, and where wells will likely penetrate more than one aquifer. In those locations, the City may require that wells include seals to prevent mixing of water from different aquifers. See **Appendix H** for a copy of the relevant sections of the City code.

Madera County has enacted and is responsible for enforcing a County Well Ordinance that regulates well construction within the unincorporated areas of the County and the City of Madera. Chapter 13.52, Title 13 of the Madera County Code and Chapter 8.2, Title 8 regulate the location, construction, maintenance, abandonment, and destruction of wells that may affect the quality of water within each jurisdiction. The well standards include regulations regarding: 1) drilling test holes; 2) restrictions on well construction in service areas as designated by the Public Utilities Commission; 3) restrictions on wells within 500 feet of existing public water systems; 4) requirement that private parcels have adequate area to site wells and on-site sewage disposal systems; and 5) safeguards against impacts of new wells on neighboring wells. The Madera County well standards are also found in **Appendix H**.

It is recommended that all new domestic and municipal wells require an annular seal of at least 100 feet, in accordance with current CDPH requirements, to avoid near-surface contamination from runoff, surface spills, agricultural amendments, septic systems, and wastewater effluent percolation. In some areas deeper seals may be appropriate due to local conditions. For example, a municipal well being constructed in 2014 by Madera County MD10A in Madera Ranchos will have an annular seal of 350 feet to protect the new well from known nitrate contamination in the area.

Urban and agricultural interests often compete for groundwater near city boundaries, but they have different water quality requirements. It is recommended that the geologic layers with good water quality near urban boundaries be characterized. It is also recommended that the GMP participants consider a policy that requires new agricultural wells on urban boundaries to seal layers with the best water quality for urban uses, so the water is reserved for the urban community.

8.1.2 Groundwater Conservation/Land Subsidence

Groundwater extraction is currently unrestricted in the GMP area and this has exacerbated overdraft and land subsidence. Locally-implemented (as opposed to State-mandated) well construction policies could be adopted to help conserve groundwater. They could range from voluntary programs to restrictions on pumping and well construction. Restrictions could be applied to certain high-priority areas or throughout the entire GMP area. For instance, in areas experiencing land subsidence, a possible permit requirement could be to perforate the casing only in the aquifer above the Corcoran Clay. Other well construction policies could be implemented in these areas as outlined below.

Mandatory restrictions on groundwater consumption are considered measures of last resort, but could be one of the most effective mitigation methods considering the gravity and magnitude of the overdraft situation in the GMP area. Following are possible alternatives for conserving groundwater through well construction policies; these could help to prevent or delay a court-ordered adjudication of the groundwater basin.

- Voluntary agreements to reduce pumping in severely impacted areas (e.g., agreements among an organized group to limit deep wells in the Red-Top area, which is experiencing high levels of subsidence)
- Mandatory restrictions on well drilling or pumping in severely overdrafted areas
- Mandatory restrictions on well drilling or pumping in areas experiencing land subsidence
- Levy additional fees on all new wells to fund overdraft mitigation projects
- Require that retired deep wells in subsidence areas be replaced with shallow wells
- Require parties applying for a new well to read and sign an educational document on aquifer overdraft and land subsidence

8.1.3 Groundwater Monitoring/Data Collection

Groundwater wells that are being abandoned could instead be converted to monitoring wells. During the well abandonment permitting process, wells that are properly constructed to allow for on-going monitoring and data collection could be identified and

possibly included in a monitoring network. In addition, the County could adopt a policy requiring that new wells be added to a monitoring network and require regular water level monitoring as a condition of issuing a well permit. This policy could be constrained geographically to areas where there is currently a lack of monitored wells, or to areas with substantial groundwater level declines.

8.1.4 Private Well Construction

The cities of Madera and Chowchilla do not allow construction of new wells within their City limits, except under very limited circumstances. Typically new private wells are only allowed when an existing private well serving a particular property is failing and an extension of the municipal water systems to the site is not feasible. New private wells are not allowed in support of new development. The purpose of these regulations is to keep the water system under central control by the Cities' water departments.

The County has similar restrictions on construction of new private wells in areas proximate to County water systems, limiting new well construction to replacement of existing private wells where extension of the public system is cost-prohibitive. In undistricted areas, private wells are allowed as a matter of course. New private wells require a County well permit, which are commonly approved as long as well standards are followed. The County requires construction of a public water system to serve new developments in the Valley area with lots smaller than three acres.

Existing Activities

- Continue to enforce existing State, County and City well standards

Planned Actions

- Educate landowners on the existing City, County and State Well Standards
- Increase the minimum depth requirement of sanitary seals to at least 100 feet for all wells

8.2. Operation of Facilities

Following is a description of the water resources facilities in the GMP area and how they are operated.

City of Chowchilla

Drinking Water System

The City of Chowchilla's 2013 population was approximately 19,000, including the inmates of the Central California Women's Facility and Valley State Prison for Women, and is the second largest city in the County. The City relies solely on groundwater to supply its domestic water, but some cropped lands within the City limits do receive surface water from Chowchilla Water District.

The City's water system is comprised of 37 miles of main distribution pipelines, and about 3,770 connections. There are currently seven active groundwater wells (Wells 1, 3, 4, 6, 8, 10 and 11) in service, in addition to two off-line wells and one abandoned well. The total pumping capacity of the wells is 6,000 gpm. Each well site is equipped with a chlorine pump, metering chlorine dosage to the distribution system. The two prisons each have their own separate water systems. (Data primarily from Integrated Regional Water Management Plan, Madera County; Boyle, 2008)

Wastewater Treatment Facility

The City of Chowchilla collects wastewater from its customers via approximately 26 miles of sanitary sewers. There are seven sewage pump stations in Chowchilla. The collected wastewater is treated at a 1.8-MGD wastewater plant. Currently, the treated effluent is discharged to percolation ponds at the wastewater treatment plant. Discharges currently average about 1.0 MGD. (Data primarily from Integrated Regional Water Management Plan, Madera County; Boyle, 2008)

City of Madera

Drinking Water System

The City of Madera's 2013 population was approximately 62,200, and it is the largest urban area in the County. The City covers approximately 15.8 square miles of incorporated area. The City relies solely on groundwater to serve its domestic customers, but some cropped land within the City limits does receive surface water from Madera Irrigation District.

The City's existing water system facilities include 19 groundwater wells, 150 miles of water distribution system pipelines ranging in size from 4 to 14 inches in diameter, about 13,500 connections, and a 1.0-MG elevated water storage tank. The wells are located throughout the City and have completion depths ranging from approximately 300 to 700 feet. The total pumping capacity of the current water system is about 27,000 gpm.

The City also has numerous stormwater basins; some are connected to MID facilities and can receive surface water for recharge. The basins are being operated to maximize the volume of stormwater that is captured and recharged locally. (Data primarily from Integrated Regional Water Management Plan, Madera County; Boyle, 2008)

Wastewater Treatment Facility

Wastewater is collected throughout the City of Madera via a network of sanitary sewer collection pipelines ranging from 8 to 48 inches in diameter. With the aid of five sewer lift stations, the influent is gravity-fed to the WWTP, located approximately seven miles west of the City limits. There are approximately 12,500 residential connections, each typically with a 4-inch sewer service connecting to the main. Commercial and industrial customers number just over 1,000 and are connected with service lines appropriate to

handle their particular wastewater load. The average daily wastewater volume for 2013 was estimated to be approximately 5.19 MGD. The City of Madera has no facilities for extensive storage of the wastewater before treatment. Septic haulers from outside the City service area bring in an additional volume of wastewater. The most recent data show that outside septic waste collection contributes about 7,500 gallons (less than 1 percent of total) per day to the treatment totals, though the biological loading is disproportionately higher due to the higher strength of the septage versus domestic wastewater.

The effluent from the City of Madera's WWTP is disposed to fourteen 20-acre percolation/evaporation ponds. The WWTP Expansion Predesign Report by Boyle (July 2004) proposed a system of recovery wells that would pump groundwater from under the percolation ponds to an MID canal for agricultural irrigation. This pumping of percolated effluent is intended to reduce groundwater mounding under the WWTP and to control elevated concentrations of nitrate or other contaminants in the underlying groundwater. A recovery well has been installed, but the implementation of the project has encountered regulatory hurdles.

Chowchilla Water District

Surface Water Facilities

The Chowchilla Water District receives water from three sources; San Joaquin River (Madera Canal), Chowchilla River (Buchanan Dam) and Merced Irrigation District. The District utilizes portions of the Chowchilla River, Ash Slough and Berenda Slough to convey irrigation water to the District's irrigation water distribution system, which consists of 150 miles of unlined canals and 49 miles of pipeline. There are over 950 turnouts in the system where irrigation water is delivered to water users.

The District utilizes various water management techniques and facilities to deliver water efficiently and accurately to its water users. These facilities include: measurement weirs, water meters, rated canal gates, regulating reservoirs and ponds, long-crested weirs, flap gates and the District's SCADA system. All water released to the District, delivered to water users and leaving the District is measured and recorded in the District's database. (Data primarily from Chowchilla Water District Website; http://cwdwater.com/index.php/about-cwd-2/district-system)

Groundwater Facilities

The District does not own or operate groundwater extraction facilities.

Conjunctive/Recharge Use Facilities

The District purchases water for recharge when available, but is not able to secure an additional water supply solely for recharge. Of all the water that flows through the District's conveyance system, it is estimated that as much as 30 percent of it is lost to seepage. An average of 38,000 AF of water was recharged through the District's conveyance system between 2004 and 2013. Irrigation seepage is estimated to be

approximately 84,000 AF annually. In addition, natural and intentional recharge is accomplished in nearby stream channels (Chowchilla River, Dutchman Creek, Ash Slough), two surface water retention reservoirs (Berenda Reservoir and Minturn Dam), and eight recharge basins located throughout the district (Dairyland Pond, Haynes Pond, Townsend Pond, Rutherford Pond, Askew Pond, Vera Pond, Gregory Pond, and Berenda Pond). (Data primarily from Groundwater Management Plan; Chowchilla Red-Top-City Joint Powers Authority, 1997)

Madera County

Surface Water Facilities

Madera County has a 200 AF/year Class 1 CVP Friant Division contract supply from the San Joaquin River, delivered behind Friant Dam. The County also manages the Sumner Hills Service Area (SA-16), which diverts water released into the San Joaquin River by the USBR for their diversion pursuant to Holding Contract No. 7. (Integrated Regional Water Management Plan, Madera County; Boyle, 2008)

Groundwater Facilities

The County of Madera oversees the water services in eight Maintenance Districts and four Service Areas in the GMP area. These districts/areas are solely dependent on groundwater except for Service Area 16. County water service facilities include 22 water wells and service mains, and the surface water treatment facility for CSA 16.

The larger systems, with a combined capacity of about 2,000 gpm, serve Parkwood, Parksdale, and Madera Ranchos. The remaining systems have capacities ranging from 15 to 900 gpm. (Data primarily from Integrated Regional Water Management Plan, Madera County; Boyle, 2008)

Wastewater Treatment Facilities

Madera County Service Areas and Maintenance Districts operate seven small sewer systems within the GMP area. The smaller wastewater systems most commonly have sanitary sewer systems with asbestos cement, clay, or plastic pipe collection systems; one raw sewage pumping station; an extended aeration treatment process; chlorine disinfection; and treated water pumping. Effluent disposal is handled by percolation ponds and/or sprayfields.

Many of these wastewater systems are in poor condition and need repair. The largest County-operated wastewater system within the GMP area, with more than 500 connections, serves the community of Parksdale. (Data primarily from Integrated Regional Water Management Plan, Madera County; Boyle, 2008)

Unincorporated Areas

Large areas in the County are not served by a County District and rely on private wells for domestic and irrigation water. These areas dispose of wastewater through septic systems.

Madera Irrigation District

Surface Water Facilities

The District's water and distribution system is a combination of open flow primary and secondary laterals, enclosed conduit and natural streams. There are approximately 315 miles of open flow canals and laterals, 115 miles of pipeline and 102 miles of natural streams used for District conveyance and distribution. The open flow canals are comprised of approximately 90 miles of unlined canals and 225 miles of USBR built lined canals.

The District receives water via the Madera Canal from Friant Dam through natural streams and open flow primary laterals. Fresno River water is available from both controlled release and uncontrolled flows from Hidden Dam. Water from the Madera Canal may also be released into the Fresno River. Water is diverted from the Fresno River at the District's Franchi Diversion Weir on the east side of the District.

Groundwater Facilities

The District does not own or operate groundwater extraction facilities, but there are privately owned wells in the District.

Conjunctive/Recharge Use Facilities

The District maintains a number of stormwater and flood retention basins that are used for groundwater recharge. These basins range in retention capacity between 2 and 160 AF each. There are 45 recharge basins within MID, and the City of Madera has facilities which are capable of taking irrigation and floodwater for recharge purposes. Several City stormwater basins are connected to MID irrigation distribution facilities, allowing collected storm water to be beneficially reused. Portions of the City of Madera are within MID and are assessed a monthly charge that is related to the recharge stormwater conveyance benefits created by the District.

South-East Madera County United

South-East Madera County United (SEMCU) is a participant in the GMP but does not own or operate groundwater extraction, recharge or conjunctive use facilities. It is a non-profit education and advocacy organization and has no land-use planning authority. However, SEMCU represents numerous public and private interests in its area and provides input and comments on water related projects.

Existing Activities

None

Planned Actions

- Develop strategic operation of facilities to increase groundwater recharge in canals, recharge basins and storm water basins.
- MID and CWD will automate facility operation

- Madera County, MID, and CWD will implement vegetation removal on creeks and rivers, and increase the capacity of road crossings

9. GROUNDWATER PLANNING AND MANAGEMENT

9.1. Land Use Planning

This section describes the land-use planning authority for each GMP Participant and presents alternative land use planning policies that could improve groundwater management.

Madera County
Land use planning activities in unincorporated areas of Madera County are performed by the County of Madera's Planning Department, and are overseen by the Madera County Planning Commission.

City of Madera
The City of Madera Community Development Department was established in 2006 to facilitate a coordinated approach to planning and development within the City. All phases of the planning and development process are administered through the Community Development Department. Operations managers in the Planning, Building, Engineering, and Public Works Departments all report to the Director of Community Development. The Planning Department is responsible for long range planning within the City and for processing and approving site-specific development proposals. Planning staff members also serve as staff to the Madera Planning Commission.

The City of Madera requires a conditional use permit for new agricultural land uses on land that is designated for urban development. This requirement does not apply to the limited amount of land within the City limits already planned for agriculture uses (such as around the airport).

City of Chowchilla
The Community and Economic Development Department guides and facilitates projects and development activities within the City of Chowchilla. The department is responsible for planning and building activity within the City and for implementation of economic development plans and programs which strengthen and diversify the economic base of Chowchilla.

South-East Madera County United
SEMCU is a non-profit education and advocacy organization and has no land-use planning authority. However, SEMCU represents numerous public and private interests in its area and provides input and comments on water related land-use policies. SEMCU advocates for requiring sustainable water supplies for new urban developments, and supports development of a regional group, JPA or special district to manage the groundwater.

Irrigation and Water Districts

Madera Irrigation District and Chowchilla Water District have no land-use planning authority, therefore regional and local land use planning activities will remain with the appropriate agencies. However, when appropriate, they comment on proposed land use plans that may impact the local groundwater quantity or quality.

The Plan Participants all share some common land-use planning goals including:

1. Preserving areas with high groundwater recharge potential for recharge activities;
2. Protecting areas sensitive to groundwater contamination;
3. Requiring appropriate mitigation for any adverse impacts that land use changes may have on groundwater resources.
4. Requiring hydrogeologic investigations, water supply master plans, and sustainable water supplies for new developments. Current State Water Code requires that urban developments of 500 units or more must demonstrate a sustainable water supply in normal, dry and multiple dry years over a planning horizon of 20 years. The GMP Participants support requirements for a longer-term or permanent water source.

Disclaimer for Property Purchases

Land management agencies are authorized to require that buyers read and sign a disclaimer regarding groundwater supplies. Such a disclaimer could provide educational material on groundwater overdraft and subsidence. In addition, it could state that groundwater supplies are finite, and limit the liability of public agencies if groundwater levels decline or private wells run dry.

Agricultural Land Conversion

Agricultural land could be converted to other uses to reduce water demands. Land conversion falls into three main areas:

1. Agricultural Land Retirement. The County or other special districts could buy and retire agricultural land to reduce water demand. This would be performed on a voluntary basis with landowners willing to sell their property. This method has been highly effective at reducing water demands in Westlands Water District in Fresno and Kings Counties, but it could significantly impact economic output, employment, and tax revenue. Other similar programs have allowed small water usage on the retired land so other uses, such as grazing, are still feasible. As well, agricultural land retirement could preferentially focus on lands that currently have drainage problems, shallow saline groundwater, are no longer suitable for agriculture or have no surface water supply.

2. Conservation Easements. Some state and federal agencies will pay landowners to convert land to conservation easements, which are reserved for habitat

protection or soil conservation. These programs also help to reduce water demands. Some examples include the California Department of Fish and Wildlife Permanent Wetland Easement Program, and the United Stated Department of Agriculture Conservation Reserve Program. Westlands Water District (Fresno and Kings Counties) and Buena Vista Water Storage District (Kern County) have had significant success reducing water demands with conservation easements. In some cases the land is purchased from the landowner, in others the landowner still maintains title to the land but is restricted in the land uses and must still pay property taxes. Some other programs are similar to a lease and the land can be returned to farming after a certain period, such as five or ten years. Education and promotion of existing programs may be needed to get significant participation from local farmers.

3. Conversion to Low-Water-Demand Uses. Irrigated farming land could be converted to other uses that have low water demands, such as grazing, dry land agriculture reliant solely on precipitation, or solar energy development. These lands uses can still contribute to economic output.

Expand Districts/Form New Districts

New or expanded districts can help increase surface water supplies and increase the authority of certain areas to engage in surface water and groundwater management. There are several types of special districts that can be formed under California law, including water districts, irrigation districts, groundwater replenishment districts, community service districts, improvement districts, and maintenance districts. These types of entities are typically local in nature. Regional districts and legal organizations such as conservation districts and Joint Power Authorities are discussed in Section 4.1.

MID, CWD and GFWD have contracts with the USBR for surface water. This reduces the demand on the underlying groundwater resources. A strategy identified in **Table 7.2** to reduce groundwater overdraft is to expand the boundaries of existing districts or form new districts. New districts or annexed lands might have lower priority for water supplies than existing district landowners. The annexed lands or new district areas would primarily be eligible to receive flood water or surplus waters in certain years, similar to the rights associated with subordinate lands in Madera Irrigation District and Chowchilla Water District. The new districts might be able to apply to make floodwater diversions, but would still be junior to the existing districts. Within Madera County, about 277,000 acres is located outside of the two cities and the active districts.

Several benefits can be achieved from expanding districts or creating new districts:

- The legal right to deliver surface water to these areas, if the correct water conveyance facilities are in place.
- Facilities on the new lands could benefit from grants or low interest loans from the state or federal government. These funds could be used for large capital

improvement projects that could convey, store or recharge water supplies.

- More lands that could be potentially developed for intentional recharge.
- Improved ability of the districts to utilize flood waters that currently leave the region when the existing flood storage capacity is exceeded.
- The ability of existing districts to expand groundwater monitoring networks.
- More land becomes eligible for assessments.

The Chowchilla Water District has recently added 10,000 acres of subordinate lands. MID also has about 11,000 acres of subordinate lands. These lands have lower priority to water supplies, and generally can only take surface water after demands are met on other lands. These subordinate lands increase the potential area that surface water can be delivered to.

SEMCU is advocating for creating a self-governed utility provider in their area. MD10A, with about 1,000 connections, is by law governed by the Madera County Board of Supervisors and is staffed by the Madera County Engineering Department. Costs for these services are charged back to the District by the County.

As is typical of the Madera County special districts, the County maintains an Advisory Committee within MD10A. This committee, formed of area residents, provides advisory input to County Staff and the District Supervisor with respect to District operational issues. Communication from the County to the Committee is an important means of communicating to the local residents. However, as an advisory committee, there are real limits to the ability of the committee to effect policy or operational changes. Objective citizen input is limited to voting in Proposition 218 elections which result from proposed County changes in capital improvement strategy.

SEMCU has suggested, and has discussed with other area groups, the possibility of forming a Community Services District (CSD) in the area. Such a new district could take over MD10A's responsibilities for water in the Madera Ranchos, but could also be responsible to pursue development and operation of a wastewater collection, treatment and reuse/disposal system to serve the Madera Ranchos, and develop lands surrounding that community. Since a CSD would be directed by a board of directors elected by voters living within the district, local control would be increased along with the range of services. Taking such an action would require work to establish the feasibility of the CSD, technically and financially, and adequate management expertise would be needed.

Existing Activities

- When appropriate, comment on environmental documents and land-use plans that have the potential to impact groundwater.

Planned Actions

- Promote conservation easements and other land uses that have economic output but lower water demands.
- Where practical expand existing water districts and form new water districts so surface water can be delivered to additional lands.
- MID, Madera County and CWD will pursue increasing the number of surface water users
- At a planning and land-use level, MID, Madera County, CWD, GFWD and the City of Madera will continue to pursue future recharge basin sites
- Explore the establishment of a water agency in the SEMCU area to manage water and wastewater and perform groundwater recharge

9.2. Groundwater Reports

The California DWR included "Periodic Groundwater Reports' in their list of additional components recommended for GMPs (Appendix C of Bulletin 118 – California's Groundwater). The GMP Participants have therefore set a goal to prepare periodic regional groundwater reports to document groundwater conditions. Currently, none of the GMP participants prepare formal groundwater reports, but many collect and evaluate groundwater data on an annual basis, and therefore it is feasible that an annual report may be prepared.

The information in the groundwater report would primarily be used to evaluate the impact from overdraft mitigation measures, forecast future problems, plan future groundwater projects, and develop new groundwater policies. An important step in preparing the report is to develop a regional, coordinated groundwater monitoring program (see recommendations in Section 5.1 – Groundwater Level Monitoring).

The content of the groundwater report may vary based on the needs, available data, and recent accomplishments of the local agencies.

Existing Activities

None

Planned Actions

- Prepare a periodic regional groundwater report, as described above.

9.3. Plan Implementation

Table 9.1 includes an implementation plan for the GMP Participants. The Table lists the major projects they have identified for possible implementation. A legend at the bottom of the table describes the general strategies that the projects belong to. Implementation of each project will be contingent on local approval, favorable economics, and the availability of funding and staff to oversee implementation. Implementation of these projects is expected to result in significant amounts of new knowledge and a substantial reduction in groundwater overdraft in the GMP area.

Table 9.1 – Implementation Plan

Project	Madera Co.	MID	CWD	GFWD	City of Chowchilla	City of Madera	SEMCU
Airport Basin	10	10				10	
Assist with surface water transfers into Madera County		4, 6	4, 6	4,6			
Automation of facilities		8, 2	8, 2	8, 2			
Ave. 12 Basin	10	10					
Commercial Metering/Rates	2					2	
Conservation voucher/rebate program (low flow plumbing fixtures, smart irrigation controllers, turf removal / replacement, etc)					2		
Ellis Basin	10					10	
Expanding Franklin Secara Basin				10, 8			
Flood Irrigation on Fields	10, 8	10, 8	10, 8	10, 8			
Fresno River Dam in City of Madera	1, 8, 10	1, 8, 10				1, 8, 10	
Future Basin Sites	10	10	10	10		10	
Future stormwater collection/recharge projects	8, 10	8, 10	8, 10	8,10		8, 10	8, 10
Golf Course Basins		10	10			10	
Gravelly Ford Canal-Recharge Basin				10, 8			
Increase number of surface water users	2	2	2				
Increase road crossing capacities	7, 8	7, 8	7, 8	7, 8			
Increase surface water storage			1				
Increased water wasting enforcement programs	2				2		
Lake Madera	1, 10	1, 10					
Liberty High School Demonstration Project	2,4,5						2,4,5

Project	Madera Co.	MID	CWD	GFWD	City of Chowchilla	City of Madera	SEMCU
Madera Ranch Water Bank		9					
Madera Ranchos Surface Water Treatment Plant	5						5
Madera Ranchos Wastewater Treatment Plant	3						2
Residential Metering/Rates	2					2	
Schmidt Creek Flood Control and Groundwater Recharge Project						8,10	
SWC Road 29 and Ave 29 Basin	10						
Vegetation Removal in Creeks/Rivers	7,6	7,6	7, 6	7,6			
Water conservation outreach programs	2				2		

Legend:
1 - Increase surface water storage
2 – Urban or agricultural water conservation
3 – Surface water treatment
4 – Work with adjacent entities (Merced County, Mendota Pool, Exchange Contractors, etc.)
5 – Water recycling
6 – Additional surface water supplies
7 – Increase conveyance capacity
8 – Flood and storm water capture
9 – Groundwater banking
10 – Groundwater recharge (existing and new)

9.4. Plan Re-evaluation

The Regional Groundwater Advisory Committee (GAC), which is comprised of representatives from each participant in this GMP, will be responsible for monitoring the progress in implementing the GMP objectives. Refer to Section 4.1 for more information on the membership, policies, and procedures of the GAC. In the future the GAC may be supplanted with a Joint Powers Authority. The GAC will discuss progress in implementing this plan, and the effectiveness of the plan, at each regularly scheduled meeting. As new policies, practices, and ordinances become necessary or desirable, this GMP will be amended as necessary. Each agency will also reevaluate sections pertaining to their jurisdiction annually and may choose to modify specific sections of the GMP.

This GMP will be updated as necessary. An important component of the update will be a reevaluation of overdraft and the effectiveness of overdraft mitigation measures.

Existing Activities
None.

Planned Actions

- Update the GMP at least every five years through a formal public process, or more frequently if a sufficient quantity of revisions, updates and additions have been identified.
- Evaluate the effectiveness of the GMP and need for an update at least once a year.
- Document recommendations for improving or updating the GMP in each Annual Groundwater Report.

9.5. Dispute Resolution

Madera County has a special Water Appeals Board (County Code Chapter 13.06.010) to resolve issues concerning water. The water appeals board may affirm, reverse or modify determinations of administrative staff. The other GMP participants do not have specific procedures for addressing groundwater disputes.

Well disputes related to pumping interference have occurred in the GMP area. Some private landowners have believed that agency wells are impacting their private wells. Sometimes agency-owned and private wells are sited close together, and one or both of the wells should be moved to prevent interference. In addition, there have also been several complaints from residences indicating that they believe their wells have been impacted by nearby agricultural wells.
Groundwater disputes between landowners are not the responsibility of the local water management agencies; however, when asked to, they may choose to help resolve disputes as an impartial mediator. Such efforts are intended to maintain amicable relationships among landowners, educate landowners on groundwater management goals and policies, and avoid an adjudication of the local groundwater basin.

Developing a county-wide groundwater management organization is being considered to help implement the goals and objectives of this GMP. Staff could also assist with groundwater related disputes, especially if they involve regional water management issues or disputes between two separate agencies. Several alternatives for a regional groundwater management organization are discussed in Section 4.1 – Groundwater Advisory Committee.

Existing Activities

- Resolve disputes through existing formal dispute resolution policies.

Planned Actions

- Evaluate the merits and feasibility of developing a county-wide groundwater management program.

9.6. Program Funding and Fees

Numerous alternatives are available to the GMP Participants for funding existing and

planned actions described in this plan. The GMP Participants have discussed these options, and each has indicated which funding alternatives may prove practical and feasible for their agency's use on capital and/or operating expenses necessary to implement this plan. These alternatives and agency selections are listed in **Table 9.2**, and described in the text following:

Table 9.2 – Potential Funding Sources

Funding Source	Madera County	MID	CWD	GFWD	City of Chow.	City of Madera	SEMCU
Development impact fees	x				x	x	
Well permit fees	x						
Property assessments (per acre charge)	x	x	x	x		x	
Property assessments (based on demands and crop usages)	x						
Groundwater pumping surcharge (metered or tiered)	x					x	
Private funding incentives	x						
Grants	x	x	x	x	x	x	x
Local bond measure	x					x	
District assessments	x	x	x	x			
Williamson Act fees	x						
State and Federal funding	x	x	x	x	x	x	x

Development Impact Fees

New building permits and entitlements for projects that would use groundwater could be subject to a fee based on the acreage developed, the number of residential units proposed and/or the estimated water usage of proposed landscape/agricultural plantings.

Well Permit Impact Fee

During the permitting process, a groundwater impact fee could be assessed on each new well constructed. The fee could vary based on the size or estimated pumping

capacity of the well. This fee could be extended to well rehabilitations which result in increased well capacity.

Property Assessments (Per-Acre Fee)
A per-acre fee (or a per-parcel fee) could be harder to implement than some of the other alternatives, since both could be construed as property taxes and could therefore require a super-majority vote of the affected property owners to put into effect. There would, however, be advantages to this funding method. It could apply county-wide (or within a defined benefitted subarea) and would have the potential to raise relatively large sums of money annually without placing excessive burden on any single owner or group of owners.

Property Assessments (Per Demand and Crop Water Usage)
Under AB 3030, local agencies which have prepared and adopted Groundwater Management Plans have the authority to limit groundwater extractions and implement water replenishment fees based upon the amount of groundwater extracted. Extraction-based fees must first be approved by majority vote of impacted landowners. These could be considered realistic alternatives if the State begins to regulate groundwater extractions, or if a groundwater basin adjudication appears imminent.

Groundwater Surcharge (Based on Calculated Water Demand)
A groundwater extraction surcharge could be assessed on agricultural lands within the GMP area based on anticipated water demand, which could be determined from the cropping data that is already submitted to the Madera County Agricultural Commissioner's Office.

Anticipated water demand would be based on standard evapotranspiration rates for each crop and land use in the GMP area. This fee would be equitable both to landowners that use little groundwater, such as ranchers, and to heavier users such as tree orchards. Credit could also be allowed for parcels that receive surface water deliveries which offset groundwater pumping.

Groundwater Surcharge (Based on Actual Volume Pumped)
A groundwater surcharge could be assessed based on the actual volume of groundwater pumped, which would require metering of all wells within the GMP area. Groundwater extractions could be reported in several fashions.

1. Self Reporting. Each property owner would report their groundwater extractions to the County or an established Groundwater Management Authority. The form for the reporting, as well as frequency of reporting and billing, would be up for later determination.

2. Manual Reading and Reporting. The County or an established Groundwater Management Authority could manually read and record the meter readings for

billing purposes. This would incur significant ongoing costs both for labor to carry out the readings as well as costs for vehicles, fuel, and other necessary items.

3. Automated Reading and Reporting. New meters could be installed (and older meters retrofitted) with automatic reading and reporting capabilities incorporating radios and repeaters. The County or an established Groundwater Management Authority could receive this data electronically, reducing processing and administrative costs. Such automated reading and reporting is the current standard of the industry for municipal water metering, based upon the rapid payback of the capital investment in self-reading meters by the reduction in direct and indirect expenses.

Private Funding Incentives

Private organizations and foundations are often-overlooked sources for grants. They will often fund grant application preparation, organizational capacity building, feasibility studies and public education. Operations funding is difficult to get through grants, which are most often limited to one-time expenditures.

Private foundation funding may not be available for construction projects, but often is available for “capacity building,” increasing the skills and abilities of an agency to actually pursue major funding through training in grant writing and project administration skills. Understanding how to create and structure grant applications is critically important to winning grant funds, and each funding agency or foundation is different in how it perceives needs, benefits and the overall mission of the applying agency. An established Groundwater Management Authority will strongly benefit from mastery of these skills.

Private Property Owners

Private property owners could also fund/purchase land conservation easements from other land owners, essentially “Buying" groundwater rights, or paying water users to forgo pumping or reduce their ground water extractions. This approach can be very effective in reducing groundwater overdraft, while avoiding the potential equity concerns associated with mandatory reductions in ground water extractions. However, monitoring and enforcement are critical for ensuring the success of the purchase of conservation easements/ground water rights. This is clearly required to ensure that water right or license holders do not continue to pump contrary to the program or agreement.

Grants and Loans (Public and Private Sources)

Grants designed to fund projects addressing several of the Basin Management Objectives may be available both through public grant programs and from private foundations. The GMP Participants will pursue available grants and low-interest loans from the DWR as well as other State and Federal agencies. The GMP participants realize that funding from State and Federal agencies for groundwater projects will be partially based on the group’s progress in implementing this GMP.

Water quality projects can potentially be funded through State programs addressing water and wastewater projects. Funding from the Federal government is available for water and wastewater projects benefitting small and disadvantaged communities. Potential public funding programs include:

- IRWMP Implementation Grants (Department of Water Resources)
- Local Groundwater Assistance Grants (Department of Water Resources)
- Water Use and Energy Efficiency Grants (United States Bureau of Reclamation)
- State Revolving Fund (Municipal Water Projects – CDPH)
- Clean Water State Revolving Fund (Wastewater Projects – RWQCB)
- Rural Utilities Service (USDA – Water and Wastewater Projects)

Local Bond Measures

Local agencies can propose funding of specific capital improvements via sale of local general obligation bonds, to be paid back by adding incrementally to the property tax collected from each parcel within a benefitted area. The range of projects so financed can be very broad, though generally a project list must be included in the measure that proposes sale of the bonds. The measure is subject to a vote in the benefitted area, and must pass by a two-thirds majority vote. (Only school facilities were affected by the new 55% approval rule passed in Proposition 39 in 2000.)

Under another process involving local bonds, the County and participating Cities and Districts each have the authority to finance capital improvement projects and collect repayment charges from the benefited parties. The authorizing legislation used most often is the Assessment Act of 1913. That Act allows local agencies broad authority to plan and propose capital projects benefitting a group of property owners, and provides a legal framework for spreading the costs of the project (construction, design, legal, finance) back to the benefitted parties.

Frequently, funding comes from the sale of tax-exempt bonds by the local agency, secured by the value of the benefitted properties, and paid back over 20 years by the property owners. The assessment district process can be initiated and driven forward by the local agency. Property owners are kept informed of the project and are given an opportunity to protest the assessments before they are finalized. An assessment district can proceed so long as less than half of the benefitted property owners protest the assessments.

Assessments on District Lands

If irrigation and water districts choose to annex lands and expand into un-districted areas, they would have the authority to collect assessments from the landowners in the newly-annexed areas. These assessments could be parcel-based or area-based. The revenues collected could be used to acquire additional water supplies for delivery or groundwater recharge, or to develop irrigation efficiency or groundwater recharge projects.

Annexation of lands outside a district requires petition of the landowners within the area to be annexed, or is sometimes initiated by a vote of the district's board of directors. The annexation action requires approval by the Local Agency Formation Commission (LAFCo) which will, among other responsibilities, check to make sure that no other districts are already providing the same or similar services to the area in question, and will verify that the proposing district has the managerial and financial resources to manage the annexed lands.

Requirement for an election prior to annexation depends upon the number of people living within the proposed annexed area. If there are up to eight people in the area, the annexation can proceed as an "uninhabited annexation" without a vote. Greater populations within the area require a majority vote of the residents in order to proceed.

Williamson Act Fees

The Williamson Act of the State of California (officially, the California Land Conservation Act of 1965) is a California law that provides a reduction of property tax to owners of farmland and open-space land in exchange for a ten-year agreement that the land will not be developed or otherwise converted to another use. The motivation for the Williamson Act is to promote voluntary land conservation, particularly farmland conservation.

Subsequently, the Open Space Subvention Act of 1971 provided local governments an annual subvention payment of lost property tax revenues from the state. In 2010, legislation was passed by the California State Senate and State Assembly and sent to the Governor for signing in the form of Senate Bill 1142. This bill was created in response to the economic downturn and the State's revenue shortfalls, and suspended the State's subvention payments to local agencies and Counties for the Williamson Act contracts.

The County has approximately 600,000 acres in Williamson Act Contracts. The County has continued to honor the Contracts and provide a tax reduction to landowners without the States subvention payments. The estimated loss of tax revenue to Madera County was approximately $780,000 during the 2012-2013 tax year.

The County could consider not renewing the contracts, or impose an additional fee on contracts which are not funded by State subventions. The revenues collected could be set aside for groundwater management, construction of infrastructure-related projects to perform groundwater recharge, or acquisition of additional surface water supplies to improve groundwater conditions in Madera County.

State and Federal Funds

Because of the magnitude of the groundwater overdraft in the GMP area and the importance of Madera County's agribusiness to the overall economy of the state and nation, it is reasonable to think that the State and Federal governments could choose to

help finance projects to mitigate overdraft. This assistance could take the form of direct project funding contained in legislation approved in Sacramento or Washington, D.C.

Accomplishing this goal would require concerted efforts among the GMP participants to select and develop a project or projects that could be particularly beneficial yet don't have alternative financing sources. Once that is done, the participants would need to work closely with legislators and congressional representatives to convince those people of the merits of the project, and then see if funding approval can be obtained.

This funding strategy is one of the most complex and hard to achieve of any of those listed, but carries one of the largest potential rewards in that the funding capacity of the State and Federal governments is much larger than anything the GMP participants and the people of Madera County can accomplish on their own.

Existing Activities

- Regularly research grant and loan opportunities from the State and Federal governments and apply for these opportunities when they appear advantageous to the GMP participants.

Planned Actions

- Identify which funding mechanisms described above will be adopted by each GMP participant to fund local and regional groundwater management efforts.
- Move toward creation of a Joint Powers Authority for groundwater management, which would be the most logical agency to implement many of these proposed funding strategies.
- Share information on funding opportunities with other agencies that may be potential partners in multi-agency groundwater projects.
- Perform a financial study to estimate the long-term cost of mitigating groundwater overdraft.
- Develop projects to the point of funding viability, so that they can be moved quickly to completion when funding is secured. Potential projects must be more than a listing, but must include background information, technical and financial justification, schematic (or greater) design documents and an attainable schedule.

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CITY OF MADERA
URBAN WATER MANAGEMENT PLAN

APPENDIX H – CONSUMER CONFIDENCE REPORT (2015)

April 10, 2015

TO: CITY OF MADERA WATER CUSTOMERS

SUBJECT: 2014 CITY OF MADERA WATER SYSTEM CONSUMER CONFIDENCE REPORT

Este informe contiene información muy importante sobre su agua potable. Traduzcalo, o habla con alguien que lo entiende bien.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Madera is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

The City of Madera is required by the State Water Resources Control Board to report annually to all customers regarding water quality. The enclosed report summarizes water quality sample results for 2014. You may also view this report on the City of Madera's web site www.cityofmadera.org. All samples were collected from eighteen groundwater wells. Minimum, maximum, and average values are listed for all elements that were detected.

Significant time and expense by the City ensures that consumers are provided with water that meets or exceeds drinking water standards. The City's stringent testing program is in full compliance with State and Federal requirements.

Questions regarding this report should be directed to John Botwright, Water Quality Specialist, of the City Water Quality Division at (559) 661-5465.

David Randall
Public Works Operations Director

CITY OF MADERA WATER QUALITY REPORT 2014

Primary Standards	MCL	PHG (MCLG)	RANGE OF DETECTION			AVERAGE	U.O.M.	TYPICAL SOURCE OF CONTAMINANT
Arsenic	10.00	0.004	N/D	TO	4.90	1.01	ug/L	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes.
Barium	1000.00	2000.00	N/D	TO	140.00	7.78	ug/L	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits.
Nitrate (as NO3)	45.00	45.00	2.90	TO	24.00	8.26	mg/L	Runoff from fertilizer use; leaching from septic tanks and sewage erosion of natural deposits.
Dibromochloropropane (DBCP)*	0.2	0.0017	N/D	TO	1.30	0.16	ug/L	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Chlorine Residual	4.0	4.0	0.1	TO	0.8	0.25	mg/L	Drinking water disinfectant added for prcautionary disinfection
Total Coliform Bacteria [Total Coliform Rule] % positive samples	More than 5% of samples are positive	0	Amount detected: 0			N/A	NO VIOLATIONS	Naturally present in the environment
Secondary Standards								
Aluminum	200		0.00	TO	**280***	15.56	ug/L	Erosion of natural deposits; residual from surface water treatment
Iron	300		0.00	TO	**700***	38.89	ug/L	Leaching from natural deposits; industrial wastes
Chloride	500.00		14.00	TO	41.00	20.83	mg/L	Runoff/leaching from natural deposits; seawater influence.
Color	15.00		N/D	TO	5.00	0.67	units	Naturally-occurring organic materials
Odor	3.00		N/D	TO	0.00	0.00	units	Naturally occurring organic materials.
pH (Laboratory)	6.5 - 8.5		6.10	TO	8.10	7.78	Std. units	
Specific Conductance	1600.00		200.00	TO	560.00	268.89	umho/cm	Substances that form ions when in water; seawater influence.
Total Filterable Residue (TDS)	1000.00		170.00	TO	380.00	208.89	mg/L	Runoff/Leaching from natural deposits.
Sulfate	500.00		3.50	TO	28.00	7.43	mg/L	Runoff/leaching from natural deposits; industrial wastes.
Lab Turbity	5.00		N/D	TO	3.10	0.23	NTU	*Turbidity is a measure of the cloudiness of the water.* We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.
General Minerals								
Bicarbonate	N/A		77.00	TO	260.00	116.17	mg/L	
Calcium	N/A		13.00	TO	52.00	20.83	mg/L	
Fluoride	20000.00	1000.00	N/D	TO	1.70	0.91	ug/L	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Magnesium	N/A		3.80	TO	15.00	6.32	mg/L	
Potassium	N/A		N/D	TO	7.50	2.84	mg/L	
Sodium	N/A		19.00	TO	44.00	25.39	mg/L	
Total Alkalinity	N/A		63.00	TO	210.00	94.78	mg/L	
Total Hardness (as CaCO3)	N/A		49.00	TO	190.00	78.22	mg/L	
MBAS	0.50		N/D	TO	0.050	0.003	mg/L	Municipal and industrial waste discharges
Organics								
Tetrachloroethylene (PCE)	5.00	0.06	N/D	TO	26.00	0.00	ug/L	Discharge from factories, dry cleaners and auto shops (metal degreaser)
Radioactivity								
Gross Alpha	15.00		N/D	TO	6.07	0.87	pCi/L	Erosion of natural and man-made deposits
Uranium	20.00	0.43	0.00	TO	1.15	0.40	pCi/L	Erosion of natural deposits
Unregulated Organics								
Vanadium	N/A	50.00	11.00	TO	30.00	20.67	ug/L	
tert-Butyl Alcohol (TBA)	N/A		N/D	TO	2.10	0.12	ug/L	
Unregulated Inorganics								
Hexavalent Chromium VI	0.10		N/D	TO	3.20	1.38	ug/L	N/A
STAGE 2 DBPR Monitoring								
Total Trihalomethanes (TTHM) (ug/L)	80.00	N/A	N/D	TO	0.00	0.00	ug/L	***8-21-14 Byproduct of drinking water chlorination***
Haloacetic Acids (HAA5) (ug/L)	60.00	N/A	N/D	TO	0.00	0.00	ug/L	***8-21-14 Byproduct of drinking water chlorination***

LEAD AND COPPER

Contaminant	No. of samples collected	90th Percentile level detected	No. of sites exceeding action	Action level	MCLG	TYPICAL SOURCE OF CONTAMINANT
Lead (ug/L) Sampled 6-2013	30	<.005	2	15	0.2	Internal corrosion of household water plumbing systems ; discharges from industrial manfacturers, erosion of natural deposits.
Copper (mg/L) Sampled 6-2013	30	0.24	0	1.3	0.3	

The State allows the City to monitor for some contaminants less than once per year because the concentration of these contaminants do not change frequently. Some of the above data, though representative, is more than one year old, the data ranges from 1996 to 2013.

ABBREVIATION KEY

MCL = Maximum Contaminant Level
mg/L = Milligrams per Liter or parts per million
ug/L = Micrograms per Liter or parts per billion
NTU = Nephelometric Turbidity Units
PHG = Public Heath Goal
MCLG= Maximum Contaminant Level Goal
RAL= Regulating Action Level
TT= Treatment Technique

N/A = Not Applicable
pCi/L = Picocuries per Liter
N/D = Non-Detect
U.O.M. = Unit of Measurement
TON = Threshold odor number
umho/cm= Micromhos per Centimeter
PDWS= Primary Drinking Water Standards
MRDL= Maximum Residual Disinfection Level
MRDG= Maximum Residual Disinfection Goal

REQUIRED PUBLIC NOTICE

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their heath care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline 1(800) 426-4791.

DEFINITIONS

Maximum Contaminant Level or (MCL): The highest level of a contaminant that is allowed in drinking water. **Primary MCLs** are set as close to the PHGs(or MCLGs) as is economically and technologically feasible. **Secondary MCLs** are set to protect the odor, taste, and appearance of drinking water.

Primary Drinking Water Standard or PDWS: MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Public Health Goals or PHG: The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

HEALTH EFFECTS FOR INORGANIC CONTAMINANTS

Nitrate: Nitrate in drinking water at levels above 45 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

ARSENIC: While drinking water meets the Federal and State standards for arsenic, it does contain low levels of arsenic. The Arsenic standard balances the current understanding of arsenic's possible health affects against the cost of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health affects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

TREATMENT

Chlorination: Each well site has a chlorine generation system which produces a 0.8% chlorine solution and dosage to the distribution system is set at 0.25 Parts Per Million.

REQUIRED PUBLIC INFORMATION

1. The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

2. Contaminants that could be present in source water include:

(**a**) Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(**b**) Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

(**c**) Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban water runoff, and residential uses.

(**d**) Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application, and septic systems.

(**e**) Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

3.In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency(USEPA) and the State Water Resources Control Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection or public health.

City of Madera
Source Water Assessment

A source water assessment was conducted for the City of Madera water system in 2003 and is ongoing as water wells are being developed. A completed copy of this report may be viewed at City of Madera, Public Works Department 1030 South Gateway Drive Madera, CA 93637 or, a copy may be requested by contacting:

John Botwright, Water Quality Specialist
(559) 661-5465

The following chart summarizes potential sources of contamination, in the vicinity of each water well, that could affect water quality:

Activities	Water Wells
Airports - Maintenance/fueling areas	#26
Automobile - Body shops, Historic gas stations, Machine shops, Junk/scrap salvage yards	#25
Automobile – Gas stations	#17, #18, #20, #21, #22, #26
Automobile - Repair shops	#18, #25
Boat services/repair/refinishing, sewer collection systems, pesticide/fertilizer/petroleum storage & transfer area	#18, #31
Chemical/petroleum processing/storage, dry cleaners, injection wells/dry wells/sumps	#28, #17
Dry cleaners, injection wells/dry wells/sumps	#28
Fertilizer/pesticide/herbicide application, storm drain discharge points	#29, #31, 32, #33, #34
Grazing (>5 large animals or equivalent per acre)	#23
Historic waste dumps/landfills	#25, #26
Housing – high density (>1 house / 0.5 acres)	#15, #16, #17, #21, #22, #23, #24, #25, #29, #31, #32, #33, #34
Metal plating/finishing/fabricating	#26, #27, #30
Military installations	#24
Transportation corridors - Road right - of - ways (herbicides use areas)	#15, #16, #17, #29
Waste Transfer/Recycling stations	#17, #31, #34

DISCUSSION OF VULNERABILITY

There is no current Maximum Contaminant Level (MCL) exceedance noted in the State Water Resources Control Board Water Quality Inquiry (WQI) database for City of Madera Water Wells: 15, 16, 17, 18, 20, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33 and 34. However, documentation that the following elements have been found in Water Wells 21, and 33 are included in the database:

Water Well	Chemical	Sample Date	Level Detected	MCL	DLR
#21	DBCP	6/20/2013	0.10 ug/L	0.20 ug/L	0.01ug/L
#33	DBCP	2/22/2013	0.088 ug/L	0.20 ug/L	0.01ug/L
#21	Aluminum	11/20/2014	280 ug/L	200 ug/L	50 ug/L
#21	Iron	11/20/2014	700 ug/L	300 ug/L	100 ug/L

ADDITIONAL COMMENTS:

Water Well 33 A water sample was collected 3/1/2005 during initial drilling and was detected for DBCP. This well was put into service on 8/18/2006 was tested quarterly and has never exceeded the MCL for DBCP.

Water Well 21 A water sample was collected 11/20/2014 after the well had been rehabilitated and secondary MCL was detected for Aluminum and Iron. The City is now monitoring quarterly for Aluminum and Iron at this source. First quarter 2015 sampling results show N/D for both Aluminum and Iron. Secondary MCL standards are in place to establish an acceptable aesthetic quality of the water.

VIOLATION OF TT OR MONITORING AND REPORTING REQUIREMENTS:

MONITORING AND REPORTING VIOLATION: The City was required to monitor for Hexavalent Chromium in 2014 and did so as part of EPA UCMR3 Monitoring. The results of that Hexavalent Chromium monitoring were not uploaded to the state database in 2014 because of a misunderstanding about the reporting requirements. The City monitored for Hexavalent Chromium on 2/15/2015 after the mistake was noticed.

CITY OF MADERA
URBAN WATER MANAGEMENT PLAN

APPENDIX I - WATER SHORTAGE CONTINGENCY PLAN

REPORT TO CITY COUNCIL

MEETING DATE: May 20, 2015

AGENDA ITEM NUMBER: C-4

Approved By:

PUBLIC WORKS DIRECTOR

CITY ADMINISTRATOR

SUBJECT:

Consideration of an Urgency Ordinance Enacting Water Regulations in Response to the Governor's Declaration of a State of Emergency and Mandates for Water Conservation

and,

Consideration of Introduction and First Reading of an Ordinance Regarding Water Regulations

and,

Consideration of a Resolution Enacting Drought Water Restriction Level C

RECOMMENDATION:

Staff recommends that the Council consider the proposed water regulations and adopt them as an urgency ordinance and take parallel action by introducing an identical ordinance for adoption pursuant to the non-urgency process; Staff further recommends that the Council adopt a resolution enacting drought water restriction Level C as defined in the new ordinance.

SUMMARY:

The Council is being asked to implement new water regulations that will restrict water usage, based on progressive levels that can be enacted as drought condition worsen and water reductions become necessary to meet State water conservation mandates. The immediate significant change would be to limit outdoor watering to one day per week by enacting the proposed level C Restrictions. If necessary for further water conservation, the subsequent level of restriction would eliminate all outdoor watering except for drip irrigation of trees and bushes. If compliance is still not achieved, the next level of restrictions would eliminate all outdoor watering, As an Alternative, the Council could choose to implement an ordinance to place residents on specific maximum water budgets, with fines for overages. Implementation of this alternative would not be feasible until the required software tools are in place.

DISCUSSION:

The continued drought conditions prompted the Governor to declare a drought state of emergency over a year ago. On April 1st of this year, the Governor enacted a statewide mandatory 25% water reduction, with subsequent regulations being drafted by the State Water Resources Control Board. The City of Madera has been identified as a tier seven water supplier that is being mandated to reduce residential consumption on a per capita basis of 28% from 2013 consumption levels. The state has determined that

we have already reduced consumption by 9% which leaves an addition net reduction of 19% to meet the State mandates.

Currently, the Water Department is operating based on our Water Management Plan drought emergency contingency plan at stage III restrictions, which include increasing the water conservation program staff to four employees to provide public information and enforcement when necessary. Water conservation activities under stage III have been largely focused on monitoring visible water wasting, and educating the public about the regulations and means of conserving water. The ratio of public contact/informal warnings verses written citations is about 3:1.

Studies from 2010 found that 58% of residential water usage in California is attributed to outside watering. While these ratios have undoubtedly declined from increased public awareness of the issues and water meters which were installed in 2013, it is still believed that there is a significant percentage of water that is utilized in outdoor watering. Hence, the biggest potential for saving is to try and reduce water consumption by restricting when outdoor watering can occur. Staff is hopeful that changing from watering two days a week to one day a week will provide us with a significant decrease in consumption; the actual percentage of reduction is highly speculative. Our intention is to implement these measures in good faith of meeting our goal so that the State does not levy any fines against the City. These fines can be up to $10,000 per day. If the results of the restriction do not yield sufficient reductions to appease the State, we would then recommend moving to the higher levels of water restrictions.

The regulations are being adopted as an urgency ordinance, but citations for infractions of the new provisions would not be implemented for the first 30 days.

Another alternate approach to reductions is to place customers on specific water consumption budgets; allowing them to manage where and when they use their allocation of water. Enforcement of the budgets would be achieved through significant fines for overages as has been implemented in other jurisdictions. Implementing this method has two problems.

First there is a due process issue. Customers would need to be provided a means to contest fines, which is impracticable for the City if experienced on a large scale. The Governor has requested the State Legislature enact legislation to empower local authorities to do enforcement of fines administratively rather than as infractions, but this power does not yet exist.

Second, we currently do not have the means for the public to readily monitor their own consumption. While we currently can look up usage for individual accounts, it is not practical for staff to do so for all 13,000 customers. There is software available that can make the information available to the public on-line and in monthly statements, which would even have the ability to push out warnings of excessive usage patterns. However, the City's current systems do not provide this functionality. We are currently in the process of converting our existing water meter data management software to a new version which has the capacity to do these things if we opt for a few additional features that are available. If the current effort to complete the transfer of operating systems will still take several months before it is fully functional. Therefore, we do not see using water budgets and fines as an initial methodology for reducing water consumption, but these could be considered in the future.

NEW PROVISIONS:

The proposed changes to the Municipal Ordinance restricting water usage are detailed in the attached ordinance and the principal provisions are summarized below:

Drought Levels

A series of 5 drought water restriction levels are proposed to be codified in the Municipal code which can be enacted when necessary by a resolution of the City Council. They are as follows:

Level A
Limited Provisions:

Outdoor application of water for irrigation and recreation uses shall be restricted to the hours of 7:00 pm to 10:00 am.

Level B
Moderate Provisions:

Outdoor application of water for irrigation and recreation uses shall be restricted to the hours of 7:00 pm to 10:00 am and restricted to usage on Sunday and Thursday for even addressed parcels and Saturday and Wednesday for odd addressed parcels. *(This matches current restrictions that are in place)*

Level C
Significant Provisions:

Outdoor application of water for irrigation and recreation uses shall be restricted to the hours of 7:00 pm to 10:00 am and restricted to usage on Sunday for even addressed parcels and Saturday for odd addressed parcels. *(This is the level currently being suggested)*

Level D
Aggressive Provisions:

Outdoor application of water for irrigation of plants shall be limited drip system designed to only irrigate trees and bushes to minimally maintain their viability. Irrigating of lawn/turf using any method of watering shall be prohibited.

Level E
Extreme Provisions:

All Outdoor application of water for irrigation of plants other than editable crops for personal consumption shall be eliminated.

Importation of Water
Other than recycled or "Gray" water, utilizing water from outside of the City for outdoor watering is prohibited. This prevents people from obtaining water from wells surrounding the City for landscape irrigation which has the same impact on our aquifer as if they used City water.

Exceptions
The proposed ordinance has been written to try and address the most likely situations, but there will always be special cases. Hence, a provision that allows for the Public Works Department to grant exceptions to the regulations in cases where it is impractical to enforce the provisions is included in the proposed ordinance. The criteria for granting exceptions is when a "circumstance causes a severe hardship that is unique and not common to other water customers, and would be significantly injurious to public health, safety, public economic welfare, or would by its implementation precludes the reasonable ability to enjoy the functionality of the premises.... Issues of convenience for economic efficiencies shall not constitute cause for exceptions hereunder. The Department in granting the exceptions may make such conditions as it deems necessary to maximize water conservation. Examples include but are not limited to; allowing a playfield to be watered on days when is not normally used, preserving significant wildlife habitat, and accommodations for special public events, etc." This will allow situations such as allowing additional watering needed to maintain a playing field in a park so that it does not prevent the field from being lost.
There a few hot button topics that while they may not represent a large amount of water, the Public regularly complain about them and we recommend we address them as follows:

Fundraising Car Washes

The typical fundraising carwashes for a funeral donations, sports team, church etc. is allowed under our current ordinance. The Council could, if it preferred, prohibit them. As an alternative, car washes could be required to conform with a set of criteria that attempts to implement some controls and discourage unnecessary water wasting, such as:

Community fund raising events for recognized nonprofit organization may hold car washes provided they comply with the following:

1. Register with and receive approval from the Public Works Department for the carwash a minimum of 10 days in advance of the event.
2. No more than 6 events shall be held by any organization in a year.
3. Washing shall be performed using best practices to conserve water, including but not limited to use of power washers in place of regular hose pressure.
4. The event shall endeavor to not use more than 25 gals per vehicle.
5. Events must be held where the water is supplied from a metered water service.

Recreational Water

Some members of the public have expressed irritation that residents with pools are not restricted from using water for recreational use while their landscape irrigation is being restricted. Some jurisdictions are considering moratoriums on new pools, which staff has not recommended. Currently, new pools or changing water in pools is not prohibited. The current provision restricts "frequent empting of a pool between May 1 and September 30."

No new restrictions have been recommended due to the difficulty in enforcing the provisions on pools that are mostly located in private rear yards which are generally outside of public view. The Council could consider requiring additional conservation measures for pools during the later drought levels D and E when lawns would also be lost. A possible set of restrictions could be:

- When water restrictions are in levels D and E, all outdoor recreation water bodies such as pools, spas, etc, must have covers in place when not occupied in order to reduce evaporation.
- The changing of more than 50% of water in outdoor swimming pools, recreational or ornamental water bodies, water fountains etc. is prohibited during drought levels D and E. This includes but is not limited to: Wading Pools and water slides over 20 gallons capacity. Routine filling to maintain water levels is acceptable and water necessary to maintain wildlife habitat is permissible.

FINANCIAL IMPACT:

The expenses for implementing and administering these enforcement issues occur within the Water Fund and would not have any impact on the General Fund. The forced reduction in consumption would have the effect of reducing revenues to the water budgets, but would not cause equal reductions in expenses. Reductions in revenues could result in the Fund Balance being reduced and/or maintenance and Capital Projects having to be delayed causing increased deferred liabilities in the water system infrastructure.

In a separate agenda item new water and sewer rates are being considered for adoption. The proposed rates anticipate an immediate 15% reduction in overall consumption based on the State's mandate to reduce residential consumption. It assumes an additional 2% reduction in each of the following four years. Hence, depending on the actual amount of reductions we achieve the impact may not be significant. If restrictions were to be lifted or consumption not achieved and revenue continued at historical levels any unanticipated increases in revenue could be used to reduce scheduled rate increases.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN:

The proposed action is not specifically addressed as part of action Plan, but is not in conflict with it and is sympathetic of the underling principals of the 2025 Plan.

ORDINANCE NO._____

AN URGENCY ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MADERA AMENDING PORTIONS OF CHAPTER 5, OF TITLE V OF THE MADERA MUNICIPAL CODE RELATING TO WATER SERVICE RESTRICTIONS

WHEREAS, the Governor of the State of California has declared a State of Emergency to exist throughout the State of California due to severe drought conditions.

WHEREAS, on April 1, 2015, the Governor issued Executive Order B-29-15, which directed the State Water Resources Control Board (Water Board), to impose restrictions to achieve a statewide 25% reduction in potable urban water usage through February 28, 2016.

WHEREAS, these restrictions will require water suppliers to California's cities and towns to reduce usage as compared to the amount used in 2013.

WHEREAS, on April 7, 2015, the Water Board issued a Draft Regulatory Framework, which could require the City of Madera to reduce water usage by 32%.

WHEREAS, the City needs to prepare for the necessary reductions in water usage by amending the Municipal Code to specifically provide for the City Council to respond to drought emergencies by adopting a resolution mandating water usage regulations on customers and penalties for violations.

WHEREAS, in adopting this urgency ordinance, the Council finds that it is needed for the immediate preservation of the public peace, health, and safety. This finding is based upon the State of Emergency declared by the Governor for drought conditions, the pending Water Board regulations that will mandate Madera reduce water usage by as much as 32% from 2013 levels, and the need to begin taking steps to meet that reduction in water usage before a regular ordinance can be adopted, all for the benefit of the community in addressing the drought, and as further supported by the preceding findings.

THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA, DOES ORDAIN AS FOLLOWS:

Section 1. Recitals. The Recitals set forth above are true and correct and incorporated herein by reference.

Section 2. Section 13, of Chapter 5, of Title V of the Madera Municipal Code is hereby amended to read as follows:

(A) Drought Levels: When the City Council by resolution determines that water supplies are limited and additional conservation measures are necessary to reduce water consumption, the Council may enact one of five drought water restriction levels A through E as set forth in this subsection, and restrictions under each section shall be enforced for such period of time as designated by the City Council or until lifted by them by separate resolution.

Level A
When the City Council by resolution determines it is warranted that additional water restrictions are necessary to reduce water consumption by limited means, the following restrictions shall apply:

Outdoor application of water for irrigation and recreation uses shall be restricted to the hours of 7:00 p.m. to 10:00 a.m.

Level B
When the City Council by resolution determines it is warranted that additional water restrictions are necessary to reduce water consumption by moderate means, the following restrictions shall apply:

Outdoor application of water for irrigation, recreation uses shall be restricted to the hours of 7:00 p.m. to 10:00 a.m., and restricted to usage on Sunday and Thursday for parcels with even numbered street addresses and Saturday and Wednesday for parcels with odd numbered street addresses.

Level C
When the City Council by resolution determines it is warranted that additional water restrictions are necessary to reduce water consumption by significant means, the following restrictions shall apply:

Outdoor application of water for irrigation and recreation uses shall be restricted to the hours of 7:00 p.m. to 10:00 a.m., and restricted to usage on Sunday for parcels with even numbered street addresses and Saturday for parcels with odd numbered street addresses.

Level D
When the City Council by resolution determines it is warranted that additional water restrictions are necessary to reduce water consumption by aggressive means, the following restrictions shall apply:

Outdoor application of water for irrigation of plants shall be limited drip system designed to only irrigate trees and bushes to minimally maintain their viability.

Level E

When the City Council by resolution determines it is warranted that additional water restrictions are necessary to reduce water consumption by extreme means, the following restrictions shall apply:

All outdoor application of water for irrigation of plants other than edible crops for personal consumption shall be eliminated.

(B) Exception: The City in enforcing the above provisions may use reasonable discretion in its interpretation in order to affect the water conservation purpose and reasonableness in application of the restrictions. Exception to these provisions may be granted by the Public Works Department when a written application for an exception is filed with the Public Works Department and the Department makes written determinations that compliance with these regulations in a particular circumstance causes a severe hardship that is unique and not common to other water customers, and would be significantly injurious to public health, safety, public economic welfare, or would by its implementation precludes the reasonable ability to enjoy the functionality of the premises. The burden of proof that enforcement of the provisions would cause severe hardships upon the applicants, and demonstration that a situation is unique and significantly injurious to the public interests is upon the applicant. Issues of convenience for economic efficiencies shall not constitute cause for exceptions hereunder. The Department in granting the exceptions may make such conditions as it deems necessary to maximize water conservation. Examples include but are not limited to; allowing a playfield to he watered on days when it is not normally used, preserving significant wildlife habitat, and accommodations for special public events, etc.

(C) Food for personal consumption: Watering of plants by drip irrigation that is grown as food for personal consumption (not for medicinal use) shall always be allowed to be watered on any day of the week between the hours of 7:00 p.m. to 10:00 a.m.

(D) Household Gray Water: Up to 100 gallons per household per parcel per day of reused domestic water from showers, washing, etc. "Gray Water" may be reutilized for outdoor watering, subject to applicable health and safety regulations.

(E) Importation of Water: Except as permitted elsewhere in this section, no water which is obtained from a source other than the City's municipal water system may be used for outdoor watering.

(F) Imported Recycled and Gray Water: Recycled or "gray" water imported from outside of the City may be used for outside watering with no restrictions other than applicable health and safety regulation.

(G) Penalties for Violation of Restrictions: Violation of the provisions of this section shall be an infraction, and fines shall be imposed pursuant to Section 1-9.06(B) of the Madera Municipal Code.

Section 3. Subsection (D) of Section 3, of Chapter 5, of Title V, of the Madera Municipal Code is hereby amended to read as follows:

> The city shall not approve and/or authorize any permit, entitlement, allow a new water service connection, or new utility account utilizing a service connection that does not have a water meter as required by this chapter. The city shall not approve and/or authorize any permit or entitlement, where the existing meter does not meet current standards. The meter must be replaced or improved to meet the current standards at the property owner's expense.

Section 4. Subsection (F) of Section 3, of Chapter 5, of Title V, of the Madera Municipal Code is hereby added to read as follows:

> No more than one meter per dwelling unit shall be installed on any residentially zoned property, except where there are four or more residential units a separate meter for landscaping and common facilities may be installed.

Section 5. If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance and each section, subsection, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional or void for any other reason.

Section 6. Effective Date. The City Council hereby declares, on the basis of the findings set forth above, that an emergency exists and that this Ordinance is necessary to preserve the public peace, health and safety. Accordingly, this Ordinance is adopted as an urgency ordinance and shall take effect and be in force immediately upon its adoption.

* * * * * * * * * *

ORDINANCE NO._____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MADERA AMENDING PORTIONS OF CHAPTER 5, OF TITLE V OF THE MADERA MUNICIPAL CODE RELATING TO WATER SERVICE RESTRICTIONS

WHEREAS, the Governor of the State of California has declared a State of Emergency to exist throughout the State of California due to severe drought conditions.

WHEREAS, on April 1, 2015, the Governor issued Executive Order B-29-15, which directed the State Water Resources Control Board (Water Board), to impose restrictions to achieve a statewide 25% reduction in potable urban water usage through February 28, 2016.

WHEREAS, these restrictions will require water suppliers to California's cities and towns to reduce usage as compared to the amount used in 2013.

WHEREAS, on April 7, 2015, the Water Board issued a Draft Regulatory Framework, which could require the City of Madera to reduce water usage by 32%.

WHEREAS, the City needs to prepare for the necessary reductions in water usage by amending the Municipal Code to specifically provide for the City Council to respond to drought emergencies by adopting a resolution mandating water usage regulations on customers and penalties for violations.

WHEREAS, in adopting this urgency ordinance, the Council finds that it is needed for the immediate preservation of the public peace, health, and safety. This finding is based upon the State of Emergency declared by the Governor for drought conditions, the pending Water Board regulations that will mandate Madera reduce water usage by as much as 32% from 2013 levels, and the need to begin taking steps to meet that reduction in water usage before a regular ordinance can be adopted, all for the benefit of the community in addressing the drought, and as further supported by the preceding findings.

THE CITY COUNCIL OF THE CITY OF MADERA, CALIFORNIA, DOES ORDAIN AS FOLLOWS:

Section 1. Recitals. The Recitals set forth above are true and correct and incorporated herein by reference.

Section 2. Section 13, of Chapter 5, of Title V of the Madera Municipal Code is hereby amended to read as follows:

(A) Drought Levels: When the City Council by resolution determines that water supplies are limited and additional conservation measures are necessary to reduce water consumption, the Council may enact one of five drought water restriction levels A through E as set forth in this subsection, and restrictions under each section shall be enforced for such period of time as designated by the City Council or until lifted by them by separate resolution.

Level A
When the City Council by resolution determines it is warranted that additional water restrictions are necessary to reduce water consumption by limited means, the following restrictions shall apply:

Outdoor application of water for irrigation and recreation uses shall be restricted to the hours of 7:00 p.m. to 10:00 a.m.

Level B
When the City Council by resolution determines it is warranted that additional water restrictions are necessary to reduce water consumption by moderate means, the following restrictions shall apply:

Outdoor application of water for irrigation, recreation uses shall be restricted to the hours of 7:00 p.m. to 10:00 a.m., and restricted to usage on Sunday and Thursday for parcels with even numbered street addresses and Saturday and Wednesday for parcels with odd numbered street addresses.

Level C
When the City Council by resolution determines it is warranted that additional water restrictions are necessary to reduce water consumption by significant means, the following restrictions shall apply:

Outdoor application of water for irrigation and recreation uses shall be restricted to the hours of 7:00 p.m. to 10:00 a.m., and restricted to usage on Sunday for parcels with even numbered street addresses and Saturday for parcels with odd numbered street addresses.

Level D
When the City Council by resolution determines it is warranted that additional water restrictions are necessary to reduce water consumption by aggressive means, the following restrictions shall apply:

Outdoor application of water for irrigation of plants shall be limited drip system designed to only irrigate trees and bushes to minimally maintain their viability.

Level E

When the City Council by resolution determines it is warranted that additional water restrictions are necessary to reduce water consumption by extreme means, the following restrictions shall apply:

All outdoor application of water for irrigation of plants other than edible crops for personal consumption shall be eliminated.

(B) Exception: The City in enforcing the above provisions may use reasonable discretion in its interpretation in order to affect the water conservation purpose and reasonableness in application of the restrictions. Exception to these provisions may be granted by the Public Works Department when a written application for an exception is filed with the Public Works Department and the Department makes written determinations that compliance with these regulations in a particular circumstance causes a severe hardship that is unique and not common to other water customers, and would be significantly injurious to public health, safety, public economic welfare, or would by its implementation precludes the reasonable ability to enjoy the functionality of the premises. The burden of proof that enforcement of the provisions would cause severe hardships upon the applicants, and demonstration that a situation is unique and significantly injurious to the public interests is upon the applicant. Issues of convenience for economic efficiencies shall not constitute cause for exceptions hereunder. The Department in granting the exceptions may make such conditions as it deems necessary to maximize water conservation. Examples include but are not limited to; allowing a playfield to be watered on days when it is not normally used, preserving significant wildlife habitat, and accommodations for special puhlic events, etc.

(C) Food for personal consumption: Watering of plants by drip irrigation that is grown as food for personal consumption (not for medicinal use) shall always be allowed to be watered on any day of the week between the hours of 7:00 p.m. to 10:00 a.m.

(D) Household Gray Water: Up to 100 gallons per household per parcel per day of reused domestic water from showers, washing, etc. "Gray Water" may be reutilized for outdoor watering, subject to applicable health and safety regulations.

(E) Importation of Water: Except as permitted elsewhere in this section, no water which is obtained from a source other than the City's municipal water system may be used for outdoor watering.

(F) Imported Recycled and Gray Water: Recycled or "gray" water imported from outside of the City may be used for outside watering with no restrictions other than applicable health and safety regulation.

(G) Penalties for Violation of Restrictions: Violation of the provisions of this section shall be an infraction, and fines shall be imposed pursuant to Section 1-9.06(B) of the Madera Municipal Code.

Section 3. Subsection (D) of Section 3, of Chapter 5, of Title V, of the Madera Municipal Code is hereby amended to read as follows:

> The city shall not approve and/or authorize any permit, entitlement, allow a new water service connection, or new utility account utilizing a service connection that does not have a water meter as required by this chapter. The city shall not approve and/or authorize any permit or entitlement, where the existing meter does not meet current standards. The meter must be replaced or improved to meet the current standards at the property owner's expense.

Section 4. Subsection (F) of Section 3, of Chapter 5, of Title V, of the Madera Municipal Code is hereby added to read as follows:

> No more than one meter per dwelling unit shall be installed on any residentially zoned property, except where there are four or more residential units a separate meter for landscaping and common facilities may be installed.

Section 5. If any section, subsection, sentence, clause or phrase of this Ordinance is for any reason held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance and each section, subsection, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared unconstitutional or void for any other reason.

Section 6. Effective Date. This ordinance shall be effective and of full force and effect at 12:01 a.m. on the 31st day after its passage.

* * * * * * * * * *

RESOLUTION NO. ____
A RESOLUTION OF THE COUNCIL OF THE CITY OF MADERA, CALIFORNIA, ENACTING LEVEL C DROUGHT WATER RESTRICTIONS

WHEREAS, the Governor of the State of California has declared a State of Emergency to exist throughout the State of California due to severe drought conditions.

WHEREAS, on April 1, 2015, the Governor issued Executive Order B-29-15, which directed the State Water Resources Control Board (Water Board), to impose restrictions to achieve a statewide 25% reduction in potable urban water usage through February 28, 2016.

WHEREAS, these restrictions will require water suppliers to California's cities and towns to reduce usage by 25% as compared to the amount used in 2013.

WHEREAS, on April 7, 2015, the Water Board issued a Draft Regulatory Framework, which could require the City of Madera to reduce water usage by 32%.

WHEREAS, section 5-5.13 provides for the City Council to determine and enact a level of water restrictions that is needed to provide additional conservation measures to address the severity of the situations and achieve desired water conservation for the City, and

WHEREAS, the City Council did consider recommendations to enact level C water restriction levels at its regular meeting on May 20, 2015, and determined level C water restrictions to be necessary for conservation of the City's water.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF MADERA HEREBY finds orders and resolves as follows:

1 . The above recitals are true and correct.

2.Pursuant to Section 5-5.13 of the City of Madera Municipal Code, Drought water Restriction Level C is hereby enacted.

3. This resolution is effective immediately.

****

CITY OF MADERA
DEPARTMENT OF PUBLIC WORKS
AMENDMENT TO URBAN WATER MANAGEMENT PLAN

TITLED

WATER SHORTAGE CONTINGENCY PLAN

a Component of the City of Madera Urban Water Management Plan

CITY OF MADERA
205 West 4th Street
Madera, CA 93637
Phone: (209) 661-5466
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Prepared by:

David L. Chumley, Director of Public Works
Al Holguin, Water Specialist (Contact Person)

ADOPTED BY RESOLUTION NUMBER 95-52
April 5, 1995

TABLE OF CONTENTS

SECTIONS

		PAGE
1	Coordinated Planning	2
2	Past, Current and Projected Water Use	3
3	Worst Case Water Supply Availability for 12, 24 & 36 Months	4
4	Stages of Action	8
5	Mandatory Prohibitions on Water Use	8
6	Consumption Limits	8
7	Penalties or Charges for Excessive Use	9
8	Analysis of Revenue and Expenditure Impacts	9
9	Water Use Monitoring Procedures	9
10	Implementation of the Plan	15
11	Plan Adoption Standards	15

TABLES

1	Historical Water Use Data	3
2	Projected Water Use	3
3	Customer Types (Flat Rate and Metered)	4
4	Estimated Worst Case Water Supplies	5
5	Peak Day for 1993/1994	6
6	Peak Day for 1994/1995	7

DROUGHT STAGES

1	Existing Conditions	10
2	Potential Moderate Shortage	11
3	Serious Shortage	12-13
4	Critical Emergency Shortage	14

ATTACHMENTS

A	Relevant Sections of the California Government and Water Codes	16-17
B	Sample Resolution to Declare a Water Shortage Emergency	18

SECTION 1 COORDINATED PLANNING

California Water Code Section 10620 (d) (2) : Each urban water supplier shall coordinate the preparation of its urban shortage contingency plan with other urban water suppliers and public agencies in the area, to the extent practicable.

1.1 WATER SOURCE

All City of Madera water supply is from groundwater wells. The same water strata is shared in common with other special districts and agricultural interests. These districts serve less than 3,000 customers and are not required to prepare a Water Shortage Contingency Plan. Copies of the City Plan will be made available to these special districts.

1.2 DISASTER PLANNING

The City of Madera Water Shortage Contingency Plan will be provided to the Madera County Office of Emergency Services for their information. Through a correlated effort between the City and County, the City Plan may become a part of the Madera County Disaster Plan.

1.3 CITY OF MADERA WATER SHORTAGE COORDINATION

The City Water Shortage Response Team is chaired by the Water Division Supervisor. The team includes representatives from Engineering, Fire, Building, Parks and Administration. The team met and reviewed the Draft Water Shortage Contingency Plan prior to presentation to City Council. During water shortages stages 1, or 2, the team will meet at the beginning of the heavy pumping season and as often as necessary thereafter. In the more critical stages of 3, or 4, the team will meet as needed to handle changing conditions.

1.4 PUBLIC MEETINGS

On April 5, 1995 a Public Meeting was held on the development of this Water Shortage Contingency Plan. City Staff proposed water usage limitations for each water shortage stage. The final version of this Plan was adopted by the Madera City Council on April 5, 1995.

SECTION 2 PAST, CURRENT AND PROJECTED WATER USE

California Water Code Section 10631 (e) (1) : Past, current and projected water use and to the extent records are available, a breakdown of those uses on the basis of residential single family, residential multifamily, industrial, commercial, governmental and agricultural use.

2.1 WATER USE HISTORY

The Historical Water Use Data in Table 1 was provided by the City of Madera Water Division.

TABLE 1 HISTORICAL WATER USE DATA

FISCAL YEAR	BILLION GALLONS
1989/1990	3.395
1990/1991	3.101
1991/1992	3.126
1992/1993	3.053
1993/1994	3.528

2.2 PROJECTED WATER USE

The Projected Water Use Table 2 was created by using a five year moving average based upon past water use shown in Table 1 . This approach compensates for the summertime temperature variations which are experienced from year to year. Those years with extreme 100+ degree temperatures for long periods of time, particularly in early Spring and/or late Fall will result in significant increases in water usage. Unusually cool summers will result in much lower annual statistics. The following are projections in billion gallons per year:

TABLE 2 PROJECTED WATER USE

FISCAL YEAR		
1993/1994	3.528	(Actual)
1994/1995	3.209	(Projected)
1995/1996	3.203	(Projected)
1996/1997	3.223	(Projected)
1997/1998	3.243	(Projected)
1998/1999	3.281	(Projected)

2.3 WATER CUSTOMER CATEGORIES

Water connections depicted in Table 3 are based upon June 30, 1994 data. The City of Madera historically required installation of meters only if customers were considered to be large volume users. Effective January 1, 1992 all new services were required to be equipped with meters.

TABLE 3 CUSTOMER TYPES, FLAT RATE AND METERED CONNECTIONS

Customer Type	Flat Rate	Metered	Total
Residential (Single & Multiple Families)	7, 805	28	7, 833
Industrial	30	15	45
Commercial	685	130	815
Governmental	60	17	77
Total	8, 580	190	*8, 770

* Does not include City facilities such as Parks, Airport, Buildings, Landscaped areas, etc.

SECTION 3 WORST CASE WATER SUPPLY AVAILABILITY FOR FY 94/95 THROUGH 97/98

California Water Code Section 10631 (e) (2) : An estimate of the minimum water supply available at the end of 12,24 and 36 months, assuming the worst case water supply shortages.

3.1 WATER SUPPLY SOURCE

The City of Madera's current water supply is provided by 11 groundwater wells with a maximum pumping capacity of 1,098,780 gallons per hour. These wells are strategically located to maintain pressure levels and to provide adequate fire flows. They also provide backup capability for one another during P.G.E. outage, mechanical failure or other downtime.

In addition, well #26 at the airport is capable of pumping 108,000 gallons per hour. This flow is mainly for emergency fire flow purposes at the Airport Business Park. The well is to far from the majority of the City to benefit routine daily consumption needs.

3.2 CURRENT AND FUTURE AVAILABLE WATER SUPPLY

Table 4, (page 5) shows the 1993/1994 maximum gallons per hour (G.P.H.) available to be 1,110,840. The estimated peak G.P.H. pumped was 1,002,420 . This represents a minimal estimated peak reserve pumping capacity of 9.76%. "Worst Case" water supply situations are estimated for each of the next four years.

TABLE 4

ESTIMATED WORST CASE WATER SUPPLY

	F.Y. 93/94	F.Y. 94/95	F.Y. 95/96	F.Y. 96/97	F.Y. 97/98
	ACTUAL	ACTUAL	PROJECTED	PROJECTED	PROJECTED
WELL #	**G.P.M. (1)**	**G.P.M. (1)**	**G.P.M.**	**G.P.M. (2)**	**G.P.M.**
15	2, 112	1, 915	1, 915	1, 723	1, 723
16	N/A	1, 150	1, 150	1, 035	1, 035
17	1, 323	1, 178	1, 178	1, 061	1, 061
18	1, 818	1, 718	1, 718	1, 547	1, 547
20	**1, 807**	1, 807	1, 807	1, 627	1, 627
21	1, 546	1, 326	1, 326	1, 194	1, 194
22	2, 394	2, 316	2, 316	2, 085	2, 085
23	2, 046	1, 856	1, 856	1, 671	1, 671
24	1, 988	**1, 400**	1, 400	1, 260	1, 260
25	1, 980	1, 797	1, 797	1, 618	1, 618
26	FIRE FLOW WATER WELL AT AIRPORT (3)				
28	1, 500	1, 850	1, 850	1, 665	1, 665
29	N/A	N/A	1, 300	1, 170	1, 170
30	N/A	N/A	2, 000	1, 800	1, 800
MAX. G.P.M.					
AVAILABLE	18, 514	18, 313	21, 613	19, 456	19, 456
MAX G.P.H.					
AVAILABLE	**1, 110, 840**	**1, 098, 780**	**1, 296, 780**	**1, 167, 360**	**1, 167, 360**
MAX. G.P.D.					
AVAILABLE	26, 660, 160	26, 370, 720	31, 122, 720	28, 016, 640	28, 016, 640
ESTIMATED					
PEAK G.P.H.					
PUMPED	**1, 002, 420**	**1, 014, 780**	**1, 055, 371 (4)**	**1, 097, 585 (4)**	**1, 141, 488 (4)**
PEAK G.P.D.					
PUMPED	16, 277, 000	17, 860, 000	18, 574, 400 (4)	19, 317, 376 (4)	20, 090, 071 (4)
ESTIMATED	**9. 76 % (5)**	**7. 64 % (6)**	**18. 62 %**	**5. 98 %**	**2. 22 %**
PEAK	**1, 807 G.P.M.**	**1, 400 G.P.M.**	**4, 024 G.P.M.**	**1, 163 G.P.M.**	**432 G.P.M.**
RESERVE	**108,420 G.P.H.**	**84,000 G.P.H.**	**241, 440 G.P.H.**	**69, 780 G.P.H.**	**25, 920 G.P.H.**

REVISED 4/14/95

1) Based on Annual P.G.E. water flow test results.
2) The Projected 1996/97 "Worst Case" is based on a 10% pumping efficiency loss. This would occur if pumps in each well had to be lowered due to a declining water table and/or bowls loose efficiency due to wear.
3) Well #26 at the airport is mainly for emergency fire flow purposes only. It is capable of pumping 1,800 gallons per minute.
4) Projected gallons used per hour/day were increased by 4%.
5) Well #20 was off and represented 9.76% of total available capacity on the peak water use day of the year. This critical situation lasted for approximately two hours on that day (See Table 5, page 6). If it had been needed, there would have been 0% reserve.
6) Well #24 was off and represented 7.64% of total available pumping capacity on the peak water use day of the year. This critical situation lasted for approximately 4 hours on that day (See Table 6, page 7). If it had been needed, there would been 0% reserve.

TABLE 5

CITY OF MADERA
HOURLY WATER WELL USE
PEAK DAY FOR F.Y. 1993/94
JULY 14, 1993 WEDNESDAY (16,277,000 GALLONS PUMPED)

WELL	(a.m.) 1	2	3	4	5	6	7	8	9	10	11	noon	(p.m.) 1	2	3	4	5	6	7	8	9	10	*PEAK HOURS* *11*	*midnight*
#15	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	*ON*	*ON*
#16	OFF FOR REPAIR																							
#17	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	*ON*	*ON*
#18	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	*ON*	*ON*
#20	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	**OFF**	**OFF**
#21	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	*ON*	*ON*
#22	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	*ON*	*ON*
#23	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	ON	ON	ON	*ON*	*ON*
#24	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	*ON*	*ON*
#25	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	*ON*	*ON*
#26	FIRE FLOW WATER WELL AT AIRPORT																							
#27	OFF LINE DUE TO HIGH EDB LEVELS																							
#28	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	*ON*	*ON*

TABLE 6

CITY OF MADERA
HOURLY WATER WELL USE
PEAK DAY FOR F.Y. 1994/95
JULY 14, 1994 WEDNESDAY (17,860,000 GALLONS PUMPED)

WELL	(a.m.)											noon	(p.m.)							*PEAK HOURS*				midnight
	1	2	3	4	5	6	7	8	9	10	11		1	2	3	4	5	6	7	*8*	*9*	*10*	*11*	
#15	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	*ON*	*ON*	*ON*	*ON*	ON
#16	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	*ON*	*ON*	*ON*	*ON*	ON
#17	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	*ON*	*ON*	*ON*	*ON*	ON
#18	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	*ON*	*ON*	*ON*	*ON*	OFF
#20	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	*ON*	*ON*	*ON*	*ON*	ON
#21	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	*ON*	*ON*	*ON*	*ON*	ON
#22	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	ON	*ON*	*ON*	*ON*	*ON*	ON
#23	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	*ON*	*ON*	*ON*	*ON*	ON
#24	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
#25	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	*ON*	*ON*	*ON*	*ON*	ON
#26	**FIRE FLOW WATER WELL AT AIRPORT**																							
#27	**OFF LINE DUE TO HIGH EDB LEVELS**																							
#28	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	*ON*	*ON*	*ON*	*ON*	ON

SECTION 4 STAGES OF ACTION

California Water Code Section 10631 (e) (3): Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.

4.1 WATER PURVEYOR RESPONSIBILITIES

The City of Madera has a legal responsibility to provide potable water to the community which complies with all health and safety standards. In order to minimize the social and economic impact of water shortages, the city will manage water supplies prudently. This plan is designed to provide a minimum of 50 percent of normal supply during a critical or extended water shortage. Triggering levels are established to ensure that water use reduction goals are achieved. Deficit reduction objectives are shown in Drought Stages 1, 2, 3 and 4. (Pages 10-14)

4.2 WATER USE REDUCTION TRIGGERS

The City's only water source is groundwater. Rationing stages may be triggered by steadily decreasing standing groundwater levels, drier than normal weather conditions, or both. The City's Drought Stage Initiating Conditions are shown in Drought Stages 1, 2, 3 and 4. (Pages 10-14)

SECTION 5 MANDATORY PROHIBITIONS ON WATER USE

California Water Code Section 10631 (e) (4) : Mandatory provisions to reduce water use which include prohibitions against specific wasteful practices, such as gutter flooding.

The City has previously adopted "No Water Waste Regulations" which are contained in the Madera Municipal Code, Title 5, Chapter 5. Some modifications to these regulations will be required by the City Council for Stages #3, and #4 . Required consumer actions are shown in Drought Stages 1, 2, 3 and 4. (Pages 10-14)

SECTION 6 CONSUMPTION LIMITS

California Water Code Section 10631 (e) (5) : Consumption limits in the most restrictive stages. Each urban water supplier may use any type of consumption limit in its water shortage contingency plan that would reduce water use and is appropriate for its area. Examples of consumption limits that may be used include, but are not limited to, percentage reductions in water allotments, per capita allocations, an increasing block rate schedule for high usage of water with incentives for conservation, or specific uses.

The majority of water services in the City of Madera are not metered. Large Commercial and Industrial users are metered. Consumption limits are shown in Drought Stages 1, 2, 3 and 4 under Public Agency Actions. (Pages 10-14)

SECTION 7 PENALTIES OR CHARGES FOR EXCESSIVE USE

California Water Code Section 10631 (e)(6) Penalties for excessive use.

The City of Madera Penalties For Non-Compliance of Water Use Regulations are shown in Drought Stages 1, 2, 3 and 4. (Pages 10-14)

SECTION 8 ANALYSIS OF REVENUE AND EXPENDITURE IMPACTS

California Water Code Section 10631 (e) (7) : An analysis of the impacts of the plan on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

Drought Stages 1, 2, 3 and 4 provide information on projected revenue impacts. Existing Water Revenues will cover expenditures for Stages #1 and #2. Water User rates are reviewed annually to determine need for increases. When a Water Shortage Emergency is declared for Stages #3, or #4, Water Revenues will be reviewed and adjusted if necessary.

SECTION 9 WATER USE MONITORING PROCEDURES

California Water Code Section 10631 (e) (9) : A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency plan.

All of the City of Madera water wells are linked to a telemetry monitoring system. This system shows the number of gallons which are being pumped. These figures are read and recorded on a daily basis and then this data is transferred to a computer disk for future reference or comparisons. Water-Use Monitoring Procedures are also shown in Drought Stages 1, 2, 3 and 4. (Pages 10 - 14)

STAGE #1 EXISTING CONDITIONS

DROUGHT STAGE INITIATING CONDITIONS

Continued decrease of water table due to weather conditions and overdraft pumping.

DEFICIT REDUCTION OBJECTIVE

Limit the additional volume of water consumed to the percentage of annual population increase.

WATER USE MONITORING PROCEDURES

In Drought Stage #1, water production figures are recorded daily and totals are incorporated into the City of Madera Water Production report.

PUBLIC AGENCY ACTIONS AND PROJECTED EXPENDITURES

1. Public Works Department initiates annual water conservation program with two Water Patrol personal enforcing regulations 80 hours per week from April 1st to October 31st. **(COST $14,065)**
2. Voluntary water conservation measures are requested.
3. Prepare and mail Annual Water Use Regulations to all customers. **(COST $2,500)**
4. Check ground water levels quarterly.
5. **PROJECTED TOTAL COST ($16,565)**

REQUIRED CONSUMER ACTIONS

1. Outside irrigation limited to 3 days per week.
2. No hosing of paved surfaces.
3. No irrigation between 11 a.m. and 7 p.m.
4. No water is allowed to run into street or gutter.
5. Water leaks must be repaired within 5 days of citation.
6. Evaporative coolers must be equipped with water re-circulating devices.
7. No washing down of buildings other than for painting or other maintenance.
8. No continuous flow for recreational purposes
9. Require new commercial car washes to re-circulate their water.

PENALTIES FOR NON COMPLIANCE

VIOLATION #1. Written warning issued.
VIOLATION #2. $ 15.00 surcharge on next water bill.
VIOLATION #3. $ 30.00 surcharge on next water bill.
VIOLATION #4. $ 45.00 surcharge on next water bill and installation of a water meter at customers expense, and/or discontinuance of water service.

STAGE #2 POTENTIAL MODERATE SHORTAGE

DROUGHT STAGE INITIATING CONDITIONS

Weather forecasts predict a continuing trend of drier than normal conditions with a further deterioration of groundwater levels.

DEFICIT REDUCTION OBJECTIVE

Decrease water use by 5% to 10%.

WATER USE MONITORING PROCEDURES

Water production figures are recorded daily, totals are incorporated into the City of Madera Water Production report and daily production figures are reported to the Water Supervisor. The supervisor will compare the weekly production figure to the amount pumped during Stage #1 conditions. The targeted weekly reduction goal of 5% to 10% will be verified.

PUBLIC AGENCY ACTIONS AND PROJECTED EXPENDITURES

1. Publish and mail Annual Water Use Regulations. **(COST $2,500)**
2. Public Works Department initiates its annual water conservation program.
3. Add a third Water Patrol person to increase enforcement of regulations to 120 hours per week. **(COST $21,100)**
4. Increase public information campaign by explaining five stage rationing plan and forecasting future actions. To be distributed by mail to all customers. **(COST $2,500)**
5. Work with news media to publicize water saving recommendations and daily consumption figures.
6. Disseminate water saving technical information to specific customer types. **(COST $500)**
7. Recruit and train volunteers for speakers bureau.
8. Distribute water conservation kits to all customers which include shower head/faucet restrictors, toilet flush tank displacement devices and leak detection tablets. **(COST $5,000)**
9. Check ground water levels monthly.
10. **PROJECTED TOTAL (COST $31,600)**

REQUIRED CONSUMER ACTIONS

Voluntarily reduce water consumption by stricter adherence to Water Use Regulations.

PENALTIES

1. Same as Stage One.
2. Follow up letter after the 2nd violation.
3. Educational visit and warning after the 3rd violation.
4. Staff contact with water customer to resolve violation concerns and shut water service off, if necessary, with a reconnecting fee of $25.00 after the 4th violation.

STAGE #3 SERIOUS SHORTAGE

DROUGHT STAGE INITIATING CONDITIONS

Weather forecasts predict a continuing trend of drier than normal conditions. Standing ground water level has decreased to the point where City wells are in jeopardy of breaking suction.

DEFICIT REDUCTION OBJECTIVE

Decrease water use by 10% to 35%

WATER USE MONITORING PROCEDURES

In Drought Stage #3, water production figures are recorded daily, totals are incorporated into the City of Madera Water Production report and daily production figures are reported to the Water Supervisor and Public Works Director. The supervisor will compare the weekly production figure to the amount pumped during Stage #1 conditions. The targeted weekly reduction goal of 10% to 35% will be verified. Weekly Water User reports will be forwarded to the Public Works Director, the Water Shortage Response team, City Administrator and the Madera City Council.

PUBLIC AGENCY ACTIONS AND PROJECTED EXPENDITURES

1. Same as Drought Stage #2, items 1 through 8. **(COST $ 26,600)**
2. Implement the City of Madera Resolution which Declares a Water Shortage Emergency.
3. Review Water Revenues and adjust, if necessary, to cover increased P.G.E. and other costs.
4. Conduct public information campaign with regular media stories, public service announcements, paid announcements and direct mail to publicize the severity of the drought conditions. **(COST $5,000)**
5. Hire a part-time employee to coordinate the Water Conservation Program. Duties will include educating the public by presenting educational programs to schools, service clubs, large water users and other groups. **(COST $4,000)**
6. Distribute landscape conservation, drought tolerant garden and efficient irrigation information.
7. Publicize Stage 4 reduction requirements which will become necessary if conditions worsen.
8. Eliminate water use for fire hydrant flushing other than absolutely necessary for maintenance or fire flow requirements.
9. Discontinue irrigation of selected turf areas at parks and school sites which would not create hazards to users.
10. Require Ultra Low Flow (ULF) toilets, water efficient shower heads and faucet aerators prior to sale of any property.
11. Require hot water re-circulating systems or on demand water heaters in new construction.
12. Initiate a high visibility ULF toilet replacement program to encourage the general public to take similar action. i.e.: Homes of elected officials/City Staff, parks restrooms, City Hall and other facilities. **(COST $5,000)**
13. Lower the bowls, if necessary, on City Water Wells. **(COST FOR 5 WELLS $25,000)**
14. Check groundwater levels weekly.
15. **PROJECTED TOTAL COST ($65,600)**

Continued on page 13

REQUIRED CONSUMER ACTIONS

1. Stricter adherence to Water Use Regulations and outside watering is limited to two days a week.
2. Water served to restaurant customers only upon request for conservation and public awareness of drought conditions.
3. Existing commercial car washes required to install water re-circulating equipment.

PENALTIES

Same as Stage #2 except:
VIOLATION #2. $30.00 surcharge on next water bill and educational visit from City staff.
VIOLATION #3. $45.00 surcharge on next water bill; possible installation of a water meter, flow restriction device on service connection or discontinuance of service if situation is not resolved.

STAGE #4 CRITICAL EMERGENCY SHORTAGE

DROUGHT STAGE INITIATING CONDITIONS

Customer demands and system pressure requirements cannot be met.

DEFICIT REDUCTION OBJECTIVE

Decrease water use by 35% to 50%.

WATER USE MONITORING PROCEDURES

During Drought Stage #4 production figures will be reported to the supervisor twice daily and to the Public Works Director and Water Shortage Response team on a daily basis to ensure that the reduction goal of 35% to 50% is being met. Reports will also be provided to the City Administrator and City Council.

PUBLIC AGENCY ACTIONS AND PROJECTED EXPENDITURES

1. Same as Drought Stage #3. **(COST $ 65,000)**
2. Implement the City of Madera Water Quality Emergency Notification Plan. This may include boil water notices and chlorinating of the distribution system due to low pressure. **(COST $10,000)**
3. Moratorium on new water services until shortage ends.
4. Discontinue irrigation of park and school district athletic fields.
5. Rate increases to finance system improvements.
6. Require all homes and businesses to install low flow shower heads and toilet flush tank displacement devices and repair all leaks. Employ seasonal compliance officer for random inspections. **(COST $7,000)**
7. Check ground water levels weekly.
8. **PROJECTED TOTAL COST ($82,600)**

REQUIRED CONSUMER ACTIONS

1. Install low flow shower heads and toilet flush tank displacement devices.
2. Outside watering limited to one day per week.

PENALTIES

Same as Stage #3 and City Council considers increasing surcharges for violation of Water use regulations.

SECTION 10 IMPLEMENTATION OF THE PLAN

California Water Code Section 10631 (e) (8) : A draft water shortage contingency resolution or ordinance to carry out the urban water shortage contingency plan.

The Madera City Council has adopted this Water Shortage Contingency Plan by Resolution Number: 95-52.

SECTION 11 PLAN ADOPTION STANDARDS

California Water Code Section 10621 (a) : Each urban water supplier shall, not later than January 31, 1992, prepare, adopt, and submit to department an amendment to its urban water management plan which meets the requirements of subdivision (e) of Section 10631.

The City of Madera prepared this Water Shortage Contingency Plan during February, 1995. The Plan was adopted on April 5, 1995. The Plan includes all the information necessary to meet the requirements of subdivision (e) of California Water Code Section 10631.

California Water Code Section 10642 : Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to California Water Code Section 6066 of the Government Code. A privately owned water supplier shall provide and equivalent notice within its service area. After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

A public meeting date and location of copies of the draft Water Shortage Contingency Plan for public review were properly noticed in the Madera Tribune newspaper. Copies of the draft plan were available for public review at the City Department of Public Works, City Clerk's office and the Public Library. The City held a public meeting on April 5, 1995 on the Water Shortage Contingency Plan.

ATTACHMENT "A" RELEVANT SECTIONS OF THE CALIFORNIA GOVERNMENT & CALIFORNIA WATER CODES

Sections of the California Government Code

Section 6061. Publication of notice pursuant to this section shall be for one time.

Section 6066. Publication of notice pursuant to this section shall be once a week for two successive weeks. Two public notices in a newspaper published once a week or more often with at least five days intervening between respective publication dates, not counting such publication dates, are sufficient. The period of notification commences upon the first day of publication and terminates at the end of the fourteenth day including therein the first day.

Sections of the California Water Code
Chapter 3 - Water Shortage Emergencies

Section 350. The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, may declare a water shortage emergency condition to prevail within the area served by such distributor wherever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

Section 351. Excepting in event of a breakage or failure of a dam, pump, pipe line or conduit causing an immediate emergency, the declaration shall be made only after a public hearing at which consumers of such water supply shall have an opportunity to be heard to protest against the declaration and to present their respective needs to said governing board.

Section 352. Notice of the time and place of hearings shall be published pursuant to Section 6061 of the Government Code at least seven days prior to the date of hearing in a newspaper printed, published, and circulated within the area in which the water supply is distributed, or if there is no such newspaper, in any newspaper printed, published, and circulated in the county in which the area is located.

Section 353. When the governing body has so determined and declared the existence of an emergency condition of water shortage within its service area, it shall thereupon adopt such regulations and restrictions on the delivery of water and the consumption within said area of water supplied for public use as will in the sound discretion of such governing body conserve the water supply for the greatest public benefit with particular regard to domestic use, sanitation, and fire protection.

Section 354. After allocating and setting aside the amount of water which in the opinion of the governing body will be necessary to supply water needed for domestic use, sanitation, and fire protection, the regulations may establish priorities in the use of water for other purposes and provide for the allocation, distribution, and delivery of water for such other purposes, without discrimination between consumers using water for the same purpose or purposes.

-continued-

Sections of the California Water Code
Chapter 3 - Water Shortage Emergencies
-continued-

Section 355. The regulations and restrictions shall thereafter be and remain in full force and effect during the period of the emergency and until the supply of water available for distribution within such area has been replenished or augmented.

Section 356. The regulations and restrictions may include the right to deny such applications for new or additional service connections, and provisions for their enforcement by discontinuing service to consumers willfully violating the regulations and restrictions.

Section 357. If the regulations and restrictions on delivery and consumption of water adopted pursuant to this chapter conflicts with any law establishing the rights of individual consumers to receive either specific of proportionate amounts to the water supply available for distribution within service area, the regulations and restrictions adopted pursuant to this chapter shall prevail over the provisions of such laws relating to water rights for the duration of the period of emergency; provided, however, that any distributor of water which is subject to regulation by the State Utilities Commission shall before making such regulations and restrictions effective secure the approval thereof of the Public Utilities Commission.

Section 358. Nothing in this chapter shall be constructed to prohibit or prevent review by any court or competent jurisdiction of any finding or determination by a governing board of the existence of an emergency or of regulations or restrictions adopted by such board, pursuant to this chapter, on the ground that any such action is fraudulent, arbitrary, or capricious.

ATTACHMENT "B" "SAMPLE" RESOLUTION TO DECLARE A WATER SHORTAGE EMERGENCY

NOW, THEREFORE, BE IT RESOLVED *by the City Council of the City of Madera as follows:*

PURSUANT to California Water Code Section 350 et seq.*, the Council has conducted duly noticed public hearings to establish the criteria under which a water shortage emergency may be declared.*

WHEREAS*, the Council finds, determines and declares as follows:*

(a) Weather forecasts predict a continuing trend of warmer, drier than normal conditions.

(b) Ground Water depths have decreased to the level that a significant number of the City wells are breaking suction.

(c) Impending low system water pressure threatens fire protection, health, and sanitation.

(d) For the foregoing reasons, when the amount of water supply available to the City for service to customers falls below Stage #2 triggering levels established in Section #4 of the Water Shortage Contingency Plan, the City has determined that the water supply may not be adequate to meet the ordinary demands and requirements for fire protection, consumers, and sanitation and this condition is likely to exist until precipitation an inflow dramatically increase or the water wells are lowered to deeper depths.

NOW, THEREFORE, BE IT RESOLVED *that the City Council of the City of Madera hereby directs the City Administrator to find, determine, declare and conclude that a water shortage emergency exists that threatens the adequacy of water supply for human consumption, sanitation and fire protection requirements, until the City's water supply is deemed adequate. After the declaration of a water shortage emergency, the City Administrator is directed to determine the appropriate Rationing Stage and implement the City's Water Shortage Contingency Plan.*

FURTHERMORE*, the Council shall periodically conduct proceedings to determine additional restrictions and regulations which may be necessary to safeguard the adequacy of the water supply for domestic, sanitation and fire protection requirements.*

CITY OF MADERA
URBAN WATER MANAGEMENT PLAN

APPENDIX J - WATER RATES

RESOLUTION NO: 15-156

Resolution of the City Council of the City of Madera Establishing Monthly Rates To Be Charged For Water Furnished By the City and Repealing Resolution 10-118 and All Other Resolutions In Conflict Herewith

WHEREAS, the City of Madera previously adopted Resolution 10-118 establishing rates for water furnished by the City for the period between July of 2010 and July of 2015; and

WHEREAS, the City of Madera desired to establish water rates which were based on the actual and projected costs of providing services between July of 2015 and July of 2020; and

WHEREAS, the City Council considered a Cost of Service analysis prepared by Raftelis Financial Consultants, a firm with expertise in the analysis of municipal water and sewer utility costs; and

WHEREAS, the Council has caused notices to be sent to all affected customers and property owners regarding the proposal to amend the rates for water use at least 45 days in advance of a noticed public hearing held on July 15, 2015; and

WHEREAS, the Council finds that no majority protest was presented against the proposed rates for water service before or during the public hearing and finds that the proposed rates shall be made effective July 26, 2015.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF MADERA HEREBY finds, orders and resolves as follows:

1. The above recitals are true and correct.

2. No majority protest was presented against the proposed rates for water service.

3. The monthly rates to be charged for the use of water furnished by the City, enumerated in Attachment A to this Resolution, are hereby adopted.

4. Resolution 10-118, and all other resolutions in conflict herewith, are hereby repealed.

5. This resolution is effective immediately upon adoption.

* * * * * * *

PASSED AND ADOPTED by the City Council of the City of Madera this 15th day of July, 2015 by the following vote:

AYES: Council Members Poythress, Oliver, Rigby, Bomprezzi, Medellin, Holley, Robinson.

NOES: None.

ABSTENTIONS: None.

ABSENT: None.

APPROVED:

ROBERT L. POYTHRESS, Mayor

ATTEST:

SONIA ALVAREZ, City Clerk

CITY OF MADERA INCORPORATED March 27, 1907 CALIFORNIA

APPROVED AS TO LEGAL FORM:

BRENT RICHARDSON, City Attorney

Resolution Attachment A

City of Madera Water Rates: Fiscal Year 2016-2020

Residential Tiered Rates [1]	Allotment	FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020
Tier 1	0-10	$1.00	$1.33	$1.63	$1.84	$1.93
Tier 2	11-33	$1.52	$1.90	$2.25	$2.50	$2.60
Tier 3	>33	$2.64	$3.20	$3.69	$4.05	$4.22

Multi-Residential Tiered Rates [1]	Allotment	FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020
Tier 1	10	$1.06	$1.40	$1.72	$1.93	$2.03
Tier 2	>10	$2.11	$2.53	$2.92	$3.18	$3.32

Non-Residential Rates [1]	FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020
Uniform Rate	$1.49	$1.87	$2.22	$2.47	$2.58

Total Monthly Fixed Cost by Meter Size [2]	FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020
5/8"	$9.55	$12.41	$14.89	$16.38	$16.88
3/4"	$10.80	$14.04	$16.84	$18.53	$19.09
1"	$13.30	$17.29	$20.74	$22.82	$23.51
1 1/2"	$19.55	$25.41	$30.49	$33.54	$34.56
2"	$27.05	$35.16	$42.19	$46.41	$47.82
3"	$50.80	$66.04	$79.24	$87.17	$89.81
4"	$85.80	$111.54	$133.84	$147.23	$151.69
6"	$169.55	$220.41	$264.49	$290.94	$299.76
8"	$307.05	$399.16	$478.99	$526.89	$542.86

1. Rate per CCF of water usage. CCF is hundred cubic feet (748.05 gallons).

2. Monthly charges per account/meter.

Flat Rate Water Charges	Units	FYE 2016	FYE 2017	FYE 2018	FYE 2019	FYE 2020
CAR DLR	WATER SERVICE/BLDG/1000	$7.11	$9.24	$11.09	$12.20	$12.57
CAR SERV	WATER SERVICE/BAYS	$4.75	$6.17	$7.40	$8.14	$8.39
DEPT/RET	WATER SERVICE/BLDG/1000	$7.11	$9.24	$11.09	$12.20	$12.57
GAMES	WATER SERVICE/BLDG/1000	$16.51	$21.46	$25.76	$28.33	$29.18
GRANNY	PRIMARY WITH SECONDARY UNIT	$37.97	$49.36	$59.24	$65.16	$67.12
GROC/MOR	WATER SERVICE/BLDG/1000	$7.11	$9.24	$11.09	$12.20	$12.57
HOSP RM	PER BED WATER USE	$5.93	$7.71	$9.25	$10.17	$10.48
HOSP/CON	WATER SERVICE/BEDS	$5.93	$7.71	$9.25	$10.17	$10.48
HOTEL/W	WATER SERVICE/ROOMS	$7.11	$9.24	$11.09	$12.20	$12.57
HOTEL/WO	WATER SERVICE/ROOMS	$5.93	$7.71	$9.25	$10.17	$10.48
LIB/CHUR	WATER SERVICE/SEAT	$0.26	$0.34	$0.41	$0.45	$0.46
LT MFG	WATER SERVICE/BLDG/1000	$3.81	$4.95	$5.94	$6.54	$6.73
MFR/MULT	MFR MULTI ACCT PER PARCEL	$16.03	$20.84	$25.01	$27.51	$28.33
MFR/SING	MFR SINGLE ACCT PER PARCEL	$16.89	$21.95	$26.34	$28.98	$29.85
OPN AIR	WATER SERVICE/SEAT	$0.16	$0.21	$0.25	$0.28	$0.28
PROF BLD	WATER SERVICE/BLDG/1000	$14.14	$18.39	$22.06	$24.27	$25.00
REST IN	WATER SERVICE/SEAT	$1.47	$1.91	$2.29	$2.52	$2.60
REST OUT	WATER SERVICE/BLDG/1000	$14.14	$18.39	$22.06	$24.27	$25.00
SCHOOLS	WATER SERVICE/STUDENTS	$1.13	$1.47	$1.76	$1.94	$2.00
SFR	MINIMUM WATER RATE	$26.46	$34.39	$41.27	$45.40	$46.76
STRP/MAL	WATER SERVICE/BLDG/1000	$11.78	$15.31	$18.37	$20.21	$20.82
WRHSE	WATER SERVICE/BLDG/1000	$1.00	$1.30	$1.56	$1.72	$1.77

Return to Agenda

REPORT TO CITY COUNCIL

Approved By:

Department Director

City Administrator

Council Meeting of April 5, 2017
Agenda Item Number E-1

SUBJECT: CONSIDERATION OF A MINUTE ORDER ACCEPTING A REPORT ON THE STATUS OF THE PROPOSED PROJECTS IN THE CAPITAL IMPROVEMENT PROGRAM FOR FY 2017/18 TO FY 2021/22 AND AUTHORIZING SUBMISSION OF THE CAPITAL IMPROVEMENT PROGRAM FOR FY 2017/18 TO FY 2021/22 TO THE PLANNING COMMISSION FOR DETERMINATION OF CONFORMITY TO THE CITY'S GENERAL PLAN

RECOMMENDATION:

1. Consider and accept the Status Report for the Capital Improvement Program for FY 2017/18 to FY 2021/22 and provide comments and direction.

2. Authorize the City Engineer to submit the Capital Improvement Program for FY 2017/18 to FY 2021/22 to the Planning Commission for determination of conformity with the General Plan

SUMMARY:

The Capital Improvement Program for FY 2017/18 to FY 2021/22, listing the proposed projects for funding of design and construction or in some cases purchase of right of way for the projects proposed to be included in the FY 2017/18 City Budget, and the status of proposed projects to be funded in the following four years through FY 2021/22. Annually, the Capital Improvement Program needs to be submitted to the Planning Commission for determination of conformity with the City General Plan pursuant to Government Code Section 65401.

DISCUSSION:

The Capital Improvement Program (CIP) is a planning document for capital improvement projects that covers a rolling five year period. Each year, the CIP is updated to remove completed projects, add new projects, and modify ongoing or pending projects. The CIP currently under review covers the period for FY 2017/18 to FY 2021/22. The proposed CIP is programmed with available funds in all categories, including those from local, state, and federal sources. The document represents the City's plan to complete public improvements with available dollars, but the list of projects and their descriptions, schedules, and funding sources are subject to change for a variety of reasons:

- City Council re-prioritizes projects
- Funding availability changes
- Delays are encountered in design, environmental, or land acquisition.

Funds are not actually appropriated for expenditure through the CIP; this occurs annually as part of the budget adoption process. Activities shown in FY 2017/18, if approved, will be included in the City's FY 2017/18 Budget.

A wide range of public improvement projects are included in the CIP. Examples include sewer and water lines, street improvements, airport facilities, and the new northwest fire station. Some projects are included in the CIP because they are identified in adopted master plans and technical studies, while others emerge through community input to City Council or staff before being vetted as to need and priority. The CIP generally focuses on those projects where funding is available within the 5 year window. (Some exceptions are made, such as when a funding source requires that the City show that funds are being dedicated to a future project.) Because there is a need for more capital improvements than can be funded, not all potential projects are included in the CIP.

CIP FUNDING SOURCES

- Airport Operations
- ATP Grant
- Bicycle Transportation Act Grant
- Bridge Preventive Maintenance Program
- Community Development Block Grant
- Chukchansi Community Benefit Grant
- Congestion Mitigation Air Quality (CMAQ)
- Development Impact Fees
- Dial-A-Ride Transit Program
- Drainage System Operations
- Fixed Route Transit System
- FTA Grant
- Highway Safety Improvement Program (HSIP)
- Intermodal Building Operations
- Local Transportation Fund (LTF)
- Low Carbon Transit Operations Program
- Measure "A"
- Measure "T"
- Measure "K"
- Prop 1B CalOES
- Prop 1B PTMISEA
- Park Development
- RDA Funds
- Regional Surface Transportation Program (RSTP)
- Safe Route to School –SR2S (State)
- Sewer System Utility
- SJVAPCD Grant – Remove II
- UPRR Match Funds
- Various Special Grants
- Water System Utility

In many cases, the limitations associated with individual funding sources have significant influence on which projects can be constructed and when. Most sources, whether they are federal grants or local development impact fees, can only be used for projects that meet certain criteria. It is possible that higher priority projects are pushed back or not included in the CIP because funding is not available, while lower priority projects are included because a limited scope funding source, such as a grant, is made available. Delivery schedules for projects tied to Federal and State funds that are allocated over 2 to 3 years for the various components of work are similarly affected.

Project Status Notes

Nearly 120 capital projects are outlined in the Draft CIP. Work on many of the projects is proposed to occur in FY 17/18, though activity on other projects will not commence until later in the five year window. The status of projects where work is ongoing or will begin in FY 17/18 is outlined on Page 4. Work on some previously identified projects will be delayed, as described below:

- Lake Street. Construction of the Lake Street widening project (R-000046) from north of 4th Street to Cleveland Avenue was re-scheduled to begin at a later time due to the additional study required to complete the Environmental Assessment and the extent to which that study is affecting Right of Way acquisition needs.

- Fresno River Trail. Two Fresno River Trail (FRT) projects identified in the prior CIP were proposed for design in FY 2016/17 and construction in FY 2017/18. These trail projects identified in the CIP as the FRT, MID to Schnoor Avenue - PK-57, and the FRT, Schnoor Bridge Undercrossing PK-54 were deleted by City Council on August 3rd, 2016 due to neighbor concerns. The remaining two projects PK-56 and PK-58 are now shown in FY 2019/20 for preliminary design.

  While two FRT projects remain in the CIP, staff will be conferring in greater detail with Council as to the preferred direction of those projects. The projects are funded with Congestion Mitigation & Air Quality (CMAQ) funds that are currently under increased need to be expended in the near term. As such, a determination of how the projects should proceed should occur as soon as possible with the intent of either proceeding with the trail projects or releasing the funds for reassignment by the Madera County Transportation Commission.

- Traffic Signals. In recent years, prioritization of traffic signals have gained greater importance even as available funding has not kept pace with the identified needs and the ever increasing costs of the signals themselves. The CIP currently illustrates this through the first three priorities that include: 1) Avenue 17/Sharon associated with the Loves Development Agreement, 2) Yosemite and Elm associated with the Successor Agency original off-site improvement commitment with Crossroads Shopping Center, 3) Granada and Howard. At present, Granada and Howard is in a funding shortfall that might delay installation of this signal to FY 2019/20 unless the City is successful in an application to receive CDBG funding. As of this writing, the CDBG Advisory

Committee has recommended that $250,000 be awarded to the Yosemite and Elm traffic signal. This award would allow for construction of this signal as early as the end of FY 2017/18. The CIP currently illustrates this assumption of early construction.

STATUS OF PROJECTS WITH PROPOSED EXPENDITURES IN 2017/18

Projects Scheduled For Construction In FY 16/17 or 2017/18

Apron Reconstruction Phase – II (AIP-0030)
Airport Runway & Taxiway Crack Seal (AIP-0033)
Airport Gate Security (AIP-0033)
Taxiway Drainage design and Environmental (AIP-0031)
CNG New Compressor (Completed) (CNG11-01)
UPRR Crossing – Street Approaches (R-000032)
Raymond Road Shoulders – N/O Cleveland Ave (R-000037)
ADA Walkability Sidewalks (R-000064)
Fourth Street Median Landscaping – K St to Lake ST (Completed) (R-000056)
Thomas Jefferson/John Adams Sidewalks (R-000051)
Gateway/Central/3rd/E St Sidewalks (R-000038)
Pavement Surface Seals and Overlays – Various Locations (R-000070)
Fresno River Trail, Gateway Dr. & UPRR Undercrossing (PK-00008)
Sidewalks – School & Commercial Areas (R-000062)
Sunset Ave Sidewalk – Granada to Foster (R-000066)
Traffic Signal @ Yosemite & Elm (TS-00009)
Lake-Fourth Central Intersection – Traffic Signal or Roundabout (R-000057)
Olive Ave. Widening – Gateway to Knox (R-000010)
Pine-Pecan Median Landscaping (R-000069)
Commercial Water Meter Installations – remaining batch (W-000023)
Sewer Main Replacement – Various Locations (SS-0001 & 2)

Projects Currently in the Design Phase Or On-Going

Gateway Bridge and other City Bridges – Repair/Rehab (B-000004)
Sharon Boulevard Plan, Ellis Street to Avenue 17 (CDD-0001)
ADA Walkability Sidewalks (R-000064)
Concrete Projects – Share Program (On-going) (R-000041)
UPRR Crossings – Various Streets (On-going) (R-000032)
Traffic Signal Warrants – Various Intersections (On-going) (ENG-000C)
Fourth/Lake/Central Intersection (R-000057)
Ped Facilities/School & Commercial Areas (R-000062)
Lake Street Widening, Fourth Street to Cleveland Avenue (R-000046)
Olive Avenue Widening, Gateway Drive to Knox Street (R-000010)
Raymond Road Shoulders, n/o Cleveland Avenue (R-000037)
Surface Seals and AC Overlays, 2016-17(R-000070)
Sunset Avenue Sidewalks (R-000066)
Gateway/Central/3rd/E St. Sidewalks (R-000038)
Olive Avenue E/O Tozer Street Conceptual Plan (R-000049)
Fresno River Trail, Gateway Avenue & UPRR Under crossings (PK-00008)
Sunrise Rotary Sports Complex Improvements (PK-00013)
Transit Security/Passenger Enhancements (TRANS-06)
Transit & Public Works Maintenance/Administration Facility (TRANS-01)
Sewer Main Replacement – Various Locations (SS-0001 & 2)

Projects Scheduled For Environmental, R/W Acquisition Or Prelim Design in FY 17/18

Cleveland Avenue Improvements, Schnoor to SR 99 (R-000054)
Schnoor Avenue Sidewalks (R-000058)
Granada Dr/Howard Rd Traffic Signal (TS-00017)
Westberry Blvd/Howard Rd Traffic Signal (TS-00019)
Water Well No. 27, Pipeline Outfall Extension (W-000017)
Commercial Water Meter Installations (W-000023

General Plan Conformity

Prior to the City Council's adoption of the annual Capital Improvement Program update, the California Government Code requires the City to make a determination that the CIP is in conformance with the General Plan. This determination is made by the Planning Commission.

A listing of the projects in the CIP for FY 2017/18 to FY 2021/22 titled "Capital Plan, 17/18 thru 21/22, PROJECTS BY DEPARTMENT", and the Project Detail report are attached hereto for reference. These reports will also be presented to the Planning Commission for a conformity determination.

FINANCIAL IMPACT:

Funding for all the projects in the CIP is provided by a variety of sources and does not rely on the General Fund. However, the available funding for street improvement projects is subject to revenue from the Regional Surface Transportation Exchange Funds (RSTP), Highway Users Tax Account (HUTA), Measure "T" Sales Tax and Local Transportation Fund (LTF).

CONSISTENCY WITH THE VISION MADERA 2025 PLAN

Action 126 – The projects support the strategy for providing clean attractive streets that are safe and aesthetically pleasing. The requested action is for the improvement of infrastructure and is not in conflict with any of the actions or goals contained in the plan.

City of Madera, California

Capital Plan

'17/'18 thru '21/'22

PROJECTS BY DEPARTMENT

Department	Project#	Priority	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Airport								
Tee Hangar Taxiway & Apron Const-I	*AIP-0028*	1		70,000	547,000			*617,000*
Tee Hangar Development Const-II	*AIP-0029*	1			68,750	637,000		*705,750*
Apron Reconstruction Phase II	*AIP-0030*	1	1,650,000					*1,650,000*
Apron & Taxiway Drainage	*AIP-0031*	1			1,050,000			*1,050,000*
Runway, Taxiway & Apron Crack Seal	*AIP-0033*	1	525,000					*525,000*
Commercial Hangar Develp Extend-III	*AIP-0034*	1		50,000	50,000	95,000	2,860,750	*3,055,750*
Extend Runway 12-30 & Taxiway P	*AIP-0035*	1				620,000		*620,000*
Airport Gate Security Update	*AIP-0036*	1	373,000					*373,000*
AGIS Survey & Obstruction Mitigation	*AIP-0037*	1		125,000				*125,000*
Apron & Taxiway Drainage Upgrade/T-Hangar Dev.	*AIP-0038*	1	64,800	55,200				*120,000*
Airport Total			**2,612,800**	**300,200**	**1,715,750**	**1,352,000**	**2,860,750**	***8,841,500***
Community Development								
City Hall Relocation & Expansion	*CD-00001*	1					0	*0*
Community Development Total							**0**	***0***
Engineering								
Torres Way Alley Paving	*ALY-0001*	1	15,000		185,000			*200,000*
Alley Paving-Various Locations	*ALY-0002*	1	801,000					*801,000*
Westberry Bridge Construction	*B-000002*	3				500,000	2,000,000	*2,500,000*
BPMP Rehab/Repair of 3 Bridges	*B-000004*	1	206,000					*206,000*
Traffic Warrants	*ENG-000C*	1	25,000	25,000	25,000	25,000	25,000	*125,000*
Micro-Paver Distress Survey	*ENG-000G*	1	32,000	5,000		5,000	60,000	*102,000*
Master Utility Plan Update, II	*MUP-UDII*	1					475,000	*475,000*
Olive Ave Widening-Gateway to Knox	*R-000010*	1	3,965,000	1,844,000				*5,809,000*
Contingency / Project Administration	*R-000031*	1	160,000	160,000	160,000	160,000	160,000	*800,000*
UPPR Crossing - Street Approach	*R-000032*	1	50,000	50,000	50,000	50,000	50,000	*250,000*
Raymond Rd Shoulder-n/o Cleveland	*R-000037*	1	302,000					*302,000*
Gateway/Central/3rd/E St Sidewalks	*R-000038*	1	321,000					*321,000*
Concrete Projects - Share Program	*R-000041*	1	75,000	20,000	20,000	20,000	20,000	*155,000*
Lake St Widening-Fourth to Cleveland	*R-000046*	1	1,045,000	880,000	2,612,000			*4,537,000*
Olive Ave Concept Plan	*R-000049*	1	12,000					*12,000*
Pine St Reconstr-Howard to Fourth St	*R-000050*	1			30,900	484,100		*515,000*
Thomas Jefferson/John Adams Sidwlk	*R-000051*	1	50,000					*50,000*
Cleveland Ave Widen-Schnoor to SR99	*R-000054*	1		60,500			0	*60,500*
Lake-Fourth-Central Intersection	*R-000057*	1	270,000	1,430,000				*1,700,000*
Schnoor Ave Sidewalk-Sunset to River	*R-000058*	1			22,000	128,000		*150,000*
Storey Rd Shoulder Paving	*R-000060*	1	31,000			275,000		*306,000*
Sidewalks-School & Commercial	*R-000062*	1	262,000					*262,000*
ADA Walkability Sidewalks 16-17	*R-000064*	1	228,000	58,000	84,000	73,000	147,000	*590,000*
Surface Seals-AC Overlays 16-17	*R-000065*	1	50,000					*50,000*
Sunset Ave Sidewalk,Granada-Foster	*R-000066*	1	345,100					*345,100*
Pecan Ave Shoulder Paving	*R-000067*	1	66,000			599,000		*665,000*
Golden State Blvd Shoulder Paving	*R-000068*	1	12,000	113,000				*125,000*

Department	Project#	Priority	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Pine-Pecan Median Landscape	*R-000069*	1	53,000					*53,000*
Surface Seals-AC Overlays 18-19	*R-000070*	1	30,000	570,000				*600,000*
Surface Seals-AC Overlays 20-21	*R-000071*	1			30,000	570,000		*600,000*
Ave 17/Sharon Blvd Improvements	*R-000072*	1	5,105,910					*5,105,910*
Fourth St Tree Replacemt-Pine to K	*R-0025EX*	1	125,000					*125,000*
Rtne Maint City Bridges Fresno RVR	*RM-00001*	1	45,000	5,000				*50,000*
Schnoor Ave Trunk Sewer Rehab	*S-000012*	1	535,000					*535,000*
NW Quad Storm Drain Improvement	*SD-00014*	4					7,400,000	*7,400,000*
SE Quad Storm Drain Improvements	*SD-00015*	4					17,500,000	*17,500,000*
Retention Basin Land Acquisition	*SD-13-PX*	1	50,000	40,000	40,000	10,000		*140,000*
Granada Dr/Ave 12.5 Retention Basin	*SD-14-P11*	1		100,000				*100,000*
Ellis St/Krohn St Retention Basin	*SD-15-P7*	1		100,000				*100,000*
Sienna Basin	*SD-P18*	1	240,000					*240,000*
Wessmith Way Sewer Main Replace	*SS-00001*	2	39,000					*39,000*
Sherwood Way Sewer Main Replace	*SS-00002*	2	574,000					*574,000*
Fairgrounds Liftstation-VFD	*SS-00006*	n/a	425,000					*425,000*
Sewer System Assess/Rehab	*S-STDY-1*	1	123,825					*123,825*
Sewer Main Video Inspection	*S-VI-002*	1	740,930					*740,930*
Yosemite Ave/Elm St Traffic Signal	*TS-00009*	1	200,000					*200,000*
Granada Dr/Howard Rd Traffic Signal	*TS-00017*	1	30,000	305,000				*335,000*
Howard Rd/Westberry Traffic Signal	*TS-00019*	3	364,500					*364,500*
Sunrise Ave/Tozer St Traffic Signal	*TS-00020*	1			35,000	350,000		*385,000*
Howard/Shannon Pedestrian X-Walk	*TS-00021*	1	6,000					*6,000*
4th St Traffic Signal Interconnect	*TS-00022*	1	24,000					*24,000*
HOPYQ Intersection Traffic Signals	*TS-00023*	1	15,000	120,000				*135,000*
Cleveland/Granada Dr Traffic Signal	*TS-00024*	1				375,000		*375,000*
Parkwood-Parksdale Utility Study	*U-000001*	1	50,000					*50,000*
Water Main Upgrades - Locations 1-12	*W-000003*	1	100,000		750,000			*850,000*
Water Main Upgrades - Locations 13-23	*W-000004*	1	120,000			1,380,000		*1,500,000*
H St-Water Main Upgrades	*W-000006*	1		10,000	255,000			*265,000*
10th St-Water Main Upgrades	*W-000008*	1		10,000	770,000			*780,000*
Gateway-Riverside River Crossing	*W-000009*	1	175,000					*175,000*
Well 27 Pipe Outfall Extension	*W-000017*	1	45,000	530,000				*575,000*
Well 28 Pump Replacement	*W-000020*	1	500,000					*500,000*
Water Tower Recoating	*W-000022*	1	1,490,000					*1,490,000*
Commercial Water Meters	*W-000023*	1	800,000					*800,000*
Water Tower Demolition	*W-000026*	1	285,000					*285,000*
Sycamore St. Water Main-Lake to Clinton	*W-000028*	1	62,000					*62,000*
Downtown Valve Replacement	*W-000029*	1	130,000					*130,000*
Maple St Water Main,Pine to Noble	*W-FF-001*	3	134,000					*134,000*
Rotan Ave Water Main,Howard-Oak	*W-FF-002*	3	68,000					*68,000*
Olive Ave Water Main, Grove-Cypress	*W-FF-004*	3	115,000					*115,000*
Water Well 37-Install Pump	*W-GW-001*	3				1,012,000		*1,012,000*
Water Well 35-Ellis w/o Chapin	*W-GW-002*	4					2,011,000	*2,011,000*
Sharon Blvd. S/O Ave 17 - Well	*W-GW-0024*	1	2,000,000					*2,000,000*
Water Well 36- SR145/Indigo	*W-GW-003*	4				121,000	1,890,000	*2,011,000*
VFD Retrofit 4 Wells	*W-GW-005*	1	120,000					*120,000*
Water Well Pump Bowls Replace	*W-GW-006*	1	50,000					*50,000*
Meter Shop	*W-MS-001*	1	300,000					*300,000*
Lake St Water Main-Ellis to Ave 17	*W-PNE-04*	2	60,000	25,000	615,000			*700,000*
Aviation Dr/Falcon Dr Water Main	*W-PNW-30*	3	48,000					*48,000*
Ave 17 & Lake Pump Station/Tank	*W-PS-001*	2	339,000	103,000	377,000	5,893,000		*6,712,000*
Pecan Ave Water Main, Madera-750'E	*W-PSE-03*	3	113,000					*113,000*
Almond Ave Water Main, Pine-Stadium	*W-PSW-45*	3				88,000	188,000	*276,000*
Pecan Water Main, Monterey-680'W	*W-PSW-50*	3	90,000					*90,000*
Water Feasibility & New Water Supply	*W-STDY-1*	1	150,000	150,000	150,000	150,000	150,000	*750,000*
Water System Condition Assess/Rehab	*W-STDY-2*	1	250,000					*250,000*

Department	Project#	Priority	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Asset Management Software	*W-STDY-3*	1	150,000					*150,000*
Water Storage Tank Installation	*W-T-0001*	2	505,000	448,000		9,000,000		*9,953,000*
Engineering Total			**25,298,265**	**7,161,500**	**6,210,900**	**21,268,100**	**32,076,000**	***92,014,765***
Fire Department								
Fire Station 7 - Parking Lot Paving	*FD-00001*	1	67,000					*67,000*
Fire Station Constr, Northwest	*FD-00002*	1	2,250,000	6,450,000				*8,700,000*
Fire Station 6 Parking Lot	*FD-00003*	1	70,000					*70,000*
Fire Department Total			**2,387,000**	**6,450,000**				***8,837,000***
Parks & Community Services								
Ped/Bike Facilities	*PK-00001*	1	83,000	34,000	35,000	36,000	37,000	*225,000*
FRT-Gateway/UPRR Undercrossing	*PK-00008*	1	1,002,000					*1,002,000*
Sunrise Rotary Sports Complex	*PK-00013*	1	469,218					*469,218*
Tulare/Cleveland/Raymond Bike Path	*PK-00048*	1	10,000	315,000				*325,000*
Bike/Ped Path, FRT-Cleveland Ave	*PK-00056*	1			45,000	339,000		*384,000*
FRT-Granada to MID, North Bank	*PK-00058*	1			40,000	156,000		*196,000*
ADA Improvements at Pan-Am and Bergon	*PK-00062*	1	65,000					*65,000*
Centennial Park Rehab - Lighting	*PK-00063*	1	379,000					*379,000*
Parks & Community Services Total			**2,008,218**	**349,000**	**120,000**	**531,000**	**37,000**	***3,045,218***
Public Works								
Sewer Manhole Covers-Replacement	*S-000011*	1	75,000					*75,000*
4th/Gateway Valve Replacement	*W-000030*	1			30,000	220,000		*250,000*
Public Works Total			**75,000**		**30,000**	**220,000**		***325,000***
RDA Successor Agency								
SW Industrial Master Plan	*RDA-16-04*	1	70,000					*70,000*
Adelaide Subdivision	*RDA-16-05*	1	1,290,755					*1,290,755*
Malone	*RDA-17-01*	1	222,782					*222,782*
Yosemite Lot Plan Review	*RDA-17-02*	1	220,650					*220,650*
Mid Town Subdivision	*RDA-17-03*	1	1,249,313					*1,249,313*
RDA Successor Agency Total			**3,053,500**					***3,053,500***
Transit Program								
Transit Operations Facility	*Trans-01*	1	3,927,000					*3,927,000*
Transit Security/Passenger Enhancmt	*Trans-06*	1	418,000					*418,000*
Transit Security/Passenger Enhanc-B	*Trans-07*	1	35,000	134,000				*169,000*
Transit Security/Passenger Enhanc-C	*Trans-08*	1			12,000	150,000		*162,000*
Transit Program Total			**4,380,000**	**134,000**	**12,000**	**150,000**		***4,676,000***
GRAND TOTAL			**39,814,783**	**14,394,700**	**8,088,650**	**23,521,100**	**34,973,750**	***120,792,983***

PROJECT DETAILS

Airport

AGIS Survey & Obstruction Mitigation — Project Number: AIP-0037

Project Cost: $125,000

Category: Airport **Phase:**

Description: Conduct an AGIS Survey and Obstruction Mitigation Plan.

Justification: FAA has identified potential obstructions located near the airport and has requested an AGIS Survey and obstruction mitigation plan be completed in order to determine the validity of the obstructions and potential mitigation.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering		125,000				125,000
Total		125,000				125,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Airport Fund Balance: 20500-355		6,250				6,250
Caltrans Aeronautic Grant: 20500-355		6,250				6,250
FAA Grant: 20500-355 Airport Operations Funds		112,500				112,500
Total		125,000				125,000

PROJECT DETAILS

Airport Gate Security Update — **Project Number: AIP-0036**

Project Cost: $373,000

Category: Airport

Phase:

Description: Construct 5 electrically operated gates and three 12-foot swing gates. Install card operated and electrically operated gates at four existing gates.

Justification: Security system needs an update.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	34,000					34,000
Construction	271,200					271,200
Construction Management/Inspection	67,800					67,800
Total	373,000					373,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Airport Fund Balance: 20500-355	37,300					37,300
FAA Grant: 20500-355 Airport Operations Funds	335,700					335,700
Total	373,000					373,000

PROJECT DETAILS

Airport

Apron & Taxiway Drainage — Project Number: AIP-0031

Project Cost: $1,050,000

Category: Airport **Phase:**

Description: Engineering Design and construction for apron and taxiway drainage.

Justification: Drainage between the apron and taxiway is insufficient and needs to be upgraded.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering			200,000			200,000
Construction			568,000			568,000
Construction Management/Inspection			142,000			142,000
Obstruction Removal			140,000			140,000
Total			1,050,000			1,050,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Airport Fund Balance: 20500-355			105,000			105,000
FAA Grant: 20500-355 Airport Operations Funds			945,000			945,000
Total			1,050,000			1,050,000

PROJECT DETAILS

Apron & Taxiway Drainage Upgrade/T-Hangar Dev. **Project Number: AIP-0038**

Project Cost: $120,000

Category: Airport **Phase:**

Description: Environmental assessment of apron and taxiway drainage upgrade.

Justification: Drainage betweent he apron and taxiway is insufficient and needs to be upgraded.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	9,600					9,600
Env. Assessment	55,200	55,200				110,400
Total	64,800	55,200				120,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Airport Fund Balance: 20500-355	12,000					12,000
FAA Grant: 20500-355 Airport Operations Funds	108,000					108,000
Total	120,000					120,000

PROJECT DETAILS

Apron Reconstruction Phase II **Project Number: AIP-0030**

Project Cost: $1,650,000

Category: Airport **Phase:** CONSTRUCTION

Description: Reconstruction of deteriorated pavement.

Justification: Reconstruction of deteriorated pavement per pavement management program.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	300,000					300,000
Construction	1,350,000					1,350,000
Total	1,650,000					1,650,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Airport Fund Balance: 20500-355	75,000					75,000
Caltrans Aeronautic Grant: 20500-355	75,000					75,000
FAA Grant: 20500-355 Airport Operations Funds	1,500,000					1,500,000
Total	1,650,000					1,650,000

PROJECT DETAILS

Airport

Commercial Hangar Develp Extend-III — Project Number: AIP-0034

Project Cost: $3,055,750

Category: Airport **Phase:**

Description: Construct pavement and infrastructure appurtances to support future commercial hangars (201,000 sq.ft.)

Justification: Construction of additional taxiway and apron to facilitate the development of additional commercial hangars to accommodate additional aircraft and Fixed Based Operators at the airport.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering			50,000	95,000		145,000
Construction					2,288,600	2,288,600
Construction Management/Inspection					572,150	572,150
Env. Assessment		50,000				50,000
Total		**50,000**	**50,000**	**95,000**	**2,860,750**	**3,055,750**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Airport Fund Balance: 20500-355		6,000	299,575			305,575
FAA Grant: 20500-355 Airport Operations Funds		44,000	2,706,175			2,750,175
Total		**50,000**	**3,005,750**			**3,055,750**

PROJECT DETAILS

Airport

Extend Runway 12-30 & Taxiway P — Project Number: AIP-0035

Project Cost: $620,000

Category: Airport **Phase:**

Description: Rehabilitate existing Runway 12-30 pavement, extend the runway and taxiway P.

Justification: Extending the runway will allow the Airport to support larger aircraft and allow the airport to grow.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering				620,000		620,000
Total				**620,000**		**620,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Airport Fund Balance: 20500-355				31,000		31,000
Caltrans Aeronautic Grant: 20500-355				31,000		31,000
FAA Grant: 20500-355 Airport Operations Funds				558,000		558,000
Total				**620,000**		**620,000**

PROJECT DETAILS

Airport

Runway, Taxiway & Apron Crack Seal — Project Number: AIP-0033

Project Cost: $525,000

Category: Airport **Phase:**

Description: Sealing of numerous cracks on the apron, taxiways and runway, 79,000 LF and reseal joints, 5,800 LF.

Justification: The asphaltic concrete (AC) pavements on the runway, taxiways and aprons are old and have significant transverse and longitudinal cracks, some alligator cracking and some block and map cracking.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	100,000					100,000
Construction	425,000					425,000
Total	525,000					525,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Airport Fund Balance: 20500-355	28,875					28,875
Caltrans Aeronautic Grant: 20500-355	23,625					23,625
FAA Grant: 20500-355 Airport Operations Funds	472,500					472,500
Total	525,000					525,000

PROJECT DETAILS

Airport

Tee Hangar Development Const-II — Project Number: AIP-0029

Project Cost: $705,750

Category: Airport **Phase:**

Description: Construct pavement and infrastructure appurtances to support new Tee hangars.
Collector Taxiway (35' x 845')
Tee Hangar Taxiway (25' x 800')

Justification: Construction of additional taxiway and apron to facilitate the development of additional Tee hangars to accommodate additional aircraft at the airport.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering			68,750			68,750
Construction				539,000		539,000
Construction Management/Inspection				98,000		98,000
Total			**68,750**	**637,000**		**705,750**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Airport Fund Balance: 20500-355			3,438	31,850		35,288
Caltrans Aeronautic Grant: 20500-355			3,437	31,850		35,287
FAA Grant: 20500-355 Airport Operations Funds			61,875	573,300		635,175
Total			**68,750**	**637,000**		**705,750**

PROJECT DETAILS

Airport

Tee Hangar Taxiway & Apron Const-I — Project Number: AIP-0028

Project Cost: $617,000

Category: Airport **Phase:** DESIGN

Description: Construct pavement and infrastructure appurtances to support new Tee hangars.
Collector Taxiway (35' x 355')
Tee Hangar Taxiway (25' x 1,015')

Justification: Construction of additional taxiway and apron to facilitate the development of additional Tee hangars to accommodate additional aircraft at the airport.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering		70,000				70,000
Construction			461,000			461,000
Construction Management/Inspection			86,000			86,000
Total		**70,000**	**547,000**			**617,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Airport Fund Balance: 20500-355		3,500	27,350			30,850
Caltrans Aeronautic Grant: 20500-355		3,500	27,350			30,850
FAA Grant: 20500-355 Airport Operations Funds		63,000	492,300			555,300
Total		**70,000**	**547,000**			**617,000**

PROJECT DETAILS

Community Development

City Hall Relocation & Expansion — Project Number: CD-00001

Project Cost: $19,863,000

Category: Buildings **Phase:**

Description: Relocation and expansion of City Hall to accommodate medium-to long term projected growth.

5.4 Acres of Land for Buildings and Parking
53,000 Square Feet of Building Area
Fixtures, Furniture & Equipment

The relocation and expansion of City Hall will occur in conjunction with community growth as demands for service exceed the capacity of existing facilities.

Justification: Additional City Hall space is required to accommodate medium to long-term projected growth.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total	Future
Other					0	0	19,863,000
Land Acquisition/Right of Way					0	0	Total
Construction					0	0	
Construction Management/Inspection					0	0	
Total					0	0	

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total	Future
DIF:4092 General Government Impact Fee					0	0	19,863,000
UNDETERMINED					0	0	Total
Total					0	0	

PROJECT DETAILS

Engineering

Alley Paving-Various Locations — **Project Number:** ALY-0002

Project Cost: $801,000

Category: Alleys **Phase:** DESIGN

Description: Pave unpaved alleys. Priority placed on higher traffic alleys. There is a list developed by Public Works identifying unpaved alleys and suggestions for first 15 alleys.

Justification: Air District Rag VIII requires local agencies to stabilize unpaved roads with ADT's greater than 26 to prevent PM-10 fugitive dust emissions.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	50,000					50,000
Construction	676,000					676,000
Construction Management/Inspection	75,000					75,000
Total	801,000					801,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
CMAQ - Streets: 41700-306	720,000					720,000
Measure T - Enviromental Enhancement: 41570	81,000					81,000
Total	801,000					801,000

PROJECT DETAILS

Engineering

Torres Way Alley Paving — Project Number: ALY-0001

Project Cost: $200,000

Category: Alleys **Phase:** DESIGN

Description: Construct AC pavement along Torres Way and at various locations.

Justification: Mitigation measures to reduce PM-10.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	14,000					14,000
Construction			150,000			150,000
Environmental	1,000					1,000
Construction Management/Inspection			35,000			35,000
Total	**15,000**		**185,000**			**200,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
CMAQ - Streets: 41700-306			165,000			165,000
Measure T - Enviromental Enhancement: 41570	15,000		20,000			35,000
Total	**15,000**		**185,000**			**200,000**

PROJECT DETAILS

Engineering

BPMP Rehab/Repair of 3 Bridges — Project Number: B-000004

Project Cost: $216,000

Category: Bridges **Phase:** DESIGN

Description: Rehabilitation on Fresno River bridges at Cleveland Avenue, Gateway Drive and Clark Street.

Justification: Deficiency on City bridges based from the bridge inspection report performed by Caltrans need to be scheduled for repair. The City prepares a list of deficient bridges and submits it to Caltrans for funding the repair work.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	Design/Engineering	30,000					30,000
Total	Construction	114,000					114,000
	Environmental	25,000					25,000
	Construction Management/Inspection	37,000					37,000
	Total	206,000					206,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	BPMP: 41700-473	146,000					146,000
Total	LTF - Streets: 42000-333	60,000					60,000
	Total	206,000					206,000

PROJECT DETAILS

Engineering

Westberry Bridge Construction — **Project Number: B-000002**

Project Cost: $7,500,000

Category: Bridges

Phase: FUTURE

Description: Construct Westberry Bridge over the Fresno River

Justification: Efficient circulation and maintenance of acceptable levels of service at various local intersections dictate the need for this bride with the next 5 to 10 years

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total	Future
Planning/Design				500,000	2,000,000	2,500,000	5,000,000
Total				500,000	2,000,000	2,500,000	Total

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total	Future
DIF:4093 Transportation Impact Fee				500,000	2,000,000	2,500,000	5,000,000
Total				500,000	2,000,000	2,500,000	Total

PROJECT DETAILS

Engineering

Micro-Paver Distress Survey — Project Number: ENG-000G

Project Cost: $162,000

Category: Street 3R **Phase:** DESIGN

Description: Professional consultant services to perform the pavement distress analysis of City streets.

Justification: Develop a comprehensive database of information related to the pavement condition of City streets.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
60,000	Design/Engineering	32,000	5,000		5,000	60,000	102,000
Total	**Total**	**32,000**	**5,000**		**5,000**	**60,000**	**102,000**

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
60,000	LTF - Streets: 42000-333	32,000	5,000		5,000	60,000	102,000
Total	**Total**	**32,000**	**5,000**		**5,000**	**60,000**	**102,000**

PROJECT DETAILS

Engineering

Traffic Warrants — **Project Number: ENG-000C**

Project Cost: $230,000

Category: Administrative **Phase:** DESIGN

Description: Traffic Signal and Intersection Studies. This item is not typically seen as a project. It is set up as a project so that it will show up on the sources and uses of funds report.

Justification: Required to justify funding and installation of traffic signals and various traffic/pedestrian safety projects.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
105,000	Design/Engineering	25,000	25,000	25,000	25,000	25,000	125,000
Total	Total	25,000	25,000	25,000	25,000	25,000	125,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
105,000	LTF - Streets: 42000-333	25,000	25,000	25,000	25,000	25,000	125,000
Total	Total	25,000	25,000	25,000	25,000	25,000	125,000

PROJECT DETAILS

Engineering

Master Utility Plan Update, II — Project Number: MUP-UDII

Project Cost: $475,000

Category: Administrative **Phase:** DESIGN

Description: Sanitary Sewer, Water and Storm Drain Master Plan Updates

Justification: Master utility plans should typically be updated every 5 years at a minimum to account for changes in assumed development patterns from previous updates.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Planning/Design					475,000	475,000
Total					**475,000**	**475,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Sewer Utility Fund: 20400-511					475,000	475,000
Total					**475,000**	**475,000**

PROJECT DETAILS

Engineering

ADA Walkability Sidewalks 16-17 — Project Number: R-000064

Project Cost: $590,000

Category: Street Reconstruction

Phase: DESIGN/CONSTRUCTION

Description: Project adds missing wheel chair ramps City-wide and miscellaneous pedestrian facilities.

Justification: Construction of ADA facilities enhances mobility and access within City and shows good faith effort toward that goal.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	10,000	6,000	6,000	6,000	6,000	34,000
Construction	198,000	47,000	73,000	62,000	136,000	516,000
Construction Management/Inspection	20,000	5,000	5,000	5,000	5,000	40,000
Total	**228,000**	**58,000**	**84,000**	**73,000**	**147,000**	**590,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
LTF - Streets: 42000-333	150,000	40,000	40,000	40,000	40,000	310,000
Measure T - Enviromental Enhancement: 41570	13,000		26,000	15,000	89,000	143,000
Measure T - LTP ADA: 41540	65,000	18,000	18,000	18,000	18,000	137,000
Total	**228,000**	**58,000**	**84,000**	**73,000**	**147,000**	**590,000**

PROJECT DETAILS

Engineering

Ave 17/Sharon Blvd Improvements — Project Number: R-000072

Project Cost: $5,105,910

Category: Unassigned **Phase:**

Description: Infrastructure project to include construction and installation of streets, water, sanitary sewer and storm drainage system by private developer in conjunction with an approved Development Agreement (DA). When complete and accepted, the developer will receive reimbursements as specified in the agreement.

Justification: To support logical expansion of City transportation and utility infrastructure.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Developer Reimbursement	5,105,910					5,105,910
Total	5,105,910					5,105,910

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
131034	131,000					131,000
DIF:4080 Water Development Impact Fee	31,000					31,000
DIF:4081 Water Pipes Impact Fee	42,700					42,700
DIF:4093 Transportation Impact Fee	1,090,000					1,090,000
DIF:4096 Arterial/Collector St. Impact Fee	580,000					580,000
DIF:4097 Traffic Signal Impact Fee	403,000					403,000
DIF:4106 Storm Drain NE Quadrant Impact Fee	68,210					68,210
LTF - Streets: 42000-333	1,640,000					1,640,000
Measure A City: 41500-347	1,120,000					1,120,000
Total	5,105,910					5,105,910

PROJECT DETAILS

Engineering

Cleveland Ave Widen-Schnoor to SR99 — Project Number: R-000054

Project Cost: $4,060,500

Category: Street Reconstruction **Phase:** DESIGN

Description: Reconstruct and widen from 4 lanes to 6 lanes.

Justification: Requires 6 travel lanes to reduce traffic congestion. This project is included as a Tier 1 improvement in the Measure T program.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total	Future
Design/Engineering		60,500				60,500	4,000,000
Construction					0	0	Total
Construction Management/Inspection					0	0	
Total		**60,500**			**0**	**60,500**	

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total	Future
Measure T - Flex: 41580		60,500				60,500	4,000,000
Total		**60,500**				**60,500**	Total

PROJECT DETAILS

Engineering

Concrete Projects - Share Program **Project Number: R-000041**

Project Cost: $175,000

Category: Street Reconstruction **Phase:** CONSTRUCTION

Description: Construct ADA curb returns and sidewalks Citywide. 50/50 City/property owner shared cost as requested by the property owner.

Justification: Improve pedestrian and wheelchair accessibility

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
20,000	Construction	75,000	20,000	20,000	20,000	20,000	155,000
Total	**Total**	**75,000**	**20,000**	**20,000**	**20,000**	**20,000**	**155,000**

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
20,000	LTF - Streets: 42000-333	75,000	20,000	20,000	20,000	20,000	155,000
Total	**Total**	**75,000**	**20,000**	**20,000**	**20,000**	**20,000**	**155,000**

PROJECT DETAILS

Engineering

Contingency / Project Administration — Project Number: R-000031

Project Cost: $1,575,000

Category: Street Construction/Admin **Phase:** CONSTRUCTION

Description: Miscellaneous Capital Improvement Projects and Transportation Programs Administration.

Justification: Ongoing annual Local, State & Federal Programs.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
775,000	Engineering/Administration	160,000	160,000	160,000	160,000	160,000	800,000
Total	**Total**	**160,000**	**160,000**	**160,000**	**160,000**	**160,000**	**800,000**

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
775,000	LTF - Streets: 42000-333	160,000	160,000	160,000	160,000	160,000	800,000
Total	**Total**	**160,000**	**160,000**	**160,000**	**160,000**	**160,000**	**800,000**

PROJECT DETAILS

Engineering

Fourth St Tree Replacemt-Pine to K — Project Number: R-0025EX

Project Cost: $125,000

Category: Street 3R **Phase:** CONSTRUCTION

Description: Tree planting for Park Street areas as part of project R-25, Fourth St. Reconstruction - Pine to K.

Justification: Environmental enhancement to replace trees removed in project R-25, Fourth St. Reconstruction - Pine to K.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Construction	125,000					125,000
Total	**125,000**					**125,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Measure T - RTP/3R: 41510	125,000					125,000
Total	**125,000**					**125,000**

PROJECT DETAILS

Engineering

Gateway/Central/3rd/E St Sidewalks — Project Number: R-000038

Project Cost: $349,000

Category: Street Reconstruction

Phase: DESIGN/CONSTRUCTION

Description: Sidewalks on Central Avenue, Gateway to Lake Street: E Street, Central Avenue to 3rd Street: 3rd Street, E Street to Central Avenue.

Justification: Sidewalks don't exist in many locations along this residential neighborhood that are needed for access to the Rotary Park.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
28,000	Design/Engineering	9,000					9,000
	Land Acquisition/Right of Way	21,000					21,000
	Construction	255,000					255,000
	Utility Relocation	6,000					6,000
	Construction Management/Inspection	30,000					30,000
Total	Total	321,000					321,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
28,000	CMAQ - Streets: 41700-306	263,000					263,000
	LTF - Streets: 42000-333	58,000					58,000
Total	Total	321,000					321,000

PROJECT DETAILS

Engineering

Golden State Blvd Shoulder Paving — **Project Number: R-000068**

Project Cost: $125,000

Category: Street Construction **Phase:**

Description: CMAQ Project to pave shoulders along Golden State Blvd. between Pecan Avenue and the Madera Community Hospital emergency entrance.

Justification: Air District Reg VIII requires local agencies to stabilize unpaved road shoulders to prevent PM-10 fugitive dust emissions.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	12,000					12,000
Construction		101,000				101,000
Construction Management/Inspection		12,000				12,000
Total	**12,000**	**113,000**				**125,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
CMAQ - Streets: 41700-306	10,000	100,000				110,000
LTF - Streets: 42000-333	2,000	13,000				15,000
Total	**12,000**	**113,000**				**125,000**

CITY OF MADERA

PROJECT DETAILS

Engineering

Lake St Widening-Fourth to Cleveland — **Project Number: R-000046**

Project Cost: $4,660,000

Category: Street Reconstruction **Phase:** DESIGN

Description: Widen Lake Street to 4 lanes with median for Arterial Street Standards.

Justification: Providing 4 travel lanes will be needed to handle traffic volume. Complies with City approved traffic circulation element.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
123,000	Design/Engineering	110,000					110,000
Total	Land Acquisition/Right of Way	650,000	350,000				1,000,000
	Construction			2,362,000			2,362,000
	Environmental	5,000					5,000
	Construction Management/Inspection	280,000		250,000			530,000
	Utility Undergrounding		530,000				530,000
	Total	**1,045,000**	**880,000**	**2,612,000**			**4,537,000**

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
123,000	LTF - Streets: 42000-333		600,000	500,000			1,100,000
Total	Measure T - RTP/3R: 41510	1,782,000	720,000	265,000			2,767,000
	RSTP Federal Exchange: 41310-332		370,000	300,000			670,000
	Total	**1,782,000**	**1,690,000**	**1,065,000**			**4,537,000**

PROJECT DETAILS

Engineering

Lake-Fourth-Central Intersection **Project Number: R-000057**

Project Cost: $1,798,000

Category: Street Construction **Phase:** DESIGN

Description: Evaluate intersection for either Traffic signal or round-about. Install selected method of traffic control.

Justification: Relieve traffic congestion and reduce delay

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
98,000	Land Acquisition	50,000					50,000
Total	Design/Engineering	220,000					220,000
	Construction		1,300,000				1,300,000
	Construction Management/Inspection		130,000				130,000
	Total	270,000	1,430,000				1,700,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
98,000	CMAQ - Streets: 41700-306	460,000					460,000
Total	LTF - Streets: 42000-333	10,000	60,000				70,000
	RSTP Federal Exchange: 41310-332	750,000	420,000				1,170,000
	Total	1,220,000	480,000				1,700,000

PROJECT DETAILS

Engineering

Olive Ave Concept Plan — **Project Number:** R-000049

Project Cost: $24,000

Category: Street Planline **Phase:** DESIGN

Description: Prepare concept plan for street alignment and right-of-way on Olive Avenue between Tozer and 1,300' east of Tozer..

Justification:

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
12,000	Design/Engineering	12,000					12,000
Total	Total	12,000					12,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
12,000	DIF:4096 Arterial/Collector St. Impact Fee	12,000					12,000
Total	Total	12,000					12,000

PROJECT DETAILS

Engineering

Olive Ave Widening-Gateway to Knox — Project Number: R-000010

Project Cost: $6,134,000

Category: Street Reconstruction **Phase:** DESIGN

Description: Widen street to 4 lanes for Arterial Street Standards, acquire right-of-way and construct sidewalks. Widen UPRR crossing at SW corner of Olive Avenue and Knox Street

Justification: Project reduces traffic delays at Gateway / Olive Intersection by providing 4 travel lanes. Complies with City approved traffic circulation element. Provide pedestrian access and safety by constructing a missing of a concrete sidewalk.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
325,000	Land Acquisition	1,300,000					1,300,000
Total	Design/Engineering	180,000					180,000
	Construction	1,000,000	1,709,000				2,709,000
	Environmental	10,000					10,000
	Construction Management/Inspection	100,000	135,000				235,000
	UPRR	780,000					780,000
	Utility Conversion	595,000					595,000
	Total	**3,965,000**	**1,844,000**				**5,809,000**

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
1,435,000	Measure T - RTP/3R: 41510	3,600,000					3,600,000
Total	RSTP Federal Exchange: 41310-332	1,099,000					1,099,000
	Total	**4,699,000**					**4,699,000**

PROJECT DETAILS

Engineering

Pecan Ave Shoulder Paving — **Project Number: R-000067**

Project Cost: $665,000

Category: Street Construction **Phase:** DESIGN

Description: CMAQ project to pave 4' to 8' wide shoulders between Pine Street and Golden State Blvd. where missing. (Does not include segment along north side between Stadium Road and Monterey Street because of utility conflicts).

Justification: Air District Reg VIII requires local agencies to stabilize unpaved road shoulders to prevent PM-10 fugitive dust emissions. Added safety benefit of paved shoulders on roadway serving high school and commercial/industrial areas.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	61,000					61,000
Construction				470,000		470,000
Right of Way Costs				80,000		80,000
Environmental	5,000					5,000
Construction Management/Inspection				49,000		49,000
Total	**66,000**			**599,000**		**665,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
CMAQ - Streets: 41700-306	58,000			529,000		587,000
LTF - Streets: 42000-333	8,000			70,000		78,000
Total	**66,000**			**599,000**		**665,000**

PROJECT DETAILS

Engineering

Pine St Reconstr-Howard to Fourth St — Project Number: R-000050

Project Cost: $515,000

Category: Street Reconstruction **Phase:** DESIGN

Description: Reconstruction asphalt paving on Pine street from Howard to Fourth Street and widen road way. Install missing street lights.

Justification: Project identified in Public Works Pavement Management Plan as asphalt requiring replacement and improves traffic flow.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering			20,600			20,600
Land Acquisition/Right of Way			10,300			10,300
Construction				442,900		442,900
Construction Management/Inspection				41,200		41,200
Total			**30,900**	**484,100**		**515,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Measure T - RTP/3R: 41510			515,000			515,000
Total			**515,000**			**515,000**

PROJECT DETAILS

Engineering

Pine-Pecan Median Landscape — Project Number: R-000069

Project Cost: $378,000

Category: Street Reconstruction **Phase:**

Description: Install irrigation system and landscape plants to newly constructed median.

Justification: Required as part of the new median construction.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
325,000	Construction	48,000					48,000
Total	Construction Management/Inspection	5,000					5,000
	Total	53,000					53,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
325,000	DIF:4095 Median Island Impact Fee	53,000					53,000
Total	Total	53,000					53,000

PROJECT DETAILS

Engineering

Raymond Rd Shoulder-n/o Cleveland — **Project Number: R-000037**

Project Cost: $305,000

Category: Street Construction **Phase:** DESIGN

Description: Construct paved shoulders with curb and gutter on Raymond Road north of Cleveland Avenue.

Justification: Improve traffic and pedestrian circulation and safety.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
3,000	Design/Engineering	35,000					35,000
	Construction	223,000					223,000
	Right of Way Costs	24,000					24,000
	Construction Management/Inspection	20,000					20,000
Total	Total	302,000					302,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
3,000	CMAQ - Streets: 41700-306	265,000					265,000
	LTF - Streets: 42000-333	37,000					37,000
Total	Total	302,000					302,000

PROJECT DETAILS

Engineering

Schnoor Ave Sidewalk-Sunset to River — Project Number: R-000058

Project Cost: $150,000

Category: Street/Sidewalk **Phase:** DESIGN

Description: Construct sidewalks on Schnoor Ave. from Sunset Ave. to Riverside Dr.

Justification: Pedestrian safety.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Land Acquisition			8,000			8,000
Design/Engineering			12,000			12,000
Construction				105,000		105,000
Environmental			2,000			2,000
Construction Management/Inspection				23,000		23,000
Total			**22,000**	**128,000**		**150,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
CMAQ - Streets: 41700-306			19,000	113,000		132,000
Measure T - Enviromental Enhancement: 41570			3,000	15,000		18,000
Total			**22,000**	**128,000**		**150,000**

PROJECT DETAILS

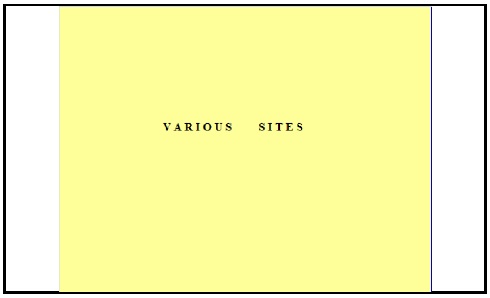
Engineering

Sidewalks-School & Commercial — Project Number: R-000062

Project Cost: $272,000

Category: Street/Sidewalk

Phase: DESIGN/CONSTRUCTION



Description: Infill and provide sidewalk facilities and appurtenances. Areas to be determined to maximize pedestrian usage within funds available. To be implemented in phases.

Justification: Will encourage pedestrian travel & provide safety at areas without sidewalks and ADA ramps with high concentration of pedestrians.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	Design/Engineering	12,000					12,000
	Land Acquisition/Right of Way	20,000					20,000
	Construction	206,000					206,000
	Environmental	2,000					2,000
	Construction Management/Inspection	22,000					22,000
Total	Total	262,000					262,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	CMAQ - Streets: 41700-306	226,000					226,000
	LTF - Streets: 42000-333	31,000					31,000
	Measure T - Enviromental Enhancement: 41570	5,000					5,000
Total	Total	262,000					262,000

PROJECT DETAILS

Engineering

Storey Rd Shoulder Paving — Project Number: R-000060

Project Cost: $306,000

Category: Street Reconstruction **Phase:** DESIGN

Description: Construct paved shoulders, curb and gutter along frontage of Millview Sports Complex south side of Store Road.

Justification: Reduce PM-10 dust and provide public safety.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	30,000					30,000
Construction				221,000		221,000
Environmental	1,000					1,000
Construction Management/Inspection				54,000		54,000
Total	**31,000**			**275,000**		**306,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
CMAQ - Streets: 41700-306	27,000			244,000		271,000
Measure T - Enviromental Enhancement: 41570	4,000			31,000		35,000
Total	**31,000**			**275,000**		**306,000**

PROJECT DETAILS

Engineering

Sunset Ave Sidewalk,Granada-Foster **Project Number: R-000066**

Project Cost: $345,100

Category: Street Construction **Phase:** DESIGN

Description: HSIP Cycle 7 project to install pedestrian refuge median and ADA compliant sidewalks along Sunset Avenue between Granada Drive and Foster Avenue.

Justification: Improve traffic and pedestrian safety.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	28,000					28,000
Construction	287,100					287,100
Environmental	2,000					2,000
Construction Management/Inspection	28,000					28,000
Total	**345,100**					**345,100**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
HSIP Grant: 417000-306	310,600					310,600
LTF - Streets: 42000-333	34,500					34,500
Total	**345,100**					**345,100**

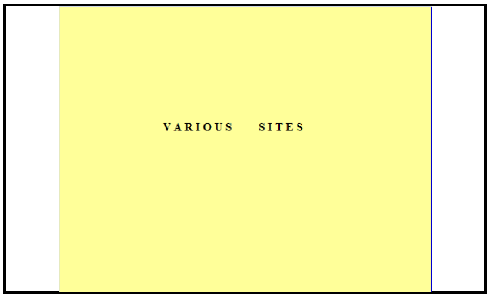
PROJECT DETAILS

Engineering

Surface Seals-AC Overlays 16-17 — Project Number: R-000065

Project Cost: $600,000

Category: Street 3R **Phase:** CONSTRUCTION



Description: Pavement rehabilitation with various types of seal coats and AC overlays on various arterial and collector streets.

Justification: Project is identified in Public Works Pavement Management Plan as needing surface seals or overlays.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
550,000	Construction	45,000					45,000
Total	Construction Management/Inspection	5,000					5,000
	Total	50,000					50,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
550,000	Measure T - RTP/3R: 41510	50,000					50,000
Total	Total	50,000					50,000

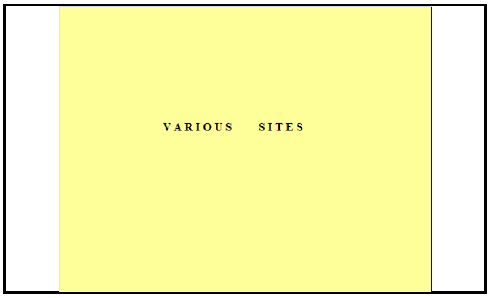
PROJECT DETAILS

Engineering

Surface Seals-AC Overlays 18-19 — Project Number: R-000070

Project Cost: $600,000

Category: Street 3R **Phase:** CONSTRUCTION



Description: Pavement rehabilitation with various types of seal coats and AC overlays on various arterial and collector streets.

Justification: Project is identified in Public Works Pavement Management Plan as needing surface seals or overlays.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	20,000					20,000
Construction		520,000				520,000
Environmental	10,000					10,000
Construction Management/Inspection		50,000				50,000
Total	**30,000**	**570,000**				**600,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Measure T - RTP/3R: 41510	300,000	300,000				600,000
Total	**300,000**	**300,000**				**600,000**

PROJECT DETAILS

Engineering

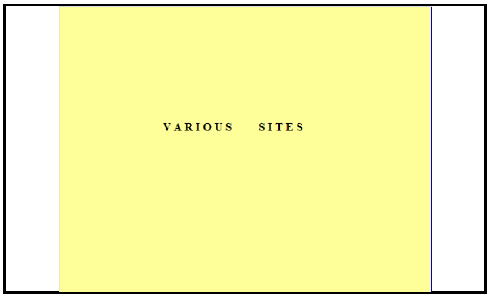
Surface Seals-AC Overlays 20-21

Project Number: R-000071

Project Cost: $600,000

Category: Street 3R

Phase: CONSTRUCTION



Description: Pavement rehabilitation with various types of seal coats and AC overlays on various arterial and collector streets.

Justification: Project is identified in Public Works Pavement Management Plan as needing surface seals or overlays.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering			20,000			20,000
Construction				520,000		520,000
Environmental			10,000			10,000
Construction Management/Inspection				50,000		50,000
Total			**30,000**	**570,000**		**600,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Measure T - RTP/3R: 41510			300,000	300,000		600,000
Total			**300,000**	**300,000**		**600,000**

PROJECT DETAILS

Engineering

Thomas Jefferson/John Adams Sidwlk — **Project Number: R-000051**

Project Cost: $398,200

Category: Street/Sidewalk

Phase: DESIGN/CONSTRUCTION

Description: Construct sidewalks and curb ramps: install in pavement lighted crosswalk and acquisition of right of way. Safe Routes to School for Thomas Jefferson Middle School and John Adams Elementary School.

Justification: Improve traffic and pedestrian circulation and safety.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
348,200	Construction	35,000					35,000
Total	Construction Management/Inspection	15,000					15,000
	Total	50,000					50,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
348,200	LTF - Streets: 42000-333	25,000					25,000
Total	Safe Routes 2 School - State: 41300-342	25,000					25,000
	Total	50,000					50,000

PROJECT DETAILS

Engineering

UPPR Crossing - Street Approach — **Project Number:** R-000032

Project Cost: $529,000

Category: Street 3R

Phase: CONSTRUCTION

Description: Railroad approach paving

Justification: Improve safety and riding comfort

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
279,000	Construction	48,000	48,000	48,000	48,000	48,000	240,000
Total	Construction Management/Inspection	2,000	2,000	2,000	2,000	2,000	10,000
	Total	50,000	50,000	50,000	50,000	50,000	250,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
279,000	LTF - Streets: 42000-333	50,000	50,000	50,000	50,000	50,000	250,000
Total	Total	50,000	50,000	50,000	50,000	50,000	250,000

PROJECT DETAILS

Engineering

Rtne Maint City Bridges Fresno RVR — **Project Number: RM-00001**

Project Cost: $50,000

Category: Maintenance **Phase:**

Description: Routine maintenance of various City bridges along the Fresno River to include vegetation removal, debris and obstruction removal and bridge footing and erosion protection.

Justification: Work is based on the bridge inspection report submitted by Caltrans to the City. Performing routine maintenance work will also prevent further damage to the bridges.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Materials/Equipment	20,000					20,000
Erosion Control	10,000					10,000
Engineering	15,000	5,000				20,000
Total	**45,000**	**5,000**				**50,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
LTF - Streets: 42000-333	45,000	5,000				50,000
Total	**45,000**	**5,000**				**50,000**

PROJECT DETAILS

Engineering

Schnoor Ave Trunk Sewer Rehab — Project Number: S-000012

Project Cost: $1,713,000

Category: Sewer **Phase:** DESIGN

Description: Rehabilitate the Schnoor Ave. Trunk Sewer System beginning at sewage pump station on Cleveland Avenue and going south, crossing the Fresno River, and ending at Industrial. Technical memo prepared October 2013 by Akel Engineering in conjunction with Master Plan Update presented as Appendix D contains detailed information and recommendations. NOTE: Segment across river has not been evaluated.

Justification: Extend useful life of sewer trunk main.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
1,178,000	Design/Engineering	46,000					46,000
Total	Construction	445,000					445,000
	Construction Management/Inspection	44,000					44,000
	Total	535,000					535,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
1,178,000	Sewer Utility Fund: 20400-511	535,000					535,000
Total	Total	535,000					535,000

PROJECT DETAILS

Engineering

Sewer Main Video Inspection — Project Number: S-VI-002

Project Cost: $1,268,446

Category: Administrative **Phase:**

Description: Retain a consultant(s) to conduct sewer main video inspection and condition assessment for existing sewer system facilities to include inventory of age, size, type, condition, etc; non-destructive testing; GIS integration; computer analysis; rehab and replacement strategies; prioritization; cost estimates and support. Funded through the rate increase.

Justification: A condition assessment including development of an asset management program is needed to properly prioritize, schedule and justify funding expenditures for rehabilitation and replacement to extend the life of the system and prevent breaks that could disrupt service and/or cause significant damage.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
527,516	Construction Management/Inspection	740,930					740,930
Total	Total	740,930					740,930

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
527,516	Sewer Utility Fund: 20400-511	740,930					740,930
Total	Total	740,930					740,930

PROJECT DETAILS

Engineering

Sewer System Assess/Rehab — **Project Number: S-STDY-1**

Project Cost: $360,000

Category: Administrative **Phase:**

Description: Assessment of City sanitary sewer conditions to determine if they require repair or rehabilitation.

Justification: City-wide sanitary sewer facilities have been observed to be deteriorating and in need of repair, rehabilitation or even replacement.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
236,175	Engineering/Administration	25,000					25,000
	Study/Report	98,825					98,825
Total	Total	123,825					123,825

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
333,000	Sewer Utility Fund: 20400-511	27,000					27,000
Total	Total	27,000					27,000

PROJECT DETAILS

Engineering

Ellis St/Krohn St Retention Basin — Project Number: SD-15-P7

Project Cost: $105,000

Category: Storm Drain **Phase:** DESIGN

Description: Identify location, acquire land and prepare preliminary estimates of costs in advance of engineering and construction.

This task will only proceed to the degree funding is available.

Justification: Advance planning and purchase of right-of-way reduces the potential for a series of temporary basins as part of individual development project.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
5,000	Land Acquisition		80,000				80,000
	Design/Engineering		20,000				20,000
Total	Total		100,000				100,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
5,000	DIF:4106 Storm Drain NE Quadrant Impact Fee		100,000				100,000
Total	Total		100,000				100,000

PROJECT DETAILS

Engineering

Granada Dr/Ave 12.5 Retention Basin — Project Number: SD-14-P11

Project Cost: $105,000

Category: Storm Drain **Phase:** DESIGN

Description: Identify location, acquire land and prepare preliminary estimates of costs in advance of engineering and construction.

This task will only proceed to the degree funding is available and may be moved up in priority based on availability of funds.

Justification: Advance planning and purchase of right-of-way reduces the potential for a series of temporary basins as part of individual development project.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
5,000	Land Acquisition		80,000				80,000
	Design/Engineering		20,000				20,000
Total	Total		100,000				100,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
5,000	DIF:4107 Storm Drain SW Quadrant Impact Fee		100,000				100,000
Total	Total		100,000				100,000

PROJECT DETAILS

Engineering

NW Quad Storm Drain Improvement — Project Number: SD-00014

Project Cost: $7,400,000

Category: Storm Drain **Phase:** CONSTRUCTION

Description: Construct storm drain improvements within the Northwest quadrant in response to need and as identified in the Storm Drain Master Plan for that Area and/or reimburse developers for those same improvements if constructed as part of a development project.

Includes 3 basins and 16 pipes of various sizes and lengths - $7,400,000

Justification: Planned growth in this quadrant of the City requires construction of various storm drain improvements as are identified in the Storm Drain Master Plan.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Construction					7,400,000	7,400,000
Total					**7,400,000**	**7,400,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
DIF:4105 Storm Drain NW Quadrant Impact Fee					7,400,000	7,400,000
Total					**7,400,000**	**7,400,000**

Retention Basin Land Acquisition — Project Number: SD-13-PX

Project Cost: $140,000

Category: Storm Drain **Phase:** DESIGN

Description: Identify, prioritize and purchase land at locations where development is anticipated to occur in the near term.

This task will only proceed to the degree funding is available.

Justification: Advance planning and purchase of right-of-way reduces the potential for a series of temporary basins as part of individual development project.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Land Acquisition	40,000	30,000	30,000			100,000
Design/Engineering	10,000	10,000	10,000	10,000		40,000
Total	**50,000**	**40,000**	**40,000**	**10,000**		**140,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
DIF:4104 Drainage System Existing Area Impact Fee	20,000	10,000	10,000			40,000
DIF:4105 Storm Drain NW Quadrant Impact Fee	20,000	10,000	10,000			40,000
DIF:4107 Storm Drain SW Quadrant Impact Fee	20,000					20,000
DIF:4108 Storm Drain SE Quadrant Impact Fee	20,000	10,000	10,000			40,000
Total	**80,000**	**30,000**	**30,000**			**140,000**

PROJECT DETAILS

Engineering

SE Quad Storm Drain Improvements — Project Number: SD-00015

Project Cost: $17,500,000

Category: Storm Drain **Phase:** CONSTRUCTION

Description: Construct storm drain improvements within the Southeast quadrant in response to need and as identified in the Storm Drain Master Plan for that Area and/or reimburse developers for those same improvements if constructed as part of a development project.

Includes 10 basins and 48 pipes of various sizes and lengths - $17,500,000

Justification: Planned growth in this quadrant of the City requires construction of various storm drain improvements as are identified in the Storm Drain Master Plan.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Construction					17,500,000	17,500,000
Total					**17,500,000**	**17,500,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
DIF:4108 Storm Drain SE Quadrant Impact Fee					17,500,000	17,500,000
Total					**17,500,000**	**17,500,000**

PROJECT DETAILS

Engineering

Sienna Basin — **Project Number: SD-P18**

Project Cost: $240,000

Category: Storm Drain

Phase:

Description: Purchase basin or reimburse basin purchase from developer and expand as required per storm drain master plan.

Justification: Required for existing demands.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Land Acquisition	125,000					125,000
Design/Engineering	20,000					20,000
Construction	95,000					95,000
Total	240,000					240,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
DIF:4108 Storm Drain SE Quadrant Impact Fee	240,000					240,000
Total	240,000					240,000

PROJECT DETAILS

Engineering

Fairgrounds Liftstation-VFD **Project Number: SS-00006**

Project Cost: $450,000

Category: Sewer **Phase:** CONSTRUCTION

Description: Install new pumps equipped with variable frequency drives (VFD's) to include electrical work and appurtenances.

Justification: Improve the performance of the pumps at the lift station resulting in a more efficient and economical system.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
25,000	Construction	385,000					385,000
Total	Construction Management/Inspection	40,000					40,000
	Total	425,000					425,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
25,000	DIF:4099 Sewer Existing Area Impact Fee	153,000					153,000
Total	Sewer Utility Fund: 20400-511	272,000					272,000
	Total	425,000					425,000

PROJECT DETAILS

Engineering

Sherwood Way Sewer Main Replace — **Project Number: SS-00002**

Project Cost: $652,000

Category: Sewer **Phase:** DESIGN

Description: Replace 1,830-feet of existing 12-inch sanitary sewer main with new 15-inch main on Sherwood Way from Lake St. to 180-feet west of Nebraska Ave.

Justification: Existing sewer main is under size for full build out.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
78,000	Construction	531,000					531,000
	Construction Management/Inspection	43,000					43,000
Total	Total	574,000					574,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
78,000	DIF:4099 Sewer Existing Area Impact Fee	180,350					180,350
	Sewer Utility Fund: 20400-511	393,650					393,650
Total	Total	574,000					574,000

PROJECT DETAILS

Engineering

Wessmith Way Sewer Main Replace — **Project Number: SS-00001**

Project Cost: $49,000

Category: Sewer **Phase:** CONSTRUCTION

Description: Replace 155-feet of existing 10-inch sanitary sewer main with new 15-inch main on Wessmith Wy. From 155-feet east of Lake St. to Lake St.

Justification: Existing sewer main is under size for full build out.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	Construction	35,000					35,000
	Construction Management/Inspection	4,000					4,000
Total	Total	39,000					39,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	DIF:4099 Sewer Existing Area Impact Fee	18,330					18,330
	Sewer Utility Fund: 20400-511	20,670					20,670
Total	Total	39,000					39,000

PROJECT DETAILS

Engineering

4th St Traffic Signal Interconnect — Project Number: TS-00022

Project Cost: $24,000

Category: Traffic Signal

Phase:

Description: Provide hardwire connection and coordinated timing plans for six (6) traffic signals along 4th Street at the following intersections:
Sunset Avenue
"I" Street
"H" Street
"G" Street
Gateway Drive
"D" Street

Justification: Improved traffic flow along corridor reduces congestion and travel times, thereby improving air quality.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	8,000					8,000
Construction	16,000					16,000
Total	24,000					24,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
SJVAPCD - Remove II Grant: 41300	24,000					24,000
Total	24,000					24,000

PROJECT DETAILS

Engineering

Cleveland/Granada Dr Traffic Signal — **Project Number: TS-00024**

Project Cost: $375,000

Category: Traffic Signal **Phase:**

Description: Install traffic signal at Cleveland Ave. and Granada Dr.

Justification: Traffic and pedestrian safety.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering				35,000		35,000
Construction				300,000		300,000
Construction Management/Inspection				40,000		40,000
Total				**375,000**		**375,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
DIF:4097 Traffic Signal Impact Fee				375,000		375,000
Total				**375,000**		**375,000**

PROJECT DETAILS

Engineering

Granada Dr/Howard Rd Traffic Signal — Project Number: TS-00017

Project Cost: $370,000

Category: Traffic Signal **Phase:** DESIGN

Description: Add traffic signal at Granada Drive and Howard Road.

Justification: Traffic safety.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
35,000	Land Acquisition/Right of Way	30,000					30,000
Total	Construction		244,000				244,000
	Construction Management/Inspection		61,000				61,000
	Total	30,000	305,000				335,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
35,000	DIF:4097 Traffic Signal Impact Fee	256,000	79,000				335,000
Total	Total	256,000	79,000				335,000

PROJECT DETAILS

Engineering

HOPYQ Intersection Traffic Signals — Project Number: TS-00023

Project Cost: $135,000

Category: Traffic Signal

Phase:

Description: Traffic signal modifications and intersection improvements at Howard Road, Olive Avenue, Pine Street, Yosemite Avenue & Q Street intersection.

Justification: Emission reduction for CMAQ project and traffic safety.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	15,000					15,000
Construction		110,000				110,000
Construction Management/Inspection		10,000				10,000
Total	**15,000**	**120,000**				**135,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
CMAQ - Streets: 41700-306	13,000	107,000				120,000
LTF - Streets: 42000-333	2,000	13,000				15,000
Total	**15,000**	**120,000**				**135,000**

PROJECT DETAILS

Engineering

Howard Rd/Westberry Traffic Signal — Project Number: TS-00019

Project Cost: $405,000

Category: Traffic Signal

Phase: DESIGN/CONSTRUCTION

Description: Install a traffic signal at the intersection of Westberry Blvd. and Howard Rd.

Justification: Emission reduction for CMAQ project and traffic safety.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
40,500	Construction	334,500					334,500
Total	Construction Management/Inspection	30,000					30,000
	Total	364,500					364,500

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
40,500	CMAQ - Streets: 41700-306	317,500					317,500
Total	LTF - Streets: 42000-333	47,000					47,000
	Total	364,500					364,500

PROJECT DETAILS

Engineering

Howard/Shannon Pedestrian X-Walk — **Project Number: TS-00021**

Project Cost: $60,000

Category: Traffic Signal **Phase:** DESIGN

Description: Construct new crosswalk on Howard Road at Shannon. intersection utilizing rapid flashing beacons to increase visibility and awareness of crossing locations when pedestrians are present.

Justification: Provide safe pedestrian access.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
54,000	Construction	5,000					5,000
Total	Construction Management/Inspection	1,000					1,000
	Total	6,000					6,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
54,000	LTF - Streets: 42000-333	6,000					6,000
Total	Total	6,000					6,000

PROJECT DETAILS

Engineering

Sunrise Ave/Tozer St Traffic Signal — **Project Number:** TS-00020

Project Cost: $385,000

Category: Traffic Signal **Phase:** DESIGN

Description: Install a traffic signal at the intersection of Sunrise Avenue and Tozer Street.

Justification: Emission reduction.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering			35,000			35,000
Construction				340,000		340,000
Construction Management/Inspection				10,000		10,000
Total			**35,000**	**350,000**		**385,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
DIF:4097 Traffic Signal Impact Fee			35,000	350,000		385,000
Total			**35,000**	**350,000**		**385,000**

PROJECT DETAILS

Engineering

Yosemite Ave/Elm St Traffic Signal — Project Number: TS-00009

Project Cost: $660,000

Category: Traffic Signal **Phase:** CONSTRUCTION

Description: Install traffic signal at Yosemite and Elm

Justification: Traffic and pedestrian safety.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
460,000	Construction	172,000					172,000
Total	Construction Management/Inspection	28,000					28,000
	Total	200,000					200,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
460,000	DIF:4097 Traffic Signal Impact Fee	200,000					200,000
Total	Total	200,000					200,000

PROJECT DETAILS

Engineering

Parkwood-Parksdale Utility Study — **Project Number: U-000001**

Project Cost: $282,680

Category: Administrative **Phase:**

Description: Perform a study to determine the needs for improving the Parkwood and Parksdale subdivision.

Justification: County of Madera relinquished the Parkwood and Parksdale subdivision to the City of Madera. These subdivisions needs to have the water, sewer, drainage system including Streets and Street lights improved.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
232,680	Planning/Design	5,000					5,000
	Study/Report	45,000					45,000
Total	Total	50,000					50,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
232,680	Water Utility Fund: 20300-712	50,000					50,000
Total	Total	50,000					50,000

PROJECT DETAILS

Engineering

10th St-Water Main Upgrades — Project Number: W-000008

Project Cost: $780,000

Category: Water **Phase:** DESIGN

Description: New 12" from W-06 (12" installed "H" Street and 11th), east on 11th, under UPRR to east. North on "E" Street to 10th Street, east on 10th Street to "D" Street. Connect to existing 10".

Part of 2010 Water Improvements - Bid Package 2. 90% design. Shelved due to lack of funding.

Should be constructed in conjunction with W-06.

Justification: Project identified in 1997 Master Plan to provide pipeline reinforcements between South and East Madera as "Improvements No. 1.2" that includes W-06 and W-08

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering		10,000				10,000
Construction			700,000			700,000
Construction Management/Inspection			70,000			70,000
Total		**10,000**	**770,000**			**780,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712		10,000	770,000			780,000
Total		**10,000**	**770,000**			**780,000**

PROJECT DETAILS

Engineering

Almond Ave Water Main, Pine-Stadium **Project Number: W-PSW-45**

Project Cost: $276,000

Category: Water **Phase:**

Description: Install 2,600-feet of new 12-inch water line to connect to an existing 12-inch water lines to the east and west

Justification: This segment is designated as missing in the Water System Master Plan. Missing lines typically provide redundancy should one line need to be turned off. They also increase efficiency resulting in higher pressure.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Land Acquisition				62,000		62,000
Design/Engineering				26,000		26,000
Construction					171,000	171,000
Construction Management/Inspection					17,000	17,000
Total				**88,000**	**188,000**	**276,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
DIF:4081 Water Pipes Impact Fee				44,000	94,000	138,000
Water Utility Fund: 20300-712				44,000	94,000	138,000
Total				**88,000**	**188,000**	**276,000**

PROJECT DETAILS

Engineering

Asset Management Software — **Project Number: W-STDY-3**

Project Cost: $150,000

Category: Water

Phase:

Description: NEED INFO

Justification:

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Other	150,000					150,000
Total	150,000					150,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712	150,000					150,000
Total	150,000					150,000

PROJECT DETAILS

Engineering

Ave 17 & Lake Pump Station/Tank — **Project Number: W-PS-001**

Project Cost: $6,732,000

Category: Water **Phase:** DESIGN

Description: Construct 4,300 GPM pump station in conjunction with a 6.75 million gallon tank at or near Avenue 17 and Lake Street (Road 27)

Justification: Near Term - .Tank and pump offsets impacts of drought conditions when municipal wells exhibit reduced capacity during peak hours Long Term - Provide storage and pumping capacity on east side of city given majority of pumping is proposed to occur on the west side of the City per the Water System Master Plan.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
20,000	Design/Engineering	339,000	103,000				442,000
	Construction				5,700,000		5,700,000
	Construction Management/Inspection			377,000	193,000		570,000
Total	Total	339,000	103,000	377,000	5,893,000		6,712,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
20,000	Water Utility Fund: 20300-712	339,000	103,000	4,147,000	2,123,000		6,712,000
Total	Total	339,000	103,000	4,147,000	2,123,000		6,712,000

PROJECT DETAILS

Engineering

Aviation Dr/Falcon Dr Water Main — Project Number: W-PNW-30

Project Cost: $56,000

Category: Water **Phase:** DESIGN

Description: Install 320-feet of new 12-inch water line to connect to an existing 12-inch water line.

Justification: This segment is designated as missing in the Water System Master Plan. Missing lines typically provide redundancy should one line need to be turned off. They also increase efficiency resulting in higher pressure.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
8,000	Construction	44,000					44,000
Total	Construction Management/Inspection	4,000					4,000
	Total	48,000					48,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
8,000	Water Utility Fund: 20300-712	48,000					48,000
Total	Total	48,000					48,000

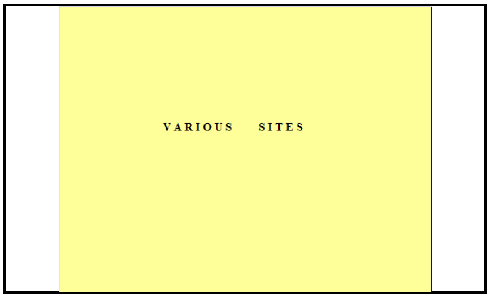
PROJECT DETAILS

Engineering

Commercial Water Meters — Project Number: W-000023

Project Cost: $2,600,000

Category: Water **Phase:** CONSTRUCTION



Description: Installation of water meters at commercial, MFR or other unmetered institutions for the City's AMR reading system.

Justification: The meter will be able to self read and transmit data into the main office saving labor to read meters.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
1,800,000	Construction	766,000					766,000
Total	Construction Management/Inspection	34,000					34,000
	Total	800,000					800,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
1,800,000	Water Utility Fund: 20300-712	800,000					800,000
Total	Total	800,000					800,000

PROJECT DETAILS

Engineering

Downtown Valve Replacement — **Project Number: W-000029**

Project Cost: $130,000

Category: Water

Phase: CONSTRUCTION

Description: Replace 26 valves in the downtown area.

Justification: This project was submitted from Public Works into the CIP plan for the water rate increases.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Construction	130,000					130,000
Total	130,000					130,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712	130,000					130,000
Total	130,000					130,000

PROJECT DETAILS

Engineering

Gateway-Riverside River Crossing — Project Number: W-000009

Project Cost: $185,000

Category: Water

Phase: DESIGN/CONSTRUCTION

Description: Water main replacement at River Crossing@ Gateway, Riverside/Sonora to Water Well No. 18 at Gateway.

Justification: Water main beneath river is deteriorating and in need of replacement.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	Design/Engineering	10,000					10,000
	Construction	150,000					150,000
	Construction Management/Inspection	15,000					15,000
Total	Total	175,000					175,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	Water Utility Fund: 20300-712	175,000					175,000
Total	Total	175,000					175,000

PROJECT DETAILS

Engineering

H St-Water Main Upgrades — Project Number: W-000006

Project Cost: $265,000

Category: Water **Phase:** DESIGN

Description: Water projects system upgrades at H Street - 11th to Madera Avenue. Install new 12" main from existing 12" crossing SR99 at 10th Street alignment, southerly on "H" Street, across Madera Avenue to 11th Street. Bore under Madera Avenue (SR145).

Project is 90% design by CDM as part of 2010 Water System Improvements - Bid Pack 2 along with W-07 and W-08. Shelved due to lack of funding.

Should be constructed in conjunction with W-08.

Justification: Project identified in 1997 Master Plan to provide pipeline reinforcements between South and East Madera as "Improvements No. 1.2" that includes W-06 and W-08

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering		10,000				10,000
Construction			230,000			230,000
Construction Management/Inspection			25,000			25,000
Total		**10,000**	**255,000**			**265,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712		10,000	255,000			265,000
Total		**10,000**	**255,000**			**265,000**

PROJECT DETAILS

Engineering

Lake St Water Main-Ellis to Ave 17 — Project Number: W-PNE-04

Project Cost: $700,000

Category: Water **Phase:** DESIGN

Description: Construct 24-inch water line in Lake Street conjunction with a 6.75 million gallon tank at or near Avenue 17 and Road 27

Justification: Near Term - .Tank and pump offset impacts of drought conditions when municipal wells exhibit reduced capacity during peak hours. Pipe is necessary to convey flow to and from tank
Long Term - Provide storage on east side of city given majority of pumping is proposed to occur on the west side of the City per the Water System Master Plan.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	60,000	25,000				85,000
Construction			565,000			565,000
Construction Management/Inspection			50,000			50,000
Total	**60,000**	**25,000**	**615,000**			**700,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712	60,000	25,000	615,000			700,000
Total	**60,000**	**25,000**	**615,000**			**700,000**

PROJECT DETAILS

Engineering

Maple St Water Main,Pine to Noble — **Project Number: W-FF-001**

Project Cost: $157,000

Category: Water **Phase:** CONSTRUCTION

Description: Install 890 feet of new 8-inch water line in parallel with an existing water line.

Justification: This segment is designated as deficient on the basis of fire flow in the Water System Master Plan.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
23,000	Construction	123,000					123,000
Total	Construction Management/Inspection	11,000					11,000
	Total	134,000					134,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
23,000	Water Utility Fund: 20300-712	134,000					134,000
Total	Total	134,000					134,000

PROJECT DETAILS

Engineering

Meter Shop — **Project Number: W-MS-001**

Project Cost: $300,000

Category: Administrative

Phase:

Description:

Justification:

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Administrative	300,000					300,000
Total	300,000					300,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712	300,000					300,000
Total	300,000					300,000

PROJECT DETAILS

Engineering

Olive Ave Water Main, Grove-Cypress — **Project Number: W-FF-004**

Project Cost: $135,000

Category: Water **Phase:** CONSTRUCTION

Description: Install 770 feet of new 12-inch water line in parallel with an existing water line.

Justification: This segment is designated as deficient on the basis of fire flow in the Water System Master Plan.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
20,000	Construction	106,000					106,000
Total	Construction Management/Inspection	9,000					9,000
	Total	115,000					115,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
20,000	Water Utility Fund: 20300-712	115,000					115,000
Total	Total	115,000					115,000

PROJECT DETAILS

Engineering

Pecan Ave Water Main, Madera-750'E — **Project Number: W-PSE-03**

Project Cost: $133,000

Category: Water **Phase:**

Description: Install 750-feet of new 12-inch water line to connect to existing 12-inch water lines to the east and west.

Justification: This segment is designated as missing in the Water System Master Plan. Missing lines typically provide redundancy should one line need to be turned off. They also increase efficiency resulting in higher pressure.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
20,000	Construction	104,000					104,000
Total	Construction Management/Inspection	9,000					9,000
	Total	113,000					113,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
20,000	DIF:4081 Water Pipes Impact Fee	11,300					11,300
Total	Water Utility Fund: 20300-712	101,700					101,700
	Total	113,000					113,000

PROJECT DETAILS

Engineering

Pecan Water Main, Monterey-680'W — **Project Number: W-PSW-50**

Project Cost: $107,000

Category: Water **Phase:** CONSTRUCTION

Description: Install 680-feet of new 12-inch water line to connect to an existing 12-inch water lines to the east and west

Justification: This segment is designated as missing in the Water System Master Plan. Missing lines typically provide redundancy should one line need to be turned off. They also increase efficiency resulting in higher pressure.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
17,000	Construction	82,000					82,000
Total	Construction Management/Inspection	8,000					8,000
	Total	90,000					90,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
17,000	DIF:4081 Water Pipes Impact Fee	59,400					59,400
Total	Water Utility Fund: 20300-712	30,600					30,600
	Total	90,000					90,000

PROJECT DETAILS

Engineering

Rotan Ave Water Main,Howard-Oak — **Project Number: W-FF-002**

Project Cost: $81,000

Category: Water **Phase:** CONSTRUCTION

Description: Install 450 feet of new 8-inch water line in parallel with an existing water line.

Justification: This segment is designated as deficient on the basis of fire flow in the Water System Master Plan.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
13,000	Construction	62,000					62,000
Total	Construction Management/Inspection	6,000					6,000
	Total	68,000					68,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
13,000	Water Utility Fund: 20300-712	68,000					68,000
Total	Total	68,000					68,000

PROJECT DETAILS

Engineering

Sharon Blvd. S/O Ave 17 - Well

Project Number: W-GW-0024

Project Cost: $2,000,000

Category: Water

Phase:

Description: Construct water well in accordance with the Water System Master Planin conjunction with an approved development agreement. When complete and accepted, the developer will receive reimbursements as specified in the agreement.

Justification: Represents a well that will be needed per analysis contained in the Water System master Plan to serve existing and proposed development.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Developer Reimbursement	2,000,000					2,000,000
Total	2,000,000					2,000,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712	2,000,000					2,000,000
Total	2,000,000					2,000,000

PROJECT DETAILS

Engineering

Sycamore St. Water Main-Lake to Clinton — **Project Number: W-000028**

Project Cost: $72,000

Category: Water **Phase:** CONSTRUCTION

Description: Replace 2" galvanized line in Sycamore Street from existing 6" in Sycamore Street installed from Clinton Street to FH to Lake Street/7th Street with 8" - approximately 410 lineal feet.

Justification: Water main was upgraded from 2" to 6" only up to the FH that was installed as a requirement for construction of a multi-family dwelling at Sycamore Street & Clinton Street. Still needs to be upsized along Sycamore Street to 7th Street/Lake Street.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	Construction	57,000					57,000
Total	Construction Management/Inspection	5,000					5,000
	Total	62,000					62,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	Water Utility Fund: 20300-712	62,000					62,000
Total	Total	62,000					62,000

PROJECT DETAILS

Engineering

VFD Retrofit 4 Wells — **Project Number: W-GW-005**

Project Cost: $160,000

Category: Water **Phase:**

Description: NEED INFO

Justification: NEED INFO

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
40,000	Construction	120,000					120,000
Total	Total	120,000					120,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
40,000	Water Utility Fund: 20300-712	120,000					120,000
Total	Total	120,000					120,000

PROJECT DETAILS

Engineering

Water Feasibility & New Water Supply — Project Number: W-STDY-1

Project Cost: $750,000

Category: Water **Phase:**

Description: Conduct a feasibility study to determine demands that may require new water supply.

Justification: Due to increase in water usage the City needs to determine if the need of increasing the capacity of its existing water supply.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Study/Report	150,000	150,000	150,000	150,000	150,000	750,000
Total	**150,000**	**150,000**	**150,000**	**150,000**	**150,000**	**750,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712	150,000	150,000	150,000	150,000	150,000	750,000
Total	**150,000**	**150,000**	**150,000**	**150,000**	**150,000**	**750,000**

PROJECT DETAILS

Engineering

Water Main Upgrades - Locations 1-12 — Project Number: W-000003

Project Cost: $850,000

Category: Water **Phase:** DESIGN

Description: Replace undersize 4" pipes with larger PVC to include valves & appurtenances at the following locations:
Oak Street - Pine to Cypress
Olive Ave. - P to Q Street
P Street - 4th to 5th
O/P Alley - 6th to Olive
10th - D to UPRR
12th - E to D Alley
14th - D to Olive
5th - Gateway to G
2nd - C to E
B St.- Central to River
6th - Lake St. to Vineyard

Justification: Undersize pipes need to be upgraded to provide sufficient supply of potable water. These need to be re-evaluated as have carried over for many years.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	100,000					100,000
Construction			640,000			640,000
Construction Management/Inspection			110,000			110,000
Total	**100,000**		**750,000**			**850,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712	850,000					850,000
Total	**850,000**					**850,000**

PROJECT DETAILS

Engineering

Water Main Upgrades - Locations 13-23 — Project Number: W-000004

Project Cost: $1,500,000

Category: Water **Phase:** DESIGN

Description: Replace undersize pipes with larger PVC to include valve & appurtenance at the following locations:

Fresno Street - Riverside to Dalton
Riverside Alley @ Dalton
Merced St. - Dalton to Riverside
B Street - 10th to 13th
11th Street - A to 200ft E/O A Street
Nebraska - Cleveland to James Way
Wilson - Owens to Sharon
Adell - Lake to Merced
Harding - Davis to Torres Way
Wallace - Sunrise to Sierra Vista School
Lake - Wallace to Hull
Lincoln - Tulare to 2 blks east

Justification: Undersize pipes need to be upgraded to provide sufficient supply of potable water.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	120,000					120,000
Construction				1,180,000		1,180,000
Construction Management/Inspection				200,000		200,000
Total	**120,000**			**1,380,000**		**1,500,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712	1,500,000					1,500,000
Total	**1,500,000**					**1,500,000**

PROJECT DETAILS

Engineering

Water Storage Tank Installation — Project Number: W-T-0001

Project Cost: $9,953,000

Category: Water **Phase:** DESIGN

Description: Construct 6.75 million gallon tank at or near Avenue 17 and Lake Street (Road 27).

Justification: Near Term - .Offset impacts of drought conditions when municipal wells exhibit reduced capacity during peak hours
Long Term - Provide storage on east side of city given majority of pumping is proposed to occur on the west side of the City per the Water System Master Plan.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	505,000	148,000				653,000
Construction				8,720,000		8,720,000
Right of Way Costs		300,000				300,000
Construction Management/Inspection				280,000		280,000
Total	**505,000**	**448,000**		**9,000,000**		**9,953,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712	505,000	448,000	5,950,000	3,050,000		9,953,000
Total	**505,000**	**448,000**	**5,950,000**	**3,050,000**		**9,953,000**

PROJECT DETAILS

Engineering

Water System Condition Assess/Rehab — Project Number: W-STDY-2

Project Cost: $550,000

Category: Water **Phase:**

Description: Retain a consultant(s) to prepare a condition assessment for existing water system facilities to include inventory of age, size, type, condition, etc; non-destructive testing; GIS integration; computer analysis; Rehab and replacement strategies; prioritization; cost estimates and support. Funded through rate increases.

Justification: A condition assessment including development of an asset management program is needed to properly prioritize, schedule and justify funding expenditures for rehabilitation and replacement to extend the life of the system and prevent breaks that could disrupt service and/or cause significant damage.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
300,000	Design/Engineering	250,000					250,000
Total	Total	250,000					250,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
300,000	Water Utility Fund: 20300-712	250,000					250,000
Total	Total	250,000					250,000

PROJECT DETAILS

Engineering

Water Tower Demolition — Project Number: W-000026

Project Cost: $300,000

Category: Water **Phase:**

Description: Remove existing water tower located at the Frank Bergon Senior Center (238 S. "D" Street) and perform environmental remediation of the dismantled pieces for proper disposal.

Justification: The expense of restoring the water tower structurally and environmentally has been estimated by the Public Works Department to be in a ballpark area of $1,000,000 - well over the estimated removal costs. These funds do not presently exist which would leave the current safety concerns in place until such fund could be secured, if ever.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
15,000	Construction	275,000					275,000
Total	Construction Management/Inspection	10,000					10,000
	Total	285,000					285,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
15,000	Water Utility Fund: 20300-712	285,000					285,000
Total	Total	285,000					285,000

PROJECT DETAILS

Engineering

Water Tower Recoating — **Project Number:** W-000022

Project Cost: $1,500,000

Category: Water

Phase: DESIGN

Description: Recoating of the water tower interior lining

Justification: Recoating to prevent rust and deterioration of interior lining of the water tower

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	Construction	1,450,000					1,450,000
Total	Construction Management/Inspection	40,000					40,000
	Total	1,490,000					1,490,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	Water Utility Fund: 20300-712	1,490,000					1,490,000
Total	Total	1,490,000					1,490,000

PROJECT DETAILS

Engineering

Water Well 35-Ellis w/o Chapin — Project Number: W-GW-002

Project Cost: $2,011,000

Category: Water **Phase:** CONSTRUCTION

Description: Construct water well in accordance with the Water System Master Plan. Design is complete. The site has been improved and the shaft has been drilled. Site is not currently owned by the City. This site will require water treatment for manganese.

Justification: Represents a well that will be needed per analysis contained in the Water System Master Plan to serve existing development.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Construction					1,911,000	1,911,000
Construction Management/Inspection					100,000	100,000
Total					2,011,000	2,011,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712				2,011,000		2,011,000
Total				2,011,000		2,011,000

PROJECT DETAILS

Engineering

Water Well 36- SR145/Indigo — Project Number: W-GW-003

Project Cost: $2,011,000

Category: Water **Phase:** DESIGN

Description: Construct water well in accordance with the Water System Master Plan.

Justification: Represents a well that will be needed per analysis contained in the Water System Master Plan to serve existing development.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering				121,000	1,890,000	2,011,000
Total				**121,000**	**1,890,000**	**2,011,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712				121,000	1,890,000	2,011,000
Total				**121,000**	**1,890,000**	**2,011,000**

PROJECT DETAILS

Engineering

Water Well 37-Install Pump — Project Number: W-GW-001

Project Cost: $1,012,000

Category: Water **Phase:** CONSTRUCTION

Description: Install pump and electrical equipment at previously drilled well. Design drawings are complete.

Justification: Water system analysis indicates the City requires additional well capacity to meet peak hour demand and or redundancy.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Construction				942,000		942,000
Construction Management/Inspection				70,000		70,000
Total				1,012,000		1,012,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712				1,012,000		1,012,000
Total				1,012,000		1,012,000

PROJECT DETAILS

Engineering

Water Well Pump Bowls Replace — Project Number: W-GW-006

Project Cost: $50,000

Category: Water **Phase:**

Description: NEED INFO

Justification: NEED INFO

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	2,000					2,000
Construction	46,000					46,000
Construction Management/Inspection	2,000					2,000
Total	**50,000**					**50,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712	50,000					50,000
Total	**50,000**					**50,000**

PROJECT DETAILS

Engineering

Well 27 Pipe Outfall Extension — Project Number: W-000017

Project Cost: $575,000

Category: Water **Phase:** DESIGN

Description: Pipeline outfall extension - Well No. 27. Install a pipeline 200 feet down Almond to provide relief line.

Justification: Granulated Activated Carbon filter system is backflushed twice a year. Currently, the well water floods the street. System will install a pipeline 200 feet down Almond to provide for relief line.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	45,000					45,000
Construction		500,000				500,000
Construction Management/Inspection		30,000				30,000
Total	**45,000**	**530,000**				**575,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712	45,000	530,000				575,000
Total	**45,000**	**530,000**				**575,000**

PROJECT DETAILS

Engineering

Well 28 Pump Replacement — Project Number: W-000020

Project Cost: $500,000

Category: Water **Phase:** DESIGN

Description: Replace pump at well No. 28 at Storey & Tozer Road

Justification: Prolonged use of pumps caused inefficiency and costly energy use. PG&E will provide funds to replace units thereby saving electricity.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	20,000					20,000
Construction	470,000					470,000
Construction Management/Inspection	10,000					10,000
Total	**500,000**					**500,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712	500,000					500,000
Total	**500,000**					**500,000**

PROJECT DETAILS

Fire Department

Fire Station 6 Parking Lot — Project Number: FD-00003

Project Cost: $70,000

Category: Public Facility **Phase:** DESIGN

Description: Repave the parking lot of Fire Station 6 on Lake Street

Justification:

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Construction	67,000					67,000
Construction Management/Inspection	3,000					3,000
Total	70,000					70,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
DIF:4086 Fire Department Impact Fee	70,000					70,000
Total	70,000					70,000

PROJECT DETAILS

Fire Department

Fire Station 7 - Parking Lot Paving — Project Number: FD-00001

Project Cost: $67,000

Category: Public Facility **Phase:**

Description: Repave parking lot of Fire Station No. 7 on Schoor Avenue

Justification:

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Construction	64,080					64,080
Construction Management/Inspection	2,920					2,920
Total	67,000					67,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
DIF:4086 Fire Department Impact Fee	67,000					67,000
Total	67,000					67,000

PROJECT DETAILS

Fire Department

Fire Station Constr, Northwest — Project Number: FD-00002

Project Cost: $8,700,000

Category: Public Facility

Phase:

Description: Construction of a Fire Station in the northwest quadrant of the City to accommodate new growth.

3 to 5 Acres of Land
10,000 Square Foot Building
Apparatus, Vehicles & Equipment

The construction of a new fire station in the northwest quadrant of the City will occur when sufficient funds are available.

Justification: The addition of new Fire Station is required to accommodate new growth.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Land Acquisition/Right of Way	500,000					500,000
Construction		5,200,000				5,200,000
Construction Management/Inspection		730,000				730,000
Contingency		520,000				520,000
Equipment/Vehicles	1,300,000					1,300,000
Design/Environmental	450,000					450,000
Total	**2,250,000**	**6,450,000**				**8,700,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
DIF:4086 Fire Department Impact Fee	1,300,000					1,300,000
Lease/Finance		6,450,000				6,450,000
Measure K Sales Tax: Fund 1025	950,000					950,000
Total	**2,250,000**	**6,450,000**				**8,700,000**

PROJECT DETAILS

Parks & Community Services

ADA Improvements at Pan-Am and Bergon — **Project Number: PK-00062**

Project Cost: $65,000

Category: Street/Sidewalk **Phase:**

Description: Accessibility improvements at Pan-Am and Bergon centers in accordance with recommendation from the City of Madera's Americans with Disabilities Act (ADA) Self Evaluation and Transition Plan.

Justification: Both facilities are not 100% ADA compliant. This project will address some of the higher priority non-compliance items found in the self-evaluation.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	5,000					5,000
Construction	55,000					55,000
Construction Management/Inspection	5,000					5,000
Total	**65,000**					**65,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
CDBG - Parks: 10221-433	65,000					65,000
Total	**65,000**					**65,000**

PROJECT DETAILS

Parks & Community Services

Bike/Ped Path, FRT-Cleveland Ave

Project Number: PK-00056

Project Cost: $384,000

Category: Parks

Phase: DESIGN

Description: Construct bike/pedestrian path in MID alignment north of Fresno River to Cleveland Avenue between Granada Dr. and Schnoor Ave.

Justification: Provide multi-modal pathway connecting Fresno River and commercial areas to the northwest area of Madera.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering			35,000			35,000
Construction				310,000		310,000
Environmental			10,000			10,000
Construction Management/Inspection				29,000		29,000
Total			**45,000**	**339,000**		**384,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
CMAQ - Parks: 41700-303				300,000		300,000
Measure T - Enviromental Enhancement: 41570			45,000	39,000		84,000
Total			**45,000**	**339,000**		**384,000**

PROJECT DETAILS

Parks & Community Services

Centennial Park Rehab - Lighting — Project Number: PK-00063

Project Cost: $430,000

Category: Parks **Phase:**

Description: Installation of security lighting and other improvements at the John Wells Youth Center

Justification: Centennial Park is inadequately lit in consideration of public safety and protection of property.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
51,000	Construction	328,000					328,000
	Construction Management/Inspection	30,000					30,000
	Internal Cost Allocation	21,000					21,000
Total	Total	379,000					379,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
51,000	CDBG - Parks: 10221-433	379,000					379,000
Total	Total	379,000					379,000

PROJECT DETAILS

Parks & Community Services

FRT-Gateway/UPRR Undercrossing **Project Number: PK-00008**

Project Cost: $1,037,000

Category: Parks **Phase:** CONSTRUCTION

Description: This previously approved and designed project includes engineering, environmental and construction for a trail undercrossing at Gateway Drive and the Union Pacific Railroad trestle.

Justification:

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
35,000	Construction	902,000					902,000
Total	Construction Management/Inspection	90,000					90,000
	UPRR	10,000					10,000
	Total	1,002,000					1,002,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
35,000	ATP Grant	379,000					379,000
Total	BTA - State (Bicycle Transportation Acc: 41300-342	187,000					187,000
	CMAQ - Parks: 41700-303	298,000					298,000
	LTF - Parks: 42000-341	8,000					8,000
	SJVAPCD - Remove II Grant: 41300	55,000					55,000
	UPRR Match Funds	75,000					75,000
	Total	1,002,000					1,002,000

PROJECT DETAILS

Parks & Community Services

FRT-Granada to MID, North Bank — **Project Number: PK-00058**

Project Cost: $196,000

Category: Parks **Phase:** DESIGN

Description: Construct Vern McCullough River bike path - north bank of Fresno River Trail from Granada Drive to MID alignment.

Justification: Continuance of recreational and commuter multi-modal trail connecting northwest Madera to existing facilities.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Land Acquisition				21,000		21,000
Design/Engineering			30,000			30,000
Construction				120,000		120,000
Environmental			10,000			10,000
Construction Management/Inspection				15,000		15,000
Total			**40,000**	**156,000**		**196,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
CMAQ - Parks: 41700-303				35,000		35,000
Measure T - Enviromental Enhancement: 41570			40,000	121,000		161,000
Total			**40,000**	**156,000**		**196,000**

PROJECT DETAILS

Parks & Community Services

Ped/Bike Facilities — **Project Number:** PK-00001

Project Cost: $241,000

Category: Parks

Phase: CONSTRUCTION

Description: Maintain bike/pedestrian trails and construct new bike lanes and paths.

Justification: Maintenance and operational safety and matching funds for improvement projects.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
16,000	Construction	83,000	34,000	35,000	36,000	37,000	225,000
Total	**Total**	**83,000**	**34,000**	**35,000**	**36,000**	**37,000**	**225,000**

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
16,000	LTF - Parks: 42000-341	83,000	34,000	35,000	36,000	37,000	225,000
Total	**Total**	**83,000**	**34,000**	**35,000**	**36,000**	**37,000**	**225,000**

PROJECT DETAILS

Parks & Community Services

Sunrise Rotary Sports Complex — **Project Number: PK-00013**

Project Cost: $479,218

Category: Parks **Phase:** DESIGN

Description: This is a multi-phase project. Phase 1 completed. Phase 2 is conduit, wiring and connections and coordination for installation of new soccer field lights. Phase 3 is construction of concrete curb & gutter, chain link fence and re-grading to improve drainage. Planned improvements also include paving dirt access roads and parking areas; providing landscaping, irrigation and lighting.

Justification: Eliminate dust problem, all season access for parking.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	Design/Engineering	12,000					12,000
Total	Construction	417,218					417,218
	Construction Management/Inspection	40,000					40,000
	Total	469,218					469,218

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
10,000	CDBG - Parks: 10221-433	67,000					67,000
Total	Chukchansi Community Benefit Grant	52,218					52,218
	DIF:4088 Parks Impact Fee	350,000					350,000
	Total	469,218					469,218

PROJECT DETAILS

Parks & Community Services

Tulare/Cleveland/Raymond Bike Path — **Project Number: PK-00048**

Project Cost: $325,000

Category: Parks

Phase: DESIGN

Description: From the current eastern end of the trail this project would create a Class II bike lane and street crossings to take trail to intersection of Raymond Road and Cleveland Avenue. A new Class I Bike Trail would be constructed running east between the River and Raymond Road to end at the eastern Madera City Limits.

Justification: Construction of Fresno River Trail master plan per Vision 2025.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	10,000					10,000
Construction		285,000				285,000
Construction Management/Inspection		30,000				30,000
Total	**10,000**	**315,000**				**325,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
CMAQ - Parks: 41700-303		275,000				275,000
Measure T - Enviromental Enhancement: 41570	10,000	40,000				50,000
Total	**10,000**	**315,000**				**325,000**

PROJECT DETAILS

Public Works

Sewer Manhole Covers-Replacement — Project Number: S-000011

Project Cost: $106,000

Category: Sewer **Phase:** CONSTRUCTION

Description: Replace manhole covers, rings and frames at various locations.

-Ongoing project.

Justification: Sewer manhole covers, rings and frames have been determined as deteriorated and damaged. Replacement of these manhole covers and appurtenance will eliminate the problem.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
31,000	Construction	75,000					75,000
Total	Total	75,000					75,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
31,000	Sewer Utility Fund: 20400-511	75,000					75,000
Total	Total	75,000					75,000

PROJECT DETAILS

Public Works

4th/Gateway Valve Replacement — Project Number: W-000030

Project Cost: $250,000

Category: Water **Phase:**

Description: 4th/Gateway valve replacement and 12" line to Well 22

Justification:

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering			30,000			30,000
Construction				220,000		220,000
Total			**30,000**	**220,000**		**250,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Water Utility Fund: 20300-712			30,000	220,000		250,000
Total			**30,000**	**220,000**		**250,000**

PROJECT DETAILS

RDA Successor Agency

Adelaide Subdivision — Project Number: RDA-16-05

Project Cost: $1,290,755

Category: Street Construction **Phase:** DESIGN

Description: Parcel map needed for subdivision. Street project, water & sewer, joint trench, PG&E undergrounding.

706 - 728 Lilly

Justification: Blight elimination.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	84,900					84,900
Construction	1,135,320					1,135,320
Construction Management/Inspection	70,535					70,535
Total	1,290,755					1,290,755

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
RDA Funds	1,290,755					1,290,755
Total	1,290,755					1,290,755

CITY OF MADERA

PROJECT DETAILS

RDA Successor Agency

Malone — **Project Number: RDA-17-01**

Project Cost: $222,782

Category: Administrative

Phase:

Description: Parcel map needed - increase from 4 to 6 parcels. Water & sewer, PG&E.

309, 311, 313, 315 Malone Street

Justification: Blight elimination.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Construction	210,455					210,455
Construction Management/Inspection	12,327					12,327
Total	**222,782**					**222,782**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
RDA Funds	228,946					228,946
Total	**228,946**					**228,946**

CITY OF MADERA

PROJECT DETAILS

RDA Successor Agency

Mid Town Subdivision — **Project Number: RDA-17-03**

Project Cost: $1,249,313

Category: Administrative **Phase:**

Description: Plan review, water & sewer, PG&E, develop a sellable lot or lots.

7th & Sycamore.

Justification: Blight elimination.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	69,270					69,270
Construction	1,117,700					1,117,700
Construction Management/Inspection	62,343					62,343
Total	**1,249,313**					**1,249,313**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
RDA Funds	1,249,313					1,249,313
Total	**1,249,313**					**1,249,313**

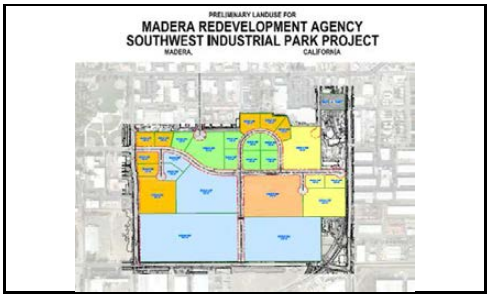
PROJECT DETAILS

RDA Successor Agency

SW Industrial Master Plan — Project Number: RDA-16-04

Project Cost: $70,000

Category: Administrative **Phase:**



Description: Plan review, water & sewer, PG&E, develop a sellable lot or lots.

Justification: Blight elimination.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Design/Engineering	70,000					70,000
Total	70,000					70,000

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
RDA Funds	70,000					70,000
Total	70,000					70,000

PROJECT DETAILS

RDA Successor Agency

Yosemite Lot Plan Review — Project Number: RDA-17-02

Project Cost: $220,650

Category: Administrative **Phase:**

Description: Plan review, water & sewer, PG&E, develop a sellable lot or lots.

1321,1399,1401,1403,1405,1407 E Yosemite

Justification: Blight elimination.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Construction	209,780					209,780
Construction Management/Inspection	10,870					10,870
Total	**220,650**					**220,650**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
RDA Funds	220,650					220,650
Total	**220,650**					**220,650**

PROJECT DETAILS

Transit Operations Facility — **Project Number: Trans-01**

Project Cost: $4,477,000

Category: Transit

Phase: DESIGN/CONSTRUCTION

Description: This project includes the design & construction of the Transit Operations & Administration Facility to accommodate long term projected growth.

Justification: To provide facilities to accommodate City of Madera Transit System consistent with Vision 2025 Strategy 121.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
550,000	Design/Engineering	7,000					7,000
	Construction	3,648,000					3,648,000
Total	Construction Management/Inspection	272,000					272,000
	Total	3,927,000					3,927,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
550,000	FTA 21228-399	2,083,000					2,083,000
	Measure T - Transit Enhan.: 41550	83,000					83,000
Total	Prop 1B PTMISEA: 21229-449	1,761,000					1,761,000
	Total	3,927,000					3,927,000

PROJECT DETAILS

Transit Program

Transit Security/Passenger Enhanc-B — Project Number: Trans-07

Project Cost: $169,000

Category: Transit **Phase:** DESIGN

Description: Installation of security & passenger improvements.

Justification: City of Madera Transit System enhancement and passenger amenities consistent with Vision 2025 Strategy 121 and Measure T.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Equip/Vehicles/Furnishings	20,000					20,000
Design/Engineering	15,000					15,000
Construction		119,000				119,000
Construction Management/Inspection		15,000				15,000
Total	35,000	134,000				169,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
53,000	Measure T - Transit Enhan. Sr.: 41560	44,000					44,000
Total	Measure T - Transit Enhan.: 41550		72,000				72,000
	Total	44,000	72,000				116,000

PROJECT DETAILS

Transit Security/Passenger Enhanc-C — **Project Number: Trans-08**

Project Cost: $162,000

Category: Transit **Phase:**

Description: Installation of security & passenger improvements.

Justification: City of Madera Transit System enhancement and passenger amenities consistent with Vision 2025 Strategy 121 and Measure T.

Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Equip/Vehicles/Furnishings				18,000		18,000
Design/Engineering			12,000			12,000
Construction				120,000		120,000
Construction Management/Inspection				12,000		12,000
Total			**12,000**	**150,000**		**162,000**

Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
Measure T - Transit Enhan. Sr.: 41560		6,000	6,000			12,000
Measure T - Transit Enhan.: 41550		74,000	76,000			150,000
Total		**80,000**	**82,000**			**162,000**

PROJECT DETAILS

Transit Program

Transit Security/Passenger Enhancmt — **Project Number:** **Trans-06**

Project Cost: $467,000

Category: Transit **Phase:** CONSTRUCTION

Description: Installation of security & passenger improvements. Bus shelter and amenities - 21 locations.

Justification: City of Madera Transit System enhancement and passenger amenities consistent with Vision 2025 Strategy 121 and Measure T.

Prior	Expenditures	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
49,000	Design/Engineering	25,000					25,000
	Construction	368,000					368,000
Total	Construction Management/Inspection	25,000					25,000
	Total	418,000					418,000

Prior	Funding Sources	'17/'18	'18/'19	'19/'20	'20/'21	'21/'22	Total
49,000	LCTOP Transit System: 21229-350	50,000					50,000
	Measure T - Transit Enhan. Sr.: 41560	18,000					18,000
Total	Measure T - Transit Enhan.: 41550	221,000					221,000
	Prop 1B CalOES: 41100-449	129,000					129,000
	Total	418,000					418,000

Return to Agenda

REPORT TO CITY COUNCIL

Approved by:

Department Director

City Administrator

Council Meeting of: April 5, 2017

Agenda Number: E-2

SUBJECT: Presentation of the Preliminary City of Madera Capital Budgets for Fiscal Year 2017/2018

RECOMMENDATION: No action recommended. Informational only.

DISCUSSION: This will be the first presentation to the City Council pertaining to the City of Madera Fiscal Year 2017/2018 Budgets. To avoid overwhelming Council with too much information in just one or two meetings, staff will bring four preliminary budget presentations before you. Then, a Budget workshop will be held with Council in early June, before approval of the final Budget is requested at the second meeting in June.

The Preliminary Budget being presented to Council is the Capital Budget. Much of this information was just reviewed by Council, in the presentation of the Preliminary Five-Year Capital Improvements Program (CIP). The CIP serves as the basis for the preparation of the Capital Projects Budget. Only if funds are available will the projects be approved through the budget process and then completed. If funds are not available, those projects that have been listed in the CIP will either be postponed or eliminated. In addition to the major CIP projects, certain capital needs may be identified and included in the Capital Budget. Council will have the opportunity to approve the final CIP and final Capital Budget at a later date. No action is requested of Council on this preliminary Capital Budget.

Capital Budgets differ from Operational Budgets because capital projects are primarily funded by reserves that have been built up over time for such projects, from annual allocations of transportation funds, from state and federal grants or from other one-time sources including donations and development impact fees. Operational Budgets are designed to be funded from current year operational revenues. Reserves and one-time sources of funds are only used to fund operations on an exception basis. The majority of operational expenses relate to staffing or personnel costs. When we hire employees to work for the City, we are typically making long-term commitments that are ideally funded by ongoing operational revenues from the respective year in which the revenues are received.

During the boom and prior to the beginning of the Big Recession in 2007, many cities thought that they could continue to rely on growth-related revenues such as development impact fees to

support operational costs and to fund ongoing personnel costs. The downturn of the housing market and the demise of those one-time revenue sources proved to have drastic effects on many of such cities, some of which filed for bankruptcy. The City of Madera even felt the crunch of the Great Recession and incrementally reduced its workforce and budget. Thanks to the foresight of the City Council, Madera avoided ramping-up such long-term commitments of large staffing increases in the General Fund. The City of Madera needs to protect and maintain its operational reserves to secure financial viability and to be prepared for future downturns or disasters. However, we also need to maintain our infrastructure. The funding sources for these capital projects are not operational reserves. Rather, they are funds that are designed for specific capital projects, as Council will see from the funding source descriptions.

In the final budget presentation, staff will provide information regarding the fund balances of the respective funds that are funding these proposed capital projects, as well as the balances of the General Fund and other operational funds and budgets. At this point, Council can be confident that the sources of funding for these proposed capital projects have been identified and are or will be available to fund these projects.

Included in the staff report is a summary listing of the proposed capital projects, with the funding sources listed across the top of that listing. These projects total approximately $15.7 million and include $998,000 of Sewer projects, $2,014,000 of Water projects, $6,607,470 of Street, Sidewalk and Bike Path projects, $1,120,713 of Parks projects, $1,830,160 of Transit projects, $576,946 for CDBG capital projects, $270,000 of Drainage projects, $2,250,000 of Fire projects and $15,000 for administrative services. Most of these projects have just been presented to Council in the preliminary 5-Year CIP report. The Engineering Department and/or other departments can answer any questions that Council may have about any specific project included in this Preliminary Capital Budget.

The line-item budget pages that are included with this presentation include the various capital expenditure line items, as well as our best revenue projections at this time for those budgets. Those projections will be refined as we get closer to the Final Budget presentation. When viewing these budget proposals, it is important to remember that it is normal for some of these projects to exceed the fiscal year's current revenues because funds have been accumulated over time for these specific projects that have been included in past years' CIP's.

These and other budgets that are used to fund capital projects will be updated as needed and presented to Council for approval at a later date. Capital purchases related to vehicle replacement and computer equipment replacement will be presented separately, when the Internal Service Fund budgets are presented. On the following page is a summary of the proposed capital budget expenditures. The line item budget detail is also attached to this staff report. The Finance Director will discuss how the format of our budgets are changing with our conversion to Tyler Munis. It has been a challenge for us to move to the new Project Ledger approach in this budget preparation process. So, we are using this format for this Capital Budget presentation and we will move to the new method of presentation once we have mastered the Project Ledger budgeting process.

CAPITAL BUDGET EXPENDITURE SUMMARY - FISCAL YEAR 2017/2018

SEWER		
	SEWER UTILITY- CAPITAL OUTLAY	976,000
	SEWER NEW MFR REQUIREMENTS - EXISTING AREA IMPACT FEES	22,000
	WASTE WATER DEVELOPMENT IMPACT FEES	-
		998,000
WATER		
	WATER UTILITY - CAPITAL OUTLAY	1,979,300
	WATER PIPE IMPACT FEES	34,700
	WATER WELL IMPACT FEES	-
		2,014,000
STORM DRAIN		
	STORM DRAIN NORTHWEST QUADRANT DEVELOPMENT IMPACT FEES	10,000
	STORM DRAIN SOUTHWEST QUADRANT DEVELOPMENT IMPACT FEES	10,000
	STORM DRAIN SOUTHEAST QUADRANT DEVELOPMENT IMPACT FEES	250,000
		270,000
PARKS		
	PARKS DEVELOPMENT IMPACT FEES	194,257
	PARKS DEVELOPMENT FUND	926,456
		1,120,713
FIRE		
	FIRE DEVELOPMENT IMPACT FEES	1,300,000
	MEASURE K CAPITAL OUTLAY - FIRE	950,000
		2,250,000
STREETS		
	SPECIAL GAS TAX - STREET MAINTENANCE	1,376,453
	RSTP - FEDERAL EXCHANGE	750,000
	STATE TRANSPORTATION IMPROVEMENT PROGRAM	-
	MEASURE A - CAPITAL FACILITIES	-
	MEASURE T - RTP - REHAB/RECONSTRUCTION	1,078,077
	MEASURE T - LTP STREET MAINTENANCE	509,593
	MEASURE T - LTP SUPPLEMENT STREET MAINTENANCE	342,996
	MEASURE T - LTP ADA COMPLIANCE	65,000
	MEASURE T - TRANSIT ENHANCEMENT	83,000
	MEASURE T - TRANSIT ENHANCEMENT/ADA/SENIOR	6,664
	MEASURE T - ENVIRONMENTAL ENHANCEMENT/BIKE/PEDESTRIAN	113,000
	MEASURE T - LTP - FLEXIBLE	-
	F.A.U. - STREET IMPROVEMENT PROJECTS	1,288,000
	BRIDGE PREVENTATIVE MAINTENANCE PROGRAM (BPMP)	121,357
	LOCAL TRANSPORTATION FUNDING - STREET PROJECTS	664,750
	LOCAL TRANSPORTATION FUNDING - PARKS/BIKE PATH PROJECTS	32,580
	TRAFFIC SIGNAL IMPACT FEES	176,000
		6,607,470
GRANTS		
	CDBG - PUBLIC IMPROVEMENT/CAPITAL PROJECT	576,946
		576,946
TRANSIT		
	MAX - CAPITAL OUTLAY	1,830,160
	PROPOSITION 1B PTMISEA - CalOES	-
	PROPOSITION 1B PTMISEA	-
		1,830,160
ADMIN		
	ADMINISTRATIVE SERVICES DEVELOPMENT IMPACT FEES	15,000
		15,000
	TOTAL CAPITAL BUDGET EXPENDITURES	15,682,289

FINANCIAL IMPACT: The proposed capital budgets will not have a direct impact on the City's General Fund, other than the $15,000 for administrative services. They represent approximately $15.7 million of capital expenditures to come from various Federal, State and Local Transportation funds and other funds (such as development impact fees or DIF's) that are listed in the summary above and proposed line-item budgets. Since this presentation is informational only and designed to familiarize Council with a portion of the budgets that will be approved in mid June, no action is requested of Council at this time. As such, there is no financial impact at this time.

CONSISTENCY WITH THE VISION MADERA 2025 PLAN: Approval of this item is consistent with Strategy 115 of the Vision Plan - Economic Resource Provision: Ensure sufficient economic resources to provide adequate City services and prepare for future growth. It is also in line with funding core services as articulated by the Vision Madera 2025 Plan.

DRAINAGE SYSTEM - CAPITAL OUTLAY
45000000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
6429-8320	Capital Contribution	(138,465)	(31,632)	0	0
	TOTAL REVENUE	**(138,465)**	**(31,632)**	**0**	**0**
MAINTENANCE AND OPERATIONS					
6900	***Interfund Charges - Fac.Maint.***				
6430-4000	Interfund Charges - Fac.Maint.	39,211	15,120	0	0
	TOTAL MAINTENANCE AND OPERATIONS	**39,211**	**15,120**	**0**	**0**
CAPITAL OUTLAY					
7030	**Facilities & Improvement**				
6429-5071	~~Storm Drainage Basin Fencing~~	0	0	0	0
	Subtotal	**0**	**0**	**0**	**0**
7050	**Construction/Infrastructure**				
6429-5085	San Sabastian Basin Overflow Pipeline	0	0	0	0
	Subtotal	**0**	**0**	**0**	**0**
	TOTAL CAPITAL OUTLAY	**0**	**0**	**0**	**0**
	TOTAL EXPENDITURES	**39,211**	**15,120**	**0**	**0**

SEWER UTILITY- CAPITAL OUTLAY
20403420

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
3580-8355	Transfer In	0	0	0	0
	TOTAL REVENUE	**0**	**0**	**0**	**0**
MAINTENANCE AND OPERATIONS					
3460-3500	Depreciation / Replacement	2,203,894	2,203,723	0	0
3580-4004	Interfund Charge Admin Overhead	54,602	2,364	0	0
	TOTAL MAINTENANCE AND OPERATIONS	**2,258,496**	**2,206,087**	**0**	**0**
CAPITAL OUTLAY					
7030	**Facilities & Improvement**				
3580-5034	Fairgrounds Liftstation SS-6	0	0	288,000	0
	Subtotal	0	0	288,000	0
7050	**Construction/Infrastructure**				
3472-5031	Replace Sewer Main - Sherwood Way - SS-2	0	0	246,000	189,000
3472-5032	Replace Sewer Main - Wessmith Way - SS-1	0	0	21,400	26,000
3472-5048	Parkwood & Parksdale Utility Study, U-1	0	0	232,680	0
3472-5072	Sewer Mains Bid Package 2	4,168	57,373	911,621	0
3472-5078	Sewer Mains,Replace/Repair. S-6	0	0	189,000	0
3472-5080	9th St.Sewer Main -Alley to Gateway,S-03	0	14,440	11,662	0
3472-5083	Madera Ave.Raise Manhole Covers & Water Valve Lid	0	0	74,800	75,000
3580-5033	Sewer System Assessment & Rehab Study	0	0	114,000	30,000
	Sewer Video Inspection & Testing	0	0	0	656,000
3580-5073	WTTP Groundwater Extraction Program	0	0	21,000	0
3580-5074	Schnoor Ave. Trunk Sewer System,S-12	0	0	649,702	0
	Subtotal	4,168	71,813	2,471,865	976,000
	TOTAL CAPITAL OUTLAY	**4,168**	**71,813**	**2,759,865**	**976,000**
	TOTAL EXPENDITURES	**2,262,664**	**2,277,900**	**2,759,865**	**976,000**

AIRPORT - CAPITAL PROJECTS
20503510

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4434	***Grant***				
3595-8434	Cal-Trans Div of Aeronautics	0	(2,979)	(36,565)	0
4450	***Grant/Capital Grant***				
3595-8450	FAA AIP Grant #27	(3,375)	(50,626)	(591,300)	0
3597-8453	FAA AIP Grant #26	(17,026)	(42,559)	(53,000)	0
3760-8456	FAA AIP Grant-22	(834,025)	0	0	0
	TOTAL REVENUE	**(854,426)**	**(96,164)**	**(680,865)**	**0**
CAPITAL OUTLAY					
7030	***Facilities & Improvement:***				
3730-5071	Update Airport Layout Plan,AIP#26	85,000	74,246	10,754	0
3760-5035	Engineering Design - Apron Drainage AIP-31	0	0	75,000	0
3760-5036	Runway, Taxiway & Apron Crack Seal AIP-33	0	0	657,000	0
3760-5080	Apron Reconstruction AIP 24	907,999	0	0	0
3760-5101	Pavement Management Program,AIP-26	22,668	28,086	0	0
3760-5070	Apron Reconstruction Phase II	0	0	150,413	0
	Subtotal	1,015,667	102,332	893,167	0
	TOTAL CAPITAL OUTLAY	**1,015,667**	**102,332**	**893,167**	**0**
	TOTAL EXPENDITURES	**1,015,667**	**102,332**	**893,167**	**0**

WATER UTILITY - CAPITAL OUTLAY
20303830

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
MAINTENANCE AND OPERATIONS					
2905-3500	Depreciation / Replacement	749,561	749,154	0	0
2905-3502	Capitalized Asset Contra Account	(21,550)	(577,528)	0	0
	TOTAL MAINTENANCE AND OPERATIONS	**728,011**	**171,626**	**0**	**0**
CAPITAL OUTLAY					
7030	**Facilities & Improvement:**				
2905-5059	Meter Shop	0	0	50,000	0
	Subtotal	0	0	50,000	0
7050	**Construction/Infrastructure:**				
2905-5048	Parkwood & Parksdale Utility Study, U-1	0	0	72,905	0
2905-5052	Retrofit of 4 Wells of Variable Frequency Drives	0	0	160,000	0
2905-5053	Sysem Upgrade - River Crossing at Gateway Dr	0	0	20,000	175,000
2905-5054	Pecan Ave Pipe - 480' west of Monterey to Monterey	0	0	11,000	5,600
2905-5056	Water Main Upgrades 10th St, W-08	0	0	10,000	0
2905-5057	Water Main Upgrades H St, W-06	0	0	10,000	0
	Well 28 Pump Replacement	0	0	0	500,000
2905-5055	Water Tower Demolition, W-26	0	0	10,000	250,000
2905-xxxx	Maple St. Water Pipe - Pine St. to Noble St.	0	0	0	61,500
2905-xxxx	Rotan Ave Water Pipe - Howard Rd to Plumas St	0	0	0	18,500
2905-xxxx	Olive Ave Water Pipe - Pine St to Noble St.	0	0	0	66,000
	Meter Shop	0	0	0	250,000
	Lake St Water Main-Ellis to Ave 17	0	0	0	60,000
2905-xxxx	Pump Station for Tank at Ave 17 & Lake St	0	0	0	138,000
	Pecan Ave Water Main, Madera-750'E	0	0	0	101,700
	Aviation Dr/Falcon Dr Water Main	0	0	0	48,000
2905-5058	Water Distribution Condition Assessment Study	0	0	300,000	155,000
	Asset Management Software	0	0	0	150,000
2905-5060	Complete Water Well #37 W-WG-1	0	0	1,012,000	0
	Ave 17/Sharon Blvd Improvements - Well	0	0	2,000,000	0
2905-5081	Water Well #18 installation	21,550	577,528	43,361	0
2905-5086	12-Inch Main - Tulare St, Daulton to Yosemite	0	0	2,130	0
2905-5092	Well #27 - Pipeline Outfall Ext., Almond/Winery	0	0	45,000	0
2905-5097	Commercial Water Meters-W23	122	27,866	2,670,805	0
2905-5113	4th Street Medians, R-56	0	0	100,000	0
	Subtotal	21,672	605,394	6,467,201	1,979,300
	TOTAL CAPITAL OUTLAY	**21,672**	**605,394**	**6,517,201**	**1,979,300**
	TOTAL EXPENDITURES	**749,683**	**777,020**	**6,567,201**	**1,979,300**

PARKS DEVELOPMENT FUND
41090000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
	Donations	(31,526)	0	0	0
	Transfer In from Fund 10221	(2,125)	0	0	0
4478	***HRPP Grant***				
	HRPP Grant	0	0	(721,750)	(350,000)
4438	***Fansler Foundation Grant***				
	Fansler Foundation Grant	0	(67,670)	(67,669)	0
	TOTAL REVENUE	**(33,651)**	**(67,670)**	**(789,419)**	**(350,000)**
CAPITAL OUTLAY					
7030	***Facilities & Improvement:***				
	Centennial Park, Playground, PK-61	0	0	67,669	410,000
	Knox Park Rehab, PK-59	0	9,500	380,500	55,238
	Centennial Park, Playground, PK-61	0	0	300,331	0
	Parks ADA Improvement, PK-62	0	0	40,919	0
	Donation:Sunrise Rotary Sports Complex Imp,PK-13	99,395	0	0	461,218
	Subtotal	99,395	9,500	789,419	926,456
	TOTAL CAPITAL OUTLAY	**99,395**	**9,500**	**789,419**	**926,456**
	TOTAL EXPENDITURES	**99,395**	**9,500**	**789,419**	**926,456**

MAX - CAPITAL OUTLAY
21285290

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4032-8434	Grant- Federal Section 5307	0	0	**(1,763,000)**	0
4030-8424	MAX Ops/Cap	0	0	0	0
4031-8424	DAR Ops/Cap	0	0	0	0
5170-8424	Intermodal Ops/Cap	0	0	0	0
4031-8425	MAX - STA City share	0	0	0	0
4266	**LCTOP**				
4032-8266	Low Carbon Transit Operation (LCTOP)	(50,146)	0	**(67,160)**	(28,876)
	TOTAL REVENUE	**(50,146)**	**0**	**(1,830,160)**	**(28,876)**
MAINTENANCE AND OPERATIONS					
4032-3500	Depreciation / Replacement	78,481	78,481	0	0
4032-3505	Loss on Disposal of Capital Asset	0	0	0	0
	TOTAL MAINTENANCE AND OPERATIONS	**78,481**	**78,481**	**0**	**0**
TOTAL CAPITAL OUTLAY					
7030	**Facilities & Improvement:**				
4032-5026	Security-Passenger Enhancement, Trans-6	0	0	50,146	0
4032-5030	New Transit & Public Works Facilities	0	0	0	1,763,000
4032-5075	Bus Shelters / Capital Enhancements-Trans-2	0	0	0	67,160
	Subtotal	0	0	50,146	1,830,160
	TOTAL CAPITAL OUTLAY	**0**	**0**	**50,146**	**1,830,160**
	TOTAL EXPENDITURES	**78,481**	**78,481**	**50,146**	**1,830,160**

PROPOSITION 1B PTMISEA
21295590

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4490	**Proposition 1B PTMISEA**				
4033-8490	Proposition 1B PTMISEA	0	(34,532)	(2,098,864)	0
4491	**Proposition 1B CalOES**				
4033-8491	Proposition 1B-OHS	(14,438)	0	0	0
5215-8491	Proposition 1B-CalOES	(20,865)	0	**(47,541)**	0
	TOTAL REVENUE	**(35,303)**	**(34,532)**	**(2,146,405)**	**0**
MAINTENANCE AND OPERATIONS					
4033-3500	Depreciation / Replacement	38,590	38,590	0	0
4033-3502	Capitalized Asset Contra Account	0	(34,532)	0	0
	TOTAL MAINTENANCE AND OPERATIONS	**38,590**	**4,058**	**0**	**0**
TOTAL CAPITAL OUTLAY					
7030	***Facilities & Improvement***				
4033-5030	New Transit and Public Works Facility, Trans-1	0	34,532	2,098,864	0
	Subtotal	0	34,532	2,098,864	0
	TOTAL CAPITAL OUTLAY	**0**	**34,532**	**2,098,864**	**0**
	TOTAL EXPENDITURES	**38,590**	**38,590**	**2,098,864**	**0**

CDBG - PUBLIC IMPROVEMENT/CAPITAL PROJECT
10218020

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4355	***Transfer-In***				
2217-8355	Transfer-In	(700,000)	0	0	0
4454	***C.D.B.G. Carryover Entitlement***				
2217-8454	C.D.B.G. Carryover Entitlement	(632,977)	(514,287)	0	(88,556)
4455	***C.D.B.G. Current Yr. Entitlement***				
2217-8455	C.D.B.G. Current Yr. Entitlement	(162,439)	(557,303)	(628,808)	(488,390)
4659	***Refunds and Reimbursements***				
2217-8659	Refunds and Reimbursements	0	0	0	0
	TOTAL REVENUE	**(1,495,416)**	**(1,071,590)**	**(628,808)**	**(576,946)**
CAPITAL OUTLAY					
6900	**Interfund Charges - Facility Mait.**				
2230-4000	Interfund Charges - Other	0	155,133	563,570	0
	Total Interfund Charges	0	155,133	563,570	0
CAPITAL OUTLAY					
7030	**Facilities & Improvement:**				
2217-5044	Parks ADA Improvement	0	0	65,238	0
2217-5076	Sunrise Rotary Sports Cmplx Impmts-PK-13	2,125	2,170	67,250	0
2217-5124	Centennial Park Rehab and Lighting	0	0	**430,000**	0
2217-5124	Fire Station # 6 Emergency Generator	0	0	**25,000**	0
2217-5124	Solar Powered LED Street Lights	0	0	**100,656**	0
	Housing Authority Pomona Ranch Improvements	0	0	0	150,000
	Washington School Sidewalks	0	0	0	176,946
	Elm Traffic Signal & Crosswalk Improvements	0	0	0	250,000
	Subtotal	2,125	2,170	688,144	576,946
7050	**Construction/Infrastructures**				
2217-5072	Sewer Mains, Package 2 - S-02	0	0	700,000	0
2230-7000	Operating Transfer to Other Funds	653,854	400,000	0	0
2230-7607	Pan Am Comm Center Parking Lot	17,647	0	0	0
2231-7601	Millview Sports Complex	2,125	0	0	0
2290-7601	Centennial Park Pool Improv.	3,100	0	0	0
2290-3096	Program Support-MAD Co. EDC	0	50,000	0	0
	Subtotal	676,726	450,000	700,000	0
	TOTAL CAPITAL OUTLAY	**678,851**	**452,170**	**1,388,144**	**576,946**
	TOTAL EXPENDITURES	**678,851**	**607,303**	**1,951,714**	**576,946**

PROPOSITION 1B PTMISEA - CalOES
41105492

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4491	***Prop 1B CalOES***				
5215-8491	Prop 1B CalOES	(20,865)	0	(129,609)	0
	TOTAL REVENUE	**(20,865)**	**0**	**(129,609)**	**0**
CAPITAL OUTLAY					
7030	***Facilities & Improvement***				
5215-5026	Security & Passenger Enhancements, Trans 6	0	0	129,609	0
5215-5040	Intermodal Bldg Improvement, Trans-3	20,865	0	0	0
	Subtotal	20,865	0	129,609	0
	TOTAL CAPITAL OUTLAY	**20,865**	**0**	**129,609**	**0**
	TOTAL EXPENDITURES	**20,865**	**0**	**129,609**	**0**

SPECIAL GAS TAX - STREET MAINTENANCE
41303310

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
5230-8163	Interest Income	(48)	0	0	0
4430	***Gas Tax - Section 2105***				
5230-8430	Gas Tax - Section 2105	(424,870)	(372,828)	(360,000)	(380,551)
4431	***Gas Tax - Section 2106***				
5230-8431	Gas Tax - Section 2106	(122,619)	(138,613)	(190,000)	(234,641)
4432	***Gas Tax - Section 2107***				
5230-8432	Gas Tax - Section 2107	(454,499)	(479,440)	(492,000)	(491,617)
4433	***Gas Tax - Section 2107.5***				
5230-8433	Gas Tax - Section 2107.5	(7,500)	(15,000)	(7,500)	(7,500)
4443	***Gas Tax Section 2103***				
5230-8443	Gas Tax Section 2103	(870,322)	(649,663)	(285,000)	(262,144)
	TOTAL REVENUE	**(1,879,858)**	**(1,655,544)**	**(1,334,500)**	**(1,376,453)**
MAINTENANCE AND OPERATIONS					
5230-3998	Prior year expenses	0	0	0	0
5305-4004	Interfund Charges - Admin. Overhead	250,000	250,000	0	0
	TOTAL MAINTENANCE AND OPERATIONS	**250,000**	**250,000**	**0**	**0**
TRANSFERS OUT					
8200	**Transfers Out**				
5305-7000	Operating Transfer to Dept 412	38,000	39,140	41,000	43,000
5305-7008	Transfers Out -> Street 328,531, 801	1,208,901	1,550,000	2,091,000	1,333,453
	TOTAL TRANSFERS OUT	**1,246,901**	**1,589,140**	**2,132,000**	**1,376,453**
	TOTAL EXPENDITURES	**1,496,901**	**1,839,140**	**2,132,000**	**1,376,453**

RSTP - FEDERAL EXCHANGE
41315320

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4429	***RSTP - Federal Exchange:***				
5230-8429	RSTP - Federal Exchange	(1,397,478)	0	(648,980)	(680,000)
	TOTAL REVENUE	**(1,397,478)**	**0**	**(648,980)**	**(680,000)**
CAPITAL OUTLAY					
7050	***Construction & Infrastructure:***				
5380-5061	Pine Pecan Street Improvements R-61	5,006	1,530,251	32,743	0
5575-5037	Lake/4th/Central Intersection R-57	0	51,857	0	750,000
5380-5086	Olive Ave Widening:Gateway to Knox, R-10	0	0	673,730	0
5380-5078	Lake St Widening: 4th to Cleveland, R-46	0	31,604	~~20,000~~	0
5380-5113	Fourth Street Median Landscaping R-56	0	7,732	236,168	0
	Subtotal	5,006	1,621,444	962,641	750,000
	TOTAL CAPITAL OUTLAY	**5,006**	**1,621,444**	**962,641**	**750,000**
	TOTAL EXPENDITURES	**5,006**	**1,621,444**	**962,641**	**750,000**

STATE TRANSPORTATION IMPROVEMENT PROGRAM
41305420

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
5575-8487	Safe Routes to School Grant (SR2SL)	0	(1,187)	0	0
9120-8820	State Transp. Improve.- Streets	(4,946,383)	(195,528)	0	0
4073	***BTA Grant***				
9120-8073	BTA Program- Bicycle Transp. Project	(16,649)	(81,905)	(518,223)	0
4487	***Safe Routes to School (SR2S) - State***				
9120-8487	Safe Routes to School (SR2S) - State	0	(1,187)	(276,613)	0
4447	***Remove II - SJVAPCD***				
9122-8447	Remove II - SJVAPCD	0	0	(91,866)	0
	UPRR Match Grant	0	0	0	0
	TOTAL REVENUE	**(4,963,032)**	**(279,807)**	**(886,702)**	**0**
CAPITAL OUTLAY					
7030	***Facilities & Improvements:***				
9120-5093	~~6th St Bike Lanes, "N" to Lake~~	88,903	5,481	0	0
	Subtotal	88,903	5,481	0	0
7050	***Construction/Infrastructure:***				
9120-5042	FRT Schnoor Brdg North Xing PK-54	911	0	314,089	0
9120-5085	FRT Gateway & UPRR Undercrossing PK-08	0	0	204,134	0
9122-5085	FRT Gateway & UPRR Undercrossing PK-08	0	0	54,866	0
9122-5108	Laurel Bike Path: Sunset to FRT - PK-12	0	0	37,000	0
9120-5110	Thomas Jefferson/John Adams Sidewalks,R-51	0	0	276,613	0
9120-5082	~~4th St.Widening, "K" to UPRR,R-4~~	5,141,911	0	0	0
	Subtotal	5,142,822	0	886,702	0
	TOTAL CAPITAL OUTLAY	**5,231,724**	**5,481**	**886,702**	**0**
	TOTAL EXPENDITURES	**5,231,724**	**5,481**	**886,702**	**0**

MEASURE A - CAPITAL FACILITIES
41500000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
CAPITAL OUTLAY					
7050	***Construction/Infrastructure:***				
9140-5072	Pine 4th, Pine to "K" R-25	188,063	0	9,021	0
9140-5086	Olive Ave Widening:Gateway to Knox, R-10	0	6,839	601,161	0
9140-5091	Pine St. Howard to 4th,R-50	944	0	518,016	0
	Ave 17/Sharon Blvd Improvements	0	0	1,120,000	0
	Subtotal	189,007	6,839	2,248,198	0
	TOTAL CAPITAL OUTLAY	**189,007**	**6,839**	**2,248,198**	**0**
	TOTAL EXPENDITURES	**189,007**	**6,839**	**2,248,198**	**0**

MEASURE T - RTP - REHAB/RECONSTRUCTION
41510.447

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4083	***Measure T Revenue***				
9156-8083	Measure T - RTP-Rehab/Construction	(1,046,176)	(731,823)	(907,789)	(979,988)
4162	***Interest Income***				
9156-8163	Interest Income	(6,220)	(8,373)	0	0
	TOTAL REVENUE	**(1,052,396)**	**(740,196)**	**(907,789)**	**(979,988)**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure:***				
9156-5047	Surface Seals & AC Overlays 15-16	0	0	445,382	50,000
9156-5065	Surface Seals & AC Overlays 14/15:R-55	2,958	82,158	369,502	0
9156-5072	4th St.Pine to "K", R-25	609,638	1,914	125,929	0
9156-5078	Lake St - 4th St to Cleveland R-46	20,285	59,018	800,495	878,077
9156-5086	Olive Ave Widening:Gateway to Knox, R-10	2,475	0	2,463,399	0
9156-5104	Cleveland- Cleveland Ave to SR 99	0	0	100,000	0
	Surface Seals-AC Overlays 18-19	0	0	0	300,000
	Subtotal	919,692	174,450	4,304,708	928,077
	TOTAL CAPITAL OUTLAY	**919,692**	**174,450**	**4,304,708**	**1,078,077**
	TOTAL EXPENDITURES	**919,692**	**174,450**	**4,304,708**	**1,078,077**

MEASURE T - LTP STREET MAINTENANCE
41520.447

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4083	***Measure T Revenue***				
9158-8083	Meas T- LTP Surf Seal Trtmnt/Dpt.328	(544,011)	(375,348)	(472,050)	(509,593)
4162	***Interest Income***				
9158-8163	Interest Income	(1,877)	(2,343)	0	0
	TOTAL REVENUE	**(545,889)**	**(377,691)**	**(472,050)**	**(509,593)**
TRANSFERS OUT					
8200	***Transfer Out***				
9158-7008	Transfers Out -LTP Strt to Dept328	417,000	146,323	471,015	509,593
	TOTAL TRANSFERS OUT	**417,000**	**146,323**	**471,015**	**509,593**
	TOTAL EXPENDITURES	**417,000**	**146,323**	**471,015**	**509,593**

MEASURE T - LTP SUPPLEMENT STREET MAINTENANCE
41530.447

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4083	***Measure T Revenue***				
9159-8083	Meas T -LTP Suppl Maint/dept 328	(366,162)	(252,638)	(317,726)	(342,996)
4162	***Interest Income***				
9159-8163	Interest Income	(276)	(356)	0	0
	TOTAL REVENUE	**(366,437)**	**(252,994)**	**(317,726)**	**(342,996)**
TRANSFERS OUT					
8200	***Transfer Out***				
9159-7008	Transfers Out - LTP to Dept 328	300,000	300,410	317,029	342,996
	TOTAL TRANSFERS OUT	**300,000**	**300,410**	**317,029**	**342,996**
	TOTAL EXPENDITURES	**300,000**	**300,410**	**317,029**	**342,996**

MEASURE T - LTP ADA COMPLIANCE
41540.447

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4083	***Measure T Revenue***				
9161-8083	Meas T -LTP ADA comp.-Sdwlk repair	(20,924)	(14,436)	(18,156)	(19,600)
4162	***Interest Income***				
9161-8163	Interest Income	(127)	(72)	0	0
	TOTAL REVENUE	**(21,050)**	**(14,508)**	**(18,156)**	**(19,600)**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure:***				
9161-5090	6th St. ADA Improvements, R-48	200	0	0	0
9161-5097	~~ADA Walkability Sidewalks, 14/15 R-52~~	3,636	46,634	0	0
9161-5112	ADA Walkability Sidewalks 15/16, R-64	0	0	68,964	65,000
	Subtotal	3,836	46,634	68,964	65,000
	TOTAL CAPITAL OUTLAY	**3,836**	**46,634**	**68,964**	**65,000**
	TOTAL EXPENDITURES	**3,836**	**46,634**	**68,964**	**65,000**

MEASURE T - TRANSIT ENHANCEMENT
41550.447

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4083	***Measure T Revenue***				
9162-8083	Meas T -Transit Enhanc/Bus Shelt -TEP	(76,578)	(52,837)	(66,455)	(71,740)
4162	***Interest Income***				
9162-8163	Interest Income	(198)	(372)	0	0
	TOTAL REVENUE	**(76,776)**	**(53,209)**	**(66,455)**	**(71,740)**
CAPITAL OUTLAY					
7000	***Vehicle & Equipment***				
9162-5025	Bus Acquisition	2,922	0	0	0
	Subtotal	2,922	0	0	0
7030	***Facilities & Improvement***				
9162-5026	Security & Passenger Enhancements, Trans-6	0	0	252,156	0
9162-xxxx	Security & Passenger Enhancements, Trans-7	0	0	0	0
9162-5030	New Transit & Public Works Facilities	4,769	24,295	5,141	83,000
9162-5075	Bus Shelters Capital Enhancements	0	0	0	0
	Subtotal	4,769	24,295	257,297	83,000
	TOTAL CAPITAL OUTLAY	**7,691**	**24,295**	**257,297**	**83,000**
	TOTAL EXPENDITURES	**7,691**	**24,295**	**257,297**	**83,000**

MEASURE T - TRANSIT ENHANCEMENT/ADA/SENIOR
41560.447

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4083	***Measure T Revenue***				
9163-8083	Measure T -Transit Enhance/ADA-Seniors	(7,114)	(4,908)	(6,173)	(6,664)
4162	***Interest Income***				
9163-8163	Interest Income	(99)	(123)	0	0
	TOTAL REVENUE	**(7,213)**	**(5,031)**	**(6,173)**	**(6,664)**
CAPITAL OUTLAY					
7030	***Facilities & Improvement***				
9163-5026	Security & Passenger Enhancements, Trans-6	0	0	17,691	0
9163-xxxx	Security & Passenger Enhancements, Trans-7	0	0	0	6,664
	Subtotal	0	0	17,691	6,664
	TOTAL CAPITAL OUTLAY	**0**	**0**	**17,691**	**6,664**
	TOTAL EXPENDITURES	**0**	**0**	**17,691**	**6,664**

MEASURE T - ENVIRONMENTAL ENHANCEMENT/BIKE/PEDESTRIAN
41570.447

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4083	***Measure T Revenue***				
9164-8083	Measure T-Enviro Enhance/Bike/Ped.	(83,694)	(57,746)	(72,623)	(78,399)
4162	***Interest Income***				
9164-8163	Interest Income	(285)	(437)	0	0
	TOTAL REVENUE	**(83,979)**	**(58,183)**	**(72,623)**	**(78,399)**
CAPITAL OUTLAY					
7030	***Facilities & Improvement***				
9164-5038	Ped Facilities/Schools & Commercial Areas R-62	0	0	5,000	0
	Subtotal	0	0	5,000	0
7050	***Construction/Infrastructure:***				
	Torres Way Alley Paving				15000
	Alley Paving Various-Location				81000
9164-5041	~~FRT -Schnoor Bridge -South Xing,PK-33~~	305	8,960	0	0
9164-5043	Tulare/Cleveland/Raymond Bike Path,PK-48	112	43	845	0
9164-5066	Bike/Ped Path Fresno River to Clevland PK-56	0	0	18,000	0
9164-5067	Bike/Ped Path FRT North Bank, Ph-1 PK-57	0	0	17,000	0
9164-5068	Bike/Ped Path FRT North Bank, Ph-2 PK-58	0	0	5,000	0
9164-5090	~~6th St. ADA Improvements. R-48~~	14,446	0	0	0
9164-5093	~~6th St Bike Lanes,"N" Lake,R-53~~	9,890	1,086	0	0
9164-5108	Laurel Bike Path Sunset to River Trail PK-12	11,132	11,755	174,100	0
	Storey Rd Shoulder Paving				4,000
9164-5112	ADA Walkability Sidewalks,15/16, R-64	0	0	74,623	13,000
	Subtotal	35,885	21,844	289,567	113,000
	TOTAL CAPITAL OUTLAY	**35,885**	**21,844**	**294,567**	**113,000**
	TOTAL EXPENDITURES	**35,885**	**21,844**	**294,567**	**113,000**

MEASURE T - LTP - FLEXIBLE
41580.447

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4083	***Measure T Revenue***				
9160-8083	Measure T Sales Tax Proceeds - Flex	(945,897)	(247,819)	0	(852,589)
	TOTAL REVENUE	**(945,897)**	**(247,819)**	**0**	**(852,589)**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure:***				
9160-5082	~~4th St "K" to West of UPRR,R-4~~	540,376	247,739	0	0
9160-5089	~~4th St Recon-Ph2(East of UPRR & Lake),R-5~~	302,014	0	0	0
	Subtotal	842,390	247,739	0	0
	TOTAL CAPITAL OUTLAY	**842,390**	**247,739**	**0**	**0**
	TOTAL EXPENDITURES	**842,390**	**247,739**	**0**	**0**

MEASURE T - TIER 1- REGIONAL STREETS
41590.447

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4083	***Measure T Revenue***				
9165-8083	Measure T Sales Tax Proceeds - Tier 1	(754,317)	(423)	0	0
4162	***Interest Income***				
9165-8163	Interest Income	(43)	(162)	0	0
	TOTAL REVENUE	**(754,360)**	**(585)**	**0**	**0**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure:***				
9165-5082	~~4th St "K" to West of UPRR,R-4~~	67,328	0	0	0
9165-5089	~~4th St Recon-Ph2(East of UPRR & Lake),R-5~~	522,483	0	0	0
	Subtotal	589,811	0	0	0
	TOTAL CAPITAL OUTLAY	**589,811**	**0**	**0**	**0**
	TOTAL EXPENDITURES	**589,811**	**0**	**0**	**0**

F.A.U. - CNG PROJECTS
41705020

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4422	***CMAQ Revenue***				
5083-8422	CMAQ Revenue	(141,823)	18,572	214,748	0
	TOTAL REVENUE	**(141,823)**	**18,572**	**214,748**	**0**
CAPITAL OUTLAY					
7030	***Facilities & Improvement:***				
5083-5077	CNG Fueling Station	0	0	0	0
	Subtotal	0	0	0	0
7000	***Vehicle & Equipment:***				
5083-5080	CNG Compressor CNG11-1 @Fuel Station	18,655	0	214,748	0
	Subtotal	18,655	0	214,748	0
	TOTAL CAPITAL OUTLAY	**18,655**	**0**	**214,748**	**0**
	TOTAL EXPENDITURES	18,655	**0**	**214,748**	**0**

F.A.U. - PARKS & PEDESTRAIN PROJECTS
41705030

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4422	***CMAQ Revenue***				
5082-8422	CMAQ Revenue	(55,788)	(33,402)	(1,059,775)	0
	TOTAL REVENUE	**(55,788)**	**(33,402)**	**(1,059,775)**	**0**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure:***				
5082-5043	Tulare/Clvland/Rymnd Bike Path PK 48	0	0	275,000	0
5082-5066	Bike/Ped Path: FRT to Cleveland Ave, PK-56	0	0	35,500	0
5082-5067	Bike/Ped Path: N. bank FRT, Ph 1 PK-57	0	0	37,000	0
5082-5068	Bike/Ped Path: N. bank FRT, Ph 2 PK-58	0	0	32,000	0
5082-5085	FRT-Gateway & UPRR Undercrossing - PK-08	0	0	298,000	0
5082-5108	Laurel Bike Path - Sunset fo FRT, PK-12	0	0	382,275	0
	Subtotal	0	0	1,059,775	0
	TOTAL CAPITAL OUTLAY	**0**	**0**	**1,059,775**	**0**
	TOTAL EXPENDITURES	**0**	**0**	**1,059,775**	**0**

F.A.U. - STREET IMPROVEMENT PROJECTS
41705070

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4422	***CMAQ Revenue***				
5575-8422	CMAQ Revenue	(10418)	(6,726)	(1,107,326)	(1,288,000)
4493	***HSIP Grant***				(311,000)
5575-8493	HSIP Grant	(10204)	(14,378)	(256,293)	0
4420	***Section 130***				
5575-8420	Section 130: Cleveland Ave UPRR Crossing Improv	(9379)	(15,647)	(436,896)	0
	ATP Grant				
	TOTAL REVENUE	**(30,000)**	**(36,751)**	**(1,800,515)**	**(1,599,000)**
CAPITAL OUTLAY					
7030	***Facilities & Improvement:***				
		0	0	0	0
	Subtotal	0	0	0	0
7050	***Construction/Infrastructure:***				
	Alley Paving Various-Location				720,000
5575-5037	Lake-Fourth-Central Intersection	0	0	67,000	460,000
	Storey Rd Shoulder Paving	0	0	0	27,000
5575-5038	Pedestrian Facilities/Schools & Commercial R-62	0	0	35,400	0
	Pecan Ave Shoulder Paving	0	0	0	58,000
	Golden State Blvd Shoulder Paving	0	0	0	10,000
5575-5063	Howard/Westberry Traffic Signa. - TS-19	0	0	354,000	0
5575-5071	Cleveland Ave @UPRR Traffic Signal, TS-14	11392	51,769	436,896	0
5575-5074	TSI-HSIP Various Locations TS-18	11765	6	256,293	0
	HOPYQ Intersection Traffic Signals	0	0	0	13,000
5575-5079	Gateway/Central/3rd/E St.Sidewalks, R-38	1024	4,672	269,304	0
5575-5081	Raymond Rd.Shoulder n/o Cleveland,R-37	1959	660	273,381	0
5575-5098	Cleveland/Schnoor Dual left Turn Lanes,TS-13	5897	176,872	108,241	0
	Subtotal	32,038	233,979	1,800,515	1,288,000
	TOTAL CAPITAL OUTLAY	**32,038**	**233,979**	**1,800,515**	**1,288,000**
	TOTAL EXPENDITURES	**32,038**	**233,979**	**1,800,515**	**1,288,000**

BRIDGE PREVENTATIVE MAINTENANCE PROGRAM (BPMP)
41705730

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4468	***Bridge Preventive Maint. BPMP-Grant***				
5580-8468	Bridge Preventive Maint. BPMP-Grant	(5,478)	(215,920)	(7,825)	(121,357)
	TOTAL REVENUE	(5,478)	**(215,920)**	**(7,825)**	**(121,357)**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure:***				
5580-5064	Prepare BPMP list for City Br, B-3	0	2,175	7,825	0
5580-XXXX	Repair/Rehab of 3 City Br, B-4	0	0	0	121,357
5580-5107	~~Bridge @ Schnoor/Cleveland B-1~~	12,197	203,512	0	0
	Subtotal	12,197	205,687	7,825	121,357
	TOTAL CAPITAL OUTLAY	12,197	**205,687**	**7,825**	**121,357**
	TOTAL EXPENDITURES	12,197	**205,687**	**7,825**	**121,357**

LOCAL TRANSPORTATION FUNDING - STREET PROJECTS
42005330

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4436	***LTF - Street***				
5800-8436	Local Transportation Allocation - Street	(792,890)	(1,033,567)	(2,774,176)	(1,210,571)
	TOTAL REVENUE	**(792,890)**	**(1,033,567)**	**(2,774,176)**	**(1,210,571)**
MAINTENANCE AND OPERATIONS					
6904	***Interfund Charges - Admin. Overhead***				
5830-4004	Interfund Charges - Admin. Overhead	70,000	70,000	0	0
	TOTAL MAINTENANCE AND OPERATIONS	**70,000**	**70,000**	**0**	**0**
CAPITAL OUTLAY					
7000	***Vehicle & Equipment:***				
5830-5080	CNG Compressor @fueling station,CNG11-1	9,535	0	139,048	0
	Subtotal	9,535	0	139,048	0
7030	***Facilities & Improvement:***				
5830-5090	~~6th St. ADA Improvemens R-48~~	219	0	0	0
	Subtotal	219	0	0	0
7050	***Construction/Infrastructure:***				
5830-5037	Intersection of 4th St/Lake St/Central Ave, R-57	0	0	31,000	10,000
5830-5039	Micro-Paver Distress Survey, Misc-4	0	0	70,000	0
5830-5040	Federal/State Local Match	0	0	50,000	0
5830-5045	Howard/Mainberry Ped X-Walk, TS-21	0	0	60,000	6,000
5830-5061	Pine-Pecan Street Improvement,R-61	1,938	760,893	437,169	0
5830-5063	Howard/Westberry Traffic Signal - TS-19	0	0	42,000	13,000
5830-	HOPYQ Intersection Traffic Signals	0	0	0	2,000
5830-5064	Prepare BPMP list for City Bridge,B-3	0	1,225	1,000	0
5830-xxxx	Repair/Rehab 3 City Br, B-4	0	0	0	50,000
5830-5074	TSI-HSIP Various Locations - TS-18	3,446	16,217	32,646	0
5830-5078	Lake St.Widening: 4th to Cleveland,R-46	0	0	600,000	0
5830-5079	Gateway/Central/3rd/E.St.Sidewalks, R-38	576	612	29,812	0
5830-5081	Raymond Rd,Shoulder n/o Cleveland, R-37	312	95	36,593	0
5830-5082	~~4th St Widening, "K" to UPRR, R-4~~	0	0	0	0
5830-5086	Olive Ave Widening:Gateway to Knox, R-10	0	0	336,877	0
5830-5088	~~Fourth St, Utility Undergrounding~~	45,208	0	0	0
5830-5092	UPRR Crossing Street Approaches,R-32	32,916	53,915	151,906	5,000
5830-5095	Traffic Warrants	20,587	19,280	25,720	10,000
5830-5096	Contingency/Project Admin	57,882	49,885	116,842	50,000
5830-5098	Cleveland Dual Left Turn Lanes at Schnoor,TS-13	195	30,094	26,375	0
5830-5100	Concrete Projects - Share Program,R-41	1,085	10,728	75,968	10,000
5830-5110	Thomas Jefferson/John Adams Sidewalks,R-51	132	2,037	29,220	0
5830-xxxx	Pedestrian Facilities/School & Commercial Areas	0	0	0	0
5830-5112	ADA Walkability Sidewalks,15/16,R-64	0	0	110,000	0
5830-xxxx	Sunset Ave. Sidewalks	0	0	0	31,500
5830-xxxx	Pecan Ave. Shoulder Paving	0	0	0	8,000
5830-xxxx	Golden State Blvd Shoulder Paving	0	0	0	2,000
5830-xxxx	Ave 17/Sharon Blvd Improvements	0	0	0	0
5830-xxxx	Rtne Maint City Bridges Fresno RVR	0	0	0	0
	Subtotal	164,277	944,981	2,263,128	156,000
	TOTAL CAPITAL OUTLAY	**174,031**	**944,981**	**2,402,176**	**176,750**
TRANSFERS OUT					
8200	***Transfer Out***				
5830-7008	Transfer - Fund 10200 (Depts 412)	289,500	412,000	465,000	488,000
	TOTAL TRANSFERS OUT	**289,500**	**412,000**	**465,000**	**488,000**
	TOTAL EXPENDITURES	**533,531**	**1,426,981**	**2,867,176**	**664,750**

LOCAL TRANSPORTATION FUNDING - PARKS/BIKE PATH PROJECTS
42005410

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4435	***LTF - Parks***				
5800-8435	Local Trans. Allocation - Bike Lanes	(22,322)	(24,299)	(138,762)	(32,580)
	TOTAL REVENUE	(22,322)	**(24,299)**	**(138,762)**	**(32,580)**
CAPITAL OUTLAY					
7030	***Facilities & Improvement:***				
5800-5086	Bike/Ped Facilities, PK 01	2,242	7,640	32,852	32,580
	Subtotal	2,242	7,640	32,852	32,580
7050	***Construction/Infrastructure:***				
5800-5042	FRT Schnoor Brdg North Xing, PK-54	2,951	6	35,858	0
5800-5085	FRT Gateway & UPRR Undercrossing,PK-08	2,740	20,963	17,163	0
5800-5108	Laurel Bike Path - Sunset to FRT, PK-12	20	7,332	63,648	0
	Subtotal	5,711	28,301	116,669	0
	TOTAL CAPITAL OUTLAY	**7,954**	**35,941**	**149,520**	**32,580**
	TOTAL EXPENDITURES	7,954	**35,941**	**149,520**	**32,580**

WATER DEVELOPMENT IMPACT FEE
40800000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	**Interest Income**				
4945-8163	INTEREST INCOME	(23)	(386)	(17)	(17)
	TOTAL REVENUE	**(23)**	**(386)**	**(17)**	**(17)**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure:***				
	Ave 17/Sharon Blvd Improvements	0	0	31,000	0
	Subtotal	0	0	31,000	0
	TOTAL CAPITAL OUTLAY	**0**	**0**	**31,000**	**0**
	TOTAL EXPENDITURES	**0**	**0**	**31,000**	**0**

WATER PIPE IMPACT FEES
40810000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income:***				
0500-8163	INTEREST INCOME	(409)	(7,666)	(450)	(500)
4053	***Residential Impact Fee***				
0501-8052	RES/WATER PIPE IMPACT FEE	(44,491)	(48,676)	(50,000)	(52,000)
4051	***Commercial Impact Fee***				
0502-8052	COMM/WATER PIPE IMPACT FEE	(3,250)	(616)	(259,000)	(1,000)
	TOTAL REVENUE	**(48,150)**	**(56,958)**	**(309,450)**	**(53,500)**
MAINTENANCE AND OPERATIONS					
0501-3800	DEVELOPER REIMBURSEMENT	2,462	0	0	0
	TOTAL MAINTENANCE AND OPERATIONS	**2,462**	**0**	**0**	**0**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure:***				
	Ave 17/Sharon Blvd Improvements	0	0	42,700	0
0500-5061	Pine-Pecan Street Improvements	0	0	259,000	0
	Pecan Ave Water Main, Madera - 750'E	0	0	11,300	0
0500-5054	Pecan Ave.Water Pipe, Monterey to west of Monterey	0	0	48,000	34,700
	Subtotal	0	0	361,000	34,700
	TOTAL CAPITAL OUTLAY	**0**	**0**	**361,000**	**34,700**
	TOTAL EXPENDITURES	**2,462**	**0**	**361,000**	**34,700**

WATER WELL IMPACT FEES
40820000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income:***				
0505-8163	INTEREST INCOME	(112)	(3,433)	(137)	(190)
4053	***Residential Impact Fee***				
0506-8064	RES/WATER WELL IMPACT FEE	(87,672)	(96,664)	(87,000)	(94,000)
4051	***Commercial Impact Fee***				
0507-8064	COMM/WATER WELL IMPACT FEE	(6,004)	(867)	(6,000)	(870)
	TOTAL REVENUE	(93,788)	**(100,964)**	**(93,137)**	**(95,060)**
CAPITAL OUTLAY					
6800	***Development Reimbursement***				
0505-3800	Developer Reimbursements	0	0	365,000	0
	TOTAL CAPITAL OUTLAY	0	**0**	**365,000**	**0**
	TOTAL EXPENDITURES	**0**	**0**	**365,000**	**0**

WASTE WATER DEVELOPMENT IMPACT FEES
40830000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4053	***Residential Impact Fee***				
4975-8061	RES/WWTP IMPACT FEES	(215,496)	(220,752)	(231,000)	(234,000)
4162	***Interest Income:***				
4975-8163	INTEREST INCOME	(344)	(3,406)	(175)	(375)
4051	***Commercial Impact Fee***				
4976-8061	COMM/WWTP IMPACT FEES	(26,816)	(3,459)	(4,600)	(3,700)
	TOTAL REVENUE	**(242,655)**	**(227,617)**	**(235,775)**	**(238,075)**
TRANSFERS OUT					
8200	***Transfer Out***				
4990-7000	OPERATING TRANSFER TO OTHER FUNDS	0	550,000	225,000	0
	TOTAL TRANSFERS OUT	**0**	**550,000**	**225,000**	**0**
	TOTAL EXPENDITURES	**0**	**550,000**	**225,000**	**0**

WESTBERRY/ELLIS SEWER IMPACT FEES
40840000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income:***				
0510-8163	INTEREST INCOME	(86)	(1,520)	(85)	(3,700)
4052	***SFR Impact Fee***				
0511-8051	SFR/EXISTING SEWER NEEDS-N.W.	(544)	(1,904)	(2,000)	(2,000)
4051	***Commercial Impact Fee***				
0513-8051	COMM/EXISTING SEWER NEEDS - NW	0	(56)	(56)	(56)
4053	***Residential Impact Fee***				
0517-8051	SFR/EXISTING SEWER NEEDS-S.W.	(1,904)	(1,632)	(1,000)	(100)
	TOTAL REVENUE	**(2,534)**	**(5,112)**	**(3,141)**	**(5,856)**
CAPITAL OUTLAY					
	Capital Outlay	0	0	0	0
	TOTAL CAPITAL OUTLAY	**0**	**0**	**0**	**0**
	TOTAL EXPENDITURES	**0**	**0**	**0**	**0**

ROAD 28 SEWER INTERCEPTOR IMPACT FEES
40850000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income:***				
0524-8163	INTEREST INCOME	(153)	(2,660)	(154)	(154)
4052	***SFR Impact Fee***				
0525-8051	SRF/Existing Sewer Needs-SE	0	(5,728)	(2,864)	(2,864)
	TOTAL REVENUE	**(153) #**	**(8,388)**	**(3,018)**	**(3,018)**
TRANSFERS OUT					
0524-7000	TRANSFERS OUT TO OTHER FUNDS	0	0	0	0
	TOTAL TRANSFERS OUT	**0**	**0**	**0**	**0**
	TOTAL EXPENDITURES	**0**	**0**	**0**	**0**

SEWER NEW MFR REQUIREMENTS - EXISTING AREA IMPACT FEES
40990000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4051	***Commercial Impact Fee***				
0530-8051	COMM/NEW REQ'TS/EXISTING AREA SWR	(843)	(71)	(500)	(500)
4162	***Interest Income:***				
0530-8163	INTEREST INCOME	(102)	(2,041)	(89)	(120)
4052	***SFR Impact Fee***				
0531-8051	SFR/NEW REQ'TS/EXISTING AREA SWR IMPACT	(17,280)	(19,710)	(19,000)	(19,500)
0532-8051	MFR/NEW REQ'TS/EXISTING AREA SWR IMPACT	0	0	0	
	TOTAL REVENUE	**(18,226)**	**(21,822)**	**(19,589)**	**(20,120)**
CAPITAL OUTLAY					
7030	***Facilities & Improvement:***				
0530-5034	Fairgrounds Liftstation SS-6	0		162,000	
	Subtotal	0	0	162,000	0
7050	***Construction/Infrastructure:***				
3472-5078	Sewer Mains,Replace/Repair. S-6				
0530-5031	Replace Sewer Main - Sherwood Way - SS-2	0		217,000	17,000
0530-5032	Replace Sewer Main - Wessmith Way - SS-1	0		24,600	5,000
	Subtotal	0	0	241,600	22,000
	TOTAL CAPITAL OUTLAY	**0**	**0**	**403,600**	**22,000**
	TOTAL EXPENDITURES	**0**	**0**	**403,600**	**22,000**

SEWER NEW SFR REQUIREMENTS - NORTHWEST AREA IMPACT FEES
41000000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income:***				
0534-8163	INTEREST INCOME	(41)	(715)	(60)	(60)
4051	***Commercial Impact Fee***				
0537-8051	COMM/NEW REQ'TS/SEWER/NW	0	(75)	(150)	(150)
4052	***SFR Impact Fee***				
0535-8051	SFR/NEW REQ'TS/SEWER/N.W.	(370)	(1,295)	(1,700)	(1,750)
	TOTAL REVENUE	**(411)**	**(2,085)**	**(1,910)**	**(1,960)**

SEWER NORTHEAST QUADRANT IMPACT FEES
41010000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income:***				
0539-8163	INTEREST INCOME	(93)	(1,602)	(92)	(92)
	TOTAL REVENUE	**(93)**	**(1,602)**	**(92)**	**(92)**
CAPITAL OUTLAY					
7030	***Facilities & Improvement:***				
0530-5034	Fairgrounds Liftstation SS-6	0	0	162,000	0
	Subtotal	0	0	162,000	0
7050	***Construction/Infrastructure:***				
	Ave 17/Sharon Blvd Improvements			131,000	
	Subtotal	0	0	131,000	0
	TOTAL CAPITAL OUTLAY	**0**	**0**	**293,000**	**0**
	TOTAL EXPENDITURES	**0**	**0**	**293,000**	**0**

SEWER SOUTHWEST QUADRANT IMPACT FEES
41020000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income:***				
0544-8163	INTEREST INCOME	(257)	(4,412)	(388)	(4,400)
4052	***SFR Impact Fee***				
0545-8051	SFR/NEW REQ'TS/SEWER/S.W.	(3,990)	(3,420)	(3,900)	(3,400)
	TOTAL REVENUE	**(4,247)**	**(7,832)**	**(4,288)**	**(7,800)**

SEWER SOUTHEAST QUADRANT IMPACT FEES
41030000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income:***				
0544-8163	INTEREST INCOME	(113)	(2,060)	(2,000)	(2,000)
4052	***SFR Impact Fee***				
0545-8051	SFR/NEW REQ'TS/SEWER/S.W.	0	(11,960)	(12,700)	(12,700)
	TOTAL REVENUE	**(113)**	**(14,020)**	**(14,700)**	**(14,700)**

DRAINAGE SYSTEM DEVELOPMENT IMPACT FEES
41040000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
6445-8163	Interest Income	(437)	(9,983)	(412)	(1,000)
4215	***Infrastructure Cost Payback***				
6445-8215	Infrastructure Cost Payback	(993)	0	0	0
4052	***SFR Impact Fee***				
6446-8059	SFR/Storm Drain Impact Fees	(143,764)	(165,272)	(175,000)	(175,000)
6447-8059	MFR/Storm Drain Impact Fees	0	0	0	0
4051	***Commercial Impact Fee***				
6448-8059	Comm/Storm Drain Impact Fees	(22,212)	(85)	(1,000)	(100)
	TOTAL REVENUE	**(167,406)**	**(175,340)**	**(176,412)**	**(176,100)**
MAINTENANCE AND OPERATIONS					
6445-3800	Developer Reimbursement	0	0	0	0
	TOTAL MAINTENANCE AND OPERATIONS	**0**	**0**	**0**	**0**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure:***				
6490-5061	Pine-Pecan Street Improvements	0	0	470,000	0
6490-5111	Various Retention Basins	0	0	10,000	0
	Subtotal	0	0	480,000	0
	TOTAL CAPITAL OUTLAY	**0**	**0**	**480,000**	**0**
	TOTAL EXPENDITURES	**0**	**0**	**480,000**	**0**

STORM DRAIN NORTHWEST QUADRANT DEVELOPMENT IMPACT FEES
41050000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
0559-8163	Interest Income	(266)	(4,741)	(407)	(1,000)
4052	***SFR Impact Fee***				
0560-8059	SFR/Storm Drain Impact/N.W.	0	(14,196)	(19,000)	(10,000)
4051	***Commercial Impact Fee***				
0562-8059	Comm/Storm Drain Impact/N.W.	0	(2,075)	(2,000)	(2,000)
	TOTAL REVENUE	**(266)**	**(21,012)**	**(21,407)**	**(13,000)**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure:***				
0559-5111	Various Retention Basins	0	0	10,000	10,000
	Subtotal	0	0	10,000	10,000
	TOTAL CAPITAL OUTLAY	**0**	**0**	**10,000**	**10,000**
	TOTAL EXPENDITURES	**0**	**0**	**10,000**	**10,000**

STORM DRAIN NORTHEAST QUADRANT DEVELOPMENT IMPACT FEES
41060000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
0564-8163	Interest Income	(121)	(2,139)	(70)	(2,000)
	TOTAL REVENUE	**(121)**	**(2,139)**	**(70)**	**(2,000)**
CAPITAL OUTLAY					
7030	***Facilities & Improvement:***				
	Ave 17/Sharon Blvd Improvements			68,138	0
0564-5071	Storm Drain Basin Fencing	0	0	68,210	0
	Subtotal	0	0	136,348	0
7050	***Construction/Infrastructure:***				
0564-5085	San Sabastian Basin Overflow Pipeline	0	0	68,426	0
0564-5102	Ellis St/Krohn St Retention Basin, SD-15-P07	0	0	100,000	0
0564-5111	Various Retention Basins	0	0	10,000	0
	Subtotal	0	0	178,426	0
	TOTAL CAPITAL OUTLAY	**0**	**0**	**314,774**	**0**
	TOTAL EXPENDITURES	**0**	**0**	**314,774**	**0**

STORM DRAIN SOUTHWEST QUADRANT DEVELOPMENT IMPACT FEES
41070000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
0571-8163	Interest Income	(129)	(64)	(79)	(200)
4052	***SFR Impact Fee***				
0572-8059	SFR/Storm Drain Impact/S.W.	(8,750)	(7,500)	(7,000)	(5,000)
	TOTAL REVENUE	**(8,879)**	**(7,564)**	**(7,079)**	**(5,200)**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure:***				
0572-5069	Granada Dr/Ave 12 1/2 Retention Basin SD-14-P11	0	0	~~100,000~~	0
0572-5111	Various Retention Basins	0	0	10,000	10,000
	Subtotal	0	0	110,000	10,000
	TOTAL CAPITAL OUTLAY	**0**	**0**	**110,000**	**10,000**
	TOTAL EXPENDITURES	**0**	**0**	**110,000**	**10,000**

STORM DRAIN SOUTHEAST QUADRANT DEVELOPMENT IMPACT FEES
41080000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
0579-8163	Interest Income	(216)	(3,995)	(175)	(1,000)
4052	***SFR Impact Fee***				
0579-8059	SFR/Storm Drain Impact/S.E.	0	(27,776)	(14,000)	(10,000)
0581-8059	Comm/Storm Drain Impact/S.E.	0		0	
	TOTAL REVENUE	**(216)**	**(31,771)**	**(14,175)**	**(11,000)**
CAPITAL OUTLAY					
7030	***Facilities & Improvement:***				
0579-5071	~~Storm Drain Basin Fencing~~	0	0	6,403	0
	Subtotal	0	0	6,403	0
7050	***Construction/Infrastructure:***				
	Sienna Basin	0	0	0	240,000
0579-xxxx	Southeast Quadrant Storm Drain	0	0	0	0
0579-5111	Various Retention Basins	0	0	10,000	10,000
	Subtotal	0	0	10,000	250,000
	TOTAL CAPITAL OUTLAY	**0**	**0**	**16,403**	**250,000**
	TOTAL EXPENDITURES	**0**	**0**	**16,403**	**250,000**

FIRE DEVELOPMENT IMPACT FEES
40860000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
6655-8163	Interest Income	(861)	(15,448)	(885)	(1,200)
4053	***Residential Impact Fee***				
6656-8053	Res/Fire Impact Fee	(51,224)	(56,616)	(60,000)	(56,000)
4051	***Commercial Impact Fee***				
6657-8053	Comm/Fire Impact Fee	(1,625)	(260)	(520)	(1,000)
	TOTAL REVENUE	**(53,710)**	**(72,324)**	**(61,405)**	**(58,200)**
CAPITAL OUTLAY					
7030	***Facilities & Improvement:***				
	Ladder Truck	0	0	0	1,300,000
	Subtotal	0	0	0	1,300,000
	TOTAL CAPITAL OUTLAY	**0**	**0**	**0**	**1,300,000**
	TOTAL EXPENDITURES	**0**	**0**	**0**	**1,300,000**

POLICE DEVELOPMENT IMPACT FEES
40870000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4053	***Residential Impact Fee***				
6686-8055	Res/Police Impact Fee	(82384)	(91,056)	(95,300)	(90,000)
4051	***Commercial Impact Fee***				
6687-8055	Comm/Police Impact Fee	(3250)	(521)	(900)	(1,800)
	Ind/Police Impact Fee				
6688-8055	Ind/Police Impact Fee	0	0	0	(2,000)
4162	***Interest Income***				
6700-8163	Interest Income	(152)	(2,555)	(157)	(95,300)
	TOTAL REVENUE	**(85,787)**	**(94,132)**	**(96,357)**	**(189,100)**
TRANSFERS OUT					
8200	***Transfers Out***				
6700-7000	Transfer to Police Services - Admin.	0	130,497	130,497	0
	TOTAL TRANSFERS OUT	**0**	**130,497**	**130,497**	**0**
	TOTAL EXPENDITURES	**0**	**130,497**	**130,497**	**0**

PARKS DEVELOPMENT IMPACT FEES
40880000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4088	***AB1600 Fees***				
6715-8060	A.B. 1600 Fees - Parks and Recreation	(403,256)	(445,704)	(430,000)	(443,000)
4162	***Interest Income***				
6730-8163	Interest Income	(549)	(13,086)	(565)	(1,000)
	TOTAL REVENUE	**(403,805)**	**(458,790)**	**(430,565)**	**(444,000)**
CAPITAL OUTLAY					
7030	***Facilities & Improvement:***				
6730-5076	Sunrise Rotary Sports Complex Imp, PK-13	0	0	350,000	0
	Subtotal	0	0	350,000	0
	TOTAL CAPITAL OUTLAY	**0**	**0**	**350,000**	**0**
TRANSFERS OUT					
8210	***Transfers Out - Debt Service***				
6730-7010	Transfers Out - Debt Service	194,257	194,257	194,257	194,257
	TOTAL TRANSFERS OUT	**194,257**	**194,257**	**194,257**	**194,257**
	TOTAL EXPENDITURES	**194,257**	**194,257**	**544,257**	**194,257**

PUBLIC WORKS DEVELOPMENT IMPACT FEES
40890000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
6820-8163	Interest Income	(664)	(11,736)	(684)	(1,000)
4053	***Residential Impact Fee***				
6821-8056	Res/Public Wks Impact Fee	(49,248)	(54,432)	(57,000)	(58,000)
4051	***Commercial Impact Fee***				
6822-8056	Comm/Public Wks Impact Fee	(6,004)	(962)	(1,650)	(3,000)
6824-8049	Alley Paving Contributions	(5,600)	0	0	
	TOTAL REVENUE	**(61,516)**	**(67,130)**	**(59,334)**	**(62,000)**
CAPITAL OUTLAY					
7030	***Facilities & Improvement:***				
6820-5030	New Transit and Public Works Facility	1,418	35,382	623,200	0
	Subtotal	1,418	35,382	623,200	0
7050	***Construction/Infrastructure:***				
6820-5061	Pine-Pecan Street Improv. R-61	1,473	0	152,527	0
	Subtotal	1,473	0	152,527	0
	TOTAL CAPITAL OUTLAY	**2,891**	**35,382**	**775,727**	**0**
	TOTAL EXPENDITURES	**2,891**	**35,382**	**775,727**	**0**

STREET DEVELOPMENT IMPACT FEES
40900000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
6835-8163	Interest Income	(122)	(2,065)	(126)	(1,000)
	TOTAL REVENUE	**(122)**	**(2,065)**	**(126)**	**(1,000)**

GENERAL GOVERNMENT DEVELOPMENT IMPACT FEES
40920000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
0585-8163	Interest Income	(504)	(9,132)	(519)	(1,000)
4053	***Residential Impact Fee***				
0586-8054	Res/General Gov't Impact Fee	(35,112)	(38,808)	(40,700)	(38,000)
4051	***Commercial Impact Fee***				
0587-8054	Comm/General Gov't Impact Fee	(542)	(87)	(150)	(150)
	TOTAL REVENUE	**(36,158)**	**(48,027)**	**(41,369)**	**(39,150)**

TRANSPORTATION DEVELOPMENT IMPACT FEES
40930000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
0591-8163	Interest Income	(1,759)	(32,340)	(1,800)	(1,800)
4053	***Residential Impact Fee***				
0592-8062	Res/Transportation Impact Fee	(144,552)	(159,768)	(167,000)	(155,000)
4051	***Commercial Impact Fee***				
0593-8062	Comm/Transportation Impact Fee	(11,467)	(1,837)	(3,150)	(5,000)
	Commercial Impact Fee				
0594-8062	Ind/Transportation Impact Fee	0	0	0	(18,000)
	TOTAL REVENUE	**(157,778)**	**(193,945)**	**(171,950)**	**(161,800)**
CAPITAL OUTLAY					
	Ave 17/Sharon Blvd Improvements	0	0	1,090,000	0
	TOTAL CAPITAL OUTLAY	**0**	**0**	**1,090,000**	**0**
	TOTAL EXPENDITURES	**0**	**0**	**1,090,000**	**0**

ADMINISTRATIVE SERVICES DEVELOPMENT IMPACT FEES
40940000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
0650-8163	Interest Income	(39)	(359)	(30)	0
4053	***Residential Impact Fee***				
0651-8063	Res/Admin. Services Impact Fee	(14,288)	(15,792)	(15,000)	(15,000)
4051	***Commercial Impact Fee***				
0652-8063	Comm/Admin. Services Impact Fee	(1,083)	(174)	(1,000)	(1,000)
	TOTAL REVENUE	**(15,411)**	**(16,325)**	**(16,030)**	**(16,000)**
MAINTENANCE AND OPERATIONS					
6451	***Bank Service Charges***				
0651-3051	Bank Service Charges	419	(11)	0	0
	TOTAL MAINTENANCE AND OPERATIONS	**419**	**(11)**	**0**	**0**
TRANSFERS OUT					
8200	***Transer Out***				
0651-7000	Transfer to Fund 10200	0	50,000	25,000	15,000
	TOTAL TRANSFERS OUT	**0**	**50,000**	**25,000**	**15,000**
	TOTAL EXPENDITURES	**419**	**49,989**	**25,000**	**15,000**

MEDIAN ISLAND DEVELOPMENT IMPACT FEES
40950000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	**Interest Income**				
0656-8163	Interest Income	(132)	(3,239)	(136)	(3,000)
4053	**Residential Impact Fee**				
0657-8058	Median Island Impact Fee	(65,387)	(65,924)	(69,000)	(42,000)
	TOTAL REVENUE	**(65,518)**	**(69,163)**	**(69,136)**	**(45,000)**
MAINTENANCE AND OPERATIONS					
0657-3800	Developer Reimbursement	0	0	0	0
	TOTAL MAINTENANCE AND OPERATIONS	**0**	**0**	**0**	**0**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure:***				
0656-5061	Pine-Pecan Street Improvements	0	0	190,000	0
	Subtotal	0	0	190,000	0
	TOTAL CAPITAL OUTLAY	**0**	**0**	**190,000**	**0**
	TOTAL EXPENDITURES	**0**	**0**	**190,000**	**0**

ARTERIAL/COLLECTOR STREET DEVELOPMENT IMPACT FEES
40960000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
0661-8163	Interest Income	(1,360)	(19,813)	(1,400)	(5,000)
4050	***Impact Fee***				
0661-8058	Arterial Street Impact Fee	(117,275)	(118,403)	(124,400)	(128,000)
0662-8058	Collector Street Impact Fee	(117,275)	(118,403)	(124,400)	(128,000)
	TOTAL REVENUE	**(235,911)**	**(256,619)**	**(250,200)**	**(261,000)**
CAPITAL OUTLAY					
7050	**Construction/Infrastructure**				
0661-5061	Pine-Pecan Street Improvements	25,620	745,448	223,931	0
0661-5094	Olive Ave.Concept Plan, R-49	2,844	5,088	510,060	0
0661-5099	Sharon Blvd Ellis - Ave.17 CDD-1d	728	0	44,567	0
0661-5086	Olive Ave Widening:Gateway to Knox, R-10	0	0	500,000	0
	Ave 17/Sharon Blvd Improvements	0	0	580,000	0
	TOTAL CAPITAL OUTLAY	**29,192**	**750,536**	**1,858,558**	**0**
	TOTAL EXPENDITURES	**29,192**	**750,536**	**1,858,558**	**0**

TRAFFIC SIGNAL IMPACT FEES
40970000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
0666-8163	Interest Income	(878)	(15,504)	(900)	(5,000)
4050	***Impact Fee***				
0667-8058	Traffic Signal Impact Fee	(39,648)	(40,109)	(42,000)	(43,000)
	TOTAL REVENUE	**(40,525)**	**(55,613)**	**(42,900)**	**(48,000)**
TOTAL CAPITAL OUTLAY					
7030	***Facilities & Improvement:***	0	0	0	0
	Subtotal	**0**	**0**	**0**	**0**
7050	***Construction/Infrastructure***				
0666-5061	Pine-Pecan Street Improvements	0	0	77,000	0
	Ave 17/Sharon Blvd Improvements	0	0	403,000	0
0666-5071	Cleveland Avenue @UPRR, TS-14	0	18	99,221	0
0666-xxxx	Granada Drive & Howard Rd. Traffic Signal	0	0	0	176,000
	Subtotal	0	18	579,221	176,000
	TOTAL CAPITAL OUTLAY	**0**	**18**	**579,221**	**176,000**
	TOTAL EXPENDITURES	**0**	**18**	**579,221**	**176,000**

TRAFFIC SPECIAL IMPACT FEES
40980000

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
6910-8163	Interest Income	(168)	(2,313)	(50)	(2,000)
	TOTAL REVENUE	**(168)**	**(2,313)**	**(50)**	**(2,000)**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure***				
6910-5103	Ellis St./Ave 16 (Ph II)Overcrossing R-6B	52,009	13,106	209,732	0
	Subtotal	52,009	13,106	209,732	0
	TOTAL CAPITAL OUTLAY	**52,009**	**13,106**	**209,732**	**0**
	TOTAL EXPENDITURES	**52,009**	**13,106**	**209,732**	**0**

MEASURE K CAPITAL OUTLAY - FIRE
10252500

OBJECT/ ACCOUNT	DESCRIPTION	FY 2015 ACTUALS	FY 2016 ACTUALS	FY 2017 BUDGET	FY 2018 PROPOSED
REVENUE					
4162	***Interest Income***				
6910-8163	Interest Income	0	0	0	0
	TOTAL REVENUE	**0**	**0**	**0**	**0**
CAPITAL OUTLAY					
7050	***Construction/Infrastructure***				
	Land Acquisition/Right of Way - New Fire Station	0	0	0	500,000
	Design/Environmental - New Fire Station	0	0	0	450,000
	Subtotal	0	0	0	950,000
	TOTAL CAPITAL OUTLAY	**0**	**0**	**0**	**950,000**
	TOTAL EXPENDITURES	**0**	**0**	**0**	**950,000**

TOTAL CAPITAL BUDGET REVENUE AND EXPENDITURES

TOTAL REVENUE	**(17,514,512)**	**(8,319,559)**	**(18,631,707)**	**(10,797,400)**
TOTAL EXPENDITURES	**15,907,954**	**11,967,218**	**41,313,126**	**15,682,289**
NET EXPENDITURES/(REVENUE)	**(1,606,559)**	**3,647,658**	**22,681,418**	**4,884,889**