Stratford PUD Community Review

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8.4 Stratford Community Pilot Project

8.4.1 Description of Stratford Public Utility District

The town of Stratford is located in Kings County, approximately 4.5 miles south of Lemoore California. As a rural area with a population of 1,250 (Census 2000), the community is surrounded by open space and agriculture land. The Stratford Public Utility District (SPUC) provides community services (Water, Sewer, and a Park) to the residents of Stratford.

Staff

How many people are employed by SPUD?

Water System Description

The Stratford Public Utility District operates a water distribution system. The existing infrastructure of the water distribution system consists of approximately 300 metered service connections, 4 inch and 6 inch diameter asbestos cement piping, and approximately 65 existing fire hydrants. There are currently three (3) existing wells in Stratford (Well No.s 5, 6, and 7). Well No.5 is produces approximately 500 gallons per minute (gpm), Well No. 6 is not operational, and Well No. 7 produces approximately 500 gpm. Currently, the SPUD maintains a water storage tank that has a storage capacity of approximately 30,000 gallons.

Existing Facilities

Currently all water produced from wells is chlorinated at the well head prior to entry into the distribution system. The existing infrastructure of the water distribution system consists of approximately 300 metered service connections, 4 inch and 6 inch diameter asbestos cement piping, and approximately 65 existing fire hydrants. The existing water distribution system is currently operating under the State Department of Health Services Water Permit No. 1610006. Water quality is further analyzed in 2005 Annual Drinking Water Quality Report dated July 1, 2006. The SPUD continues to monitor water quality of existing water supply.

Future Facilities

At this time the Stratford Public Utility District has not identified any future improvements to existing facilities.

Water Quality

New Federal Arsenic Minimum Containment Level (MCL) of 0.010 milligrams per liter were established by the United States Environmental Protection Agency (EPA) went into effect January 2006. The State of California is in the process of developing and adopting new standards for levels of arsenic containments in drinking water. The EPA has the enforcement authority for new Federal Arsenic MCL until California regulations are adopted. The Stratford PUD has detected intermittent traces of benzene in the groundwater pumped from one of the PUD's well site. In addition, the District has been addressing secondary water quality issues which includes; water color, odor, and iron.

Water Storage

Currently, the SPUD maintains a water storage tank that has a storage capacity of approximately 30,000 gallons.

Wastewater System Description

The Stratford Public Utility District operates a Sewer Collection System and Wastewater Treatment Facility. The existing Collection System includes a network of sewer mains, sewer laterals, and associated facilities that collect wastewater from residents and businesses in the town. The collection system brings the wastewater to an existing treatment plant. Currently the system has approximately 300 sewer residential and commercial laterals which collect and ultimately convey an average of 88,500 gallons of wastewater to the treatment plant per day. The wastewater is pumped into aeration ponds located on the treatment plant property.

Wastewater Treatment Plant and Disposal

The existing wastewater treatment was constructed in the 1930's and includes a treatment and discharge facility. Currently, the collection system conveys on average 88,500 gallons of wastewater per day to the treatment facility. The wastewater is pumped into aeration ponds located on the plant site. The California Regional Water Quality Control Board Central Valley Region Order No. 82-068, identifies the plant capacity to be 150,000 gal/day.

Financial

The Fiscal Year 2012/2013 budget (water only) is $144,100. The Fiscal Year 2012/2013 year to date expenditures (water only) were $178,442. The 2010 median household income was $26,000.

Cash

Rates

The water rate is metered with a base rate of $13.00 per month regardless of meter size, includes 4,000 gallons and $1.20 per 1,000 gallons over the 4,000 gallons. The average monthly water bill is approximately $36.40.

Fees

What are the connection fees? Any other fees?

Previous Funding Applications

Stratford PUD has submitted five pre-applications to the State Drinking Water State Revolving Fund for

1. Above Ground Storage Tanks August 2008, $200,000
2. Odor Mitigation and Water Storage Project February 2009, $750,000
3. Well 7 Methane Reduction September 2009, $1,400,000
4. System Pressure and Source Capacity Enhancement , September 2009, $1,700,000
5. Source Capacity Mitigation Project July 2013, $4,412,000

8.4.2 Challenges Faced by Stratford Public Utility District

The challenges faced by the Stratford Public Utility District include:

- Disadvantaged
- Insufficient water supply to meet maximum day demands with the largest well out of service
- Aged and Undersized water distribution mains
- Perched water and corrosive soils
- Minimal water storage
- No cash reserves
- Not able to join an IRWM

8.4.3 Goals of the Stratford Community Pilot Project

The goals of the Stratford Community Pilot Project included:

- Provide information to the community participants about the goals and objectives of the Tulare Lake Basin DAC study and the New Sources Pilot Study.
- Develop an understanding of the local water and wastewater challenges faced by the community.
- Provide preliminary alternative solutions identified in the New Sources pilot study.
- Obtain feedback on the preliminary alternative solutions identified.
- Provide recommendations to the community for future actions to consider.
- Develop Decision Trees that represent past and potential actions for Stratford PUD to consider.

8.4.4 Description of the Stratford Community Pilot Project

Authorization to Include Stratford PUD in the DAC Study

Michael Taylor of Provost & Pritchard attended a regularly scheduled Board Meeting of the Stratford Public Utility District on November 13, 2013. Mr. Taylor briefly described the Disadvantaged Community Study that was being conducted and requested the Stratford Public Utility District authorize its inclusion in the Study through the Community Pilot Project process. The Board of Directors of the Stratford Public Utility District authorized the participation.

Pilot Project Activities Summary

1. Obtain and review records
2. Meet with District and operations staff
3. Discussions with CDPH – regulatory and funding
4. Review potential of physical consolidation with Cal Water (City of Visalia)
5. Review past funding applications
6. Prepare draft Decision Trees
7. Conduct a Community Review Meeting
8. Summarize activities
9. Provide recommendations for District consideration

Community Review Meeting

A community meeting was held on February 25, 2014 at the Stratford Public Utility District office (minutes of the meeting are included as Appendix ____). The meeting was attended by two Stratford PUD Board Members, residents of the Stratford community, Self Help Enterprises, Community Water Center, and Provost & Pritchard. The meeting was organized and facilitated by Maria Herrera of The Community Water Center. Michael Taylor of Provost & Pritchard Consulting Group provided information on the overall Tulare Lake Basin Disadvantaged Community Study, a general description of Decision Trees, and the alternatives that may be viable for Stratford to consider to address its water supply challenges. All attendees were encouraged to ask questions and provide any additional information for the study. The discussion was translated to Spanish during the meeting.

1. Stratford PUD Community Review Process
    a. Goals of the Stratford Community Review

i. Stratford would like a reliable drinking water source.

b. Selection of Stratford PUD for Community Review

i. Stratford is truly an isolated water system that cannot look to others for help. They must find a solution to provide a viable drinking water system that will not cause health issues for the residents.

c. Results of Stratford PUD Community Review

i. Stratford appears to be open to discussion regarding how to upgrade their current water system. As well as the issues with the wells, the distribution system is also older than 50 years old and is in need of upgrades.

d. Potential Water System New Sources

i. Stratford cannot consolidate with another water system since there are no systems within a reasonable and economically feasible distance. Well 6 needs to be fixed and redeveloped if possible. Well 7 needs a tank to aerate the methane from the water, so it is safe to drink.

e. Recommended Future Action

i. Determine whether Well 6 can be fixed or if it needs to be listed as Non-Active with CDPH. Resubmit the most recent, July 2013, State Drinking Water State Revolving Fund pre-application to show insufficient water supply during maximum day and peak hour. Currently, the system is placed within the SRF Category M. This means the water system does not meet the Water Works Standard or does not meet the TMF criteria but does have a project that could be listed in any of the above categories.

Each of the nine (9) generic water supply alternatives were described and discussed regarding the potential relevance to the community of Stratford.

Physical Consolidation

Stratford is truly an isolated water system that cannot look to others for help. They must find a solution to provide a viable drinking water system that will not cause health issues for the residents.

Exchanges/Contracting for Surface Water

The Stratford Public Utility District does not presently own surface water rights. Although the Stratford Irrigation District is near the Stratford Public Utility District, the requirements of purchasing surface water, contracting for conveyance to the District, constructing a surface water treatment plant, and operation of a surface water treatment plant are extensive and do not warrant further consideration at this time.

Recharge of Local Area

The Stratford Public Utility District lies adjacent to the South Fork of the Kings River. Recharge of the local area is not a need for the District. In fact, some of the challenges faced by the District are due to the perched water conditions of the area.

Regional Facility

Stratford is truly an isolated water system that cannot look to others for help. They must find a solution to provide a viable drinking water system that will not cause health issues for the residents.

New Water Supply Well

Due to the insufficient water supply, it is determined that the Stratford PUD requires an additional water supply well. The Stratford PUD recently applied for financial assistance to address the deficiency of source water in July 2013.

A site for the proposed well and water storage tank has not been defined.

Water Treatment Facility

The Stratford Public Utility District does not require a water treatment plant to address primary constituents, however, the District does require a water storage tank that would allow for venting of the methane that is a constituent of Well No. 7.

Conservation

Ivanhoe PUD presently utilizes water meters. The Ivanhoe PUD is presently reviewing the establishment of water conservation policies and/or public education associated with water conservation.

Restrict Potable Water Deliveries from Agricultural or Large Turf Irrigation

The District may wish to consider coordinating with the school for the construction of a non potable water supply well for irrigation of the school landscaping. If so, the District may consider applying for funding for such a project. It is also possible for the school to apply for funds to construct a well for the purposes of landscape irrigation and fire demands.

All potable water use at the school would require a separate water distribution system from the non potable system.

Mitigate a Source of Contamination

This alternative does not apply to the circumstances of the Stratford PUD.

8.4.5 Recommended Future Actions and Schedule

1. Place Well No. 6 as standby in the Water Supply Permit.
2. Update the Funding Application for a new water supply well with the reinforced consideration that the District does not have a sufficient water supply.
3. Upon receipt of funding assistance, proceed with construction of a water supply well and water storage tank.
4. It is recommended that the District maintain interest in the Kings Basin IRWMP as it may be available as a vehicle to utilize to apply for funding assistance for future water supply improvements. IRWMP's may be a viable mechanism to utilize to receive funding assistance.
5. Investigate the potential of working with the school to construct a new water supply well for the purpose of irrigation of school landscaping.

Financial analysis of any proposed projects would need to evaluate affordability, revenue sources, estimated capital costs, estimated operation and maintenance costs, estimated debt service and proposed rate adjustments, if needed, and their impact on the community.

During the feasibility study and alternatives analysis it is important to provide information to the public through public meetings and presentations. It is important for the community to understand and be involved with any changes to their water and wastewater systems. Due to the large Spanish speaking population in the community, it is important to have materials translated into Spanish and have interpreters available at any public meetings. An informed community may be more likely to become involved in the process and have a constructive voice in determination of any recommended improvements.

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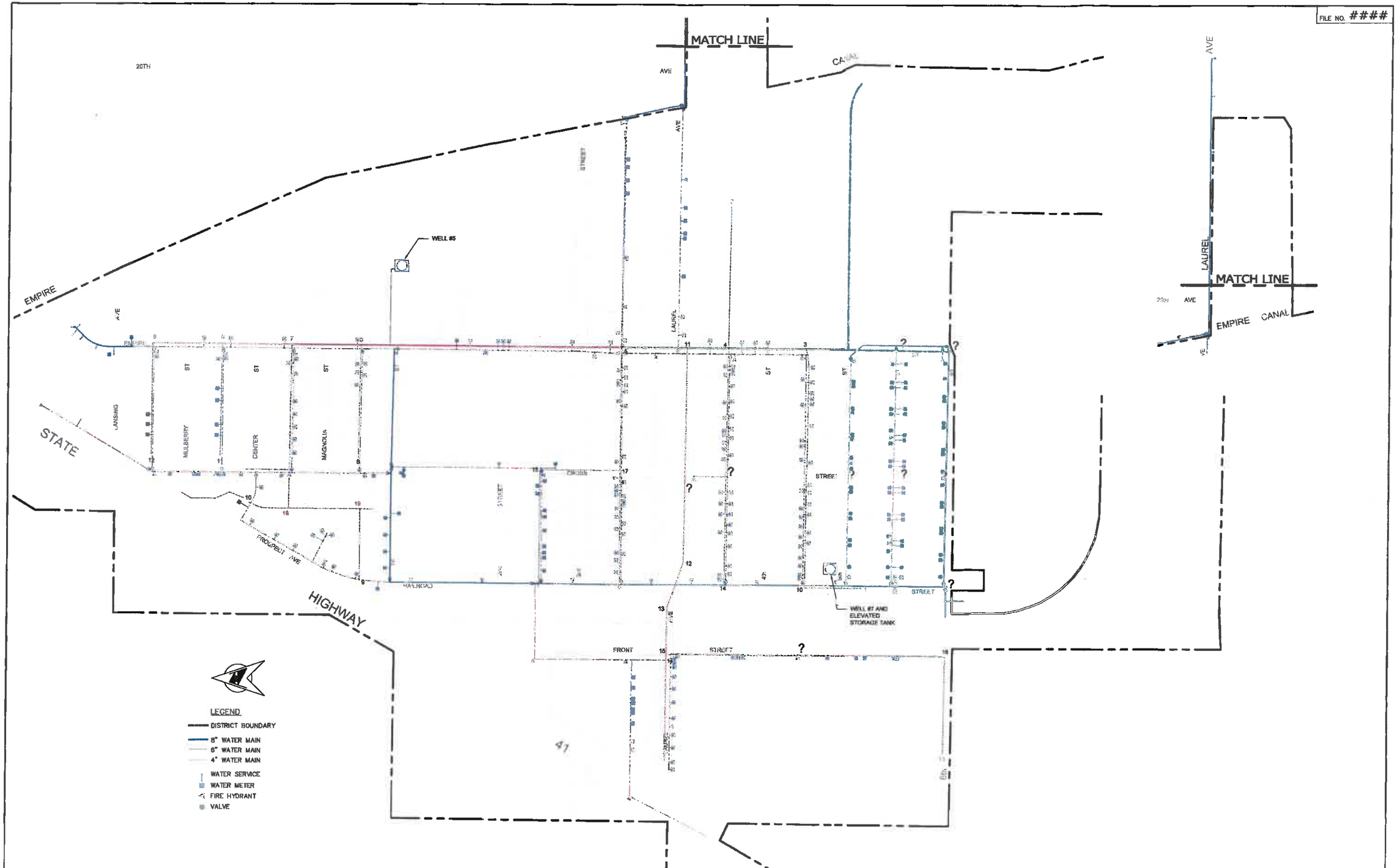


REVISION	DATE	DESCRIPTION	APPROVED

STRATFORD PUBLIC UTILITY DISTRICT
WATER DISTRIBUTION SYSTEM

PLAN SCALE: 1"=200'

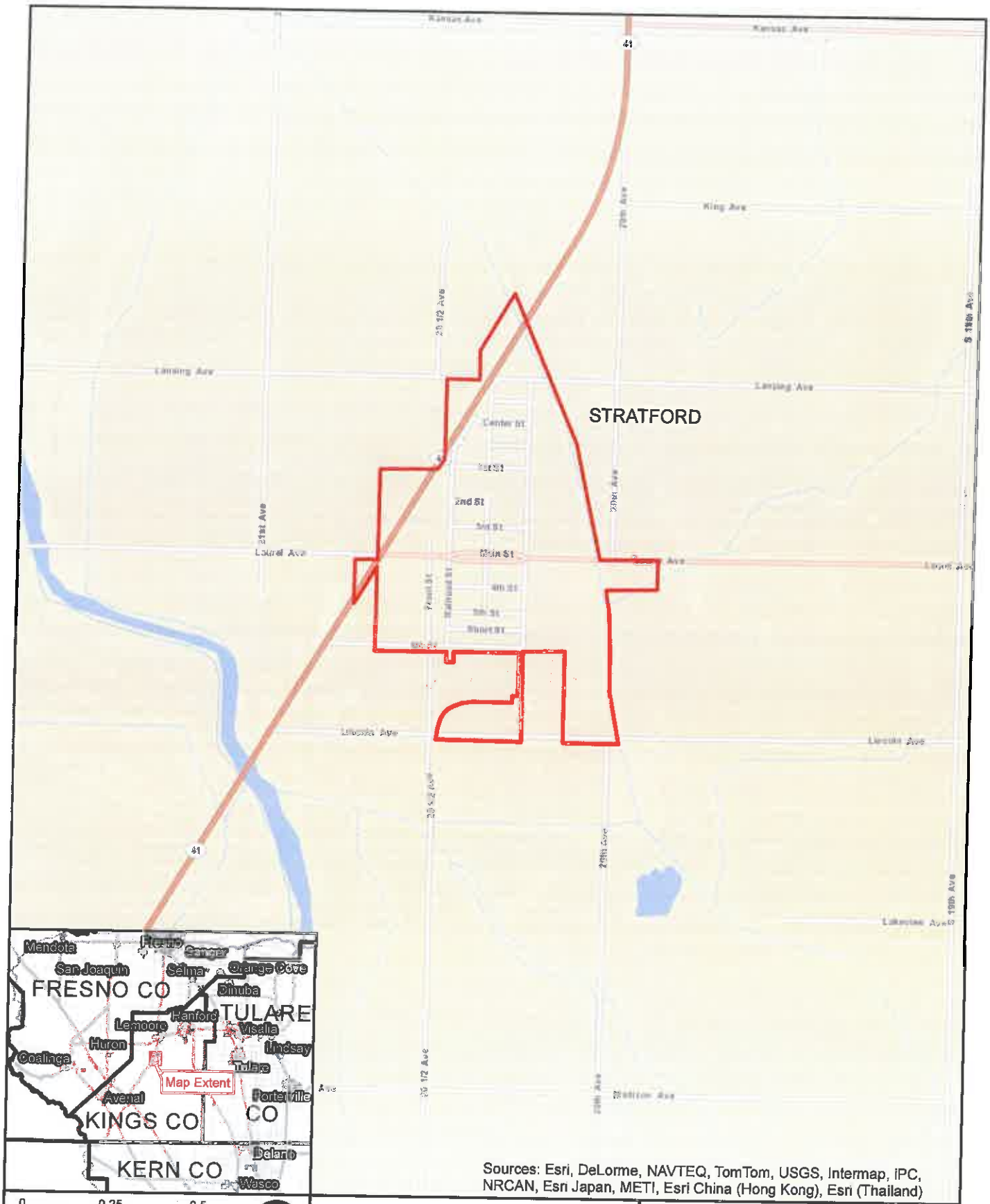
DRAWN BY: R. DAVIDSON

APPROVED BY: X

C.E. NO. X DATE: 9-15-2009

DENNIS R. KELLER
JAMES H. WEGLEY
CONSULTING ENGINEERS
209 SOUTH LOCUST STREET
VISALIA, CALIFORNIA 93291 559-732-7938

SHEET # OF #



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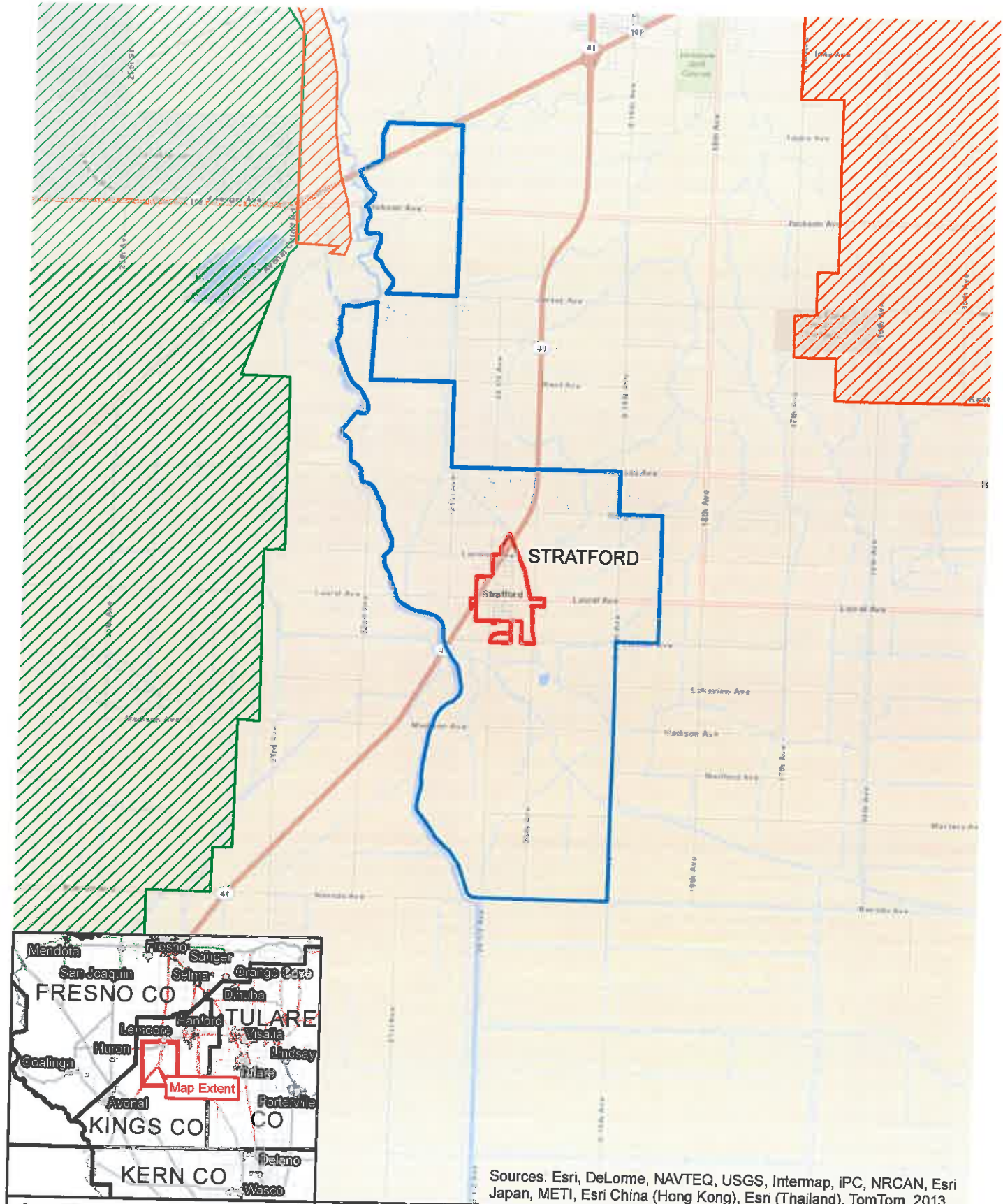

Sources. Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

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PROVOST& PRITCHARD CONSULTING GROUP
An Employee Owned Company

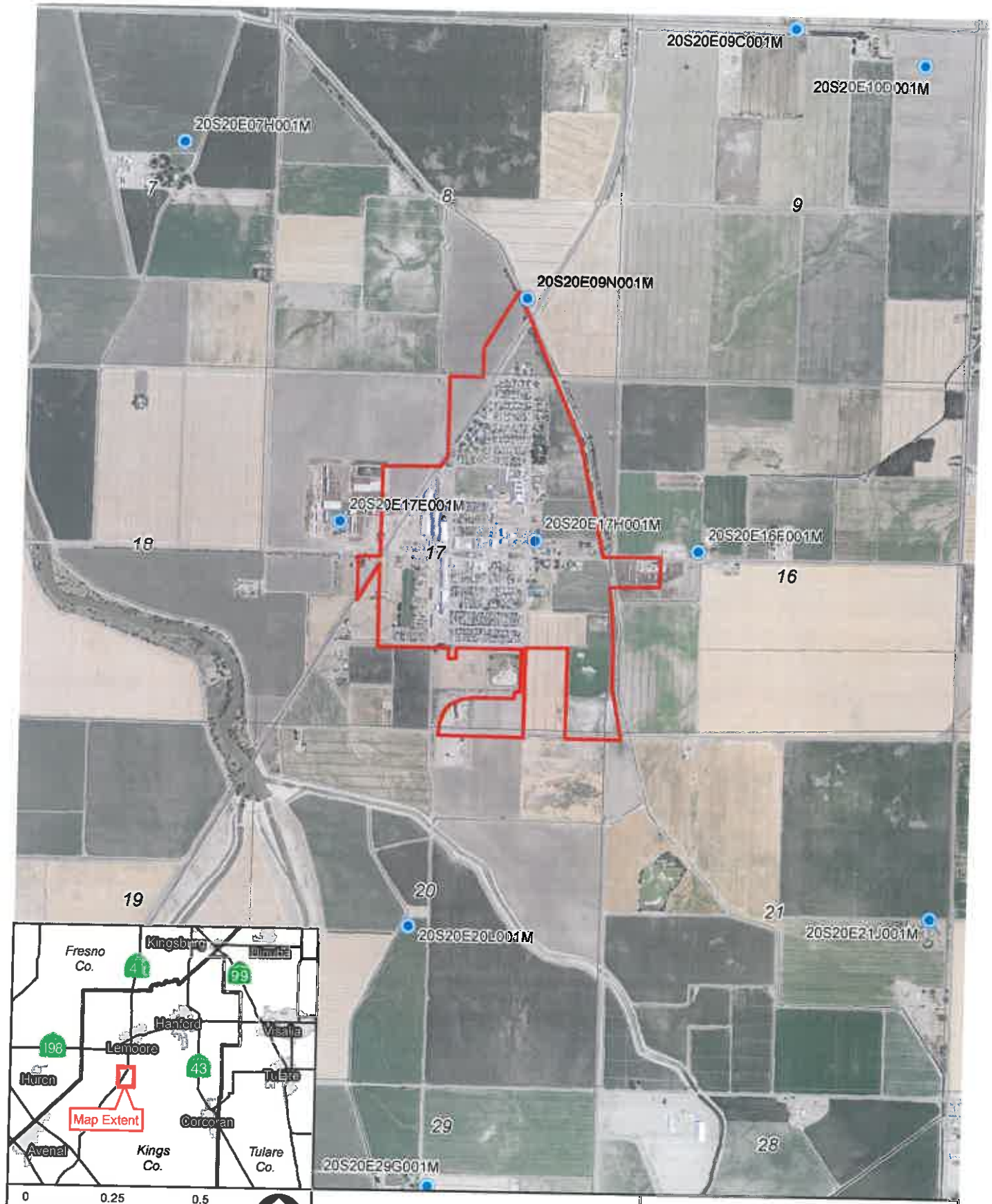
286 W. Cromwell Ave.
Fresno, CA 93711-6162
(559) 449-2700

Legend

- Community
- Upper Kings Basin IRWMA
- Westside San Joaquin IRWMP
- Stratford ID

Tulare Lake Basin Disadvantaged Community Water Study

2/7/2014 : V:\Clients\Tulare County - 1399\139911V1-Tulare Lake Basin Water Study\GIS\Map\Pilot New Sources\IndividualComms\districts_stratford.mxd



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Legend

- DWR Monitored Well
- Community

Tulare Lake Basin Disadvantaged Community Water Study

Groundwater Monitoring Wells

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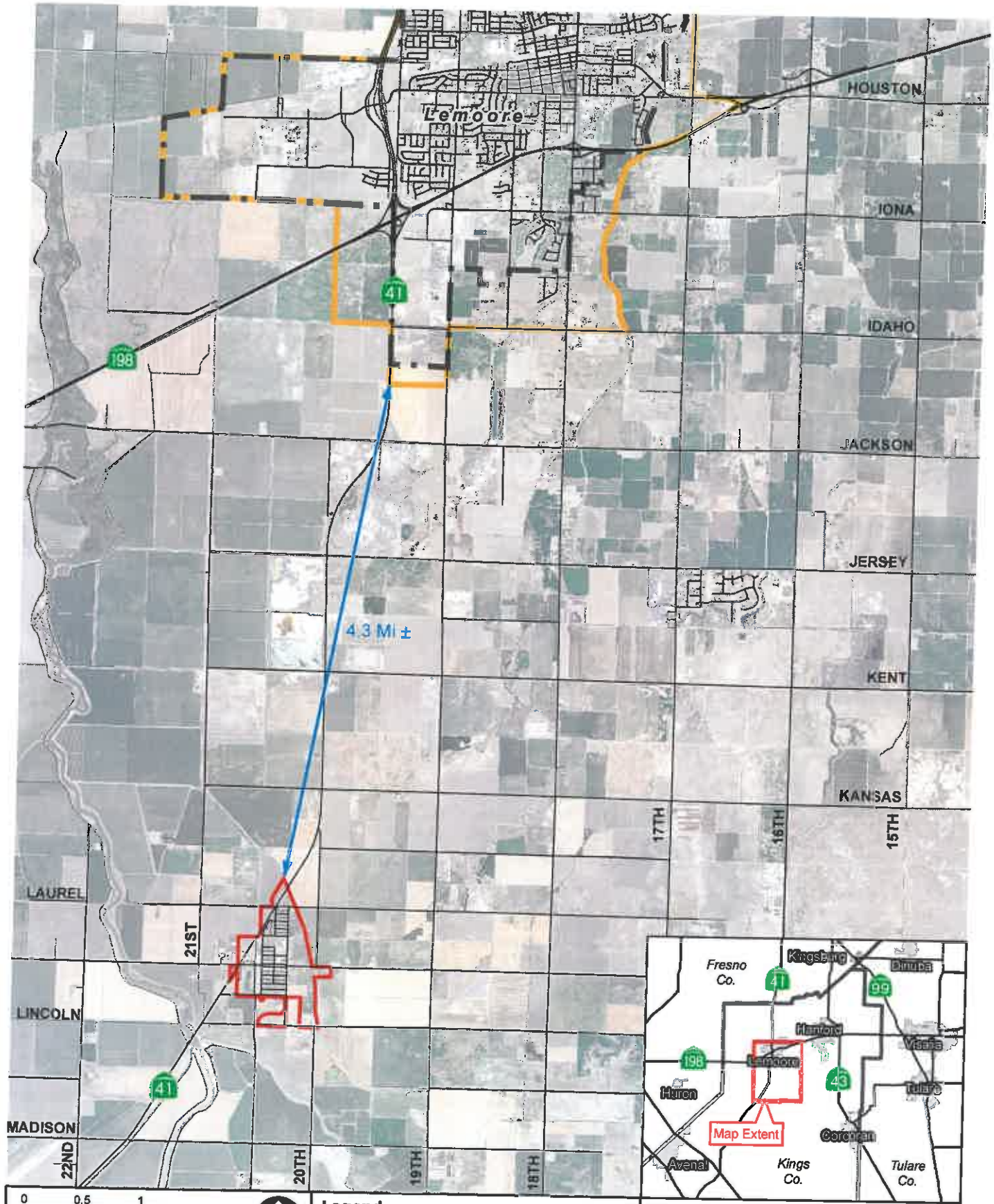

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Legend

- Lemoore City Limits
- Lemoore SOI
- Stratford Community

Tulare Lake Basin Disadvantaged Community Water Study

Proximity Map

4/9/2014 : V:\Clients\Tulare County - 1399\139911V1-Tulare Lake Basin Water Study\GIS\Map\Pilot New Sources\IndividualComms\sites_stratford_proximity_Lemoore.mxd

California Department of Public Health

Division of Drinking Water and Environmental Management

Pre-Application for Funding

List PreApps

To **create** a new PreApp, click the yellow New PreApp button to the right.
To **edit** an existing PreApp, click the green Edit button (●) to the left of the Title.
To **delete** a PreApp, click the grey Delete button (X) to the right of the Title.
To **view** or **print** a PreApp, click on its Title.

Project #	Edit	Title	Delete	Created	Modified	Status	On	* ARRA Proj.
005	●	*Source Capacity Mitigation Project*	X	6-14-13 9:23 am	7-5-13 2:46 pm	Submitted	7-5-13	No
003	●	*System Pressure and Source Capacity Enhancement*	X	9-16-09 3:57 pm	9-23-09 10:45 am	Submitted	9-17-09	No
004	●	*Well 7 Methane Reduction*	X	9-16-09 9:51 am	9-23-09 10:45 am	Submitted	9-17-09	No
002	●	*Stratford PUD Odor Mitigation and Water Storage Project*	X	2-25-09 2:15 pm	2-27-09 8:29 pm	Submitted	2-27-09	Yes
001	●	*My New First PreApp -- Above ground storage tanks SPUD*	X		1-17-09 3:12 pm	Submitted	8-28-08	No

Notes:
You **cannot** edit or delete "Submitted" or "Withdrawn" PreApps.
Only "Pending" PreApps can be modified.
The DWP does not use data in "Pending" PreApps in any way.
Your information is only entered into our database after it is "Submitted" -- the last step in this PreApp process.

If your Account has only one record (PreApp) you must call the number below if you want to delete it.

After submitting a PreApp you may choose to withdraw it from consideration.
To withdraw a PreApp, or restore a previously withdrawn PreApp to "Pending", call 916-449-5600.

Subj: **Confirmation of Receipt: Universal PreApp - Record ID 5246**
Date: 7/19/2013 10:06:30 A.M. Pacific Daylight Time
From: DDWEM.UPREAPP@cdph.ca.gov
To: Kelweg1@aol.com
C: Tricia.Wathen@cdph.ca.gov, Joel.Greathouse@cdph.ca.gov
James James Wegley,

Forward to Stretford

This email confirms we have received your Universal PreApp for the California Department of Public Health's Drinking Water Funding Program. The text of your PreApp is shown below the dashed line at the end of this email.

We recommend you save a copy of this email for future reference.

Your PreApp has been assigned a Record ID Number 5246. Please refer to this number when making inquiries to the Department.

We suggest you monitor the Department's Drinking Water Funding Opportunities web page for information on project ranking and project priority list. We anticipate posting the list later this year.

http://www.cdph.ca.gov/certlic/drinkingwater/Pages/DWPfunding.aspx

This email is from an unmonitored mailbox. PLEASE DO NOT REPLY TO THIS EMAIL.

For project-specific TECHNICAL information, your local District Office (Visalia District) contact is:

Ms. Tricia Wathen
265 W. Bullard Ave. Ste 101
Fresno, CA 93704 3158

559-447-3300
Tricia.Wathen@cdph.ca.gov

For FUNDING program information, your Regional Funding Coordinator (Region III) contact is:

Mr. Joel Greathouse
265 W. Bullard Ave
Fresno, CA 93704

559-447-3481
Joel.Greathouse@cdph.ca.gov

Thank you for participating in the Universal PreApp program.

!! NO CHANGES TO THE PREAPP BELOW CAN BE MADE AT THIS TIME -- SAVE THIS EMAIL FOR YOUR RECORDS !!

PART ONE

A. Project Title: Source Capacity Mitigation Project

Project # 005

B. Water System: ID No. 1610006

Stratford Pud
Kings County
294 Connections 834 Population Served
VISALIA DISTRICT (Regulating Entity)
Type C Community Water System
Public School: No

C. Applicant Contact
James James Wegley, Consulting Civil Engineer
Mailing: P.O. 911, Visalia, CA, 93279
Street: 209 South Locust Street, Visalia, CA, 93291
Phone: 559-732-7938

Email: Kelweg1@aol.com

D. Disadvantaged Community: Yes

. Consolidation / Permanent Intertie
Consolidation: No
Intertie: No
Distance to Nearest Public Water System: > 3 miles
Consolidating With:

F. Other Information
Start Date: October 2013
Aware of Labor Compliance Laws?: Yes
Aware of Environmental Review, Procurement, & Social Policy Requirements?: Yes

G. Funding Category: 1 System Improvement

PART TWO

H. Type of Problem: 3 Other Source Problems
Other source problem

I. Funding
Total Project Costs: $4412000
Funds Requested: $4412000
Funds Matching: $

J. Problem Description
The Stratford Public Utility District (District) provides domestic water to the residents of the unincorporated community of Stratford, cated in Kings County and serves about 1,300 people. The District owns three (3) groundwater wells. According to the CDPH eptember, 2009, water supply permit amendment Engineering Report: Well No. 5 has a capacity of 550 gallons per minute (gpm). Well No. 6 has a capacity of 400 gpm. Well No. 7 has a capacity of 500 gpm. The existing 30,000 gallon water tower was built in 1930.
The Maximum Day Demand (MDD) was 630 gpm and the Peak Hour Demand (PHD) is 945 gpm based on District records.
Well No. 6 is not in use due to sand production. Well No. 7 sees limited use because of methane gas. With only Well No. 5, a forty (40) year old well, in full use, the District's current water supply cannot accommodate MDD, and the PHD requirements. This is a violation of Title 22, Section 64554(a)(3).
When the highest capacity well is "off-line", the well and storage capacity is estimated to be only 521 gpm. This rate is less than the MDD estimate. This is a violation of Title 22, Section 64554(c).
The District serves less than 1,000 connections and the storage capacity is less than MDD, in violation of Title 22, Section 64554(a)(2).
"Water Main Separation". The District's water lines located in the alley do not meet the minimum sewer separation requirements in violation of Title 22, Section 64572.
Water system pressure readings taken from July 9, 2012 through August 6, 2012 ranged from about 8 psi to 61 psi. Pressure less than 20 psi is a violation of Title 22, Section 64602(a).
A "Boil Order" was issued on April 22, 2013 due to system-wide water outage. Boil Order was lifted on April 23, 2013. Well No. 5 was off-line from May 26, 2010 to July 1, 2010 due to mechanical failures of pump and for well casing repairs; and from April 1, 2013, to May 9, 2013, due to mechanical failure of the pump. Well No. 6 has been off-line since November, 2009, due to mechanical failure of pump caused by sand. Well No. 7 was off-line from May 24, 2009 to May 26, 2009 due to repairs to the foot valve; and from Sept. 1 through 11, 2012 due to repairs to the pump and column pipe. The storage tank, erected in 1930 is past its useful life and was off-line from Dec. 6, 2011 to Dec. 21, 2011, to repair leaks.
The District's source water quantity deficiencies place the proposed project in an SRF Category "E".

K. Project Description
The project consists of purchasing additional property adjacent to Well 6, construction of a 900,000 gallon ground level storage tank, installing duplex booster pumps, a hydropneumatic tank, electrical, controls, including one VFD to one booster pump, piping from Well 7 to the tank site, distribution system modification to distribute the flow from the tank. Alternative tank sites will be considered. Well No. 6 will be rehabilitated to mitigate sand pumping and connected to the proposed tank or abandoned in accordance with local requirements. An emergency electrical power generator, conduit and wire will be installed to provide power to Well No. 7 and one booster pump, or provide for the operation of two booster pumps, only. The improvements will allow the District to provide the Maximum Day Demand of 630 gpm in compliance with Title 22, section 64554(a)(2), pump out of storage to meet peak demands.

Storage will also be provided in the tank for fire flow. The water distribution system improvements will improve the distribution of water from the tank and booster pump site into the distribution system. These improvements will improve water source reliability and pressure within the system.
Well No. 5 will be equipped with a properly sized hydropneumatic tank.
About 8,350 feet of water pipelines will be installed in order to abandon about 7,500 feet that currently does not meet the Title 22 separation requirements.
The Project will include the engineering work necessary to complete the above project description. This work also will include technical design, reports, satisfaction of California Environmental Quality Act requirements, a Water Supply Permit amendment to include the water storage tank and appurtenances, property purchase, property annexation if required, and surveying. Engineering will include the preparation of final plans and specifications for bidding purposes. The District will select a general contractor through a public bidding process.
If a funding agreement is executed before October 1, 2013, the environmental review is completed by February 15, 2014, property acquisition is completed by July 15, 2014, Plans and Specifications are submitted to CDPH by September 15, 2014 and CDPH completes their plans and specifications review within four (4) weeks of document receipt, the Project can be advertised for construction by January 15, 2015.
A special Median Household Income (MHI) survey was conducted for the District by Fresno State University, an independent third party in early 2012. The survey was conducted in accordance with standards adopted by the CDPH, United States Department of Agriculture and the State Water Resources Control Board at the time of the survey. The 2010 MHI for Stratford was determined to be $26,000 or less than 44 percent of the 2010 American Community Survey prepared by the U.S. Census Bureau showing the California Statewide MHI to be $59,540. The Stratford MHI entitles the District to be awarded 25 bonus points under the SDWSRF Intended Use Plan (SFY 2012-2013) under Bonus Ranking Points, Affordability.

L. Additional Questions
Colorado River Demand Reduction: No Acre Feet:
Monitoring Equipment Required: No Cost: $
Disinfection Problem(s): No
Description:

California Department of Public Health
Safe Drinking Water State Revolving Fund
2013 July Updated Final DWSRF Project Priority List

PPL #	System Number	Project Number	Borrower/System Name	Project Name	Project Description	Project Category	Bonus Points	System Type	Problem	Project Costs ($)	Connections	Population	District	County	Region	List Year
1543	1610006	1610006-003	Stratford PUD	System Pressure and Source Capacity Enhancement	The project consists of purchasing additional property adjacent to Well 6, construction of a 600,000 gallon ground level storage tank, installing booster pumps, electrical, controls, hydropneumatic tank, piping Well 7 to the site, distribution system modification to distribute the flow from the tank and a stand-by generator. The improvements will allow the District to pump out of storage to meet peak demands. Storage will also be provided in the tank for fire flow. Well 5 will also be equipped with a VFD. The water distribution system improvements will improve the distribution of water from the tank and booster pump site into the distribution system. These improvements will improve water source reliability and pressure within the system.	M	16	C	The Stratford Public Utility District (District) provides both water and sewer service to the unincorporated community of Stratford. The District's water supply consists of three wells. The wells pump directly into the distribution system with an elevated storage tank. Well 6 is currently not in operation due to sanding problems. Well 7 which was completed in 2004 to improve the water system reliability is shut down because of methane gas. The level of gas in the well has resulted in the District not being able to use the well except for a short time during critical periods. The District has principally been operating on only Well 5. The District has low pressure and inadequate source of supply. The system will not meet Title 22 Waterworks Standards. The residents within the community are low income with the median house income of $29,205 based on the 2000 census. There are 380 service connections in the District with a population of approximately 1,500.	1,700,000	294	837	12	Kings	III	2009
3323	1610006	1610006-002	Stratford PUD	Stratford PUD Odor Mitigation and Water Storage Project	The proposed project is to furnish and install two (2) - 150,000 gallon water storage tanks connected to well #7. The purpose of the tanks are to aerate the water from well #7, provide fire flow and maximum day demand. The pipeline will allow for bypassing of either tanks. The tanks will be equiped with exhaust systems for venting purposes. During normal operations, two (2) - 5 horse power Variable Frequency Drive (VFD) centrifigal pumps with a capacity of 300 gpm each will transfer the water from the first tank to the second tank. After the second tank two (2) 15 horsepower centrifigal pumps with a capacity of 300 gpm each will pump the water into a 6,000 gallon hydropneumatic tank that will maintain the system pressure at 60 psi. A 60 KW standby generator is proposed to power the pumps to the tanks and blowers should regular power fails. A chlorine disenfection system will be installed. It is anticipated that the site requirements are a 115 feet by 150 feet area to contain the tanks and ancillary facilities. The site is to be fenced and paved with gravel. The tank site will be adjacent to the well # 7 site.For Normal operation, the tanks will operate in series.	N	20	C	In and effort to increase source water production, the District installed a new well (#7) in June 2004 to supplement the water production from the existing wells (#5 and #6). However, well # 7 has an odor problem and has been placed off line. The District also has concerns with regards to needed storage for fire protection and emergency power if the main power source fails.	1,400,000	294	837	12	Kings	III	2009
3330	1610006	1610006-004	Stratford PUD	Well 7 Methane Reduction	The project proposes the installation of an air stripper at Well 7. The site is large enough to accommodate the improvements. The air stripper will reduce the level of methane gas from the well. The improvements will also include a wet well, electrical, controls, booster pump and discharge piping modifications. This will allow Well 7 to be used by the District.	N	16	C	The Stratford Public Utility District (District) provides both water and sewer service to the unincorporated community of Stratford. The District's water supply consists of three wells. The wells pump directly into the distribution system with an elevated storage tank. Well 6 is currently not in operation due to sanding problems. Well 7 which was completed in 2004 to improve the water system reliability is shut down because of methane gas. The level of gas in the well has resulted in the District not being able to use the well except for a short time during critical periods. The District constructed Well 7 in 2004. The water pumped from the well contains significant amounts of methane gas resulting in the well being turned off. The gas causes a dangerous situation for the community. Without Well 7 the District does not have an adequate water supply and experiences low pressure within the water system. The source water supply for the District does not currently meet the Title 22 Water Works Standards. The residents within the community are low income with a median household income of $29,205 based on the 2000 census. There are 380 service connections in the District with a population of approximately 1,500.	750,000	294	837	12	Kings	III	2009
4208	1610006	1610006-001	Stratford PUD	Stratford PUD	Two 50,000 gallon above ground storage tanks along with a pressure pump and a stand-by generator.	O	0	C	We recently drilled a new well due to the constant water level drop in our area, We completed the project in June of 2004. However the problem we have come across is that the well is producing a large of air along with the water. Our only source of pressure is a 30,000 gallon elevated storage tank, due to the small growth and having exhausted all of our funds in the const. of the new well we are now looking for funding for the above ground storage. With the addition of two 50,000 gallon above ground tanks I believe we can solve two of our problems. 1.) Storage for fire protection 2.) Dentention time for the air in the water to vent. With the tanks we would also need a pressure pump and stand by generator for power outages	200,000	294	837	12	Kings	III	2008

STRATFORD PUBLIC UTILITY DISTRICT

Fiscal Year 2013/2014
PROPOSED
DEPARTMENT: WASTEWATER COLLECTION **FUND: 13000**

ACCOUNT NUMBER	DESCRIPTION	FY12/13 Budget	Proposed Budget
13100	Personnel Services		
13101	Full-Time Employees - Regular		
13102	Full-Time Employees - Overtime		
13103	Full-Time Employees - Vacation		
13104	Part-Time Employees - Regular		
13105	Part-Time Employees - Overtime		
13106	Part-Time Employees - Vacation		
13107	Temporary Employees		
13108	Retirement Contribution		
13109	FICA Contribution		
13110	State Unemployment		
13111	Workmans Comp.		
13112	Health Insurance		
13113	Dental Insurance		
13114	Vision Insurance		
13115	Life Insurance		
13116	Uniform Service		
13117	Training		
13118	Meals		
13119	Travel		
13120	Lodging		
13121	Other Personnel Services		
	Subtotal Personnel Services	$ -	
13200	**Utilities**		
13201	Electricity		
13202	Gas		
13203	Telephone		
13204	Water/Sewer		
13205	Radio/Communications		
13206	Other Utilities		
	Subtotal Utilities	$ -	
13300	**Professional Services**		
13301	Engineering Services		$ 50,000
13302	Legal Services		
13303	Auditing/Accounting Services		
13304	Computer Services		
13305	Regulatory Agencies		$ 1,600
13306	Laboratory Services		
13307	Testing Services		
13308	Contract Services		
13309	Other Professional Services		
	Subtotal Professional Services		$ 51,600

DEPARTMENT: WASTEWATER COLLECTION **FUND: 13000**

ACCOUNT NUMBER	DESCRIPTION	FY12/13 Budget	Proposed Budget
13400	Parts & Supplies		
13401	Office Supplies		
13402	Cleaning Supplies		
13403	Shop Supplies		
13404	Laboratory Supplies		
13405	Building Maintenance Supplies		
13406	Street Maintenance Supplies		
13407	Grounds Maintenance Supplies		
13408	Chemicals		
13409	Lubricants		
13410	Motor Vehicle Fuels		
13411	Equipment Parts		
13412	Machinery Parts		
13413	Tools		
13414	Miscellaneous Parts & Supplies		
	Subtotal Parts & Supplies	$ -	
13500	**Repair & Maintenance**		
13501	Equipment Repair & Maintenance		$ 5,000
13502	Machinery Repair & Maintenance		
13503	Street Repair & Maintenance		
13504	Grounds Repair & Maintenance		
13505	Building Repair & Maintenance		
13506	Computer Repair & Maintenance		
13507	Rentals/Leases - Equipment		
13508	Rentals/Leases - Machinery		
13509	Other Repairs & Maintenance		
	Subtotal Repair & Maintenance		$ 5,000
13600	**Other Services & Charges**		
13601	Debt Service	$ 18,100	$ 18,100
13602	Depreciation		
13603	Insurance		
13604	Licenses & Permits		
13605	Property Taxes		
13606	Books/Subscriptions		
13607	Memberships		
13608	Legal Notices		
13609	Freight/Postage		
13610	Printing/Binding		
13611	Operating Transfers	$ 26,025	$ 55,250
13612	Miscellaneous Services & Charges		
	Subtotal Other Services & Charges	$ 44,125	$ 73,350
13700	**Capital Outlay**		
13701	Construction		
13702	Equipment		
13703	Machinery		
13704	Office Furnature/Equipment		
	Subtotal Capital Outlay	$ -	
TOTAL BUDGET - WASTEWATER COLLECTION		**$ 44,125**	**$ 129,950**

Account Number	Notes
13301	Wastewater Treatment Project
12305	Annual Wastewater Discharge Payment.

13407 Weed spray etc.
13501 Collection system cleaning.
13611 Based on 25% of anticipated General Fund expenditures.

New Sources Pilot: Stratford Community Review Process Meeting

Stratford Fire Department
20200 Main Street in Stratford
5:30 to 7:30PM
February 25, 2014

Meeting Minutes

At 5:38 Maria started the meeting.
She explained the purpose of the TLB DAC study. She also presented intro in Spanish. She asked for those in attendance to introduce themselves. 12 in attendance at beginning of intros and growing to 17 people. 18 people in audience at 6:14 plus Maria, Michael and PB.

Maria Herrera, CW
Jeff Gonzalez, president SPUD
Gary resident since 1961 and member of board
Patty Silva, was resident ofr 15 years and office manager of SPUD.
John Dempsey, manager of SPUD
Maricela DeLaTorre, rep from Kettleman City
Resident of KC
President of MAPA of Fresno
Has lived in Stratford for 17 years
She has been here for 21 years
Maria Vega 19 years
Pimentel 22 years
Hortenicia 25 years
Martha 30 years
Ramon 34 years
Jose Maldonado 18 years
Gilbert Felix representing Assemblyman Rudy Salas
Jim Wegley, Keller Wegley Engineers
Paul Boyer, SHE
Michael Taylor, P&P

Maria went on to explain that this meeting is a part of the $2 million DAC needs pilot study. Explained SOAC and range of issues selected. The new source pilot is one of 4 selected. Mentioned economies of scale to have TMF to affordably operate water and sewer systems. Challenges that small water systems face. The pilot will look at how to move community water needs ahead to build a foundation to eventually implement future projects.

Maria explained that there is a community process component such as the meeting being held today. The intent is to see if the report is realistic and useful for communities. And most importantly what is it going to take to make solutions happen. We want to hear what is important to Stratford's residents. Michael Taylor has reviewed water issues and potential solutions which he will be presenting.

Michael began his presentation:

He stated that the local Stratford Public Utility District (SPUD) Board is already is educated on its needs. It has good staff and consultants that are aware. Issue is more having enough water as opposed to bad water. Having good water doesn't mean it is perfect e.g. 1 well with methane is not a health concern though it is unpleasant. Challenge that Stratford faces is that it is isolated and not near another community water or sewer system. They are too far to connect with anyone else so it is unfortunate. One other example of a challenge for Stratford that is common to a lot of other systems is that the water system was built a long time ago. Soils and conditions are different. Age, material, size of pipelines is a challenge. There appears to be minimal water loss. Not a lot of difference from quantity of water pumped versus what gets delivered. However, the District would benefit from being proactive in staying ahead of the curve.

The solutions that the District is already pursuing, such as a new well and storage tank are appropriate according to MT. Additional efforts and approaches to funding might be able to help. He has some ideas on how to help get these solutions funded. How can district get the funds to understand the magnitude of the problems and fund solutions. Money comes up all the time as the challenge.

In summary, MT couldn't unknown alternative solution for Stratford. He would have the same recommendations...more water and additional water source and storage. Including allowing methane in water to dissipate while in storage. He mentioned decision trees will be discussed later.

Comment from resident is they are paying $80 per month. He states that gas in water is a problem. He said District had spent $800 for well video and if that had anything to do with addressing gas issue. He wants more clarification.

From Manager: Video could not find a zone that was actively produced in well with no pump in it. They could not see any bubbles. As such it is thought gas is dissolved in water that gets pumped from well and they are not sure which strata has methane. If water goes into tank it can "off gas". Resident wants to know if District is still pursuing a solution. Response is that District has submitted pre-apps for funding, but no app has been invited because this problem is not considered a health issue.
Maria: we want to know if we have adequately captured the water needs of this community; no additional concerns were reported at that time.

The decision tree with attachments was passed out. 9 copies were available so people shared. MT explained that this guide is intended to help Stratford as well as other communities with similar water issues. One of the purposes is to benefit board and community members to get a better idea of some of the tasks and decisions that are necessary to take through the development of a project. This can be also helpful for those communities that don't have an engineer to go through the process.

There are a lot of different shapes and lines. If it is a rectangle gathering info; diamond is a question; triangle getting funding. Step 1, 2, 3 etc. The smaller sheets (8.5 x 11) have details on one piece at a time to go to next step. For example do you have enough water yes or no. All of the questions on water supply there are 9 different possibilities... consolidation; surface water; recharge; regional facility; drill a new well; treat the water from an existing well; water conservation; for large grassy areas irrigate with non-potable water; source water protection by dealing with a source of contamination such as houses on septic tanks by sewering homes and removing source of contamination.

Question came up if nitrates are an issue. Response was that nitrates aren't a problem in drinking water in Stratford, but is a problem in a lot of the valley. Response also was that if system had nitrates, the

water could be worse and system might qualify easier for funding, but that is not the case here. A lady in audience asked to address the Board and it was stated the next SPUD meeting will be March 12th she can speak at.

MT recommended using a highlighter to trace along the appropriate paths to follow the order of steps to take. As always money is the challenge, he will make some suggestion ns to enhance the pre-apps that have been submitted to make stronger case. IRWMs described by MT and stated the SPUD is pursuing a couple of funding options through the IRWM groups.

If the District is fortunate to receive an offer of funds, the district would be at step 3. Who makes decision: Green –district ; blue a consultant; morado-someone such as the state. Evaluation of grants or loans.

Then go to the 9 options.

A Kettleman City resident (Maricela) noted that in her community the water quality issues are arsenic and benzene. She asked whether or not KC should look at finding solution with Stratford which is 15 miles away. MT responded that the distance is too far to be affordable by taking into account cost to construct and to operate. He also noted the 5 mile rule on the decision tree when evaluating consolidation with a neighboring community. Maricela then questioned how firm the 5 mile rule is and asked how communities like Selma, Kingsburg and Parlier were able to get around the 5 mile rule and still be able to share a regional wastewater facility. MT noted that Cities are larger and may have more resources making it possible to consolidate with systems beyond 5 miles. He also noted that some funding sources have limits on max funding which might apply to this situation.

For Stratford the appropriate options are:

The options that fit Stratford are more supply through a new well- this option broken into 8 steps each on a single page. It is known that good water can be located here. The main issue is if the District can find the money to undertake project. Tied with money is not just cost of building, but to run water system improvements as well. If there is a loan, then there is debt service to repay. This all leads to whether the community residents can afford the charges for the service.

Step 3 of new water supply well is a prop 218 process where property owners have a say on whether rates will be raised. If no government funding available, there is option for District to secure private financing, but this is usually more expensive and results in higher rates. One of the important things for a new well is to drill a test well first to locate stratas that do not have contaminants...so that bad zones of water underground can be avoided. The goal is not to treat because that can cost a lot and it goes on forever.

One of recommendations is for water storage. Such a tank would provide several benefits to help off gas the methane, store water for peak flows such as to fight a fire, or to help if there is not enough water from wells at peak flow requirements.

Old small pipelines will need to be replaced to get better flow through system. This may not be necessary for all of the distribution system, but at least a portion of the system. A couple of the other alternatives would be water treatment, but this is not recommended other than for off gassing at tank.

Water conservation not recommended. Board member asked why. MT suggested encouraging, but water meters are the most effective which District already bills by.
Another option to consider would be to irrigate turf at the school. MT feels this would be a lower tier option. He explained it takes all parties to agree to such an option. It may take a lot of effort, which could be spent on securing funds for a new well and/or storage tank.

Another deliverable that MT can provide to District is the material he collected primarily from District which he has organized with decision tree. He hopes this organization of material can be helpful to District.

Maria summarized that a lot of info was provided, and asked if audience has any comments/feedback on the decision trees. She also encouraged participants to share comments at a later time.

Questions/comments from community residents:
Is this unique to Stratford? Yes so each community can follow its own path. But the benefit of pilot study is to make a generic tree that will work for them. To help see what works. Maricella explained that Stratford is lucky to have this guide presented to them. KC folks never had such a guide to review the options.

Two ladies suggested that there be a specific guide for Stratford that only shows the applicable options to make it easier to follow.

President sees that the process map works. He is familiar with charts, but not everyone goes through as well.

Salas rep asked if pilot study is for Stratford. Yes. He asked which communities had such pilots done such as KC and Riverdale. Maria responded with criteria was put together to select and Stratford was one of a few selected. Response was that funded came from DWR. Also it was explained that there will be a similar meeting on the treatment pilot process in Home Garden on Thursday at 5:30.
Maricela expressed concern that in KC they were told what solution would be without evaluation of other options. She likes these options.

Maria summarized that we would like to get feedback from SPUD staff and board and all of those that attended the meeting.