

EXHIBIT “A”

2013

MUNICIPAL

SERVICE REVIEW

FOR THE

TUOLUMNE UTILITIES DISTRICT

(June 2013)
Tuolumne County LAFCO

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2013 MUNICIPAL SERVICE REVIEW FOR THE TUOLUMNE UTILITIES DISTRICT

1.0 INTRODUCTION

1.1 LAFCO's Responsibilities, Spheres of Influence and Municipal Service Reviews

This Municipal Service Review (MSR) has been prepared for the Tuolumne County Local Agency Formation Commission (Tuolumne County LAFCO). Local Agency Formation Commissions are quasi-legislative local agencies created in 1963 to assist the State in encouraging the orderly development and formation of local agencies. A Local Agency Formation Commission is established in each County in the State.

This MSR consists of a review of the water and sewer services provided by the Tuolumne Utilities District (TUD). In 1992, LAFCO acknowledged the authorized powers of TUD as follows:

1. Supply water for any beneficial uses pursuant to the County Water District Law – Division 12 Section 30000-33554 of the California Water Code.
2. Collect, treat, or dispose of sewage, wastewater, recycled water and storm water in the same manner as a sanitary district, formed pursuant to the Sanitary District Act of 1923, Division 6 (commencing with Section 6400) of the Health and Safety Code. [Gov. Code §61100(b)]

The MSR will be considered by the LAFCO in a subsequent review of the Sphere of Influence of the Tuolumne Utilities District.

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code §56000 et seq.) is the statutory authority for the preparation of an MSR, and periodic updates of the Sphere of Influence of each local agency.

A Sphere of Influence is a plan for the probable physical boundaries and service area of a local agency, as determined by the affected Local Agency Formation Commission (Government Code §56076). Government Code §56425(f) requires that each Sphere of Influence be updated not less than every five years, and §56430 provides that a Municipal Service Review shall be conducted in advance of the Sphere of Influence update.

The statute and regulations call for a review of the municipal services provided in the County or other appropriate area designated by the LAFCO. The LAFCO is required, as part of the MSR, to prepare a written statement of findings of its determinations with respect to each of the following:

1. Infrastructure needs or deficiencies;
2. Growth and population projections for the affected area;
3. Financing constraints and opportunities;
4. Cost avoidance opportunities;
5. Opportunities for rate restructuring;

6. Opportunities for shared facilities;
7. Government structure options, including advantages and disadvantages of consolidation or reorganization of service providers;
8. Evaluation of management efficiencies;
9. Local accountability and governance;
10. The location of and characteristics of any disadvantaged unincorporated community within or contiguous to the sphere of influence; and
11. Present and planned capacity of public facilities, adequacy of public services, and infrastructure needs or deficiencies related to sewers, municipal water and fire protection in any disadvantaged unincorporated communities within or contiguous to the sphere of influence.

The Municipal Service Review precedes LAFCO action on a Sphere of Influence. Given the close relationship between an MSR and Sphere of Influence creation, amendment or update, the Sphere of Influence is discussed in more detail below.

1.2 Sphere of Influence

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 requires the LAFCO to update the Spheres of Influence for all applicable jurisdictions in the County every five years.

Local governmental agencies, special districts and municipalities must have an adopted Sphere of Influence (SOI) boundary and territory that define the probable future boundary and service area of the agency. Inclusion of a particular area within an agency's SOI does not necessarily mean that the area will eventually be annexed. The Sphere of Influence is only one of several factors LAFCO must consider in reviewing individual proposals, such as an application for an annexation to a district. (California Government Code Section 56668).

In determining the Sphere of Influence for each local agency, LAFCO must consider and prepare a written statement of determinations with respect to each of the following:

1. The present and planned land uses in the area, including agricultural and open space lands;
2. The present and probable need for public facilities and services in the area;
3. The present capacity of public facilities and adequacy of public services which the agency provides, or is authorized to provide; and
4. The existence of any social or economic communities of interest in the area if the Commission determines that they are relevant to the agency.

1.3 LAFCO Policies and Procedures Related to Municipal Services

The Tuolumne County LAFCO adopted policies related to Municipal (urban) Services on November 26, 2001.

1.4 Description of Public Participation Process

Tuolumne County LAFCO is a quasi-legislative body authorized by the California Legislature and delegated powers as stated in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (the Act). The LAFCO proceedings are subject to the provisions of California's open meeting law, the Ralph M. Brown Act (Government Code Sections 54950 et seq.) The Brown Act requires advance posting of meeting agendas and contains various other provisions designed to ensure that the public has adequate access to information regarding the proceedings of public boards and commissions. Tuolumne County LAFCO complies with the requirements of the Brown Act.

Each municipal service review will be prepared as a draft, and will be subject to public and agency comment prior to final consideration by the Tuolumne County LAFCO. The contents of this review are based primarily upon the information provided in the "Request For information for Municipal Service Reviews" completed for the Tuolumne Utilities District (TUD) by Kelly Klyn, Engineering Services Technician for the Tuolumne Utilities District, and reviewed by Peter Kampa, General Manager of TUD.

1.5 California Environmental Quality Act (CEQA)

The Municipal Service Review is a planning study that is statutorily exempt from environmental review pursuant to Section 15262 of the *State CEQA Guidelines*. The Municipal Service Review will be considered by LAFCO in connection with subsequent proceedings regarding the TUD Sphere of Influence. The Sphere of Influence review or update that would follow is a project and as such, may be subject to CEQA consideration.

2.0 SERVICE AREA SETTING

2.1 Location

TUD's service area covers approximately the northerly 2/3rds of Tuolumne County. It is bounded on the north by the North Fork and main stem of the Stanislaus River, on the south by the Tuolumne River and Yosemite National Park, on the east by Alpine County and on the west by Stanislaus County. The total area within TUD boundaries is approximately 1,200 square miles.

The Tuolumne Utilities District's service area encompasses numerous communities and subdivisions, which include Sonora, Jamestown, Columbia, East Sonora, Greenley Basin, Mono Village, Cuesta Serena, Cuesta Court, Lambert Lakes, Sierra Industrial Park, Apple Valley Estates, Scenic View, Scenic Brook, Phoenix Lake Park, Gibbs Ranch, Valle Vista, Tuolumne City, Ponderosa Hills, Sugar Pine, Lakewood Park, Confidence Ridge, Meadowbrook Estates, Brentwood Park, Crystal Falls, Mono Vista, Ranchos Poquitos, Standard, Willow Springs, Soulsbyville, Monte Grande, Ridgewood, Scenic Heights, Goldmont Forest, Cedar Ridge, Big Hill and Peaceful Pines. Property owners and other utilities that receive services, such as water and/or sewer, are considered customers of the District.

2.2 General Background

The Tuolumne Utilities District was formed on July 1, 1992. TUD was formed and operates under County Water District Law – Division 12 Section 30000-33554 of the California Water Code. This District serves the unincorporated area of Tuolumne County and the incorporated City of Sonora. The area within the boundary of the Tuolumne Utilities District consists of residential, commercial and industrial uses. The areas of the County that receive water and/or sewer services from TUD

are far reaching and include all of the General Plan Land Use designations as provided in the Tuolumne County General Plan and the City of Sonora General Plan.

Future development will be based around designated land uses and the ability of the Tuolumne Utilities District to serve the area with water and/or sewer services to meet the development requirements of the County of Tuolumne.

The history of water in Tuolumne County is linked with the California Gold Rush. The first water conveyance system in the County was built for the mines and camps of gold seekers. The Tuolumne County Water Company, incorporated in 1852, played an integral role in the construction of dams, reservoirs and ditches serving what is now TUD's service area. Water was supplied to the early placer mines and later to the hydraulic and quartz mines from diversion sites along the South and Middle Forks of the Stanislaus River. In 1898, the water company was reincorporated as the Tuolumne County Water and Electric Power Company to expand its services to include generating electricity by water power. Within a few years it became part of the Sierra and San Francisco Power Company. In 1927, the system was sold to Pacific Gas and Electric Company (PG&E) and for more than fifty years was part of its system. In 1983, Tuolumne County purchased the water conveyance, treatment and distribution system from PG&E. PG&E retained ownership of Lyons Dam, the main canal and the Phoenix powerhouse.

The Tuolumne Utilities District was organized on July 1, 1992 in response to a voter initiative requiring the consolidation of two local public water systems, the Tuolumne Regional Water District (previously known as Tuolumne County Water District No. 2) and the Tuolumne Water System. The County's water system, which at one point mainly served mining operations had since changed to a utility that served the rapid growing residential, commercial and industrial sectors of Tuolumne County.

The mission of the Tuolumne Utilities District is *"To responsibly manage District resources in order to provide our community with reliable, high quality water, wastewater and other utility services."*

The customers of the Tuolumne Utilities District are tracked by the number of water and sewer connections. As of September 17, 2012 approximately 14,066 customers were receiving water services and approximately 5,995 customers were receiving sewer services, the majority of which are single family residences. An additional 3,200 customers of other purveyors are provided water service from the Tuolumne Utilities District through master meters and an additional 3,105 customers of other districts are provided sewer treatment and/or disposal

2.3 Review of Current Management Structure

The Tuolumne Utilities District is governed by a five member Board of Directors and staffed by 73 full-time employees, 1 part-time employee, and 6 seasonal employees. At the top of the Tuolumne Utilities District's Organizational Chart are the 5 members of the elected Board of Directors, which currently include Board President Michael Sarno, Vice President Jim Grinnell, Delbert Rotelli, Kent R. Johnson and John Maciel. The Board of Directors oversees the General Manager of TUD, who is responsible for administration of the day to day operations of TUD. Four departments report directly to the General Manager, including engineering, finance, administration and operations. The largest department is operations, which includes construction, maintenance, water distribution, wastewater and water.

3.0 EXISTING MUNICIPAL SERVICES AND PROVIDERS

TUD provides water and/or sewer services to numerous communities and subdivisions within the County, which include Sonora, Jamestown, Columbia, East Sonora, Greenley Basin, Mono Village, Cuesta Serena, Cuesta Court, Lambert Lakes, Sierra Industrial Park, Apple Valley Estates, Scenic View, Scenic Brook, Phoenix Lake Park, Gibbs Ranch, Valle Vista, Tuolumne City, Ponderosa Hills, Sugar Pine, Lakewood Park, Confidence Ridge, Meadowbrook Estates, Brentwood Park, Crystal Falls, Mono Vista, Mono Village, Ranchos Poquitos, Standard, Willow Springs, Soulsbyville, Monte Grande, Ridgewood, Scenic Heights, Goldmont Forest, Cedar Ridge, Big Hill and Peaceful Pines. The majority of TUD's customers reside in or near the City of Sonora.

Other service providers/districts within or encompassing TUD's district boundary include the County of Tuolumne, City of Sonora, Tuolumne County Resource Conservation District, County wide ambulance district, Twain Harte Community Services District, Jamestown Sanitary District, Tuolumne Sanitary District, Tuolumne Parks and Recreation, Fire Protection Districts, Cemetery Districts, Lighting Districts and County Service Areas (CSA's).

TUD is a member of the Water Agency Response Network (WARN), a joint powers agency that supports water and wastewater utilities affected by natural and other disasters with services, equipment and manpower in the state of California during times of emergency. The Tuolumne Utilities District has a significant degree of interdependence with the surrounding area due to the services provided and the mutual aid provided through WARN. TUD provides the following services by agreement: (1) master metered water service to the Sonora Meadows Mutual Water Company, the Muller Mutual Water Company, and the Sonora Water Company; (2) wastewater transmission, treatment and disposal services to the Twain Harte Community Services District and wastewater disposal services for the Jamestown Sanitary District; and (3) untreated water supply to the Twain Harte Community Services District and the Mi-Wuk Mutual Water Company.

The Tuolumne Utilities District is involved with several joint powers authorities, which include the Special District Risk Management Authority (SDRMA), Griswold Creek Joint Powers Agency (GCJPA), Groveland/Tuolumne Financing Authority and WARN. SDRMA is made up of multiple independent special districts throughout the state, for the purpose of securing low cost liability and workers compensation insurance. The GCJPA includes TUD, Calaveras County Water District and Tranquility Irrigation District. The purpose of this joint powers authority is for the mutual evaluation and development of small hydroelectric projects to supplement funding for future water supplies. The Groveland/Tuolumne Financing Authority is a joint powers authority between the Groveland Community Services District and the Tuolumne Utilities District to assist in the financing, construction and improvements of property in either or both Districts.

The Tuolumne Utilities District is also a member of the Integrated Regional Watershed Management Planning (IRWMP) group which is currently in the process of writing a plan to improve the quality and quantity of water in the Tuolumne and Stanislaus River watersheds. The completion of a plan will allow for grant applications to be submitted to State and Federal agencies to fund future projects. The IRWMP process is intended to identify issues, resolve conflicts and complete improvements relating to the water supply, reliability, quality and water related environmental issues in a region.

The Tuolumne Utilities District operates a wastewater collection, treatment, storage and disposal (reclamation) system and a potable water treatment, storage, and distribution system. These facilities are managed by the Operations Manager. Most employees in this department are certified by the State of California in the areas of water treatment, wastewater treatment, sewage collection, and/or water distribution.

3.1 Potable Water Service

The Tuolumne Utilities District provides water services to approximately 14,066 customers. Of the 13,401 active potable water connections, 11,960 are residential and the remaining 1,441 are either commercial, industrial or irrigation services. By mastered meter TUD provides treated domestic water to the Sonora Meadows Mutual Water Company, the Muller Mutual Water Company and the Sonora Water Company, which serve approximately 850 customers. TUD also provides untreated ditch water from the Tuolumne Ditch System to a variety of investor owned private and public entities (including TUD's treated water system) where the water is treated and distributed to those respective customers. TUD does not serve customers outside of its service area boundary; however, TUD provides untreated ditch water supply to utilities in both the Mi-Wuk and Twain Harte areas, which treat the water and serve approximately 2,350 customers.

TUD provides supply, treatment, storage and distribution of water to numerous communities and subdivisions within Tuolumne County, as listed in Section 3.0.

3.2 Water Source

The District receives water for municipal purposes from two sources, which include surface water that originates from rainfall and runoff from snowpack in the Sierra Nevada Mountains and ground water produced by wells. Approximately 95% of TUD's annual water needs are met with surface water; the other 5% is met with groundwater either as a primary source or a backup source. Annual water availability varies with natural flows, but the average annual yield is 100,000 acre-feet, including 24,500 acre-feet combined storage between Lyons and Pinecrest Reservoirs. Current production of groundwater is an average of 260 acre-feet annually from numerous wells located throughout the County. Groundwater in Tuolumne County is severely limited due to the hard bedrock that covers the majority of the County as well as impaired water quality due to typically high iron and manganese levels.

TUD is the owner and operator of the Tuolumne Water System, which receives water at PG&E's Lyons Dam on the South Fork of the Stanislaus River. TUD's Tuolumne Water System distributes the water to most of the populated areas in western Tuolumne County. TUD's water supply and distribution system includes nearly 56 miles of lined and unlined water supply canals. The District operates numerous water treatment plants, receiving raw water from the ditch system. Raw water is pulled from the ditch and processed through the treatment plants and stored in sealed tanks, where it is then delivered to the customer. The TUD water distribution system includes approximately 330 miles of distribution piping.

3.3 Water Storage

The Tuolumne Utilities District operates 14 surface water treatment plants, 49 wells and treated water customer service meters. The water treatment plant facilities have combined water treatment capacity of approximately 12 million gallons per day. In the distribution system, TUD operates approximately 80 potable water storage tanks with combined capacity of 21 million gallons. TUD requires all new development projects to provide or fund water storage facilities of adequate size to provide continuous supply during the annual PG&E seven day ditch outage; which occurs during the fall of each year.

3.4 Water for Fire Flow

The Tuolumne Utilities District requires all new development projects to construct water systems, including fire hydrants, to the Tuolumne County Fire Department standards for fire protection. Many of the small water systems acquired by the District over the years lack water main size, water

storage, water treatment plant capacity and fire hydrants to provide fire flow per the current Tuolumne County Fire Department standards. As the District replaces and upgrades portions of its water systems, such systems are upgraded to provide capacity for fire flow. Existing fire hydrant flows range from 50 gallons per minute to over 2,000 gallons per minute. The District currently has 1,900 fire hydrants. Where fire hydrants are located in the District, most are spaced 300 feet apart in accordance with County standards.

3.5 Wastewater Facilities

The Tuolumne Utilities District provides sewer collection, treatment, storage and/or disposal (reclamation) services to approximately 9,100 customers. TUD provides wastewater collection to the communities of Sonora, Columbia, Gibbs Ranch, East Sonora, Greenley Basin, Cuesta Court, Sierra Industrial Park, Mono Village, Willow Springs, Mono Vista, Ranchos Poquitos, Standard, Apple Valley Estates, Phoenix Lake Park, portions of Crystal Falls and Mi Wuk Village. TUD also has an agreement to receive effluent from the Twain Harte Community Services District and the Jamestown Sanitary District. In addition, as a low cost means of disposal, treated wastewater is provided at no cost to agricultural users in the area west of the communities of Sonora and Jamestown.

TUD operates the Sonora Regional Wastewater Treatment Plant (RWWTP) which is located southwest of the City of Sonora. The sewage plant is owned and operated by TUD. The treatment plant consists of primary and secondary treatment. The RWWTP was designed to meet an average demand of 2.6 million gallons per day (mgd) average daily dry weather flow. Current flows to this plant are approximately 1.6 million gallons per day average daily dry weather flow.

The current treatment plant was designed for periodic expansions up to a maximum capacity of 5.2 mgd. The expansion process is planned to begin when the plant reaches 80 percent of its capacity (approximately 2.0 mgd). Expanded facilities would include additional primary and secondary clarifiers, an additional trickling filter, an additional anaerobic digester and a centrifuge unit and/or drying beds. Land currently owned by TUD is available for this expansion.

3.6 Wastewater Effluent Disposal

The wastewater effluent conveyance system consists of approximately nine miles of pipelines, ranging in size from six inches to twenty-four inches. These pipelines were divided into three major segments, which include the Upper Pipeline, Lower Pipeline and the Jamestown Connection. The Upper and Lower Pipelines rely on gravity flow, while the Jamestown Connection uses a pumping plant.

TUD's reclamation system consists of a 1,500 acre-foot storage facility (Quartz Reservoir) located near Woods Creek southwest of Jamestown. The reclamation system also includes a small distribution system consisting of conveyance lines from Quartz Reservoir to designated land application areas. Treated effluent is discharged through 18 irrigation turnouts along nine miles of six to twenty four inch lines. Biosolids are transported out of the County for re-use or disposal.

In recent years, it has been necessary for TUD to periodically discharge treated reclamation water from the Quartz Reservoir into Woods Creek. This discharge occurred due to the demand for reclaimed water being less than the combined amount of reclamation water generated by the regional system and the rainwater inflow into Quartz Reservoir. Excess rainwater resulted in the maximum storage capacity of Quartz Reservoir being exceeded, which has caused occasional overflows to occur. The TUD works with the California Regional Water Quality Control Board (CRWQCB) to address the overflow issue. The CRWQCB issued a permit to allow periodic discharges to occur in accordance with the National Pollutant Discharge Elimination System (NPDES) requirements. Between 2000 and 2011, the TUD has acquired or leased over 700 acres

of land designated for reclaimed wastewater application, which has increased the potential volume of effluent that could be discharged on land and reduced unpermitted discharges. Approximately 33 of the land currently being irrigated with reclaimed wastewater is actually owned by TUD. The remaining acreage is leased with a 20 year contract that runs with the land. TUD has also purchased 140 acres of land on the West Ranch for a future dam and wastewater reservoir. During years of above average precipitation, the TUD is still permitted to periodically discharge from Quartz Reservoir into Woods Creek; however, with the reclaimed wastewater irrigation program, TUD is focusing on eliminating discharges in Woods Creek.

In April 2012, the District received a Notice of Intent to file a lawsuit from the California Sportsfishing Protection Alliance (CSPA) regarding the District's "failure to comply" with its NPDES permit for sewer spills that TUD reported to the CRWQCB over the past five years. These sewer spills were minor and due to grease and root plugs in the system, which are common in any operating sewer collection system. The CRWQCB enforces the NPDES permit and has not fined TUD for any serious violations. However, federal law allows private citizens to bring lawsuits under the Clean Water Act, the venue used by CSPA for filing multiple lawsuits against public agencies throughout the California foothills. TUD staff has spent considerable time and legal fees reviewing the notice filed by CSPA and the parties continue to seek an amicable resolution.

3.7 Wastewater Regulatory Environment

The TUD operates under a permit issued by the California Regional Water Quality Control Board, Central Valley Region (CRWQCB). The permit regulates waste discharge requirements for the wastewater collection, treatment and reclamation system as well as the National Pollutant Discharge Elimination System (NPDES) permit for periodic seasonal discharges into Woods Creek. This permit is scheduled for review and approval every five years. The NPDES permit was last issued in 2008. The current term of the permit is set to expire in October 2013; however TUD has no intention of renewing this permit and is working to ensure that there is enough wastewater storage capacity and reclaimed irrigation sites to offset the wastewater historically discharged into Woods Creek.

4.0 ZONING AND LAND USE

TUD's service area contains a combination of residential, commercial, industrial, recreational and public land uses and districts. The areas of the County that receive water and/or sewer services from TUD are far reaching and include all of the General Plan Land Use designations as provided in the Tuolumne County General Plan and the City of Sonora General Plan. A large portion of TUD's service area is currently undeveloped.

5.0 MUNICIPAL SERVICE REVIEW

The Cortese-Knox-Hertzberg Act identifies eleven factors, listed in Section 1.1 above, to be addressed when preparing a Municipal Service Review. For each factor, information is gathered and analyzed, with written determinations prepared for LAFCO's consideration. This Service Review will be used as an information base to update TUD's Sphere of Influence, including any annexation considerations, and provides a basis for the public, County, City of Sonora and LAFCO to discuss changes to the Sphere of Influence.

5.1 Infrastructure Needs and Deficiencies

Purpose: To evaluate the infrastructure needs and deficiencies in terms of supply, capacity, condition of facilities and service quality.

In 2011, the Urban Water Management Plan (UWMP) was updated for the Tuolumne Utilities District (TUD) in compliance with Division 6, Part 2.6, of the California Water Code, Sections 10608 through 10657 as last amended by Senate Bill No. 7 (SBX7-7), Water Conservation Act of 2009. The original bill requiring preparation of an UWMP was enacted in 1983. SBX7-7, which became law in November 2009, requires increased emphasis on water demand management and requires the State of California (State) to achieve a 20 percent reduction in urban per capita water use by December 31, 2020.

Urban water suppliers having more than 3,000 service connections or supplying more than 3,000 acre-feet per year (ac-ft/yr) at retail or wholesale are required to submit a UWMP every 5 years to the California Department of Water Resources (DWR). The UWMP typically must be submitted by December 31st in years ending in 0 and 5; however, SBX7-7 extended the UWMP deadline to July 1st 2011 to provide DWR time to develop evaluation methodologies for determining water demand reduction targets. TUD prepared an UWMP in 1985, 1990, 1995, 2000, and 2005. The 2010 UWMP is an update to the 2005 plan.

The UWMP states 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.*

In order to conserve water and to ensure its efficient use, TUD requires the execution of a development agreement with new land use development projects prior to commitment of water and/or sewer service. The Development Agreement is typically considered by the TUD Board following project approval by the County and determination of an adequate environmental review.

TUD has adequate capacity to supply current and anticipated water and sewer needs in its service area. Given the level of development planned for Tuolumne County, improvements or expansions to the sewer and water systems may be required for continued growth within TUD's service area. Due to land availability, TUD should expect continued development within its boundaries.

TUD prepares service demand projections for the next 20 years. These projections are prepared through TUD's monitoring of historical water and sewer connections, water use and wastewater discharge trends, and county population data. In addition, TUD makes periodic projections of both water and sewer connections and population trends based on recent data. Much of the growth in TUD's customer base is due to the acquisition of privately owned water systems, and mutual water companies. Customer growth through acquisition is also accounted for in system expansion forecasts. Those projections are then compared to the Department of Finance's projections. If significant variations appear, an evaluation into the probable cause is initiated. If necessary, adjustments are made to the population/demand projections.

Senate Bill 610 was passed in 2001 and requires the preparation of water supply assessments for large developments that consist of more than 500 dwelling units or nonresidential equivalent. The assessment is prepared by the public water system that is responsible for serving the project site, in this case TUD. The assessment addresses whether existing and projected water supplies are

adequate to serve the projects while also meeting existing urban and agricultural demands and needs of other development in the service area in which the project is located.

The Peaceful Oak Estates Subdivision is a 306 parcel subdivision which has had the tentative map approved by the Tuolumne County Board of Supervisors. The Mountain Springs development has a tentative subdivision map approved for a potential of 600 parcels. Other tentative subdivision maps have been approved in the past 15 years which have the potential of providing 882 new parcels many of which will be provided water services by TUD. Most of the proposed residential parcels would be allowed to contain a second dwelling unit under Title 17 of the Tuolumne County Ordinance Code, which would increase water consumption per parcel. An 80 unit apartment complex in Columbia was recently approved by the County, and a 30 parcel subdivision for senior housing (which proposes 92 apartments and 160 convalescent beds) is currently under review by the County's Community Resource Agency. Subject to approval of the TUD Board of Directors, the Tuolumne Utilities District would provide water and sewer services to these proposed developments.

There is no existing water system on the Peaceful Oak Estates project site. The project proponent has indicated that conceptual plans exist to upgrade/replace the Phoenix Lake Water Treatment Plant (WTP), which is located approximately 2 miles north of the project site. TUD has indicated that timing for any WTP plant expansion will be predicated on regional demand within TUD's service area. The Peaceful Oak Estates Subdivision project site is served by two existing TUD sewer lines. A 10-inch diameter line follows the North Fork of Curtis Creek from the northeast corner of the project site, downstream through the Townsite of Standard to the TUD wastewater treatment plant. Another sewer line is available from the Camage Avenue area which also flows to the TUD wastewater treatment plant in Sonora.

The Mountain Springs Community Plan is another large project that would result in a significant increase to the number of TUD's water and sewer customers. This project encompasses 1,063± acres, which surrounds the existing Mountain Springs Golf Course. The project site is located two miles south of the City of Sonora. The proposed project would result in the development of 600 primary dwelling units and recreational uses. The entire Mountain Springs project site is currently within the TUD service area boundary.

There are several subdivisions that were recently approved by the City of Sonora, which include the Cuesta Heights project off of Shaws Flat Road that includes 48 lots, and the Steeple View Subdivision off of Saratoga Road that includes 10 lots.

In addition to the proposed projects discussed above, TUD must plan for the additional water needs caused by build out of various subdivisions that have already been approved by the County or the City of Sonora. These subdivisions, which will each be subject to the terms and conditions of a development agreement with TUD, include the following:

Name	Location	# of Parcels	Acres	Water	Sewer
Cherry Valley	Tuolumne	75	328±	Yes	No
Greenley Oaks Townhouses, 2	Cabezut Rd.	48	3.5±	Yes	Yes
The Ranch	Golf Links Rd.	45	20±	Yes	Indirect*
Sierra Meadows	Jamestown Rd.	47	8.7±	Yes	Yes
Mountain Vista	Gold Links Rd.	11	5.3±	Indirect	No
Apple Valley Manor	Apple Valley	21	20.3±	Yes	Yes
Dry Creeks	Golf Links Rd.	246	92.7±	Yes	Indirect*
Twin Creeks	Cabezut Rd.	61	34.9±	Yes	Yes
Wilcox Park	Racetrack Rd.	19	5±	Yes	Yes

Apple Valley Estates, Unit 3	Lyons Bald Mountain Rd.	8	5.8±	Yes	Yes
Menelik Estates	Parrotts Ferry Rd.	14	82.6±	No	No
Fifth Avenue Partners	Fifth Avenue, Jamestown	69	3.8±	Yes	Indirect*
Oak Park Subdivision	Between Hwy. 49 & Shaws Flat Rd.	58	18.7±	Yes	Yes
Shaws Flat Village	North of the High School	24	3.1±	Yes	Yes

As depicted in the table above many of the parcels will be receiving potable water directly from TUD and many will also be receiving sewer services from TUD.

*Indirect means that the parcels are not directly TUD customers but get some level of TUD water or sewer service through another entity such as the Sonora Water Company or Jamestown Sanitary District.

5.1.1 Water Infrastructure Needs and Deficiencies

Overall, TUD's water delivery system is in good condition. The District has the ability to convey raw water throughout its service area in Tuolumne County using its ditch system. The ability to utilize raw water for industrial, landscape, irrigation and agriculture uses instead of treated water enables the District to use the treated water more efficiently and effectively. Many of the water treatment plants constructed by subdivision developers and acquired by TUD over the years are nearing capacity and are in need of renovation and expansion. Upcoming water quality regulations will expedite the need to improve such water treatment plants to meet minimum water quality standards in the near future.

TUD recognizes that some portions of the raw water open canal/ditch conveyance facilities constructed over a century ago may require improvements for a variety of purposes, including water supply reliability and water conservation. TUD estimates that approximately 6,000 acre feet, or 40% of the District's total water supply, is transmitted through the ditch system for a variety of purposes, and not put to consumptive use by a customer. These non consumptive uses include groundwater recharge, meadow and wetland maintenance, evaporation, water used by trees, plants and the ecosystem, as well as operational needs such as moving snow and water quality maintenance. However, it may not be wise to replace all of these ditches with pipelines due to operational, environmental, historic and/or economic reasons.

In April 2012, a *Historic Properties Management Plan* was prepared for the TUD by Foothill Resources Ltd. This report studied all the flumes, ditches, earthen berms and dams currently owed by the Tuolumne Utilities District. Overall, the Tuolumne Utilities canal and ditch system appears to be eligible for listing on the National Register of Historic Places. The report states that "*The canals, ditches flumes, laterals, pipelines and reservoirs all were a part of the life blood of Tuolumne County, contributing to the economic development of the County.*" As such, the General Manager of TUD will ensure that all routine maintenance and construction activities are carried out in a manner that protects the historic values that contribute to its eligibility to the National Register. All maintenance or construction activities will be in coordination with a cultural resource professional and the local tribes. In order to preserve historic ditches or flumes, parallel delivery pipelines may be constructed in the future to ensure continued reliability of the water delivery system while preserving historic resources.

TUD routinely provides maintenance to all portions of its water delivery system. TUD currently provides water services to approximately 14,066 customers. The District operates numerous water treatment plants, receiving raw water from the ditch system. Raw water is pulled from the ditch and processed through 14 different surface water treatment plants and stored in 80 sealed storage tanks prior to being delivered to residential, commercial or industrial customers. TUD's water distribution system includes approximately 330 miles of distribution pipe lines. The water treatment

and distribution system is under the jurisdiction of the State of California Department of Health Services and is operated and maintained by TUD employees who are required to be certified by the State at various levels of competency based on the complexity of the systems operated.

The average daily residential household water use for the TUD service area is approximately 400 gallons. Current annual demand for water within the TUD district boundaries is approximately 10,000 acre-feet. Since 1995, water demand has generally paralleled population increases.

TUD expects that combined water supplies, uncommitted groundwater and critical year conservation will provide sufficient quantities of water to meet projected demands over the next twenty years assuming a projected growth rate of 2.3 percent per year. Due to the long delay between planning and actual completion of construction of water development projects, TUD also continues to look at possible options to obtain additional water supplies.

The State Water Resources Control Board (SWRCB) issued a permit covering the operation of the PG&E's hydroelectric facilities, which places a minimum water surface elevation at Pinecrest Lake during the summer recreational season. Pinecrest Lake is TUD's primary source of water, providing 95% of the total water supply for its customers. The Pinecrest Lake level restriction could leave TUD no access to water supply from Pinecrest during the summer in some dry water years. There is less than one month's (summer) water supply in Lyons Lake below Pinecrest; therefore, the water from Pinecrest Lake is critical to the water supply of Tuolumne County. TUD and PG&E have submitted a request to the SWRCB for modification of the lake level restriction. The SWRCB decision will determine whether TUD must seek additional water storage sites and/or a potential water rights filing.

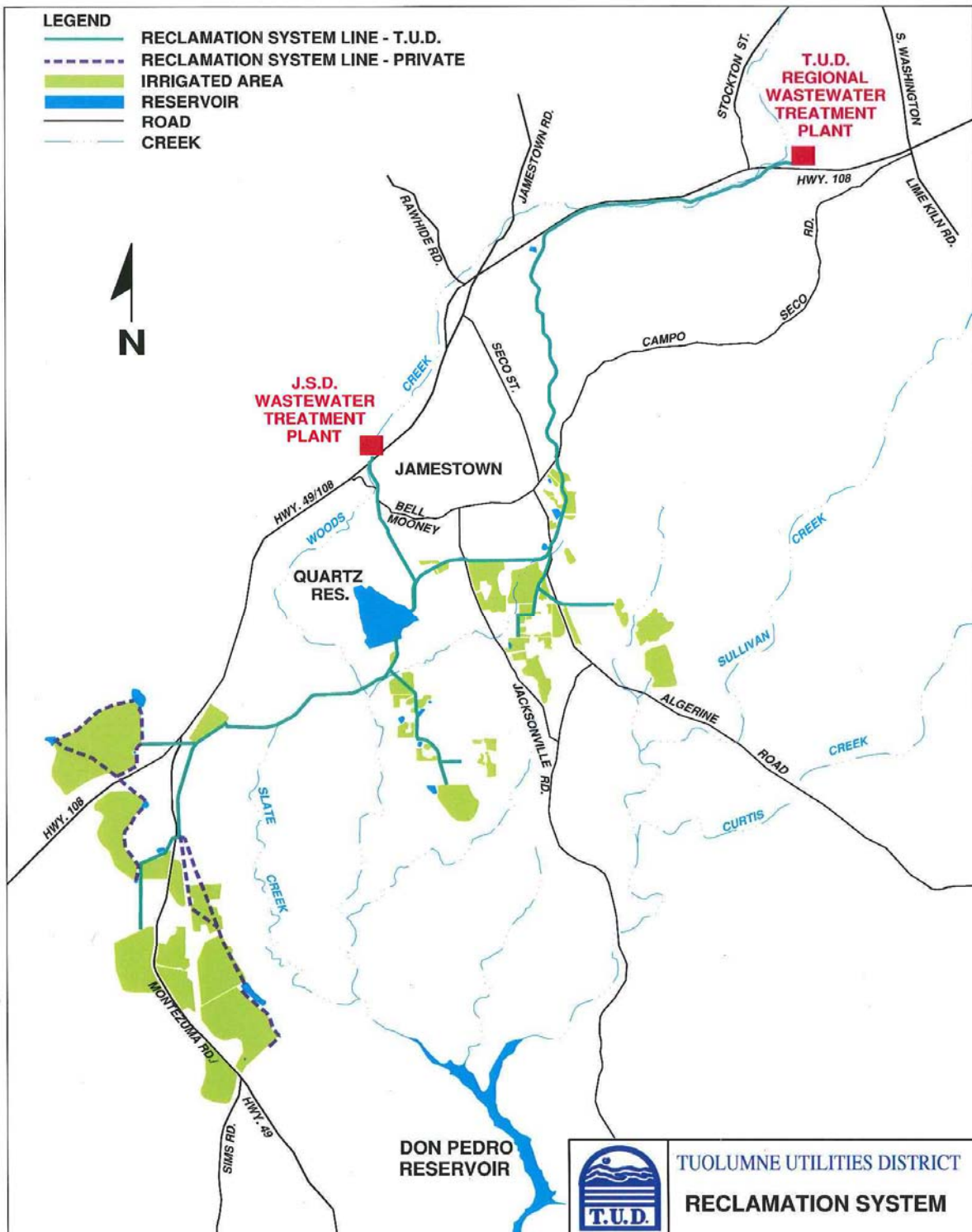
Compliance with additional State drinking water quality requirements, increased funding for operations and infrastructure projects, the proposed "public goods charge" for the Delta programs and other proposed State fees will increase TUD's cost of providing water and wastewater services. These fees will be passed on to the consumer, which will be another burden on the water and wastewater ratepayers of Tuolumne County.

5.1.2 Wastewater Infrastructure Needs and Deficiencies

TUD currently provides wastewater services to approximately 9,100 customers, including residential, commercial and industrial uses.

TUD operates the Sonora Regional Wastewater Treatment Plant (RWWTP) which is located southwest of the City of Sonora. The treatment plant consists of primary and secondary treatment. The RWWTP was designed to meet an average demand of 2.6 million gallons per day (mgd) average daily dry weather flow. Current flows to this plant are approximately 1.6 million gallons per day average daily dry weather flow. The current treatment plant was designed for periodic expansions up to a maximum capacity of 5.2 mgd.

The wastewater effluent conveyance system consists of approximately nine miles of pipelines, ranging in size from six inches to twenty-four inches. These pipelines are divided into three major segments, which include the Upper Pipeline, Lower Pipeline and the Jamestown Connection. The Upper and Lower Pipelines rely on gravity flow, while the Jamestown Connection uses a pumping plant. The Upper Pipeline and Jamestown Connection are above Quartz Reservoir. The Lower Pipeline is below Quartz Reservoir as shown in the diagram on the next page:



The TUD's Regional Effluent Disposal System currently includes 713 acres of land disposal area (much of which is leased acreage on the Betty West ranch under a 20 year contract that runs with the land) within an Upper and a Lower Zone and 1,500 acre-foot storage facility (Quartz Reservoir) located near Woods Creek southwest of Jamestown. The reclamation system also includes a small distribution system consisting of conveyance lines from Quartz Reservoir to designated land application areas for agricultural purposes. Agricultural users with leased spray field areas include

Betty West, Jack and Tricia Gardella and Nathan Rosasco. TUD is under a Cease and Desist order from the State Regional Water Quality Control Board for a lack of reclaimed water storage capacity and deficient effluent disposal system to meet peak wet weather system inflows. In 2007, TUD purchased 140 acres in the northeast portion of the 602± acre West Ranch and it is in the process of planning and designing additional reclaimed water storage reservoirs on the West Ranch as well as expansion of its effluent disposal system. Additional acreage on the West Ranch is leased for wastewater application for livestock grazing.

TUD personnel hold required State licenses and certifications to operate the wastewater treatment plant, sewage collection system and the reclaimed water system.

According to the *Summary of The Updated Draft Small Community Wastewater Grant—TUD Regional WWTP and Land Application System Feasibility Report*, October 2009, the existing WWTPs are in good condition with only minor interim process improvements recommended. However; due to the age of the WWTP facilities and for planning purposes, it is assumed that the RWWTP and JSD WWTP will be replaced or upgraded by the year 2030.

The following interim improvements at the RWWTP were identified:

- Add a third digester with super shredder.
- Recycle sand drying beds filtrate to the plant.
- Add dechlorination facilities and chlorine residual monitoring for discharges from Quartz Reservoir to Woods Creek.

Jamestown Sanitary District Wastewater Treatment Plant (JSD WWTP)

The existing 0.25 MGD JSD WWTP has similar wastewater treatment processes as the RWWTP. The operation and capacity limitations for the JSD WWTP are:

- Inadequate headworks
- A need for a primary clarifier chemical feed system
- A need to replace a blower for the sludge digester
- Lack of process redundancy

The JSD WWTP is currently operated by the Jamestown Sanitary District and not the Tuolumne Utilities District.

Aside from the interim improvements identified above, the existing wastewater treatment plants are currently unable to meet the effluent requirements in the NPDES permit for copper, zinc, and ammonia. The limits for copper and zinc went into effect on May 18, 2010. The limit for ammonia has a compliance date set for October 1, 2013. TUD is in the process of obtaining enough acreage for treated wastewater applications so that there will be no need to renew the NPDES permit.

5.1.3 Written Determinations Regarding Infrastructure Needs and Deficiencies:

5.1.3.1 Water Infrastructure Needs and Deficiencies

1. TUD's current water conveyance system is adequate.
2. TUD has the ability and capacity to serve all parcels/patrons within the District's boundaries and to meet projected demands over the next twenty years assuming a projected growth rate of 2.3 percent per year.
3. In the future, replacement of existing infrastructure may be necessary due to age and changes in State and Federal regulations.
4. TUD should continue to investigate possible options to obtain additional water supply sources since there is a long delay between planning and actual completion of

construction of water development projects.

5. TUD should continue to plan for additional water storage sites and/or a water rights filing in the event Pinecrest Lake water becomes unavailable during summer months in dry and/or critical dry years.

5.1.3.2 Wastewater Infrastructure Needs and Deficiencies

1. TUD's wastewater treatment system and collection system is adequate for existing sewer customers and the build-out of the subdivisions that have been approved by the City and County.
2. The Sonora Regional Wastewater Treatment Plant, operated by TUD was designed to meet an average demand of 2.6 million gallons per day. Current flows to this plant are approximately 1.6 million gallons per day.
3. The current plant has been designed for periodic expansions up to a maximum capacity of 5.2 million gallons per day.
4. In the future, expansion of the current plant may be necessary to meet the expected population increase in the County.
5. Expansion of the reclaimed water storage and discharge system is needed to ensure compliance with State requirements and address the expected population increase in the County.
6. TUD needs to improve the RWWTP wastewater discharge system to ensure treated effluent meets the NPDES permit requirements for levels of copper, zinc and ammonia; or obtain enough acreage for treated wastewater applications so that there is no need to renew their NPDES permit.

5.2 Growth and Population

Purpose: To evaluate service needs based upon existing and anticipated growth patterns and population projections.

5.2.1 Growth and Population in Sphere of Influence for TUD

According to the Tuolumne County Assessor's records, within TUD's service area boundary there are 33,855 total parcels, of which 32,839 are privately owned (not government land). There are a total of 7,889 undeveloped parcels within TUD's service area boundary.

Over 882 new parcels may be created in Tuolumne County through approved tentative subdivision and parcel maps in the next five years, the majority of which will be receiving water from TUD. Several of these parcels may also require sewer services. The Peaceful Oak Estates Subdivision would create 306 residential lots, dedicate 50 acres of land to the County and allocate a total of approximately 183± acres of open space on a site approximately 613± acres in size near the community of Standard. The project could result in the development of 431 residential units because 125 of the proposed 306 residential lots would be allowed to contain a second dwelling unit.

The Mountain Springs Community Plan would result in the development of 600 primary dwelling units, and other recreational uses.

Approval and build out of the Peaceful Oaks Estates Subdivision and the Mountain Springs Community would result in a significant expansion of water and sewer services. In addition to these two large projects, the City of Sonora and Tuolumne County have approved numerous subdivision maps which will also lead to an increase in the water and sewer services provided by TUD.

The majority of communities within Tuolumne County are located within TUD's service area, with the exception of Chinese Camp, Lake Don Pedro, Big Oak Flat and Groveland. The 2013 report from the California Department of Finance indicates that there were 54,360 residents as of January 1, 2013 in the County of Tuolumne. Since TUD's service area covers the majority of the County, a large percentage of Tuolumne County residents live within the boundaries of the District. However, there are several areas that are located within the District's boundaries that do not receive sewer and/or water services from TUD. TUD provides master metered water service by agreement to the Sonora Meadows Mutual Water Company, the Muller Mutual Water Company, and the Sonora Water Company; wastewater treatment and disposal services to the Twain Harte Community Services District and the Jamestown Sanitary District; and untreated water supply to the Twain Harte Community Services District and the Mi-Wuk Mutual Water Company. Consequently, these areas do not receive services directly from TUD.

TUD will likely continue to grow in service area and customers due to the continued acquisition of smaller water systems that are unable to comply with the ever increasing regulatory environment and land development which will add new parcels to the TUD district.

5.2.2 Written Determinations on Growth and Population

1. There is a likelihood of continued growth within the Tuolumne Utilities District's service area boundary.
2. Within the District's boundaries, parcels can be divided or discretionary permits issued to allow additional residential and other development.
3. Over 882 new parcels may be created in Tuolumne County through approved tentative subdivision and parcel maps in the next five years, the majority of which would receive water from TUD. Several of these parcels may also require sewer services. Approval and build out of the Peaceful Oaks Estates Subdivision and the Mountain Springs Community would result in a significant expansion of water and sewer services provided by TUD.

5.3 Finance Constraints and Opportunities

Purpose: To evaluate factors that affect the financing of needed improvements.

5.3.1 Financial Constraints and Opportunities for the Tuolumne Utilities District

The current water fees for TUD include a base (fixed) monthly service charge in addition to a usage rate. The fixed rate charge is dependent upon the size of the meter. The base (fixed) rate starts at \$21.18 (for a 5/8" X 3/4" meter conservation rate using less than 200 cubic feet of water monthly), \$34.44 per month for the average single family residential customer with a 3/4" meter, for a bi-monthly charge of \$68.88 for most residential customers; and increases to \$479.13 (for an 8" meter) for a bi-monthly charge of \$1,219.60 for industrial users.

In addition to the Base (fixed) rate, TUD charges a fee for water consumption (usage). The usage rate is now based on a revised Tiered System approved by the TUD Board on July 1, 2012 where

customers are charged additional fees based on the amount of water consumed per 100 cubic feet. The Tiers are labeled Tier 1 through Tier 6. For Tier 1, a residential "water budget" of 400 cubic feet was established by TUD and is included in the base rate at no additional cost. Tier 2 charges an additional \$1.71 between 400 and 799 cubic feet for each 100 cubic feet of water consumed. Tiers 3, 4 and 5 have additional charges for increased usage, with Tier 6 being the maximum residential Tier for users of more than 2,000 cubic feet of water with a charge of \$3.07 for each 100 cubic feet of water consumed. As is indicated by the figures above, the price of water increases as the amount of water usage increases. The purpose for the increasing tiered rates is to encourage water conservation and to charge the higher cost of treating large volumes of water to the appropriate, high water using customers. Customers who practice water conservation methods will benefit from a decreased water bill.

In 2012, TUD also implemented a water consumption (usage) rate specifically for commercial customers, with the recognition that the average commercial customer uses more water on a consistent monthly basis than a residential customer. The monthly base rate for commercial customers is based on meter size and/or type of business conducted. Commercial customers are charged a flat rate of \$2.06 per hundred cubic feet consumed.

In addition to providing treated water to customers, TUD also supplies raw (untreated) water services. The charge for raw water consists of a fixed monthly service charge in addition to a usage rate. The fixed rate charge is dependent upon the size of the meter. The fixed rate starts at \$11.11 (for a 5/8" by 3/4" meter) and increases to \$158.83 (for an 8" meter).

The usage rate for the metered raw water is a variable rate and the cost depends upon the size of the meter and the number of cubic feet of water used per month. The first 300 cubic feet of water costs \$0.144 per 100 cubic feet of water. The next 9,700 cubic feet of water costs \$0.175 per 100 cubic feet of water. Anything above 10,000 cubic feet of water costs \$0.206 per 100 cubic feet of water. More than half of the District's raw water customers purchase at "miner's inch" rates which are unmetered

Connection fees for treated water for a single family residence include a \$985.00 Capital Reserve charge. The Capital Reserve charge is to establish a reserve fund to replace capacity and facilities used up by new water applicants, for service upon connection to the water system, and to provide for the continuous capability to serve the new applicants. Additional connection fees are required in areas where supply, treatment or storage capacity has not been provided by previous development. In addition to the charges indicated above, there is a meter set charge for installation. The cost of installation depends upon the meter size. The installation cost for a meter and valve is \$296 for a 3/4" meter. The installation cost for a meter and valve is \$694 for a 2 inch meter. If a new box and lids are also required in addition to the meter and valve, the installation cost increases by approximately \$130.

Effective July 1, 2009, the standard sewer service charge is \$35.59 per month per single-family residence. Certain areas within the County pay an additional charge. For example, in the Apple Valley Subdivision, there is a \$4 septic tank maintenance charge per single-family residence. This same charge also exists in the Mi Wuk Subdivision. The Gibbs Estates Subdivision pays a \$2.02 purchase repayment surcharge. Most of the parcels in Unit 1A of the Crystal Falls Subdivision are connected to a sewer system constructed in Mono Vista in 1982. There is a \$215 sewer facilities charge for every parcel connected to that system. The remainder of the Crystal Falls Subdivision utilizes private on-site sewage disposal and treatment systems. Commercial customers with grease traps or grease interceptors are charged a monthly \$5.00 grease trap and interceptor monitoring charge.

TUD charges a connection and capital facilities fee for connection to both the water and sewer systems, which is payable prior to connection. The intent of this fee is to fully mitigate the impact of

new development on the capacity of the systems.

TUD levies surcharges within certain areas of its systems for the purpose of making improvements to water and sewer systems acquired by TUD from private and public water and sewer system owners. Surcharges range from \$2.00 to over \$25.00 per month, in addition to the normal monthly rates and usage charges.

TUD has outstanding public debt. A Special Assessment District was formed August 28, 1983 to provide funding for the design and construction of four wastewater collection facilities in the communities of Willow Springs, Mono Vista, Crystal Falls Unit 1A and Ranchos Poquitos that had experience chronic failures on on-site septic systems. The Tuolumne County Treasurer forwards capital contributions from special assessment districts to the TUD as the proceeds are received. A loan agreement with the United States Department of Agriculture, Rural Development was also obtained in August 1983, payable in installments semi-annually through August 2023, including interest at 5.0%. The original amount of the debt was \$1,230,000. Other debt acquired by TUD includes the following:

TYPE OF LOAN	DATE ACQUIRED	PAYMENT (Semi Annual)	MATURITY DATE
2008 SDWSRF Loan- for the construction of a water treatment plant.	1-1-2008	\$8,358	1-1-2039
2007 LaSalle Bank Loan—for land purchase	1-18-2007	\$58,859	1-18-2022
2005 LaSalle Loan –for two water tanks	3-23-2005	\$61,080	3-23-2020
2005 SDWSRF Loan-for treated water distribution system.	1-1-2005	\$1,225	1-1-2025
1996 SDWR Loan- for treated water distribution system.	10-1-1996	\$3,076	10-1-2020
1996 LaSalle Loan-water infrastructure improvements.	12-23-1996	\$178,546	12-23-2016
1994 SDWR Loan- construction of Shaws Flat raw water pipeline.	10-1-1994	\$80,815	10-1-2013
1991 SDWR Loan- improvements to the Columbia water system.	4-21-1991	\$4,153	4-21-2021
1987 SDWR Loan- construction of interconnecting pipelines.	10-1-1987	\$1,522	10-1-2018
1978 USDA Loan-improvements to the Sugar Pine water system.	12-2-1978	\$7,887	12-2-2016
Total Semi-Annual Load Payments		\$405,521	

SDWSRF= State Department of Water State Revolving Fund.

SDWR= State Department of Water Resources.

TUD has never defaulted on repayment of any bonds or other debt.

In addition, the TUD received Federal approval for a \$3.9 million dollar grant for improvements to the West Big Hill water treatment system. The TUD has also been approved for a State Loan of approximately \$1.3 million for improvements to the Crystal Falls water treatment system. Other grants have been obtained to make improvements to other water systems in the County. TUD continues to apply for all grant funding opportunities as they become available.

TUD's "Independent Auditor's Report and Financial Statements June 30, 2011," indicated that the Water Fund reported an increase in net assets of \$779,911 for Fiscal Year 2011 compared to an increase of \$1,164,726 in Fiscal Year 2010. An increase to the rates charged for water services became effective on July 1, 2012, which will lead to an increase in the average water bill by 20%

and increase the projected net assets for Fiscal year 2012.

According to the “*Independent Auditor's Report and Financial Statements June 30, 2011*,” the wastewater fund also reflected an increase in net assets of \$267,097 for fiscal year 2011 compared to an increase of \$1,595,857 for the fiscal year 2010. The gains realized in Fiscal Year ending in June 2011 are from non-operating revenues and contributed capital.

Combined operating revenue for Fiscal Year 2011 was \$9,782,132 which was \$3,824 less than Fiscal Year 2010 (a 0.37% decrease). This revenue loss is likely due to the number of foreclosed homes in the County. The revenue categories include service charges, infrastructure access fees, interest income, taxes, special assessments, capital reimbursements and other operating/non-operating revenue. The total operating expenses for Fiscal Year 2011 were \$12,359,149 which was a \$771,173 increase from Fiscal Year 2010. The net operating loss for Fiscal Year 2011 was \$5,666,370 which is \$1,290,941 greater than Fiscal Year 2010. Continuing increases in operating costs, such as treatment chemicals, health insurance, workers compensation insurance and regulatory fees outpaced revenues and impacted the financial results for Fiscal Year 2011.

According to the *Budget Summary FY 2012*, provided by the Tuolumne Utilities District, the Combined operating revenues for Fiscal Year 2012 was \$9,575,278 which was a \$206,854 decrease from Fiscal Year 2011. This revenue loss reflects an increase number of home foreclosures and loss of property taxes. The total operating expenses for Fiscal Year 2012 were \$13,899,553 which was a \$1,540,404 increase from Fiscal Year 2011. The net operating loss for Fiscal Year 2012 was \$2,894,834 which is \$2,771.538 less than Fiscal Year 2011.

The largest source of revenue for TUD is service charges, which accounted for nearly 70% of the total revenue in Fiscal Year 2011. The recent increase in water service charges will increase operating revenues in the next Fiscal Year.

5.3.2 Written Determinations on Financing Constraints and Opportunities

1. TUD will need to improve potable water facilities and replace aging infrastructure in the future to accommodate increased growth within the County of Tuolumne and City of Sonora.
2. Continued development and growth within the Tuolumne County and the City of Sonora will require the expansion of the Sonora Regional Wastewater Treatment Plant and the need to acquire more land disposal area for treated wastewater.
3. A large percentage of funding sources for water and wastewater are from user rates. Additional grant funding may be obtained in the future to aid in improvement to water and wastewater infrastructure.
4. TUD prepares a budget annually and is audited by an independent outside agency.
5. TUD follows the Governmental Accounting Standings Board (GASB) 34 accounting standards.
6. TUD's water and sewer rates will likely continue to increase to ensure adequate funding to address critical maintenance, equipment replacement and regulatory compliance.

5.4 Cost Avoidance Opportunities

Purpose: To identify practices or opportunities that may help eliminate unnecessary costs.

5.4.1 Cost of Operations for the Tuolumne Utilities District

TUD employs various cost-avoidance practices in its daily operations. TUD has taken numerous actions in the last five years to save money and lower expenses. These actions include competitive bidding, purchasing materials and supplies in bulk at warehouse quantities, sharing of safety personnel with other agencies, consolidation of water systems, reduction of water treatment plants, reduction of outside consultant services costs by undertaking tasks internally, temporary reduction of activities funded by general tax revenues, joint training at District facilities to reduce travel expenses, reduced staffing levels and reduced employee benefit payments, joint electrical energy purchase for local public agencies through Tuolumne County Public Power Authority (TCPPA) and frequent meetings with other similar districts to discuss cost saving measures.

TUD has adopted service fees to be paid for water and/or sewer service. The fees are based upon the size of the meter and/or the type of property use (sewer rates). The water service fees include a fixed monthly rate and a variable usage rate based upon the number of gallons used. Sewer fees are charged at a flat rate and based on the type of property use as compared to a single-family residential equivalent.

According to planned land uses in TUD's service area infrastructure/water and treatment plants may require improvements due to age and/or new regulations. TUD is considering the following additional cost cutting methods prior to further increases in ratepayer's water or sewer fees through Fiscal Year 2014-2015:

TYPE OF PROPOSED COST CUTTING MEASURE	ESTIMATED SAVINGS
Reduction of Capital Recovery Allocation	\$ 1,900,000
Reduction of Implementation Study Costs	\$ 1,860,000
Reduction of Government Accounting Standards Board (GASB) Retiree Health Payments	\$ 1,650,000
Elimination of 6 positions (7% of work force)	\$ 1,170,000
Reduction of Wastewater Fund Transfer	\$ 800,000
Reduction of Property Tax Reserve	\$ 427,776
Labor Cost reduction through Fiscal Year 2013-2014	\$ 352,000
Elimination of Retiree Health Programs (new hires only)	\$ 122,619
Insurance Cost Savings	\$ 94,014
Management Salary Concessions	\$ 37,000
New CALPERS tier (2% @55)	\$ 23,906
Total Estimated Savings	\$ 8,437,315

Pursuant to an email received on May 16, 2013 from TUD General Manager Pete Kampa, the explanation of the proposed cost cutting measures is as follows:

1. Reduction of Capital Recovery Allocation: This is the reduction in the amount of water rate revenue invested in capital improvement projects.
2. Reduction of Implementation of Study Costs: This is the reduction in the dollar amount of expenditures related to infrastructure studies, planning, design, and environmental permitting.
3. Reduction of GASB Retiree Health Payments: The District has a financial obligation to its

current and some future retirees to fund the cost of their health care insurance. From 2009 to 2011, although not required to fund these costs in advance, the District chose to save millions of dollars long term and funded its obligation into a trust to pay these future costs. The payments into the trust were based on an actuarial valuation. This reduction in cost provides for only 50% of the annual payments as calculated in the actuarial.

4. Elimination of 6 positions (7% of work force): Various necessary positions are not to be filled in engineering, water, wastewater operations, finance and construction/maintenance.
5. Reduction of Wastewater Fund Transfer: The District had committed to replenishing its wastewater reserve balance over a 20 year period at \$300,000 per year. This action reduces that payment to \$100,000 per year.
6. Reduction of Property Tax Reserve: The District had established a restricted reserve in its water and wastewater funds to cover the revenue shortfalls caused by State property tax reallocations. This action stopped funding that reserve.
7. Labor Cost Reduction Through Fiscal Year 2013-2014: All TUD employees voluntarily eliminated all Cost of Living salary adjustments that were approved in the union MOU through 2014.
8. Elimination of Retiree Health Programs (new hires only): The TUD employee union voted voluntarily to eliminate the policy of employer payment of all health benefit costs for retirees.
9. Insurance Cost Savings: Expected further savings in property and liability insurance through achieving credit incentive points for extra safety and liability reduction efforts, training, etc.
10. Management Salary Concessions: Eliminated payment for administrative leave/cash out.
11. New CALPERS tier (2% @ 55): The TUD employee union voted voluntarily to reduce benefits for future employees.

5.4.2 Written Determinations on Cost Avoidance Opportunities

1. TUD takes advantage of a wide variety of cost avoidance opportunities.
2. The five member Board of Directors are paid \$100 per Board meeting or approved Committee meeting with a maximum of \$600 per month. The District's Expense Limitation Policy provides for reimbursement of expenses with limits on the amount expended for lodging, meals, mileage, etc. Health insurance is available to Board members but premiums must be paid by each director.
3. TUD employs 73 full-time employees, 1 part-time employee and 6 seasonal employees.
4. TUD is evaluating the opportunity to construct regional or sub-regional water treatment plants to allow for decommissioning of smaller, less efficient plants and associated labor and other operating cost reductions.
5. TUD continually evaluates salary and benefits provided by other similar agencies in the region and state to ensure its employment package provides for the attraction and retention of qualified, long term staff, reduced employee turnover and increases productivity while at the same time ensuring that the District is not over-compensating.
6. TUD is considering a Cost Cutting Plan for Fiscal Year 2014-2015 to reduce operating expenses and increase net revenues.

5.5 Opportunities for Rate Restructuring

Purpose: To identify opportunities to positively impact rates without decreasing service levels.

5.5.1 Rates for Tuolumne Utilities District

TUD strives to keep water and sewer rates as low as possible for its customers. TUD charges a new Tier Rate system for water users as discussed in Section 5.3.1. Effective July 1, 2009 sewer service charges were set at \$35.59 per month for most single-family residences, with some areas of the County being charged sewer facilities design charge. Other sources of revenue are sought to off-set customer water and sewer rates, such as charging for septic tank maintenance and allowing the dumping of septic hauler waste at the Regional Wastewater Plant.

TUD actively seeks grant funding to offset the costs of infrastructure repairs and upgrading the water and sewer systems. A recent grant allowed TUD to improve the Big Hill Water System up to State standards. Another grant allowed TUD to improve the Monte Grande Water Treatment Plant which serves the Curtis Creek Ranches and properties in the Soulsbyville Road area of Tuolumne County.

5.5.2 Written Determinations on Opportunities for Rate Restructuring

1. There is an adequate amount of parcels within TUD's District to pay most of the operating costs for providing water and sewer services.
2. It is likely that additional parcels will be served by TUD in the future, most notably the approved subdivisions discussed in Section 5.1, including the Peaceful Oak Estates Subdivision and Mountain Springs Community.
3. It is likely that more small water systems will be acquired by TUD and land developed to spread the operating costs to more property owners.
4. The use of the Tiered Rate system for water users will provide an increase in operating revenues for future years.

5.6 Opportunities for Shared Facilities

Purpose: To evaluate the opportunities for a jurisdiction to share facilities and resources to develop more efficient service delivery systems.

5.6.1 Opportunities for Tuolumne Utilities District to Share Facilities

The Tuolumne Utilities District (TUD) was organized on July 1, 1992 in response to a voter initiative requiring the consolidation of two local public water systems, the Tuolumne Regional Water District (previously known as Tuolumne County Water District No. 2) and the Tuolumne Water System. TUD is within the boundaries of Tuolumne County. The TUD service area occupies approximately the northerly 2/3rds of Tuolumne County.

The Tuolumne Utilities District has a significant degree of interdependence with the surrounding area due to the services provided. TUD benefits from mutual aid provided by the Water Agency Response Network (WARN), a joint powers agency that supports water and wastewater utilities affected by natural and other disasters with services, equipment and manpower in the state of California during times of emergency.

The Jamestown Sanitary District, Tuolumne Sanitary District and Twain Harte Community Services District are located within TUD's district boundary. Consequently there are four service districts that provide sewer services within this portion of the County. Tuolumne Utilities District and Tuolumne Sanitary District have their respective plants, effluent conveyance systems and reclamation systems. These systems are not interconnected which does not allow for shared services. Jamestown Sanitary District collects and treats its own sewage and transmits the plant effluent to the TUD effluent disposal system. Twain Harte Community Services District collects its own sewage and transmits the raw sewage to TUD's system of interceptors, which delivers the sewage to the Regional Wastewater Treatment Plant operated by TUD.

TUD provides master metered water service by agreement to the Sonora Meadows Mutual Water Company, the Muller Mutual Water Company, and the Sonora Water Company; and untreated water supply to the Twain Harte Community Services District and the Mi Wuk Mutual Water Company.

In recent years, TUD has absorbed smaller water companies into its system, including the Big Hill Water Company, which was no longer able to provide water services that comply with State regulations. In 2009, TUD also acquired the Matt Dillon/Curtis Creek Ranches Water System and has interconnected Curtis Creek Ranch to the TUD infrastructure to improve water quality for the residents of that area of Tuolumne County.

5.6.2 Written Determination on Opportunities for Shared Facilities

1. In the late 1970's, the Sonora Regional Wastewater Treatment Plant and system were constructed to serve the entire TUD service area. Twain Harte Community Services District and Jamestown Sanitary District utilize various portions of the regional system.
2. Interconnections exist between the Twain Harte Community Services District and TUD's water distribution system to provide for system security and redundancy. Treated water can be transferred through this interconnection to either agency based on emergencies, system maintenance or demand needs.
3. Currently, additional sharing of infrastructure, personnel, facilities or equipment is not necessary.

5.7 Government Structure Options

Purpose: To consider the advantages and disadvantages of various government structures that could provide public services.

5.7.1. Tuolumne Utilities District Governmental Structure

One of the most critical elements of LAFCO's responsibilities is in setting logical service boundaries for communities based on their capability to provide services to affected lands.

The Tuolumne Utilities District (TUD) was organized on July 1, 1992 in response to a voter initiative requiring the consolidation of two local public water systems, the Tuolumne Regional Water District (previously known as Tuolumne County Water District No. 2) and the Tuolumne Water System. There are not many government structure options available in TUD's service area. TUD provides water and wastewater services to a large percentage of Tuolumne County's residents.

Due to its expansive infrastructure and large customer base, TUD continues to acquire small water systems within its service area that are no longer able to comply with State regulation at an

affordable cost to their customers.

The Tuolumne City Sanitary District recently considered a proposal for TUD to take over operations of its sewage treatment plant, in the community of Tuolumne. The Tuolumne City Sanitary District decided not to pursue that option at this time.

5.7.2 Written Determinations on Government Structure Options

1. There are very few government structure options currently available to TUD.
2. Changing the governmental structure of TUD is generally not feasible.
3. TUD will likely continue to acquire small water systems within its service area that are no longer able to comply with State water quality regulations.

5.8 Management Efficiencies

Purpose: To evaluate the management capabilities of the organization.

5.8.1 Tuolumne Utilities District Management

In evaluating TUD's capability to serve its existing service area boundary, LAFCO can examine TUD's ability to maintain management and budget efficiencies over the existing lands.

TUD promotes water conservation through school and customer educational programs, promotion of usage of low flow fixtures, toilets, showerheads and clothes washers, economic incentives, tiered price structuring, water leak detection programs and landscape audits. Water saving information is available on TUD's website, including "Lawn Watering Guide," "111 Water Savings Tips," "5 Ways to Save Water," "Helpful Conservation Hints," and "Healthy Lawn Information."

The TUD has been working with the Master Gardeners program to educate people on low-flow irrigation methods for gardening and the use of drought tolerant plants.

The Tuolumne Utilities District is governed by a five member Board of Directors and staffed by 73 full-time employees, 1 part-time employee, and 6 seasonal employees. At the top of the Tuolumne Utilities District's Organizational Chart are the 5 members of the elected Board of Directors, which currently include Board President Michael Sarno, Vice President Jim Grinnell, Delbert Rotelli, Kent R. Johnson and John Maciel. The Board of Directors oversees the General Manager of TUD, who is responsible for administration of the day to day operations of TUD. Four departments report directly to the General Manager, including engineering, finance, administration and operations. The largest department is operations, which includes construction, maintenance, water distribution, wastewater and water.

TUD strives for maximum budget efficiency through the budget preparation process. Annual audits are performed with respect to all District activities. Financial audits by an outside auditor are also conducted annually.

TUD has the ability to more easily meet State mandates that other small water and wastewater providers due to a larger customer base over which to spread required costs. For this reason, it is likely that TUD will acquire more small water and wastewater systems in the future.

TUD has implemented many cost-cutting measures as discussed in Section 5.4.1, and is

considering additional cost cutting measures prior to further increases in ratepayer's water or sewer fees through Fiscal Year 2014-2015, as discussed in Section 5.4.1. These cost cutting measures should keep water and wastewater rates at reasonable levels.

5.8.2 Written Determinations on Management Efficiencies

1. TUD maintains customer-oriented programs, including maintenance of a website, surveys, newspaper publication, letters, notices, public meetings, workshops and hearings.
2. It is reasonable to conclude that management is efficient.
3. TUD has entered into a Memorandum of Understanding with the UC Cooperative Extension Master Gardeners program to provide public outreach and education on water conservation.
4. TUD has implemented many cost-cutting measures.

5.9 Local Accountability and Governance

Purpose: To evaluate the accessibility and levels of public participation associated with the agency's decision-making and management processes.

5.9.1 Tuolumne Utilities District Public Participation

LAFCO may consider the agency's record of local accountability in its management of community affairs.

TUD maintains customer-oriented programs including website postings, periodic notices with water and sewer billing, publication six times a year of "On Tap" newsletter, direct mailing to customers, newspaper publications, public service announcements, thorough discussions and summary of District activities at regular and special Board meetings, advertised workshops, booths at community activities, such as the annual Home and Garden Show, public meetings and public hearings on specific activities and notices to residents adjacent to and near District projects.

TUD holds bi-monthly Board of Director meetings. The Board Meetings are held at TUD's office building, located at 18885 Nugget Boulevard in Sonora. The Board Meetings have been recently changed to 2 p.m., on the second and fourth Tuesday of the month. The agendas for the meetings are posted at least 72 hours prior to a Board Meeting, and all meetings are available by live stream on the TUD website and after the meeting by video archive. All items considered by the Board are posted in advance of the meeting on the TUD website.

5.9.2 Written Determinations on Local Accountability and Governance

1. TUD's outreach program includes distribution of articles about the District and maintaining a website.
2. TUD's Board of Directors conducts business during the regularly scheduled bi-monthly meetings that are open to the public.
3. There is a mailing address, e-mail address and telephone number on the website maintained by the TUD where customers can send comments and/or request

information.

4. TUD solicits customer feedback and comments from property owners within the District.

5.9.3 Disadvantaged Unincorporated Communities (DUC)

Section 56430(a)(2) of the Government Code requires that LAFCO include in a Municipal Service Review, a description of the location and characteristics of any disadvantaged unincorporated communities within or contiguous to the Sphere of Influence. Section 56425(e)(2) further requires LAFCO to adopt additional determinations for an update of a Sphere of Influence of a Special District that provides public facilities and services related to sewer, water and fire protection.

For an update of a Sphere of Influence of a special district that provides public facilities or services related to sewers, municipal or industrial water, or structural fire protection, the present and probable need for these public facilities or services by any Disadvantaged Unincorporated Communities within the Sphere of Influence must be considered. A written statement of LAFCO's determination must be adopted.

Section 65302.10(a) defines a Disadvantaged Unincorporated Community (DUC) as a fringe, island or legacy community in which the median household income is 80% or less than the Statewide median household income. An unincorporated legacy community is a geographically isolated community that is inhabited and has existed for at least 50 years.

5.9.4 Disadvantaged Unincorporated Communities within the TUD

TUD's service area covers approximately the northerly 2/3rds of Tuolumne County. It is bounded on the north by the North Fork and main stem of the Stanislaus River, on the south by the Tuolumne River and Yosemite National Park, on the east by Alpine County and on the west by Stanislaus County. The total area within TUD boundaries is approximately 1,200 square miles. The TUD District boundaries and the TUD Sphere of Influence are the same area.

The Tuolumne Utilities District's service area encompasses numerous communities and subdivisions, which include Sonora, Jamestown, Columbia, East Sonora, Greenley Basin, Mono Village, Cuesta Serena, Cuesta Court, Lambert Lakes, Sierra Industrial Park, Apple Valley Estates, Scenic View, Scenic Brook, Phoenix Lake Park, Gibbs Ranch, Valle Vista, Tuolumne City, Ponderosa Hills, Sugar Pine, Lakewood Park, Confidence Ridge, Meadowbrook Estates, Brentwood Park, Crystal Falls, Mono Vista, Ranchos Poquitos, Standard, Willow Springs, Soulsbyville, Monte Grande, Ridgewood, Scenic Heights, Goldmont Forest, Cedar Ridge, Big Hill and Peaceful Pines. Many of the communities located inside the TUD's District boundaries are inhabited unincorporated legacy communities that are geographically isolated from any incorporated cities and have existed for over 50 years. Other communities in the TUD's District boundaries are not currently receiving water and/or sewer services including the communities of Jupiter (in northwest Tuolumne County), Chinese Camp (southeast of Jamestown) and Tuttletown (in southwest Tuolumne County).

The Census indicates that the median household income for the State of California is \$61,632 per year. 80% of the Statewide median income is \$49,306 per year. If the median household income of a community is less than 80% of the State wide median household income, the community is classified as a Disadvantaged Unincorporated Community (DUC). If the community is also geographically isolated, is inhabited and has existed for at least 50 years it is an unincorporated legacy community.

The 2010 Census indicates that the following communities inside the TUD District Boundaries are a Census Designated Place (CDP) and have the following median household incomes:

COMMUNITY	MEDIAN HOUSEHOLD INCOME	Disadvantaged Unincorporated Community?
Cedar Ridge	59,323	NO
Chinese Camp	45,313	YES
Cold Springs	74,018	NO
Columbia	34,231	YES
East Sonora	35,781	YES
Jamestown	27,764	YES
Long Barn	24,898	YES
Mi-Wuk Village	60,769	NO
Mono Vista	42,328	YES
Phoenix Lake	65,292	NO
Sierra Village	71,607	NO
City of Sonora	31,424	Incorporated City
Soulsbyville	56,853	NO
Strawberry	22,467	YES
Tuolumne City	35,291	YES
Tuttletown	31,827	YES
Twain Harte	46,250	YES

The 2010 Census Data indicates that the communities of Chinese Camp, Columbia, East Sonora, Jamestown, Long Barn, Mono Vista, Strawberry Tuolumne City, Tuttletown and Twain Harte are Disadvantaged Unincorporated Communities (DUCs), which are located inside the district boundaries of the TUD. However, the communities of Cedar Ridge, Cole Springs, Mi-Wuk Village, Phoenix Lake, Sierra Village and Soulsbyville listed above are not DUCs.

Another unincorporated community in Tuolumne County is Jupiter, which is located in the northwest portion of Tuolumne County. The 2010 Census Data does not provide any income information for the community of Jupiter. TUD is currently not providing water or wastewater services to Jupiter; however, it is located inside the TUD District and Sphere of Influence boundaries. The closest public water facility is Peaceful Pines, which is located approximately 2 ¾ miles to the southeast of Jupiter on State Highway 108. Extension of public water lines to Jupiter would involve crossing steep terrain and crossing the Stanislaus River. The nearest sewer line is located approximately 4 miles to the south in the Twain Harte area.

5.9.5 Present and Planned Capacity of Public Facilities in Disadvantaged Unincorporated Communities

Section 56425(e)(5) requires LAFCO to adopt additional determinations for an update of a Sphere of Influence of a Special District that provides public facilities and services related to sewer, water or fire protection. The Tuolumne Utilities District provides sewer and water services.

TUD's service area covers approximately the northerly 2/3rds of Tuolumne County. It is bounded on the north by the North Fork and main stem of the Stanislaus River, on the south by the Tuolumne River and Yosemite National Park, on the east by Alpine County and on the west by Stanislaus County. The total area within TUD boundaries is approximately 1,200 square miles. The Tuolumne Utilities District provides services to 20,012 customers which include 14,066 customers who receive water services and 5,995 who receive sewer services. The majority of TUD customers reside in or near the City of Sonora. There are Disadvantaged Unincorporated Communities within the TUD service area.

Senate Bill 1087 requires that water use projection of an Urban Water Management Plan include projected water use for single-family and multi-family residential housing for lower income households as identified in the housing element of any city, county or other applicable General Plan. Housing Elements rely on the Regional Housing Needs Assessment generated by the State Department of Housing and Community Development (HCD) to allocate the regional need for housing for incorporation into housing element updates. Tuolumne County last updated Chapter 3, the Housing Element of the Tuolumne County General Plan in July 2010. The County's Housing element identifies the target number of low income households from 2007 to 2014 as 17 percent of the population and very low income as 22 percent of the population. The County is assumed to be demographically representative of the TUD service area.

Pursuant to Government Code Section 65589.7, it is the policy of TUD to grant a priority to proposed developments seeking water or sewer service that includes housing units affordable to lower income households. To further this policy, TUD adopted the following procedures:

TUD will not deny or condition the approval of an application for services to, or reduce the amount of service by a proposed development that include housing units affordable to lower income households unless TUD makes a specific written finding that the denial, condition, or reduction is necessary due to the existence of one or more of the following:

1. TUD does not have "sufficient water supply" as defined in paragraph (2) of subdivision (a) of Government Code Section 66473.7, or is operating under a water shortage emergency as defined in Section 350 of the California Water Code, or does not have sufficient water treatment or distribution capacity to serve the needs of the proposed development, as demonstrated by a written engineering analysis and report.
2. TUD is subject to a compliance order issued by the State Department of Health Services that prohibits new water connections.
3. The proposed development is seeking sewer service, and TUD does not have sufficient collection, treatment, or reclamation capacity, as demonstrated by a written engineering analysis and report on the condition of the collection, treatment, or reclamation works, to serve the needs of the proposed development.
4. The proposed development is seeking sewer service, and TUD is under an order issued by a Regional Water Quality Control Board (RWQCB) that prohibits new sewer connections.
5. The applicant failed to agree to reasonable terms and conditions relating to the provision of service generally applicable to development projects seeking service from TUD, including but not limited to the requirements of local, state, or federal laws, and regulations or payment of a fee or charge.

The following table shows which communities receive public water and/or sewer services. The provider is TUD unless otherwise noted:

COMMUNITY	WATER	SEWER
Chinese Camp	NO	NO
Columbia	YES	YES
East Sonora	YES	YES
Jamestown	YES	Jamestown Sanitary District
Long Barn	Slide Inn Water Co.	NO
Mono Vista	YES	YES
Strawberry	Del Oro Water Co.	NO
Tuolumne City	YES	Tuolumne Sanitary District

Tuttletown	NO	NO
Twain Harte	Twain Harte Community Services District	Twain Harte Community Services District
Jupiter	NO	NO

Communities that are not provided public water are served by individual private wells. Communities that are not provided public sewage disposal are served by individual on-site sewage treatment and disposal systems. Larger parcels in areas that could be provided public water and sewer services have the option of utilizing individual private wells and/or on-site sewage treatment and disposal systems. In the future, TUD will be able to provide more parcels with public water and sewer service as grant opportunities become available to aid in the cost of extending service lines.

The area of Jupiter is approximately 2 $\frac{3}{4}$ miles to the northwest from the nearest public water provider at Peaceful Pines, on State Highway 108. The nearest public sewer line to Jupiter is approximately 4 miles to the south in the Twain Harte area. The nearest public sewer line to Chinese Camp is approximately 4.8 miles to the west on Chicken Ranch Road. It is unlikely that public water or sewer services will become available in either the Jupiter or Chinese Camp area in the near future due to the mountainous terrain and the need to cross a vast distance over many privately owned parcels.

5.9.6 Written Determinations Regarding Disadvantaged Unincorporated Communities:

1. The Tuolumne Utilities District (TUD) provides sewer service and municipal and industrial water service to many properties located within their District.
2. Several unincorporated legacy communities of Tuolumne County have been identified as DUCs and are located within the boundaries of the Tuolumne Utilities District; however, the Tuolumne Utilities District is currently providing water and sewer services at fair rates in their District and Sphere of Influence.
3. It is the TUD policy to grant priority to proposed developments seeking water or sewer service that include housing units affordable to lower income households. TUD will not deny or condition the approval of an application for services to, or reduce the amount of service by a proposed development that includes housing units affordable to lower income households unless TUD makes a specific written finding that the denial, condition, or reduction is necessary due to reasons of health and safety or water shortages in an area.
4. It is likely that the TUD will expand public water and sewer services to many properties in disadvantage unincorporated communities in the near future as funds become available through grants and other funding opportunities.
5. Due to the terrain and costs involved, it is unlikely that public water and/or sewer services would become available in the communities of Jupiter, Chinese Camp or Tuttletown in the near future.
6. Several disadvantaged unincorporated communities are presently being provided water and/or sewer services from Mutual Water Companies, and private sewage treatment and disposal companies.
7. The THCSD strives to provide services and facilities at the lowest cost possible to property owners, residents and visitors within its District in an efficient manner.

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