

COLUSA LAFCO

**ARBUCKLE
PUBLIC UTILITY DISTRICT
MUNICIPAL SERVICE REVIEW**

***Adopted
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Resolution 2013-0001***

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1 INTRODUCTION

1.1 Local Agency Formation Commission (LAFCO) History

This report is prepared pursuant to legislation enacted in 2000 that requires LAFCO to conduct a comprehensive review of municipal service delivery and update the spheres of influence (SOIs) of all agencies under LAFCO's jurisdiction. This chapter provides an overview of LAFCO's history, powers and responsibilities. It discusses the origins and legal requirements for preparation of the municipal services review (MSR). Finally, the chapter reviews the process for MSR review, MSR approval and SOI updates.

After World War II, California experienced dramatic growth in population and economic development. With this boom came a demand for housing, jobs and public services. To accommodate this demand, many new local government agencies were formed, often with little forethought as to the ultimate governance structures in a given region, and existing agencies often competed for expansion areas. The lack of coordination and adequate planning led to a multitude of overlapping, inefficient jurisdictional and service boundaries, and the premature conversion of California's agricultural and open-space lands.

Recognizing this problem, in 1959, Governor Edmund G. Brown, Sr. appointed the Commission on Metropolitan Area Problems. The Commission's charge was to study and make recommendations on the "misuse of land resources" and the growing complexity of local governmental jurisdictions. The Commission's recommendations on local governmental reorganization were introduced in the Legislature in 1963, resulting in the creation of a Local Agency Formation Commission, or "LAFCO," operating in every county.

LAFCO was formed as a countywide agency to discourage urban sprawl and to encourage the orderly formation and development of local government agencies. LAFCO is responsible for coordinating logical and timely changes in local governmental boundaries, including annexations and detachments of territory, incorporations of cities, formations of special districts, and consolidations, mergers and dissolutions of districts, as well as reviewing ways to reorganize, simplify, and streamline governmental structure.

The Commission's efforts are focused on ensuring that services are provided efficiently and economically while agricultural and open-space lands are protected. To better inform itself and the community as it seeks to exercise its charge and to comply with the State Law; LAFCO conducts service reviews to evaluate the provision of municipal services within the County.

LAFCO regulates, through approval, denial, conditions and modification, boundary changes proposed by public agencies or individuals. It also regulates the extension of public services by cities and special districts outside their boundaries. LAFCO is empowered to initiate updates to the SOIs and proposals involving the dissolution or consolidation of special districts, mergers, establishment of subsidiary districts, and any reorganization including such actions. Otherwise, LAFCO actions must originate as petitions or resolutions from affected voters, landowners, cities or special districts.

1.2 Colusa LAFCO

Colusa LAFCO consists of five regular members as follows:

- two members from the Colusa County Board of Supervisors
- two city council members
- one public member who is appointed by the other members of the Commission

There is an alternate in each category. All Commissioners are appointed to four-year terms.

The Colusa LAFCO Commissioners and Alternates are as follows:

Commissioners:

Angela Fulcher, City Member
Kay Hosmer, City Member, Vice Chair
Denise Carter, County Member, Chair
Gary Evans, County Member
Brandon Ash, Public Member

Alternates:

Tom Indrieri, County Member Alternate
Mary Winters, Public Member Alternate
Tom Reiche, City Member Alternate

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 requires LAFCO review and update SOIs no less than every five years and to review municipal services before updating SOIs. Colusa LAFCO policies state that "Colusa LAFCO must review and update each agency's Sphere of Influence at least once every five years, as necessary". The requirement for service reviews arises from the identified need for a more coordinated and efficient public service structure to support California's anticipated growth. The service review provides LAFCO with a tool to study existing and future public accommodating growth, preventing urban sprawl, and ensuring that critical services are provided efficiently.

1.3 Municipal Services Review Requirements

Effective January 1, 2008, Government Code §56430 requires LAFCO to conduct a review of municipal services provided in the county by region, sub-region or other designated geographic area, as appropriate, for the service or services to be reviewed, and prepare a written statement of determination with respect to each of the following six topics:

1. Growth and population projections for the affected area
2. The location and characteristics of any disadvantaged unincorporated communities (DUC) within or contiguous to the sphere of influence
3. Present and planned capacity of public facilities and adequacy of public services, including infrastructure needs or deficiencies
4. Financial ability of agencies to provide services

5. Status of, and opportunities for shared facilities
6. Accountability for community service needs, including governmental structure and operational efficiencies

1.4 Municipal Services Review Process

For local agencies, the MSR process involves the following steps:

- Outreach: LAFCO outreach and explanation of the project
- Data Discovery: provide documents and respond to LAFCO questions
- Map Review: review and comment on LAFCO draft map of the agency's boundary and sphere of influence
- Profile Review: internal review and comment on LAFCO draft profile of the agency
- Public Review Draft MSR: review and comment on LAFCO draft MSR
- LAFCO Hearing: attend and provide public comments on MSR

MSRs are exempt from California Environmental Quality Act (CEQA) pursuant to §15262 (feasibility or planning studies) or §15306 (information collection) of the CEQA Guidelines. LAFCO's actions to adopt MSR determinations are not considered "projects" subject to CEQA. The MSR process does not require LAFCO to initiate changes of organization based on service review findings, only that LAFCO identify potential government structure options.

However, LAFCO, other local agencies, and the public may subsequently use the determinations to analyze prospective changes of organization or reorganization or to establish or amend SOIs. Within its legal authorization, LAFCO may act with respect to a recommended change of organization or reorganization on its own initiative (e.g., certain types of consolidations), or in response to a proposal (i.e., initiated by resolution or petition by landowners or registered voters).

Once LAFCO has adopted the MSR determinations, it must update the SOI for each jurisdiction. The LAFCO Commission determines and adopts the spheres of influence for each agency. A CEQA determination is made by LAFCO on a case-by-case basis for each sphere of influence action and each change of organization, once the proposed project characteristics are sufficiently identified to assess environmental impacts.

1.5 Sphere Of Influence Updates

The Commission is charged with developing and updating the Sphere of Influence (SOI) for each city and special district within the county.¹

An SOI is a LAFCO-approved plan that designates an agency's probable future boundary and service area. Spheres are planning tools used to provide guidance for

¹ The initial statutory mandate, in 1971, imposed no deadline for completing sphere designations. When most LAFCOs failed to act, 1984 legislation required all LAFCOs to establish spheres of influence by 1985.

individual boundary change proposals and are intended to encourage efficient provision of organized community services and prevent duplication of service delivery. Territory cannot be annexed by LAFCO to a city or district unless it is within that agency's sphere.

The purposes of the SOI include the following:

- to ensure the efficient provision of services
- to discourage urban sprawl and premature conversion of agricultural and open space lands
- to prevent overlapping jurisdictions and duplication of services

LAFCO cannot regulate land use, dictate internal operations or administration of any local agency, or set rates. LAFCO is empowered to enact policies that indirectly affect land use decisions. On a regional level, LAFCO promotes logical and orderly development of communities as it considers and decides individual proposals. LAFCO has a role in reconciling differences between agency plans so that the most efficient urban service arrangements are created for the benefit of current and future area residents and property owners.

The Cortese-Knox-Hertzberg (CKH) Act requires to develop and determine the SOI of each local governmental agency within the county and to review and update the SOI every five years. LAFCOs are empowered to adopt, update and amend the SOI. They may do so with or without an application and any interested person may submit an application proposing an SOI amendment.

While SOIs are required to be updated every five years, as necessary, this does not necessarily define the planning horizon of the SOI. The term or horizon of the SOI is determined by each LAFCO. In the case of Colusa LAFCO, the Commission's policies state that an agency's near term SOI shall generally include land that is anticipated to be annexed within the next five years, while the agency's long-term SOI shall include land that is within the probable growth boundary of an agency and therefore anticipated to be annexed in the next 20 years.

LAFCO may recommend government reorganizations to particular agencies in the county, using the SOIs as the basis for those recommendations. In determining the SOI, LAFCO is required to complete an MSR and adopt the nine determinations previously discussed. In addition, in adopting or amending an SOI, LAFCO must make the following determinations:

- Present and planned land uses in the area, including agricultural and open-space lands
- Present and probable need for public facilities and services in the area
- Present capacity of public facilities and adequacy of public service that the agency provides or is authorized to provide
- Existence of any social or economic communities of interest in the area if the

Commission determines these are relevant to the agency

The CKH Act stipulates several procedural requirements in updating SOIs. It requires that special districts file written statements on the class of services provided and that LAFCO clearly establish the location, nature and extent of services provided by special districts. Additional information on local government issues may be found in Appendix A at the end of this report.

By statute, LAFCO must notify affected agencies 21 days before holding the public hearing to consider the SOI and may not update the SOI until after that hearing. The LAFCO Executive Officer must issue a report including recommendations on the SOI amendments and updates under consideration at least five days before the public hearing

2 SETTING

2.1 Arbuckle Background

The town of Arbuckle is situated in the southerly portion of Colusa County, approximately 20 miles southwest of the City of Colusa; elevation 141 feet above sea level. Arbuckle is a census-designated place (CDP). The population was 3,028 at the 2010 Census, up from 2,332 at the 2000 Census. The town entrance sign on I-5 only says 864 people, but it is old and has not been updated.

Arbuckle is characterized by single-family residences, multiple-family units, some mobile homes, and commercial activities. The land surrounding Arbuckle is mostly agriculture including cultivated annual crops, and almond orchards. Regional access to the north and south is provided by Interstate Highway 5.

The Arbuckle Revitalization Committee describes Arbuckle as follows:

We are located about 45 minutes north of Sacramento, nested in the southern part of Colusa County. Arbuckle is characterized by a small town charm and filled with beautiful agricultural views. We are currently revitalizing downtown Arbuckle with the efforts of the Arbuckle Revitalization Committee, local community members and businesses.

Please join us as we host our Annual Crab Feed in January, Spring Fiesta and Carnitas Cook-off in the month of May and our ever-so popular Car Show & Train Depot Birthday.²

2.2 Arbuckle History

Tacitus R. Arbuckle established a ranch near what is now Arbuckle in 1866. The railroad came in 1875 and the town was founded and named for Arbuckle, on whose land it was built. The post office was established the following year, 1876.³ The Arbuckle Cemetery started operating in 1890.⁴ Arbuckle became a lively commercial center by the turn of the 20th century. Its business district served wheat, sorghum, hay, bean, and barley farmers from the surrounding area, as well as wildcatters drilling for oil in the nearby foothills. The town was markedly different than neighboring College City to the east, where drinking and gambling were prohibited.

Much of the cropland around Arbuckle was planted with almonds, during the early 1900s. Although only 150 acres were planted in almond orchards in 1911, about 11,000 acres had been planted by 1933. The increase in almond production was accompanied by extensive land subdivision to the south and west of town. Because almonds could be grown profitably on smaller parcels than field crops, large areas (such as the Reddington Ranch and Almondale subdivisions) were split into 10, 20, and 40 acre parcels. Large

² <http://www.arbucklerevitalization.org/default.htm>

³ Durham, David L. (1998). *California's Geographic Names: A Gazetteer of Historic and Modern Names of the State*. Quill Driver Books. p. 444. ISBN 9781884995149

⁴ County of Colusa, "Special District Audits Fiscal Year 2005-2006."

parcels continue to be developed as “hobby farms” or ranchette sites for families seeking country living places.⁵

The Arbuckle PUD was started in 1939. Arbuckle’s commercial district entered a long period of decline beginning with the construction of Interstate 5 in 1957. The Interstate bisected the town, diverting through-traffic away from Fifth Street (Old Highway 99W) and dividing the town into “east and west” halves. However, agricultural support services provide a basis for many commercial enterprises and the town provides housing for business owners and workers. Soil information for the Arbuckle Area is shown in Appendix B at the end of this report.

2.3 Arbuckle Land Use

The Colusa County General Plan Background Report describes three areas of Arbuckle as follows:⁶

Central Arbuckle: *One-half block to the west and parallel to the railroad, Fifth Street is the town’s principal commercial district. The business district extends for about five blocks along Fifth Street between the railroad and I-5. The area is characterized by one and two-story masonry buildings dating from the early 1900s, including the Oddfellows Hall, the Reddington Block and the Arbuckle Hotel, and more contemporary buildings such as the Post Office, an auto parts store, a grocery store and a bank.*

Many of the older buildings are vacant or underutilized. North and south of the business district, the area between I-5 and Fifth Street is predominantly residential. A central park has recently been improved with a large covered area for community gatherings on the east side of Fifth Street at Hall Street. The Central Area includes about 30 houses and some apartments. Each of Arbuckle’s freeway interchanges (north and south of town) is adjoined by a gas station and vacant commercially-zoned land.

East Arbuckle: *East of the railroad, a grid of streets eight blocks long and between two and five blocks wide comprises “East” Arbuckle. This area is mostly residential, consisting of about 200 houses. The development pattern follows the 1875 town plan, although nearly all of the original 25 foot wide by 115 foot deep lots have been consolidated into larger lots. Most of the lots are about 50 feet by 75 feet wide, with mid-block alleys forming the rear lot lines. The blocks typically contain one or two vacant lots; some have been developed with infill housing. East Arbuckle also has a church, a county road department yard, water district offices and about a half dozen semi-rural residences. Some of the rural residences are on parcels which could potentially support additional dwellings.*

The edges of East Arbuckle are characterized by abrupt transitions from residential to agricultural uses. The east-west streets terminate at large

⁵ Colusa County, General Plan Background Report, June 2010, Page 1-26.

⁶ Colusa County, General Plan Background Report, June 2010, Page 1-27.

tracts of row crops that run the length of the community. These row crop fields also extend to the north, while the land to the northwest and northeast is planted in orchards. The sharp distinction between farm and non-farm uses helps to visually define the boundaries of the town, especially along its eastern edge. Because large acreage farms surround it East Arbuckle has remained a relatively compact community.

West Arbuckle: *Like East Arbuckle, the west side is predominately residential. It has the most recently built housing stock with about 700 houses and 50 apartment units. This area generally has a greater variety of housing development than the east side. Only a small portion of the west side lies within the original townsite. Most of the development is contained in subdivisions developed after the completion of I-5 and more recently in newer modern designed subdivisions that are often surrounded by older subdivisions, well established orchards and crop land creating a less defined urban pattern with a spattering of agricultural uses transitioning into housing development. The west side also contains the Arbuckle Elementary School, the Pierce high School/L.G. Johnson Junior High School campuses, a 6-acre community park, a PG&E substation, the public library and three churches.*

2.4 Arbuckle Population Data

2.4.1 Households

The 2010 US Census reported that Arbuckle had a population of 3,028. The Census reported that 100% of the population lived in households with none in non-institutionalized group quarters or institutions. There were 868 households, out of which 481 (55.4%) had children under the age of 18 living in them. The average household size was 3.49. There were 720 families (82.9% of all households); the average family size was 3.80.

Estimated median household income for Arbuckle in 2010 was \$41,313. The median 2010 household income in Arbuckle compares with California as follows:

Arbuckle:	\$41,313	California:	\$60,883
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2.4.2 Age Groups

The population when broken down by age groups shows a large percentage of younger people and a smaller number of older people as follows:

AGE DISTRIBUTION IN ARBUCKLE CALIFORNIA

<u>Age Group</u>	<u>Number</u>	<u>Percentage</u>
Under 18	982 people	32.4%
18 to 24	356 people	11.8%
25 to 44	824 people	27.2%
45 to 64	635 people	21.0%
65 or older	231 people	7.6%
Total	3,028 people	100.0%

The median age was 28.3 years. For every 100 females there were 103.1 males. For every 100 females age 18 and over, there were 98.8 males.

2.4.3 Housing

In Arbuckle in 2010 there were 937 housing units of which 547 (63.0%) were owner-occupied, and 321 (37.0%) were occupied by renters. The homeowner vacancy rate was 4.0%; the rental vacancy rate was 2.7%. 1,899 people (62.7% of the population) lived in owner-occupied housing units and 1,129 people (37.3%) lived in rental housing units.

Estimated median house or condominium value in Arbuckle for 2009 was \$230,263 in increase from \$102,300 in 2000.⁷ Median 2009 house or condominium value in Arbuckle compares with that of California as follows:

Arbuckle:	\$230,263	California:	\$384,200
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Mean housing prices in 2009 for Arbuckle were as follows:

ARBUCKLE MEAN HOUSING PRICES 2009	
Type of Housing	2009 Value
All housing units	\$301,914
Detached houses	\$303,037
Townhouses or other attached units	\$262,533
Mobile homes	\$262,533

Median gross rent in 2009 for Arbuckle was \$611 per month.

2.5 Arbuckle Groundwater

The following explanation of groundwater in Arbuckle area is included because the Arbuckle PUD water system depends on groundwater. The Colusa County General Plan Background Report describes the groundwater background and status as follows:⁸

Regional Geology and Structure

The Sacramento Valley Groundwater Basin acts as a trough that is filled with layers of different sediments. The deepest portions of the Basin generally consist of marine sedimentary rocks, ranging in age from Late Jurassic to early Miocene. These marine units are overlain by younger alluvial and locally prominent volcanic rocks of early Miocene to Holocene age. Within the Basin, these deposits are disrupted by deformational stresses derived from east-west compressional forces associated with regional uplift along the western margin of the valley and extensional forces within the Basin and Range Provenance. Over time, these forces have applied great stresses and strain on valley deposits, creating complex and diversely-oriented fold and fault structures.

Recent Alluvial Deposits

Recent alluvial deposits include stream channel deposits, basin deposits, the Modesto Formation, and the Riverbank Formation. These deposits were created by moving stream channels that meandered, cutting through existing sediments within the valley and creating an interconnected relationship. As such, it is likely that many channels or pathways exist that

⁷ <http://www.city-data.com/city/Arbuckle-California.html>, July 8, 2012

⁸ Colusa County, General Plan Background Report, June 2010, Pages 3-7 to 3-8.

allow groundwater to move among all of the recent alluvial deposits. There is limited data in well logs to allow for differentiation among the different recent alluvial deposits.

Stream channel deposits are Holocene in age and were deposited between 11,000 years ago and present day. The stream channel deposits occur along the current and ancestral paths of streams and rivers in Colusa County. Where present, the stream channel deposits extend from ground surface to a depth of one to 200 feet below ground surface (bgs). The stream channel deposits consist of unconsolidated gravels, sand, silt, and clay, derived from the erosion and reworking of the Quaternary stream terrace deposits (Modesto and Riverbank Formations) and the Tehama Formation. This unit is moderately to highly permeable, but because of its shallow depth and limited thickness, it possesses limited water-bearing capacity.

Basin deposits are Holocene in age and, like stream channel deposits, were deposited between 11,000 years ago and present day. Basin deposits occur where sediment-laden floodwaters breached natural stream and river levees and spread across lower-lying topography. Where present, the basin deposits extend from ground surface to a depth of 1 to 200 feet bgs. The basin deposits consist mainly of silt and clays. These units have low permeability and generally yield small quantities of water to wells.

The Modesto Formation is Pleistocene in age and was deposited between 2 million and 500,000 years ago. The Modesto Formation is a stream terrace deposit consisting of gravels, sands, and clays derived from the reworking and deposition of the Riverbank Formation. The Modesto Formation was probably deposited by the same stream and river systems that flow today, because it generally borders existing channels. Where present, the Modesto Formation begins between ground surface and 100 feet bgs and extends to a depth of approximately 200 feet bgs. The units of the Modesto Formation are moderately to highly permeable and can yield limited quantities of water to wells.

The Riverbank Formation is Pleistocene in age and was deposited between 2 million and 500,000 years ago. The Riverbank Formation consists of pebbles and small cobble gravels, inter-layered with reddish clay, sands, and silts. Like the Modesto Formation, the Riverbank Formation is a stream terrace deposit; however, the Riverbank Formation is older than the Modesto Formation. The Riverbank Formation has two units. The lower unit of the Riverbank Formation is lithologically similar to the Red Bluff Formation (which occurs further north in the Sacramento Valley) and has a similar brick-red color. It occurs on the higher of two terraces that have been cut and filled into the surface of the Red Bluff and/or Tehama Formations. The upper unit of the Riverbank Formation consists of extensive flat stream terraces along major creeks in the valley. The Riverbank Formation begins between ground surface and 150 feet bgs and extends to a depth of approximately 200 feet bgs. The Riverbank

Formation is moderately to highly permeable and can yield moderate quantities of water to wells.

Sutter Buttes Alluvium

The Sutter Buttes Alluvium is an alluvial fan deposit observed in the subsurface, which may range in thickness up to 600 feet thick. These fan deposits consist largely of gravels, sands, silts, and clays, and may extend up to 15 miles north of the Sutter Buttes and west beyond the Sacramento River. Certain zones within this unit yield large quantities of water.

Tehama Formation

The Tehama Formation is Pliocene in age and was deposited between four million and one million years ago. The Tehama Formation was deposited by coalescing alluvial fan deposits from the Coast Ranges, and consists of interbraided gravel, sand, silt, and clay. The Tehama Formation outcrops in the low foothills of the Coast Ranges at the western edge of the Sacramento Valley. Throughout the flat areas of the western Sacramento Valley, the Tehama Formation is overlain by one or more of the younger deposits described above. Toward the center of the Sacramento Valley, near the Sacramento River, the Tehama Formation inter-fingers with the Sierra Nevada - and Cascade Mountains - sourced Tuscan and Laguna Formations. Within the Tehama Formation, the gravel, sand, and silt materials are separated into distinct zones by impermeable and semi-permeable layers of clay and other fine-grained materials.

The gravel and sand zones are generally less than 50 feet thick, and may lack lateral continuity. Although the Tehama Formation is the principal water-bearing formation in the western half of the Sacramento Valley, the units of the Tehama Formation have not been studied in detail in Colusa County. The Tehama Formation begins between ground surface (in the outcrop areas) to 200 feet bgs and becomes thicker, toward the center of the Sacramento Valley, extending to a depth of up to 1700 feet bgs. The units of the Tehama Formation are moderately permeable, but because of its extent and thickness, the Tehama Formation can yield moderate to high volumes of water to wells.

The average depth of irrigation wells has fluctuated significantly, but has been about 200 feet deeper than the average depth of domestic wells in any give year, or an average of about 400 feet deep. Municipal well depths are inconsistent and vary widely, from about 150 to 850 feet deep; combined with the small number constructed annually, calculation of an average depth of new municipal wells would not be meaningful.

Wells

According to Department of Water Resources (DWR) records dating back to 1912, Well Completion Reports have been filed for 2,902 wells in Colusa County, and records of well destruction have been filed for 44 wells. Well Completion Reports are not always filed with DWR, even

though they are now required, so these figures likely underrepresent the actual totals for the County. Of the wells for which Well Completion Reports have been filed, 1,211 are domestic wells, 767 are irrigation wells, 485 have unknown or other uses, 152 are test wells, 149 are monitoring wells, 50 are stock-watering wells, 48 are municipal wells, and 40 are industrial wells.

Domestic wells were constructed at a rate of approximately 16 per year from 1950 through 1989, but have been constructed at a rate of approximately 31 per year since then, likely as a result of the increasing population in the County. Irrigation wells tend to be constructed more frequently during drought periods, in the mid- 1970's and early 1990's. On average, 13 irrigation wells are constructed per year. An average of 20 to 30 wells per year are constructed during droughts. Municipal well construction has been sporadic and has been one to four per year.

2.7 Water Treatment Overview

In the Arbuttle area of Colusa County, the critical season for water supply occurs in the late summer because demand is higher at this time and supply is lower until the winter rainy season starts again. County Building Codes requires that water wells be constructed with a continuous seal from ground level down 50 feet. The purpose of the seal is to assure that surface water cannot flow into the well casing and contaminate deeper aquifers that are penetrated by the well.

Small community water treatment has posed an enormous problem for the drinking water regulatory community, drinking water professionals, and the people living in these communities. The Safe Drinking Water Act (SDWA) and subsequent regulations require that all water in the distribution system and at every tap connected to the distribution system comply. Water treatment usually consists of filtration and disinfection.

Water treatment standards essentially mandate central treatment for drinking water prior to entering the distribution system. No water that exceeds a primary standard may be used for drinking water.

Primary Standards have been developed to protect human health and are rigorously enforced by the Department of Health Services. For very small communities, this may be a cost that poses an undue burden. Often it could be a cost that has negative public health implications. For a very low-income family, the money spent on water treatment may not be available for other essentials.

Rather than spend that money, a community may apply for a variance or exemption. Exemptions and variances from the State requirements are intended to be temporary solutions to regulatory compliance. They may, however, extend indefinitely leaving a community with no water that meets the regulation.

Secondary Standards are intended to protect the taste, odor or appearance of drinking water. California Code requires that, if a community water system experiences an exceedance of certain secondary standard, quarterly sampling must be initiated.

Compliance is then determined based upon the average of four consecutive quarterly samples. Non-compliant water must then be treated to meet the secondary standards.

Water distribution systems carry water for both domestic use and for fire protection. The distribution system should be sized to perform both functions simultaneously, delivering sufficient water volume and pressure. Pipes should be made of durable and corrosion-resistant materials, and alignments located in areas that are easy to access for repairs and maintenance. Fire hydrants should be placed a maximum of 600 feet apart along the water mains and a maximum of 500 feet from the end of water lines.

Some water loss in the distribution system can be expected. Water loss is the difference between the volume of water pumped from the water supply well and the volume of water sold to users. A loss of water from 10% to 20% is considered acceptable by the American Water Works Association (AWWA).

2.8 Wastewater Treatment Overview

Wastewater is the water that drains from sinks, showers, washers, and toilets. Wastewater also includes water used for some outdoor purposes, such as draining chlorinated pool water, commercial car washes and industrial processes. Underground sanitary sewer pipelines carry sewage to a wastewater treatment plant (WWTP), where it is treated, sanitized and discharged.

Wastewater Treatment demand management strategies include the following:

- Sewer infiltration and inflow (I&I) control
- Industrial pretreatment and recycling
- Water conservation

Service providers can reduce infiltration and inflow with capital improvements, such as pipeline rehabilitation, manhole cover replacement, and root eradication. They can also address sources on private property, such as broken service lines, uncapped cleanouts and exterior drains, through public education, incentives, and regulatory strategies.

Communities use various techniques to prohibit discharge of unwanted pollutants or to reduce the quantity and strength of wastewater discharged to sewers.

These techniques include the following:

- Permit limitations on the strength and contaminant levels of industrial and commercial wastewater
- Increased rates or surcharges on high-strength wastes
- Incentives or requirements for water recycling and reuse within the industrial or commercial operation

Water conservation measures are effective for reducing average wastewater flows, but have less impact on peak flows, which are usually strongly influenced by infiltration and inflow contributions. Water conservation has little or no impact on organic loading to the treatment plant.

3 ARBUCKLE PUBLIC UTILITY DISTRICT

3.1 Arbuckle Public Utility District Background

The Arbuckle Public Utility District was formed in 1939 and provides water and sewer services. The District is governed by a three-member Board of Directors which is elected by residents of the District. Contact information for the District is as follows:

Location: 104 S 5th St, Arbuckle, CA 95912
Phone: (530) 476-2054 Fax: 530-476-2761
Mailing Address: PO Box 207, Arbuckle, CA 95912
E-Mail: apud@frontiernet.net

3.2 Board of Directors and Staff

3.2.1 Arbuckle PUD Board of Directors

The Board of Directors for the Arbuckle Public Utility District is as follows:

<u>Member</u>	<u>4-Year Term Ends</u>
John W. Scheimer, President PO Box 248, Arbuckle, CA 95912	December 6, 2013
George Jimenez, Director PO Box 767, Arbuckle CA 95912	December 4, 2015
Johnie W. Tomlin, Secretary PO Box 696, Arbuckle CA 95912	December 6, 2013

The Board meetings are held at 6:00 pm on the second Thursday of each month at the District Office. The Agendas are posted at the District Office according to the Brown Act.

3.2.2 Arbuckle PUD Staff

The Staff for the Arbuckle PUD is as follows:

James H. Scheimer, Manager
Steve Burgess, Operator (Part-time)
Ana M. Hass, Secretary-Bookkeeper

The Arbuckle PUD has operated with minimal staff for many years. However, in the future there may be a need for additional staff and/or the District may have to provide additional benefits to attract qualified staff members. The District provides a Simplified Employee Pension Individual Retirement Account Plan but may need to consider joining California Public Employees Retirement System (PERS). The District provides Blue Shield health insurance for the two full-time employees through the Golden State Risk Management Authority.

The Manager of the District is required to be certified to operate both the sewer and water systems. The District may have to provide the training for a future employee to acquire these certificates should the present Manager retire. An alternative could be for a County Public Works Department employee to obtain these certificates and the District could then contract with the County for the necessary service.

3.3 Water Service

3.3.1 Arbuckle PUD Water System Overview

The Colusa County Housing Element provides the following overview of the Arbuckle PUD Water System:⁹

The Arbuckle Public Utility District provides domestic water service to 820 connections, or a population of approximately 2,500. Arbuckle has four groundwater wells, but generally only runs one or two at a time. The average amount of water pumped each day is approximately one million gallons, with a yearly total of approximately 350 million gallons. Total pumping capacity is 3.6 million gallons daily. Most of the original pipes have been replaced with asbestos-cement ("AC") pipes, though some small ductile iron pipes remain in use. The distribution system consists of mostly 6-inch, 8-inch, and 10-inch pipes. Water is treated with chlorine at the wellheads as it is pumped out of the ground. There are no major problems with the system and there are no planned upgrades or changes.

The current system has the capacity to pump an additional 2.6 million gallons per day above existing pumping levels. This additional pumping capacity is adequate to serve approximately 2,132 additional connections without making any significant upgrades to the system. The existing water distribution infrastructure is in good working order.

The current municipal water system in Arbuckle has adequate supply and distribution capacity to accommodate full development of all housing sites listed in the inventory. Individual projects would require the expansion of distribution infrastructure to the project site, but upgrades to the overall system would not be required.

⁹ Colusa County, Housing Element Background Report, January 2011, Page 2-27.

3.3.2 Arbuckle PUD Water Wells

The Arbuckle PUD supplied the following information regarding the water wells:

ARBUCKLE PUD WATER WELLS¹⁰			
Water Well	Location	Gallons per minute	Power Source¹¹
Well 01	Wildwood Rd. and Hillgate Rd.	1000	Electric with a gear head Natural Gas Motor
Well 02	Lucas Street and Park Avenue	750	Electric with a gear head Propane Motor
Well 3A	Fifth Street and Gale Avenue	900	Electric with a Diesel Motor that starts automatically when the electricity goes off and the water pressure drops to a set point.
Well 04	Almond Avenue and Mary Way	1200	Electric with a variable drive controlled by system water pressure
	TOTAL CAPACITY	3850	

In 2011 the Arbuckle PUD pumped a total of 357.6 million gallons per year. In 2011 the maximum pumped in a single day (August 11, 2011) was 1.9 million gallons. The averaged Gallons per Minute data on August 11, 2011 showed 1319 gallons per minute. This shows that the District has additional water capacity since less than half the water capacity is being used on the day with the highest water demand.

3.3.3 Water Lines

The Arbuckle PUD has 14 miles of water lines to serve 121 fire hydrants. The lines are constructed of Asbestos-Cement (65%), PVC (30%) or iron (5%). The sizes of the lines are as follows:¹²

10-inch lines	10%
8-inch lines	15%
6-inch lines	60%
4-inch lines	10%
2-inch lines	5%

There are no storage tanks but the system uses a hydro-pneumatic pressure system.

¹⁰ Arbuckle Public Utility District, "Water Wells Pumping Capacity for the Arbuckle Public Utility District," July 6, 2012.

¹¹ Arbuckle Public Utility District, Power for Each Well, July 26, 2012.

¹² Arbuckle Public Utility District, Water Distribution Lines, July 24, 2012.

3.3.4 Water Connections

The Arbuckle PUD reports the following water connections in the Small Water System 2011 Annual Report to the Drinking Water Program:¹³

ARBUCKLE PUD WATER SERVICE CONNECTIONS			
TYPE	UNMETERED	METERED	TOTAL
Residential	759	7	766
Commercial	18	7	25
Industrial	0	1	1
Agricultural	0	0	0
Other			0
TOTAL	777	15	792

3.3.5 Water Quality

The Arbuckle PUD water system has good water quality. The water is tested every year and the Consumer Confidence Report is made available to the rate payers. The most recent Consumer Confidence Report is found in Appendix C at the end of this report.

3.3.6 Arbuckle PUD Water Rates

The following table shows the water rates charged by Arbuckle PUD:

¹³ Arbuckle PUD, Small Water System 2011 Annual Report to the Drinking Water Program for year Ending December 31, 2011.

ARBUCKLE PUD WATER SERVICE RATES¹⁴	
Type of Service	Monthly Charge
Residential Service	
¾ inch flat water service rate	15.00
1 inch flat water service rate	16.00
1 ½ inch flat water service rate	21.25
2 inch flat water service rate	24.00
3 inch flat water service rate	39.80
Commercial Service	
Small business water service	13.50
Grocery stores water service	15.00
Retail services, Cafes, service stations, mini-markets, bars, frosties, hair salons, restaurants	16.00
Cemetery water service rate	407.50
Metered Services	
Retail services: service stations, mini-markets (Minimum)	16.00
plus excess over 2280 cubic feet: each 100 cubic feet	0.50
Coin-op laundry (minimum)	21.25
plus excess over 3000 cubic feet: each 100 cubic feet	0.50
Residential and Offices	
In District minimum for ¾ inch service	15.00
In District plus excess over 2170 cubic feet: each 100 cubic feet	0.50
Out of District minimum ¾ inch service	30.00
Out of District plus excess over 2170 cubic feet; each 100 cubic feet	1.00
Out of District minimum 1 inch service	32.00
Schools	
Minimum for first 20,000 cubic feet	180.20
Plus excess over 20,000 cubic feet, each 100 cubic feet	0.25
School District Office water service rate	13.50
CalTrans State Freeway Sprinklers	
2 inch water service rate	24.00
3 inch water service rate	39.80
Plus excess over minimum each 100 cubic feet	0.50
Other	
Bank water service rate	28.75
Church and Parsonage water rate	28.75
Mini-Storage water Rate	24.00
Park Water minimum	24.00
Plus excess water usage rate each cubic foot	0.50
Pools	3.60
Tri.Co.Pet minimum water rate	32.00
New Connection Fee for Water Service	\$2,000.00

¹⁴ Arbutckle PUD, Water Rates as of January 1, 2009.

3.3.7 Water System Improvements

The District is aware of the need to install water meters for all connections. This project would require that water rates be raised to either pay for the water meters or to qualify for a grant or loan. In general, water rates must be at or above average (approximately \$35.00 per month) to qualify for a grant or loan.

The District is concerned that the installation of water meters would require the services of a meter reader. However, the most up-to-date water meters can electronically submit data on water use to the District Office computers. Districts where water meters have been installed have found that many leaks are discovered and when these are eliminated the use of water and the pumping costs go down. For example, the Westwood CSD found that pumping costs went down \$20,000 per year after the installation of water meters.¹⁵

3.4 Arbuckle PUD Wastewater Collection and Treatment Service

The Colusa County Housing Element provides the following overview of the Arbuckle PUD wastewater collection and treatment system:¹⁶

The Arbuckle Public Utility District has provided sewer service to the residents of Arbuckle since 1953. The Arbuckle Public Utility District currently serves 820 connections. The older portions of the system convey wastewater through clay pipes, but development within the last 20 years has installed mostly PVC pipes.

Wastewater is conveyed from individual homes and businesses to the treatment facility located on Bailey Road. With the exception of a lift station at the wastewater treatment plant, the system is operated by gravity flows. The wastewater treatment plant includes a clarifier, a digester, and seven evaporation/percolation ponds. The ponds provide sufficient surface area for evaporation and filtration so no effluent is discharged. The Arbuckle facility treats approximately 0.27 mgd. The plant capacity is 0.5 mgd.

Based on full build out of the District and the District's existing Sphere of Influence, which includes all of the sites in the housing inventory, an additional gross 300 acres (including roads, curb and gutters, and sidewalks) could be developed. Assuming .75 of each gross acre could be developed, a total 225 net developable acres exist in the existing Sphere of Influence and assuming 8000 square foot residential lots, the District and SOI would have the capability to accommodate an additional 1,225 dwelling unit equivalents. Based on an average of 384 gpd per connection, the system could accommodate an additional 1,303 total equivalent dwelling units at 384 gpd/EDU.

This additional system capacity far exceeds potential residential growth from the sites listed in the housing sites inventory. Individual projects may

¹⁵ Westwood CSD, PO Box 319, Westwood CA 96137, Phone 530-256-3211, Susan Coffi, Secretary, July 27, 2012.

¹⁶ Colusa County, Housing Element Background Report, January 2011, Page 2-33.

need to construct wastewater conveyance infrastructure to connect project sites to the existing wastewater conveyance system. However, the existing wastewater treatment and conveyance infrastructure does not constitute a constraint to housing development in this area of the County.

3.4.1 Wastewater Collection System

The Arbuckle PUD supplied the following information regarding the wastewater collection system:¹⁷ There are 14 miles of main wastewater collection lines in the Arbuckle PUD. Seventy percent of these lines are constructed of clay and thirty percent of the lines are made of PVC. There are no lift stations within the collection system and all the main lines provide a gravity feed to the wastewater treatment plant where there is a lift station.

The sizes of the wastewater collection lines are as follows:

6-inch lines--65% 8-inch lines--30% 10-inch lines--5%

3.4.2 Wastewater Treatment System

The Arbuckle PUD wastewater treatment/disposal facility is located in Section 26, T14N, R2W, MDB&M with surface water drainage to Salt Creek tributary to the Colusa Basin Drainage Canal. The Arbuckle Public Utility District Wastewater Treatment Plant (WWTP) is regulated under Waste Discharge Requirements (WDR) Order No. 93-208 for a monthly average dry weather discharge flow not to exceed 0.5 million gallons per day (mgd). The treatment and disposal system consists of an influent pump station, emergency wastewater storage pond, primary clarifier, seven wastewater evaporation/percolation ponds, a sludge digester and a sludge drying bed. The actual discharge flow is approximately 0.28 million gallons per day average dry weather flow (ADWF) of domestic wastewater to the treatment/disposal facility.

3.4.3 Wastewater Treatment Discharge Prohibitions

The following are the Discharge Prohibitions for the Arbuckle PUD Wastewater Treatment Plant:¹⁸

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. By-pass or overflow of untreated or partially treated waste is prohibited.
3. Discharge of waste classified as "hazardous" or "designated", as defined in Sections 2521(a) and 2522(a) of Chapter 15 is prohibited.

¹⁷ Arbuckle PUD, PO Box 207, Arbuckle CA 95912, Sewer Collection Lines, July 24, 2012.

¹⁸ California Regional Water Quality Control Board Central Valley Region, Order No. 93-208, Waste Discharge Requirements for Arbuckle Public Utility District Wastewater Treatment Plant Colusa County, October 22, 1993, Page 2. Note: Waste Discharge Requirements remain in effect until they are changed by the Regional Water Quality Control Board and are not considered out-dated unless the wastewater treatment plant is significantly changed.

3.4.4 Wastewater Discharge Specifications

The Regional Water Quality Control Board Wastewater Discharge Specifications for the Arbuckle PUD Wastewater Treatment Plant are as follows:¹⁹

1. *The monthly average dry weather discharge flow shall not exceed 0.5 million gallons/day.*
2. *Objectionable odors originating at this facility shall not be perceivable beyond the limits of the wastewater treatment and disposal areas.*
3. *As a means of discerning compliance with Discharge Specification No. 2. The dissolved oxygen content in the upper zone (1 foot) of wastewater in ponds shall not be less than 1.0 mg/l.*
4. *The treatment and disposal facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.*
5. *Ponds shall not have a pH less than 6.5 or greater than 8.5.*
6. *Ponds shall be managed to prevent breeding of mosquitoes. In particular,*
 - a. *An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface.*
 - b. *Weed shall be minimized through control of water depth, harvesting, or herbicides.*
 - c. *Dead algae, vegetation, and debris shall not accumulate on the water surface.*
7. *Public contact with wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives.*
8. *Ponds shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation and ancillary inflow and infiltration during the non-irrigation season. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns Freeboard shall never be less than two feet (measured vertically).*
9. *On or about 1 October of each year, available pond storage capacity shall at least equal the volume necessary to comply with Discharge Specification No. 8.*
10. *Pond levees shall be protected from damage due to burrowing animals.*

¹⁹ California Regional Water Quality Control Board Central Valley Region, Order No. 93-208, Waste Discharge Requirements for Arbuckle Public Utility District Wastewater Treatment Plant Colusa County, October 22, 1993, Page 3.

3.4.5 Sludge Disposal

The Regional Water Quality Control Board Sludge Disposal Specifications for the Arbuckle PUD Wastewater Treatment Plant are as follows:²⁰

1. *Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner that is consistent with Chapter 15 and approved by the Executive Officer.*
2. *Any proposed change in sludge use or disposal practice shall be reported to the Executive Officer at least 90 days in advance of the change.*
3. *Use and Disposal of sewage sludge shall comply with existing Federal and State laws and regulations, including permitting requirements and technical standards included in 40 CFR 503. If the State Water Resources Control Board and the Regional Boards are given the authority to implement regulations contained in 40 CFR 503, this Order may be reopened to incorporate appropriate time schedules and technical standards. The Discharger must comply with the standards and time schedules contained in 40 CFR 503, whether or not they have been incorporated into this Order.*
4. *The Discharger is encouraged to comply with the State Guidance Manual issued by the Department of Health Services title Manual of Good Practice for Landscaping of Sewage Sludge.*

3.4.6 Ground Water Limitations

The Regional Water Quality Control Board Ground Water Limitations for the Arbuckle PUD Wastewater Treatment Plant are as follows:²¹

The discharge, in combination with other sources, shall not cause underlying ground water to:

1. *Contain waste constituents in concentrations statistically greater than background water quality.*
2. *Contain chemicals, heavy metals, or trace elements in concentrations that adversely affect beneficial uses or exceed maximum contaminant levels specified in 22 CCR, Division 4, Chapter 15.*
3. *Exceed a most probably number of total coliform organisms of 2.2/100 ml over any seven-day period.*
4. *Exceed concentrations of radio-nuclides specified in 22 CCR, Division 4, Chapter 15.*

²⁰ California Regional Water Quality Control Board Central Valley Region, Order No. 93-208, Waste Discharge Requirements for Arbuckle Public Utility District Wastewater Treatment Plant Colusa County, October 22, 1993.

²¹ California Regional Water Quality Control Board Central Valley Region, Order No. 93-208, Waste Discharge Requirements for Arbuckle Public Utility District Wastewater Treatment Plant Colusa County, October 22, 1993.

5. *Contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.*
6. *Contain concentrations of chemical constituents in amounts that adversely affect agricultural use.*

3.4.7 Provisions for Wastewater Treatment

The Regional Water Quality Control Board Provisions for Wastewater Treatment for the Arbuckle PUD Wastewater Treatment Plant are as follows:²²

1. *The Discharger (Arbuckle PUD) shall comply with the Monitoring and Reporting Program No. 93-208, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.*
2. *The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements" dated 1 March 1991 which are attached hereto and by reference a part of this order. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."*
3. *In the event of any change in control or ownership of land or waste discharge facilities described herein, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.*
4. *The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board of court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.*
5. *The Discharger shall comply with the following time schedule to assure compliance with Ground Water Limitations of this Order:*

<i>Task</i>	<i>Compliance Date</i>	<i>Report Due</i>
<i>Submit well design and Location Plan for review and Approval</i>		<i>1 April 1994</i>
<i>Begin Construction</i>	<i>14 October 1994</i>	
<i>Begin Monitoring</i>	<i>18 November 1994</i>	<i>15 December 1994</i>

The Discharger shall submit to the Board on or before each compliance report date, a report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated,

²² California Regional Water Quality Control Board Central Valley Region, Order No. 93-208, Waste Discharge Requirements for Arbuckle Public Utility District Wastewater Treatment Plant Colusa County, October 22, 1993.

plus an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Board by letter when it returns to compliance with the time schedule.

6. *A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.*
7. *If reclaimed water is used for construction purposes, it shall comply with the most current edition of "Guidelines for Use of Reclaimed Water for Construction Purposes." Other uses of reclaimed water not specifically authorized herein shall be subject to the approval of the Executive Officer and shall comply with 22 CCR, Division 4.*
8. *The Board will review this Order periodically and will revise requirements when necessary.*

3.4.8 Revised Monitoring and Reporting Program for Arbuckle PUD

On April 4, 2007, the California Regional Water Quality Control Board Central Valley Region revised the Monitoring and Report Program for the Arbuckle PUD wastewater treatment facility. The revised requirements include the following.²³

1. Wastewater Treatment Facility Influent Monitoring
2. Clarifier Effluent Monitoring
3. Wastewater Treatment Facility Pond Monitoring
4. Facility Inspections
5. Groundwater Monitoring
6. Biosolids Monitoring
7. Reporting (including monthly, quarterly and annual reports)

On November 5, 2008, the Arbuckle PUD received the Report of Recent inspection, Arbuckle Wastewater Treatment Plant, Colusa County from the California Regional Water Quality Control Board, Central Valley Region. This Report required "removal of vegetation within and around the ponds" and the installation of gauges to ensure that the freeboard is accurately measured in all of the evaporation/percolation ponds.²⁴

On December 10, 2008, the Arbuckle PUD wrote to the California Regional Water Quality Control Board to document that the above listed requirements for vegetation removal and the installation of gauges had been met.²⁵

²³ California regional Water Quality Control Board, Central Valley Region, Revised Monitoring and Reporting Program No. 93-208 for Arbuckle Public Utility District Arbuckle Wastewater Treatment Facility, Colusa County, April 4, 2007.

²⁴ California Regional Water Quality Control Board, Central Valley Region, Karl E. Longley, ScD, P.E., Chair, 11020 Sun Center Drive #200, Rancho Cordova, CA 95670-6114, Phone: 916-464-3291, Fax: 916-464-4645, <http://www.waterboards.ca.gov/centralvalley>, Report of Recent Inspection, Arbuckle Wastewater Treatment Plant, Colusa County, November 5, 2008.

²⁵ Arbuckle Public Utility District, Letter to California Regional Water Quality Control Board, December 10, 2008.

The Arbuckle PUD uses the consulting firm of Stantec Consulting from Walnut Creek California to do the required groundwater testing and to prepare and submit all forms and reports to the California Regional Water Quality Control Board.²⁶

3.4.9 Arbuckle PUD Sewer Rates

The following sewer service rates were adopted by the Arbuckle PUD to be effective on January 1, 2009:

ARBUCKLE PUD SEWER SERVICE RATES	
Service	Monthly Charge
Residential Sewer Service	15.00
Commercial Services	
Small Business: Grocery stores, garages, fire department, parts houses	15.00
Retail stores: cafes, service stations, mini-markets, bars, frosties, hair salons	17.80
Restaurants	19.40
Coin-op Laundry (minimum)	15.00 or same as water
Schools	280.30
School day care sewer service	15.00
School District Office	15.00
Church and Parsonage	29.75
Mini-Storage	15.00
Connection fee for new sewer service	\$2,000.00

Any dwelling occupied that contains a kitchen and/or bathroom, must pay a minimum of \$15.00 water charge and a \$15.00 sewer charge per month.
 Renter deposit is required totaling three months total water and sewer bills.

²⁶ Arbuckle Public Utility District, Groundwater Monitoring Report from Stantec Consulting, 370 North Wiget Lane, Suite 210, Walnut Creek, CA 94598-2452, Phone: 925-941-1400, Fax 925 941-1434, January 30, 2012.

3.5 Arbuckle PUD Finances

3.5.1 Arbuckle PUD Budget

The following information was provided by the Arbuckle PUD on the Budget for 2012-13:

ARBUCKLE PUD BUDGET 2012-2013	
Revenue	
Revenue from user charges	\$365,000
Non-Operating Revenues	
Property Tax	70,000
Interest Revenue	44,000
Total Non-Operating Revenue	\$114,000
TOTAL ARBUCKLE PUD REVENUE	\$479,000
Operating & Maintenance Expenses	
Salary and Wages	78,750
Employee Benefits	14,000
Maintenance & Repairs	42,000
Parts & Supplies	6,000
Electricity	95,000
Transportation	4,500
Water Analysis	1,000
Wastewater Analysis	30,000
Depreciation	34,000
Engineering	15,000
Capital Improvement	30,000
Licenses & Fees	10,500
Other	2,000
Total Operating & Maintenance Expenses	\$365,750
Administration and General Expenses	
Salaries and Wages	31,500
Employee Benefits	10,500
Office Supplies and Expenses	10,000
Insurance	41,000
Accounting	6,000
Telephone	3,000
Legal	1,000
Other and Tax Collection Fee	3000
Total Administration and General Expenses	\$106,000
TOTAL OPERATION EXPENSE	\$471,750
Net Income (Loss)	\$7,250

The District Budget for 2012-2013 is balanced; however, it would be better for the District to start accounting for water and sewer revenue and expenses separately in the future.

3.5.2 Arbuckle PUD Audit

The most recent Audit available is for the year ended June 30, 2011.²⁷ The auditor found that the financial statements and cash flows for the year ended June 30, 2011 are “in conformity with account principles generally accepted in the United States of America;” except that “the District did not implement GASB Statement No. 45 regarding post-employment benefits.” The Auditor found that as of June 30, 2011; the District had Assets of \$2,733,789 including Capital Assets less accumulated depreciation. The District had liabilities of \$92,079.

A. Operations

The Audit did show the water and sewer information separately in the Statement of Revenues, Expense and Changes in Net Assets as follows:

ARBUCKLE PUBLIC UTILITY DISTRICT STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS YEAR ENDED JUNE 30, 2011²⁸			
	Water	Sewer	Total
Operating revenues			
Water Sales	190,003		190,003
Sewer service		169,958	169,958
Septic dumping			
Connection fees			
Other	2,498	2,497	4,995
Total operating revenues	\$192,501	\$172,455	\$364,956
Operating expenses			
Source of supply	36,697		36,697
Pumping	85,431		85,431
Treatment	30,518		30,518
Transmission and distribution	36,967		36,697
Administrative and general	15,461	40,248	55,709
Depreciation	33,444	17,411	50,855
Collection		94,727	94,727
Total operating expenses	238,248	152,386	390,634
Operating income (loss)	(45,747)	20,069	(25,678)
Non-operating revenues (expenses)			
Property taxes	34,686	34,685	69,371
Interest Income	21,311	21,310	42,621
Annexation fees			
Interest expense		(545)	(545)
Total	55,997	55,450	111,447
Income (loss) before contributions (carried forward)	10,250	75,519	85,769

²⁷ Arbuckle Public Utility District, Financial Statements and Independent Auditor’s Report for the year ended June 30, 2011, Prepared by Robert W. Johnson, Certified Public Accountant, 6234 Birdcage Street, Citrus Heights, CA 95610-5949, Phone 916-723-2555.

²⁸ Arbuckle Public Utility District, Financial Statements and Independent Auditor’s Report for the year ended June 30, 2011, Prepared by Robert W. Johnson, Certified Public Accountant, 6234 Birdcage Street, Citrus Heights, CA 95610-5949, Phone 916-723-2555, Page 4.

Since the water service operates at a loss; it might be necessary for the District to increase the very low water fees. The Audit states the following:

*The District is an enterprise fund. All operations are accounted for as an enterprise fund. The enterprise fund is used to account for water and sewer operations that are financed and operated in a manner similar to private business enterprises. The intent of the District is that the costs (expenses, including depreciation) of providing goods and services to the general public on a continuing basis be financed or recovered primarily through user charges.*²⁹

B. Cash and Investments

The Audit notes that the District pools all cash and investments, other than deposits and imprest cash on hand with the County of Colusa. The Colusa County Treasury is an external investment pool for the District and the District is considered an involuntary participant. State statutes authorize the District and the County to invest its cash surplus in obligations of the US Treasury, agencies and instrumentalities, corporate bonds, medium term notes, bankers' acceptances, certificates of deposit, commercial paper repurchase agreements, and the State of California Local Agency Investment Fund.³⁰

Cash and Investments for the District as shown as follows:

Arbuckle Public Utility District Cash and Investments on June 30, 2011³¹		
	Unrestricted	Restricted
Petty Cash	200	
Cash in bank-checking	75,461	
Cash in bank-money market	61,804	
Cash with County #656	774,180	(124,208)
Sewer reserve		871,101
Time deposits	250,000	
Total	\$1,161,645	\$746,893

The Audit states that at year-end the carrying amount of the District's deposits was \$137,265 and the bank balance was \$158,864. All deposits were covered by Federal depository insurance.

²⁹ Arbuckle Public Utility District, Financial Statements and Independent Auditor's Report for the year ended June 30, 2011, Prepared by Robert W. Johnson, Certified Public Accountant, 6234 Birdcage Street, Citrus Heights, CA 95610-5949, Phone 916-723-2555, Page 8.

³⁰ Arbuckle Public Utility District, Financial Statements and Independent Auditor's Report for the year ended June 30, 2011, Prepared by Robert W. Johnson, Certified Public Accountant, 6234 Birdcage Street, Citrus Heights, CA 95610-5949, Phone 916-723-2555, Page 10.

³¹ Arbuckle Public Utility District, Financial Statements and Independent Auditor's Report for the year ended June 30, 2011, Prepared by Robert W. Johnson, Certified Public Accountant, 6234 Birdcage Street, Citrus Heights, CA 95610-5949, Phone 916-723-2555, Page 11.

C. Receivable-Improvement District

On September 11, 1991, the Arbuckle PUD advanced Improvement District 1 the sum of \$74,923 to retire Improvement District bonds. The District is collecting the June 30, 2011 balance of \$16,392 in annual principal amounts of \$2,732 plus 5% interest.³²

D. Capital Assets

At June 30, 2011, changes in capital assets were reported in the Audit as follows:

ARBUCKLE PUD CAPITAL ASSETS June 30, 2011³³					
		Balance 7/1/2010	Additions	Disposals	Balance 6/30/2011
Land		114,489			114,489
Plant and Equipment	Water	1,118,686	9,440	14,678	1,113,448
Plant and Equipment	Sewer	715,701			715,701
Total		\$1,948,876	\$9,440	\$14,678	\$1,943,638

E. Long-Term Debt

The following is a summary of the long-term debt activities for the year ended June 30, 2011 as reported by the Audit:

ARBUCKLE PUD LONG-TERM DEBT ACTIVITIES 2011³⁴					
	2010	New Debt Issued	Debt Retired	2011	Current Portion
Contract payable-Sewer Cleaner	\$8180		\$8180		

The District may need to take on long-term debt in the future to install water meters. Since 1992, State law has required water meter installation as part of all new construction. In 2004, the Legislature passed AB 2572, requiring all water suppliers to install water meters on all customer connections.

³² Arbuckle Public Utility District, Financial Statements and Independent Auditor's Report for the year ended June 30, 2011, Prepared by Robert W. Johnson, Certified Public Accountant, 6234 Birdcage Street, Citrus Heights, CA 95610-5949, Phone 916-723-2555, Page 11.

³³ Arbuckle Public Utility District, Financial Statements and Independent Auditor's Report for the year ended June 30, 2011, Prepared by Robert W. Johnson, Certified Public Accountant, 6234 Birdcage Street, Citrus Heights, CA 95610-5949, Phone 916-723-2555, Page 12.

³⁴ Arbuckle Public Utility District, Financial Statements and Independent Auditor's Report for the year ended June 30, 2011, Prepared by Robert W. Johnson, Certified Public Accountant, 6234 Birdcage Street, Citrus Heights, CA 95610-5949, Phone 916-723-2555, Page 12.

F. Pension Plan

According to the Audit,

The district has a Simplified Employee Pension individual Retirement Account plan covering substantially all of their employees. The District makes annual contributions to the plan based on a percentage of the employee's salary. The accounts are not held in the District's name; they are held in the names of the employees and can be withdrawn at the employee's discretion. Contributions to the plan for the year ended June 30, 2011 were \$7,246.³⁵

G. Net Assets

The Audit report shows the following Net Assets for the District as of June 30, 2011.

ARBUCKLE PUD NET ASSETS JUNE 30, 2011³⁶		
Invested in capital assets, net of related debt		\$788,033
Restricted Assets		
Reserve for connection fees		
Water	\$83,406	
Sewer	(207,614)	(124,208)
Unrestricted Assets		
Board Designated Assets-Sewer Expansion	871,101	
Undesignated Assets	1,106,784	1,977,885
Total Net Assets		\$2,641,710

H. Risk Management

The Arbuckle PUD is exposed to various risks of loss related to theft of, damage to, and destruction of assets; and injuries to employees. During the 2011 fiscal year, the District purchased certain commercial insurance coverage to provide for these risks.³⁷ Although the Independent Auditor uses the term "commercial insurance," the Arbuckle PUD belongs to an insurance pool for governmental agencies, the Golden State Risk Management Authority, with offices in Willows, California.

³⁵ Arbuckle Public Utility District, Financial Statements and Independent Auditor's Report for the year ended June 30, 2011, Prepared by Robert W. Johnson, Certified Public Accountant, 6234 Birdcage Street, Citrus Heights, CA 95610-5949, Phone 916-723-2555, Page 13.

³⁶ Arbuckle Public Utility District, Financial Statements and Independent Auditor's Report for the year ended June 30, 2011, Prepared by Robert W. Johnson, Certified Public Accountant, 6234 Birdcage Street, Citrus Heights, CA 95610-5949, Phone 916-723-2555, Page 13.

³⁷ Arbuckle Public Utility District, Financial Statements and Independent Auditor's Report for the year ended June 30, 2011, Prepared by Robert W. Johnson, Certified Public Accountant, 6234 Birdcage Street, Citrus Heights, CA 95610-5949, Phone 916-723-2555, Page 14.

4 SERVICE COST COMPARISONS

4.1 Water Service Cost Comparison

The following table is included to compare the cost of water rates from different districts. However, it is difficult to compare one district with another because the base rates include different amounts of water. Where the base amount of water is low, the average bill will almost always be higher than the base fee shown.

COMPARISON OF DOMESTIC WATER SERVICE RATES		
District/County	Number of Connections	Monthly Water Rate (Base Rate)
Arbuckle PUD/Colusa	792 (mostly unmetered) ³⁸	\$15.00 ³⁹
Artois CSD/Glenn	59 metered ⁴⁰	\$39.00 (16,000 gallons)
California Pines CSD/Modoc	131 metered (April 30 to October 31) ⁴¹	\$32.25. ⁴²
Clear Creek CSD/Lassen	156 unmetered ⁴³	\$27.00 ⁴⁴
CSA 1 Century Ranch/Colusa	112 metered	\$39.22 (8,000 gallons) ⁴⁵
CSA 2 Stonyford/Colusa	91 metered	\$45.58 (10,000 gallons) ⁴⁶
Elk Creek CSD/Glenn	90 metered ⁴⁷	\$44.00 (14,961 gallons)
Maxwell PUD/Colusa	400 (have meters, not read)	\$32.00 (unlimited) ⁴⁸
Lassen Co. Waterworks 1, Bieber/Lassen	172 metered ⁴⁹	35.00 (40,000 gallons) ⁵⁰
Little Valley CSD/Lassen	50 unmetered	\$23.00 ⁵¹
Westwood CSD/Lassen	765 metered	\$35.78 (30,000 gallons) ⁵²
City of Colusa/Colusa	2088 metered	\$21.76 (300 cubic feet*) ⁵³
City of Susanville/Lassen	4200 metered	\$23.65 (300 cubic feet*) ⁵⁴

³⁸ Arbuckle PUD, Small Water System 2011 Annual Report to the Drinking Water Program for year Ending December 31, 2011.

³⁹ Arbuckle PUD, Water Rates as of January 1, 2009.

⁴⁰ Artois Community Services District, Jack Cavier, Jr., President, March 1, 2012.

⁴¹ California Pines CSD, Vera Sphar, June 12, 2009.

⁴² California Pines CSD Service Rates Effective June 2006.

⁴³ Clear Creek CSD, Pat Mudrich, Manager, August 22, 2012

⁴⁴ Clear Creek CSD, Lassen LAFCO Questionnaire June 6, 2012.

⁴⁵ Colusa County Ordinance No. 673, An Ordinance of the Colusa County Board of Supervisors Increasing water service Fees; authorizing administrative Fees; providing for the Collection of Delinquent Charges; and Directing That No New Water Hook-ups Be Permitted for County Service Area Number 1-Century Ranch, March 16, 2004.,

⁴⁶ Colusa County Ordinance No 674, An Ordinance of the Colusa County Board of Supervisors Increasing Water Service Fees; Authorizing Administrative Fees; Providing for the Collection of Delinquent charges; and Directing That No New Water Hook-ups be permitted for County Service Area Number 2-Stonyford, March 16, 2004.

⁴⁷ Elk Creek Community Services District, Arnold Kjer, Water Plant Operator, September 28, 2011

⁴⁸ Maxwell PUD, Diana Mason, Phone 438-2505, August 8, 2012.

⁴⁹ Lassen County Waterworks District 1 (Bieber), Stephen Jackson, Manager, Phone: 530-294-5524, March 1, 2011.

⁵⁰ Lassen County Waterworks District 1 (Bieber), Ordinance 09-2, An Ordinance amending the Ordinance Establishing the Rate for Water Service by the Lassen County Waterworks District 1 (Bieber), June 16, 2009.

⁵¹ Little Valley CSD, Director Devora Kelley, March 19, 2012.

⁵² Westwood Community Services District, Resolution 2011-01, A resolution of the Westwood Community Services District Increasing Water Rates, June 6, 2011.

⁵³ City of Colusa, Water Department, Phone 458-4740 Ex100, August 7, 2012.

⁵⁴ City of Susanville, 530-252-5111, August 3, 2012.

*(100 cubic feet of water = 748 gallons)

Areas that are served by the California Water Service (a public utility) usually have higher fees than those areas served by a government facility. For example, in the Willows area California Water Service charges \$47.50 for the smallest meter size and 800 cubic feet of water.⁵⁵

Arbuckle PUD's water rates are the lowest in the region by far. The Board should consider the need to raise the water rates so that the rates can be raised gradually and the District will have adequate revenue for future expenses.

4.2 Sewer Service Cost Comparison

The following table shows sewer service rates in various places in northern California. It is difficult to compare the rates because some jurisdictions have had to install expensive upgrades to their wastewater treatment plants to meet the requirements of the State Water Quality Control Board.

COMPARISON OF DOMESTIC SEWER SERVICE RATES		
District/County	Number of Connections	Monthly Sewer Service Rate (Base Rate-Single Family Residential)
Arbuckle PUD/Colusa	820	\$15.00⁵⁶
Lassen Co. Waterworks District 1(Bieber)/Lassen	172 ⁵⁷	\$25.00 ⁵⁸
Maxwell PUD/Colusa	400	\$48.00 plus \$358.62/year ⁵⁹
Westwood CSD	781	\$34.22 ⁶⁰
City of Colusa/Colusa	2082	\$65.77 ⁶¹
City of Willows/Glenn	2255	\$40.19 ⁶²
Susanville Sanitary District/Lassen	3747	\$15.15 ⁶³

Arbuckle PUD's sewer service rates are the lowest in the region by far. The Board should consider the need to raise the sewer service rates so the rates can be raised gradually and the District will have the funds necessary for future expenses.

⁵⁵ California Water Service Company, 1720 North First Street, San Jose, California, 95112, Phone: 408-367-8200, Schedule No. WL-1-R Willows Tariff Area, Effective 5/3/12.

⁵⁶ Arbuckle PUD, PO Box 207, Arbuckle, CA 95912, Phone: (530) 476-2054, Fax: 530-476-2761, E-Mail: apud@frontiernet.net

⁵⁷ Lassen County Waterworks District 1 (Bieber), Stephen Jackson, Manager, Phone: 530-294-5524, March 1, 2011.

⁵⁸ Lassen County Waterworks District 1 (Bieber), Ordinance 09-1, An Ordinance Amending the Ordinance Establishing the Rate for sewer services by the Lassen County Waterworks District 1 (Bieber), June 16, 2009.

⁵⁹ Maxwell PUD, Maxwell, CA, Diana Mason, Phone: 438-2505, August 7, 2012.

⁶⁰ Westwood CSD, Susan Coffi, E-Mail: office@westwoodcsd.org, September 6, 2012.

⁶¹ City of Colusa, Water Department, Phone 458-4740 Ex100, September 12, 2012.

⁶² City of Willows, Skyler Lipski, Public Works Director, Phone: 530-934-7041, September 5, 2012.

⁶³ Susanville Sanitary District, PO Box 162, Susanville, Ca 96130, Phone: 530-257-5685, Fax: 530-251-5328, September 11, 2012.

5 ARBUCKLE PUBLIC UTILITY DISTRICT MUNICIPAL SERVICE REVIEW

Colusa LAFCO is responsible for determining if an agency is reasonably capable of providing needed resources and basic infrastructure to serve areas within its boundaries and, later, within the Sphere of Influence. LAFCO will do the following:

- 1) Evaluate the present and long-term infrastructure demands and resources available to the District.
- 2) Analyze whether resources and services are, or will be, available at needed levels.
- 3) Determine whether orderly maintenance and expansion of such resources and services are planned to occur in-line with increasing demands.

Determinations are provided for each of the five factors, based on the information provided in this Municipal Service Review.

5.1 Growth and Population Projections for the Arbuckle Area

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

The Colusa County General Plan 2030 has the following policies and actions regarding Arbuckle.⁶⁴

*Policy CC 2---1:
Support efforts to revitalize the downtown area east of Interstate 5.*

*Policy CC 2---2:
Encourage the preservation, rehabilitation and creative use of historic structures, including the railroad depot.*

*Policy CC 2---3:
Encourage the development of boutique shops, including restaurants, local retail establishments, and non---highway tourist---serving uses, mixed---use development, and high density residential development in the downtown area.*

*Policy CC 2---4:
Promote the development of highway commercial uses adjacent to Interstate 5 at the northern and southern edges of the community.*

*Policy CC 2---5:
Encourage new development proposals to include a balanced mix of jobs and housing.*

⁶⁴ Colusa County 2030 General Plan, Pages 4-4 and 4-5, November 2011.

*Policy CC 2---6:
Require new residential development to connect to municipal water and sewer services.*

*Policy CC 2---7:
Increase pedestrian and bicycle connectivity between residential areas and the downtown area.*

*Policy CC 2---8:
Vacant and underdeveloped lands within the Arbuckle Public Utility District Service Area should be developed before additional undeveloped lands are annexed into the PUD's Service Area.*

*Policy CC 2---9:
Previously approved, yet still undeveloped, residential subdivisions should be developed before significant new residential development is approved.*

*Policy CC 2---10:
Encourage the clustering of homes and businesses to protect open space, trees, creeks and other natural resources.*

*Policy CC 2---11:
Encourage mixed use development in the downtown area.*

*Policy CC 2---12:
New residential development should include areas for neighborhood parks and other residential community facilities.*

*Policy CC 2---13:
Discourage new residential development adjacent to Interstate 5. Where such development already exists, the possibility of further noise insulation through sound Walls or vegetative screening should be explored.*

*Policy CC 2---14:
Reserve locations for future rail or transit stations to promote public transit connectivity to other communities.*

*Policy CC 2---15:
Create a gateway to Arbuckle that reflects the characteristics that distinguish the community and directs residents and visitors to the community center.*

*Action CC 2---A:
When preparing the Bicycle and Pedestrian Plan (Action CIRC 1---I), include opportunities for additional pedestrian and bicycle connectivity between the residential areas located west of Interstate 5 and the downtown area located east of Interstate 5.*

Action CC 2--B:

Provide assistance to local organizations, business groups, and community leaders in securing funding and resources to assist with building restoration and community identity and revitalization efforts.

Action CC 2--C:

Support the Chamber of Commerce and other community organizations' efforts to attract and retain businesses and expand employment opportunities in Arbuckle.

5.1.1 Arbuckle Area Population Projections

Growth in Arbuckle from 2000 to 2009 is reported in the Colusa County General Plan Background Report as follows:

ARBUCKLE POPULATION GROWTH 2000 TO 2009 ⁶⁵					
Population		Arbuckle Population Increase	Arbuckle Growth Rate	Housing Unit Increase	Commercial/Industrial square foot Increase
2000	2009				
1968	2472	504	25.6%	962	104,892

The Colusa County Housing Element Background Report shows the following land available for residential development in Arbuckle:

Inventory of Available Residential Land for Development in Arbuckle ⁶⁶								
Zone	RR	R1-PD	R-1-8	R-1-6	R-2	R-3	R-4	Totals
Maximum Density Du/ac	1 Du/ac ^a	7.3 Du/ac ^b	5.4 Du/ac ^b	7.3 Du/ac ^b	10.8 Du/ac	19 Du/ac	19 Du/ac	
# of Parcels		132	39	11		10		192 parcels
Acreage		53.12 ac	76.04 ac	21.07 ac		7.13 ac		157.36 acres
Realistic Net Yield		256 DU	314 DU	96 DU		103 DU		769 DU

^a Parcels zoned and designated Rural Residential were assumed to develop at on unit per two acres in order to accommodate on-site wells and septic systems.

^b Parcels were assumed to allow at least one residential unit per parcel.

The Arbuckle average household size was 3.49 in the 2010 Census. If all 769 potential dwelling units were developed the population of Arbuckle could increase by 2,684. This would nearly double the population of 3,028 at the 2010 Census. The expected growth in Arbuckle is less than ten dwelling units per year.⁶⁷

⁶⁵ Colusa County, General Plan Background Report, June 2010, Page 1-14.

⁶⁶ Colusa County, Housing Element Background Report, January 2011, Page 3-2.

⁶⁷ Arbuckle Public Utility District, Jim Scheimer, Manager, Personal Communication, July 11, 2012.

The Colusa County General Plan Background Report shows three subdivisions approved for Arbuckle as follows:

APPROVED AND PENDING DEVELOPMENT PROJECTS IN ARBUCKLE⁶⁸		
Project	Description	Status
Reddington Ranch	Subdivision with 138 single-family residential lots and associated infrastructure for transportation and drainage purposes on approximately 34 acres.	Approved and map finalized. The site has been graded and partially constructed. Eighteen lots have been developed or are under construction; 120 lots remain to be developed.
Almond Ranch Estates	Subdivision with 23 single-family residential lots and associated infrastructure, and open space for drainage and recreation purposes on approximately 6 acres.	Approved and map finalized.
Wildwood Estates	Subdivision with 31 single family lots on approximately 6 acres.	Approved and map finalized. The site has been graded and partially constructed. Five lots have been developed; 26 lots remain to be developed.

5.1.2 MSR Determinations on Growth and Population Projections for the Arbuckle Area

- 1-1) The sewer and water systems operated by the Arbuckle PUD are sized for accommodation of additional population growth.
- 1-2) The CSD needs to maintain a close relationship with the Colusa County Planning Department to make sure that the zoning and general plan are compatible with the proposed development for the District.
- 1-3) The District needs to ensure that any growth will pay for the additional infrastructure and services needed.

⁶⁸ Colusa County, General Plan Background Report, June 2010, Page 1-77.

5.2 MSR Determinations on Disadvantaged Unincorporated Communities (DUC)

5.2.1 Determination of Arbuckle Disadvantaged Unincorporated Community Status

In addition to a consideration of population growth, the State Law requires LAFCO to consider whether or not an area is a Disadvantaged Unincorporated Community (DUC). A DUC is an area where the Median Household Income is less than 80% of the State of California Median Household Income.

For 2010 the Median Household Income for Arbuckle was \$41,313. Since 80% of the \$60,883 State of California Median Household Income is \$48,706 the community of Arbuckle is a Disadvantaged Unincorporated Community. However, there is no large incorporated city which could annex these areas.

5.2.2 MSR Determinations on Disadvantaged Unincorporated Communities near Arbuckle PUD

- 2-1) The Median Household Income for Arbuckle shows that it is a DUC because it is lower than 80% of the State Median Household Income.

5.3 Capacity and Infrastructure for Arbuckle Public Utility District

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

LAFCO is responsible for determining that an agency is reasonably capable of providing needed resources and basic infrastructure to serve areas within the District and later in the Sphere of Influence. It is important that such findings of infrastructure availability occur when revisions to the Sphere of Influence and annexations occur.

In the case of this Municipal Service Review, it is prudent for Colusa LAFCO to evaluate the present and long-term infrastructure demands and resource availability of the District. Further, LAFCO needs to see that resources and services are available at needed levels and orderly maintenance and expansion of such resources and services are made to coordinate with increasing demands and regulations.

5.3.1 Arbuckle Public Utility District Infrastructure

The Arbuckle PUD infrastructure is described above in this report.

5.3.2 MSR Determinations on Infrastructure for the Arbuckle Public Utility District

- 3-1) The infrastructure available to the Arbuckle Public Utility District is adequate but the District should have a Master Plan and a Capital Improvement Plan to schedule regular upgrades and maintenance of equipment and infrastructure.
- 3-2) The District should look into the costs and benefits of installing water meters at each connection.
- 3-3) The water system has good water quality and the Consumer Confidence Report on water quality is available to the public upon request; however, the District should consider a website to make this report available to all.
- 3-4) The District should work to help another employee to be certified to operate the wastewater treatment plant.
- 3-5) The wastewater collection and treatment facilities are adequate to service the community of Arbuckle and comply with existing State of California regulations.
- 3-6) The District operates a wastewater treatment system with no discharge. This is a benefit to the District and saves on treatment costs.

5.4 Financial Ability

Purpose: To evaluate factors that affect the financing of needed improvements and to identify practices or opportunities that may help eliminate unnecessary costs without decreasing service levels.

LAFCO should consider the ability of the District to pay for improvements or services associated with annexed sites. This planning can begin at the Sphere of Influence stage by identifying what opportunities there are to identify infrastructure and maintenance needs associated with future annexation and development, and identifying limitations on financing such improvements, as well as the opportunities that exist to construct and maintain those improvements.

LAFCO should consider the relative burden of new annexations to the community when it comes to its ability to provide public safety and administrative services, as well as capital maintenance and replacements required as a result of expanding District boundaries.

Rate restructuring may be forced by shortfalls in funding, but the process may also reflect changing goals and views of economic justice or fairness within the community. LAFCO should evaluate the impact of SOI and Annexation decisions on existing community assessments for service.

5.4.1 *Financial Considerations for Arbutle Public Utility District*

The finances of the Arbutle PUD are explained above in this report. In evaluating the finances it is important to consider the future financial needs of the District as well as the present financial situation.

5.4.2 *MSR Determinations on Financing for the Arbutle Public Utility District*

- 4-1) The Arbutle PUD maintains a balanced budget.
- 4-2) The Arbutle PUD has an independent audit performed each year by an outside auditor.
- 4-3) The fees and taxes collected by the Arbutle PUD are adequate to support the District operations.
- 4-4) The District should develop and adopt a Capital Improvement Plan. The Capital Improvement Plan is necessary to determine the long-term financing needs of the District.
- 4-5) The District should study the fee schedules to make sure that the fees will be adequate in the future to pay for increased personnel costs and improvements.
- 4-6) The District should develop separate budgets for its Water and Sewer funds.

5.5 Opportunities for Shared Facilities

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

In the case of annexing new lands into a district, LAFCO can evaluate whether services or facilities can be provided in a more efficient manner if the District can share them with another agency. In some cases, it may be possible to establish a cooperative approach to facility planning by encouraging agencies to work cooperatively in such efforts.

5.5.1 *Arbuckle Public Utility District Facilities*

The Arbuckle Public Utility District facilities are described above in this report.

5.5.2 *MSR Determinations on Shared Facilities for Arbuckle Public Utility District*

- 5-1) The Arbuckle PUD is too far from any other community to share water or wastewater collection and treatment facilities with other communities.
- 5-2) The Arbuckle PUD shares the office facilities and meeting space with the Arbuckle Cemetery District.
- 5-3) The Arbuckle PUD is willing to share the office facilities and meeting space with other community organizations and has shared the space with the Arbuckle Revitalization Committee in the past.
- 5-4) The Arbuckle PUD could investigate ways of sharing administrative functions with another district.
- 5-5) The District should explore ways to share a web-site with Colusa County or another agency.
- 5-6) The District supplies water and maintains fire hydrants for the Arbuckle Fire Protection District.
- 5-7) The District uses an attorney who specializes in public water district law and who is available as needed.
- 5-8) The District may need to work with the County Public Works Department to get a qualified wastewater treatment plant and water system operator on a contract basis.

5.6 Government Structure and Accountability

Purpose: To consider the advantages and disadvantages of various government structures that could provide public services, to evaluate the management capabilities of the organization and to evaluate the accessibility and levels of public participation associated with the agency's decision-making and management processes.

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

Colusa LAFCO may consider the agency's record of local accountability in its management of community affairs as a measure of the ability to provide adequate services to the Sphere of Influence and potential annexation areas.

5.6.1 *Arbuckle Public Utility District Government Structure*

The governing board and the staff of the Arbuckle PUD are described above in this report.

5.6.2 *MSR Determinations on Local Accountability and Governance for the Arbuckle Public Utility District*

- 6-1) The Board of Directors has regular meetings with posted agendas and meets in a public place.
- 6-2) The District is fortunate to have three willing volunteers to serve on the Board of Directors.
- 6-3) The District could benefit from a website or a page on the Colusa County website, to post agendas and minutes of meetings, fee schedules and other information on the District.
- 6-4) The District should consider a publication that can be inserted into water bills to enhance communication with ratepayers.
- 6-5) The Board of Directors should consider a program or process for maintaining the District Staff should any staff members leave or retire. The District may need to hire additional employees and train them to have a qualified person available to operate both the wastewater treatment and water systems.
- 6-6) The Board of Directors should consider a long-term review of District finances and the rates charged for services. The District should determine what circumstances might require rate increases and how these rate increases would be implemented. (For example, a gradual increase in rates could be more palatable to the rate-payers than a sudden, large increase.)

APPENDIX A - LOCAL GOVERNMENT ISSUES

1 Municipal Financial Constraints

Municipal service providers are constrained in their capacity to finance services by the inability to increase property taxes, requirements for voter approval for new or increased taxes, and requirements of voter approval for parcel taxes and assessments used to finance services. Municipalities must obtain majority voter approval to increase or impose new general taxes and two-thirds voter approval for special taxes.

Limitations on property tax rates and increases in taxable property values are financing constraints. Property tax revenues are subject to a formulaic allocation and are vulnerable to State budget needs. Agencies formed since the adoption of Proposition 13 in 1978 often lack adequate financing.

1.1 California Local Government Finance Background

The financial ability of the cities and special districts to provide services is affected by financial constraints. City service providers rely on a variety of revenue sources to fund city operating costs as follows:

- Property Taxes
- Benefit Assessments
- Special Taxes
- Proposition 172 Funds
- Other contributions from city or district general funds.

As a funding source, property taxes are constrained by Statewide initiatives that have been passed by voters over the years and special legislation. Seven of these measures are explained below:

A. Proposition 13

Proposition 13 (which California voters approved in 1978) has the following three impacts:

- Limits the *ad valorem* property tax rate
- Limits growth of the assessed value of property
- Requires voter approval of certain local taxes.

Generally, this measure fixes the *ad valorem* tax at one percent of value; except for taxes to repay certain voter approved bonded indebtedness. In response to the adoption of Proposition 13, the Legislature enacted Assembly Bill 8 (AB 8) in 1979 to establish property tax allocation formulas.

B. AB 8

Generally, AB 8 allocates property tax revenue to the local agencies within each tax rate area based on the proportion each agency received during the three fiscal years preceding adoption of Proposition 13. This allocation formula benefits local agencies, which had relatively high tax rates at the time Proposition 13 was enacted.

C. Proposition 98

Proposition 98, which California voters approved in 1988, requires the State to maintain a minimum level of school funding. In 1992 and 1993, the Legislature began shifting billions of local property taxes to schools in response to State budget deficits. Local property taxes were diverted from local governments into the Educational Revenue Augmentation Fund (ERAF) and transferred to school districts and community college districts to reduce the amount paid by the State general fund.

Local agencies throughout the State lost significant property tax revenue due to this shift. Proposition 172 was enacted to help offset property tax revenue losses of cities and counties that were shifted to the ERAF for schools in 1992.

D. Proposition 172

Proposition 172, enacted in 1993, provides the revenue of a half-cent sales tax to counties and cities for public safety purposes, including police, fire, district attorneys, corrections and lifeguards. Proposition 172 also requires cities and counties to continue providing public safety funding at or above the amount provided in FY 92-93.

E. Proposition 218

Proposition 218, which California voters approved in 1996, requires voter- or property owner-approval of increased local taxes, assessments, and property-related fees. A two-thirds affirmative vote is required to impose a Special Tax, for example, a tax for a specific purpose such as a fire district special tax.

However, majority voter approval is required for imposing or increasing general taxes such as business license or utility taxes, which can be used for any governmental purpose. These requirements do not apply to user fees, development impact fees and Mello-Roos districts.

F. Proposition 26

Proposition 26 approved by California voters on November 2, 2010, requires that certain state fees be approved by two-thirds vote of Legislature and certain local fees be approved by two-thirds of voters. This proposition increases the legislative vote requirement to two-thirds for certain tax measures, including those that do not result in a net increase in revenue. Prior to its passage, these tax measures were subject to majority vote.

However, majority voter approval is required for imposing or increasing general taxes such as business license or utility taxes, which can be used for any governmental purpose. These requirements do not apply to user fees, development impact fees and Mello-Roos districts.

G. Mello-Roos Community Facilities Act

The Mello-Roos Community Facilities Act of 1982 allows any county, city, special district, school district or joint powers authority to establish a Mello-Roos Community Facilities District (a "CFD") which allows for financing of public improvements and services. The services and improvements that Mello-Roos CFDs can finance include streets, sewer systems and other basic infrastructure, police protection, fire protection, ambulance services, schools, parks, libraries, museums and other cultural facilities. By law, the CFD is also entitled to recover expenses needed to form the CFD and administer the annual special taxes and bonded debt.

A CFD is created by a sponsoring local government agency. The proposed district will include all properties that will benefit from the improvements to be constructed or the services to be provided. A CFD cannot be formed without a two-thirds majority vote of residents living within the proposed boundaries. Or, if there are fewer than 12 residents, the vote is instead conducted of current landowners.

In many cases, that may be a single owner or developer. Once approved, a Special Tax Lien is placed against each property in the CFD. Property owners then pay a Special Tax each year.

If the project cost is high, municipal bonds will be sold by the CFD to provide the large amount of money initially needed to build the improvements or fund the services. The Special Tax cannot be directly based on the value of the property. Special Taxes instead are based on mathematical formulas that take into account property characteristics such as use of the property, square footage of the structure and lot size. The formula is defined at the time of formation, and will include a maximum special tax amount and a percentage maximum annual increase.

If bonds were issued by the CFD, special taxes will be charged annually until the bonds are paid off in full. Often, after bonds are paid off, a CFD will continue to charge a reduced fee to maintain the improvements.

H. Development Impact Fees

A county, cities, special districts, school districts, and private utilities may impose development impact fees on new construction for purposes of defraying the cost of putting in place public infrastructure and services to support new development.

To impose development impact fees, a jurisdiction must justify the fees as an offset to the impact of future development on facilities. This usually requires a special financial study. The fees must be committed within five years to the projects for which they were collected, and the district, city or county must keep separate funds for each development impact fee.

1.2 *Financing Opportunities that Require Voter Approval*

Financing opportunities that require voter approval include the following five taxes:

- Special taxes such as parcel taxes
- Increases in general taxes such as utility taxes
- Sales and use taxes
- Business license taxes
- Transient occupancy taxes

Communities may elect to form business improvement districts to finance supplemental services, or Mello-Roos districts to finance development-related infrastructure extension. Agencies may finance facilities with voter-approved (general obligation) bonded indebtedness.

1.3 *Financing Opportunities that Do Not Require Voter Approval*

Financing opportunities that do not require voter approval include imposition of or increases in fees to more fully recover the costs of providing services, including user fees and Development Impact Fees to recover the actual cost of services provided and infrastructure.

Development Impact Fees and user fees must be based on reasonable costs, and may be imposed and increased without voter approval. Development Impact Fees may not be used to subsidize operating costs. Agencies may also finance many types of facility improvements through bond instruments that do not require voter approval.

Water rates and rate structures are not subject to regulation by other agencies. Utility providers may increase rates annually, and often do so. Generally, there is no voter approval requirement for rate increases, although notification of utility users is required. Water providers must maintain an enterprise fund for the respective utility separate from other funds, and may not use revenues to finance unrelated governmental activities.

2 Public Management Standards

While public sector management standards do vary depending on the size and scope of an organization, there are minimum standards. Well-managed organizations do the following eight activities:

1. Evaluate employees annually.
2. Prepare a budget before the beginning of the fiscal year.
3. Conduct periodic financial audits to safeguard the public trust.
4. Maintain current financial records.
5. Periodically evaluate rates and fees.
6. Plan and budget for capital replacement needs.

7. Conduct advance planning for future growth.

8. Make best efforts to meet regulatory requirements.

Most of the professionally managed and staffed agencies implement many of these best management practices. LAFCO encourages all local agencies to conduct timely financial record-keeping for each city function and make financial information available to the public.

3 Public Participation in Government

The Brown Act (California Government Code Section 54950 et seq.) is intended to insure that public boards shall take their actions openly and that deliberations shall be conducted openly. The Brown Act establishes requirements for the following:

- Open meetings
- Agendas that describe the business to be conducted at the meeting
- Notice for meetings
- Meaningful opportunity for the public to comment
- Few exceptions for meeting in closed sessions and reports of items discussed in closed sessions.

According to California Government Section 54959

Each member of a legislative body who attends a meeting of that legislative body where action is taken in violation of any provision of this chapter, and where the member intends to deprive the public of information to which the member knows or has reason to know the public is entitled under this chapter, is guilty of a misdemeanor.

Section 54960 states the following:

(a) The district attorney or any interested person may commence an action by mandamus, injunction or declaratory relief for the purpose of stopping or preventing violations or threatened violations of this chapter by members of the legislative body of a local agency or to determine the applicability of this chapter to actions or threatened future action of the legislative body.

APPENDIX B SOILS INFORMATION⁶⁹

112—Westfan loam, 0 to 2 percent slopes

Map Unit Setting

General location:	Near Williams and Arbuckle
Map unit geomorphic setting:	Alluvial fan
Elevation:	65 to 150 feet (20 to 46 meters)
Mean annual precipitation:	14 to 16 inches (355 to 405 millimeters)
Mean annual air temperature:	61 to 63 degrees F. (16 to 17 degrees C.)
Frost-free period:	225 to 250 days

Westfan loam—80 percent Minor components: 20 percent

Major Component Description Westfan loam

Component geomorphic setting:	Alluvial fan
Parent material:	Alluvium
Typical vegetation:	Irrigated cropland

Component Properties and Qualities

Slope:	0 to 2 percent
Runoff:	Very low
Surface features:	None noted.
Percent area covered by surface coarse fragments:	None noted.
Depth to restrictive feature:	None noted
Slowest permeability class:	Moderately slow
Salinity:	Not saline
Sodicity:	Sodic within 40 inches
Available water capacity:	About 8.8 inches (High)

Component Hydrologic Properties

Present flooding:	Rare
Present ponding:	None
Current water table:	None noted.
Natural drainage class:	Well drained

Interpretive Groups

Land capability irrigated: 1
Land capability nonirrigated: 4s

⁶⁹ USDA Natural Resource Conservation Service
http://www.ca.nrcs.usda.gov/mlra02/colusa/manorslo_qd.html

114—Westfan clay loam, 0 to 1 percent slopes

Map Unit Setting

General location:	Small area west and south of Williams
Map unit geomorphic setting:	Alluvial fan
Elevation:	110 to 130 feet (35 to 41 meters)
Mean annual precipitation:	14 to 16 inches (355 to 405 millimeters)
Mean annual air temperature:	61 to 63 degrees F. (16 to 17 degrees C.)
Frost-free period:	225 to 250 days

Westfan clay loam—80 percent

Minor components: 20 percent

Major Component Description Westfan clay loam

Component geomorphic setting:	Alluvial fan
Parent material:	Alluvium
Typical vegetation:	Irrigated cropland

Component Properties and Qualities

Slope:	0 to 1 percent
Runoff:	Very low
Surface features:	None noted.
Percent area covered by surface coarse fragments:	None noted.
Depth to restrictive feature:	None noted
Slowest permeability class:	Moderately slow
Salinity:	Not saline
Sodicity:	Sodic within 40 inches
Available water capacity: (high)	About 11.0 inches (Very high)

Component Hydrologic Properties

Present flooding:	Rare
Present ponding:	None
Current water table:	None noted
Natural drainage class:	Well drained

Interpretive Groups

Land capability irrigated: 1

Land capability nonirrigated: 4s

193—Westfan gravelly loam, 0 to 2 percent slopes

Map Unit Setting

General location:	Between Arbuckle and Williams
Map unit geomorphic setting:	Alluvial fan
Elevation:	75 to 295 feet (23 to 91 meters)
Mean annual precipitation:	14 to 16 inches (355 to 405 millimeters)
Mean annual air temperature:	61 to 63 degrees F. (16 to 17 degrees C.)
Frost-free period:	225 to 250 days

Westfan gravelly loam—80 percent

Minor components: 20 percent

Major Component Description Westfan gravelly loam

Component geomorphic setting:	Alluvial fan
Parent material:	Alluvium
Typical vegetation:	Irrigated cropland

Component Properties and Qualities

Slope:	0 to 2 percent
Runoff:	Very low
Surface features:	None noted.
Percent area covered by surface coarse fragments:	None noted.
Depth to restrictive feature:	None noted
Slowest permeability class:	Moderate
Salinity:	Not saline
Sodicity:	Not sodic
Available water capacity:	About 7.7 inches (High)

Component Hydrologic Properties

Present flooding:	Rare
Present ponding:	None
Current water table:	None noted.
Natural drainage class:	Well drained

Interpretive Groups

Land capability irrigated: 2s-4

Land capability nonirrigated: 4s-4

188—Westfan loam, clay substratum, 0 to 2 percent slopes

Map Unit Setting

General location: Between the towns of Williams and Arbuckle
on the western Sacramento
Valley margin
Map unit geomorphic setting: Alluvial fan
Elevation: 75 to 150 feet (23 to 46 meters)
Mean annual precipitation: 14 to 16 inches (355 to 405 millimeters)
Mean annual air temperature: 61 to 63 degrees F. (16 to 17 degrees C.)
Frost-free period: 225 to 250 days

Westfan loam, clay substratum—80 percent
Minor components: 20 percent

Major Component Description Westfan loam, clay substratum

Component geomorphic setting: Alluvial fan
Parent material: Alluvium
Typical vegetation: Irrigated cropland

Component Properties and Qualities

Slope: 0 to 2 percent
Runoff: Very low
Surface features: None noted.
Percent area covered by surface coarse fragments: None noted.
Depth to restrictive feature: None noted
Slowest permeability class: Slow
Salinity: Not saline
Sodicity: Not sodic
Available water capacity: About 9.6 inches (High)

Component Hydrologic Properties

Present flooding: Rare
Present ponding: None
Current water table: None noted.
Natural drainage class: Well drained

Interpretive Groups

Land capability irrigated: 2s-3
Land capability nonirrigated: 4s-3

127—Mallard clay loam, 0 to 1 percent slopes

Map Unit Setting

General location:	Near the towns of Arbuckle and Williams
Map unit geomorphic setting:	Alluvial fan
Elevation:	45 to 140 feet (15 to 43 meters)
Mean annual precipitation:	14 to 16 inches (355 to 405 millimeters)
Mean annual air temperature:	61 to 63 degrees F. (16 to 17 degrees C.)
Frost-free period:	225 to 250 days

Mallard clay loam—85 percent

Minor components: 15 percent

Major Component Description Mallard clay loam

Component geomorphic setting:	Lower alluvial fan
Parent material:	Alluvium
Typical vegetation:	Irrigated cropland

Component Properties and Qualities

Slope:	0 to 1 percent
Runoff:	Very low
Surface features:	None noted.
Percent area covered by surface coarse fragments:	None noted.
Depth to restrictive feature:	None noted
Slowest permeability class:	Slow
Salinity:	Not saline
Sodicity:	Not sodic
Available water capacity:	About 10.4 inches (Very high)

Component Hydrologic Properties

Present flooding:	Rare
Present ponding:	None
Current water table:	Present
Natural drainage class:	Somewhat poorly drained
Altered hydrology:	Water tables have been lowered by rice drainage ditches.

Interpretive Groups

Land capability irrigated: 2w-3

Land capability nonirrigated: 4w-3

2011 Consumer Confidence Report

Water System Name: Arbutle Public Utility District Report Date: March 1 2012

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 - December 31, 2011.

Este informe contiene información muy importante sobre su agua potable. Tradúzelo o hable con alguien que lo entienda bien.

Type of water source(s) in use: Groundwater wells blended together

Name & location of source(s): Well #1 Hillgate and Wildwood rd, well #2 Lucas st., well #3c fifth st. and gate st., and Well #4 at May way. All wells are in Arbutle Ca.

Drinking Water Source Assessment Information: Source assessment was done in 2001 and 2008. The complete assessment may be viewed at DWS valley district office at 415 Colicrest dr, Redding Ca, 96002 (530)224-4800

Time and place of regularly scheduled board meetings for public participation: Second Thursday of each month at 6:00 pm at 104 2nd St. Arbutle Ca.

For more information, contact: James Scheimer Manager Phone: (530)416-2054

TERMS USED IN THIS REPORT

<p>Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the color, taste, and appearance of drinking water.</p>	<p>Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.</p>
<p>Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).</p>	<p>Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.</p>
<p>Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.</p>	<p>Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.</p>
<p>Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.</p>	<p>Regulatory Action Level (RAL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.</p>
<p>Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.</p>	<p>Variance and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.</p>
	<p>ND: not detectable at testing limit</p>
	<p>ppm: parts per million or milligrams per liter (mg/L)</p>
	<p>ppb: parts per billion or micrograms per liter (ug/L)</p>
	<p>ppt: parts per trillion or nanograms per liter (ng/L)</p>
	<p>ppq: parts per quadrillion or picogram per liter (pg/L)</p>
	<p>pCi/L: picocuries per liter (a measure of radiation)</p>

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides and herbicides**, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, that are by products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural operations, and septic systems.
- **Radioactive contaminants**, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the state Department of Public Health (Department) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, 7, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, is more than one year old.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants (Analyte) (Detection Unit)	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(12.1 ufu)	0	More than 1 sample in a month with 0 ufu/100 ml	0	Naturally present in the environment
Fecal Coliform (E. coli)	(In the year)	0	0, no more than 1 sample, single detection coliform and 0 fecal coliform (no detection coliform or E. coli)	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper (Analyte) (Detection Unit)	No. of samples collected	90 th percentile level detected	No. times exceeding AL	AL	PHG (MCLG)	Typical Sources of Contaminant
Lead (ppb)	13	12.8	1	1.5	0	Internal corrosion of household water-piping systems, leaching from household plumbing materials, erosion of natural deposits
Copper (ppm)	13	3	0	1.3	0.17	Internal corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent (Reporting Unit)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm as Na)	2004	49		None	None	Salt present in the water and is generally

Well#2	2005	49		*	**	naturally occurring
Well#3a	2008	61		*	**	
Well#4	2010	84		*	**	
Fluoride (ppm) Well#1	2005	187		None	None	None of potential concern, present in the water, generally magnesium and calcium, and are usually naturally occurring
Well#2	2005	181		*	**	
Well#3a	2008	225		*	**	
Well#4	2010	219		*	**	

*Any violation of an MCL or CL is denoted. Additional information regarding the violation is provided later in this report.

Table 4 – Detection of contaminants with a primary drinking water standard

Chemical or Contaminant (and reporting unit)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCL-C) (VRDL-G)	Typical Sources of Contaminant
Arsenic (ppb) Well#1	2010	4		10	None	Breakdown of natural deposits, runoff from orchards, grass and electronic waste.
Well#2	"	5		"	"	
Well#3a	"	4		"	"	
Well#4	"	4		"	"	
Chromium (ppb) Well#1	2010	3		50	50	Discharge from steel and pulp mills, chrome plating and electroplating.
Well#2	2008	3		"	"	
Well#3a	2008	3		"	"	
Well#4	2010	3		"	"	
Fluoride (ppm) Well#1	2008	0.3		2	1	Presence of natural deposits, water additives for tooth and dental treatments.
Well#2	2008	0.3		"	"	
Well#3a	2008	0.5		"	"	
Well#4	2010	0.2		"	"	
Nitrate (mEq) (ppm) Well#1	2011	11.3		45	45	Runoff and leaching from fertilizers, leaching from septic tanks, and erosion from natural deposits.
Well#2	"	8.2		"	"	
Well#3a	"	10.0		"	"	
Well#4	"	10.2		"	"	
Iron (ppm) Well#1	2008	204		1200	None	Natural occurring
Well#2	2008	110		"	"	
Well#3a	2008	224		"	"	
Well#4	2010	322		"	"	
TDS (ppm) Well #1	2010	400		500	None	Natural occurring
Well#2	2008	340		"	"	
Well#3a	2008	391		"	"	
Well#4	2010	380		"	"	
Chloride (ppm) Well#1	2003	58		650	None	Natural occurring
Well#2	2003	87		"	"	
Well#3a	2003	88		"	"	
Well#4	2010	94		"	"	
Sulfate (ppm) Well#1	2015	14		400	None	Natural occurring
Well#2	2018	11		"	"	
Well#3a	2018	9.2		"	"	
Well#4	2010	15		"	"	

Gross alpha (ppm) Well#1	2007	4		5	None	Location of natural deposit
Well#2	--	2.6		--	--	
Well#3a	--	.5		--	--	
Well#4	--	1.9		--	--	
Radium 228 (diti) Well#1	2011	0.30		2	None	Erosion of natural deposit
Well#2	--	*		--	--	
Well#3a	--	*		--	--	
Well#4	--	*		--	--	
Zinc (ppm) Well#2a	1992	39		2100	None	Natural occurring
Manganese (ppm) Well#1	2008	2.7		50	None	Natural occurring
Well#2	--	1.0		--	--	
Selenium (ppm) Well#1	2003	2		50	None	Natural occurring
Iron (ppm) Well#2	2003	69		400	None	Natural occurring
Well#3a	--	69		--	--	
Lead (ppm) Well#3a	2003	0.4		50	None	Natural occurring
Well#4	2010	0.7		--	--	
Vanadium (ppm) Well#2	2003	97		2	None	Natural occurring
Vanadium (ppm)						
Well#2	2003	7		None	None	
Well#3a	2003	7		--	--	
Well#4	2010	7		--	--	
Chemical or Constituent (and sampling unit)	Sample Date	Level Detected		MCL	PHG (MCL G)	Typical Source of Contaminant
Chloride (ppm)						
Well#2a	2108	0.2		5	None	Cloudiness of water
Well#4	2110	0.2		--	--	
Boron (ppm) Well#3a	2108	610		None	None	Natural occurring
Well#4	2210	516		--	--	
Cadmium (ppm) Well#3a	2108	30		None	None	Aquifer group, natural occurring
Well#4	2110	31		--	--	
Manganese (ppm) Well#1	2105	28		None	None	Natural occurring
Well#2	2106	23		--	--	
Well#3a	2108	30		--	--	
Well#4	2110	35		--	--	
Proximate Capital						
Well#3a	2003	1		None	None	Natural occurring
Well#4	2010	1		--	--	
Bicarbonate (ppm) Well#1	2005	210		None	None	An acid carbonate
Well#2	2005	222		--	--	
Well#3a	2008	250		--	--	
Well#4	2010	240		--	--	

Compliance Report

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Parameter/Well	Year	SL	Note	None	Other/Other Violation of the Water
Well2	2005	7.0	"	"	
Well3C	2008	8	"	"	
Well4	2008	8	"	"	

* If violation is an MCL, MRDL, or IT violation, a detailed explanation regarding the nature of violation and corrective action is required.

Additional General Information on Drinking Water

Drinking water, including bottled water, may occasionally be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Additional information: Our groundwater is treated with chlorine to prevent bacterial contamination.

Summary Information for Violation of a MCL, MRDL, AL, IT, or Monitoring and Reporting Requirement

VIOLATION OF A MCL, MRDL, AL, IT, OR MONITORING AND REPORTING REQUIREMENT				
Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
None				
VIOLATION OF GROUND WATER IT				
IT Violation	Explanation	Duration	Actions Taken to Correct the Violation	Health Effects Language
None				

ABBREVIATIONS

AB	Assembly Bill
AC	asbestos-cement
ADWF	average dry weather flow (wastewater treatment)
AWWA	American Water Works Association
bgs	below ground surface
CA	California
CDP	Census Designated Place
CEQA	California Environmental Quality Act
CFD	Community Facilities District
CFR	Code of Federal Regulations
CKH Act	Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000
CWC	California Water Code
District	Arbuckle Public Utility District
DU	Dwelling Unit
DUC	Disadvantaged Unincorporated Community
DWR	Department of Water Resources (California)
EDU	Equivalent Dwelling Unit
ERAF	Educational Revenue Augmentation Fund
FPD	Fire Protection District
gpd	gallons per day
gpm	gallons per minute
hp	horse power
I-5	Interstate-5
ISO	Insurance Service Organization (Fire Protection)
LAFCO	Local Agency Formation Commission
LAIF	Local Agency Investment Fund
MDB&M	Mount Diablo Base and Meridian

MFD	Multiple Family Dwelling-duplex, triplex, apartment, condominium
mgd	million gallons per day
MHD	Mobilehome or Single Family Dwelling
MSR	Municipal Service Review (LAFCO)
NCPA	Northern California Power Agency
OPR	Office of Planning and Research (California)
PG&E	Pacific Gas and Electric Company
psi	pounds per square inch
PVC	polyvinyl chloride
SFD	Single Family Dwelling
SOI	Sphere of Influence (LAFCO)
SDWA	Safe Drinking Water Act
ULFT	ultra-low-flow-toilet
USDA	United States Department of Agriculture
WDR	Waste Discharge Requirements
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

DEFINITIONS

Acre Foot: The volume of water that will cover one acre to a depth of one foot, 325,850 U.S. Gallons or 1,233,342 liters (approximately).

Agriculture: Use of land for the production of food and fiber, including the growing of crops and/or the grazing of animals on natural prime or improved pasture land.

Alluvium: A general term for clay, silt, sand, gravel, or similar unconsolidated detrital material, deposited during comparatively recent geologic time by a stream or other body of running water, (1) as sediment in the bed of the stream or on its flood plain or delta, or (2) as a cone or fan at the base of a mountain slope; especially, such a deposit of fine-grained texture (silt or silty clay) deposited during time of flood.⁷⁰

Aquifer: An underground, water-bearing layer of earth, porous rock, sand, or gravel, through which water can seep or be held in natural storage. Aquifers generally hold sufficient water to be used as a water supply.

Bond: An interest-bearing promise to pay a stipulated sum of money, with the principal amount due on a specific date. Funds raised through the sale of bonds can be used for various public purposes.

California Environmental Quality Act (CEQA): A State Law requiring State and local agencies to regulate activities with consideration for environmental protection. If a proposed activity has the potential for a significant adverse environmental impact, an environmental impact report (EIR) must be prepared and certified as to its adequacy before taking action on the proposed project.

Community Facilities District: Under the Mello-Roos Community Facilities Act of 1982 (Section 53311, et seq.) a legislative body may create within its jurisdiction a special tax district that can finance tax-exempt bonds for the planning, design, acquisition, construction, and/or operation of public facilities, as well as public services for district residents. Special taxes levied solely within the district are used to repay the bonds.

Community Services District (CSD): A geographic subarea of a county used for planning and delivery of parks, recreation, and other human services based on an assessment of the service needs of the population in that subarea. A CSD is a taxation district with independent administration.

Disadvantaged community: A Disadvantaged community means the area where at least fifty-one percent of the households are at or below eighty percent of the county median household income as defined annually by the Federal Department of Housing and Urban Development.

Groundwater: Water under the earth's surface, often confined to aquifers capable of supplying wells and springs.

Groundwater infiltration: Infiltration that enters pipeline and manhole defects located below the groundwater table. Groundwater infiltration is at a maximum during wet weather and might drop to near zero in the dry months.

⁷⁰ <http://www.maden.hacettepe.edu.tr/dmmrt/index.html>

Groundwater recharge: Groundwater recharge or deep drainage or deep percolation is a hydrologic process where water moves downward from surface water to groundwater. This process usually occurs in the vadose zone below plant roots and is often expressed as a flux to the water table surface. Recharge occurs both naturally (through the water cycle) and anthropologically (i.e., "artificial groundwater recharge"), where rainwater and or reclaimed water is routed to the subsurface.

Groundwater is recharged naturally by rain and snow melt, though this may be impeded somewhat by human activities including paving, development, or logging. These activities can result in enhanced surface runoff and reduction in recharge. Use of groundwater, especially for irrigation, may also lower the water tables. Groundwater recharge is an important process for sustainable groundwater management, since the volume-rate abstracted from an aquifer should be less than or equal to the volume-rate that is recharged.

Recharge can help move excess salts that accumulate in the root zone to deeper soil layers, or into the ground water system. Another environmental issue is the disposal of waste through the water flux such as dairy farms, industrial, and urban runoff.⁷¹

Impact Fee: A fee, also called a development fee, levied on the developer of a project by a county, or other public agency as compensation for otherwise-unmitigated impacts the project will produce. California Government Code Section 66000, et seq., specifies that development fees shall not exceed the estimated reasonable cost of providing the service for which the fee is charged. To lawfully impose a development fee, the public agency must verify its method of calculation and document proper restrictions on use of the fund.

Infiltration and inflow analysis: An engineering and, if appropriate, an economic analysis demonstrating possible excessive or nonexcessive infiltration and inflow.

Infrastructure: Public services and facilities such as sewage-disposal systems, water-supply systems, and other utility systems, schools and roads.

Land Use Classification: A system for classifying and designating the appropriate use of properties.

Leapfrog Development; New development separated from existing development by substantial vacant land.

Local Agency Formation Commission (LAFCO): A five-or seven-member commission within each county that reviews and evaluates all proposals for formation of special districts, incorporation of cities, annexation to special districts or cities, consolidation of districts, and merger of districts with cities. Each county's LAFCO is empowered to approve, disapprove, or conditionally approve such proposals. The LAFCO members generally include two county supervisors, two city council members, and one member representing the general public. Some LAFCOs include two representatives of special districts.

Maximum Contaminant Level (MCL): The designation given by the U.S. Environmental Protection Agency (USEPA) to water-quality standards promulgated under the Safe Drinking Water Act. The MCL is the greatest amount of a contaminant that can be present in drinking water without causing a risk to human health.⁷²

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

⁷¹ http://en.wikipedia.org/wiki/Groundwater_recharge

⁷² <http://ga.water.usgs.gov/edu/dictionary.html>

Maximum Residual Disinfectant Level (MRDL): The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.

Mean Sea Level: The average altitude of the sea surface for all tidal stages.

Mello-Roos Bonds: Locally issued bonds that are repaid by a special tax imposed on property owners within a community facilities district established by a governmental entity. The bond proceeds can be used for public improvements and for a limited number of services. Mello-Roos Bonds are named after the program's legislative authors.

Ordinance: A law or regulation set forth and adopted by a governmental authority.

Per Capita Water Use: The water produced by or introduced into the system of a water supplier divided by the total residential population; normally expressed in gallons per capita per day (gpcd).⁷³

Percolation: The downward movement of water through the soil or alluvium to a ground water table.⁷⁴

pH: a measure of the relative acidity or alkalinity of water. Water with a pH of 7 is neutral; lower pH levels indicate increasing acidity, while pH levels higher than 7 indicate increasingly basic solutions.⁷⁵

Potable Water: Water of a quality suitable for drinking.⁷⁶

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Proposition 13: (Article XIII A of the California Constitution) Passed in 1978, this proposition enacted sweeping changes to the California property tax system. Under Proposition 13, property taxes cannot exceed 1% of the value of the property and assessed valuations cannot increase by more than 2% per year. Property is subject to reassessment when there is a transfer of ownership or improvements are made.⁷⁷

Proposition 218: (Article XIII D of the California Constitution) This proposition, named "The Right to Vote on Taxes Act", filled some of the perceived loopholes of Proposition 13. Under Proposition 218, assessments may only increase with a two-thirds majority vote of the qualified voters within the District. In addition to the two-thirds voter approval requirement, Proposition 218 states that effective July 1, 1997, any assessments levied may not be more than the costs necessary to provide the service, proceeds may not be used for any other purpose other than providing the services intended, and assessments may only be levied for services that are immediately available to property owners.⁷⁸

⁷³ <http://rubicon.water.ca.gov/v1cwp/glssry.html>

⁷⁴ <http://rubicon.water.ca.gov/v1cwp/glssry.html>

⁷⁵ <http://ga.water.usgs.gov/edu/dictionary.html#P>, February 3, 2011.

⁷⁶ <http://ga.water.usgs.gov/edu/dictionary.html>

⁷⁷ http://www.californiataxdata.com/A_Free_Resources/glossary_PS.asp#ps_08

⁷⁸ http://www.californiataxdata.com/A_Free_Resources/glossary_PS.asp#ps_08

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Ranchette: A single dwelling unit occupied by a non-farming household on a parcel of 2.5 to 20 acres that has been subdivided from agricultural land.

Rainfall-dependent infiltration and inflow (RDI/I): Rainfall runoff from both infiltration and inflow sources that enter the wastewater collection system during and shortly after a rain event. RDI/I consists of stormwater inflow and rainfall-dependent infiltration.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Sanitary Sewer: A system of subterranean conduits that carries refuse liquids or waste matter to a plant where the sewage is treated, as contrasted with storm drainage systems (that carry surface water) and septic tanks or leech fields (that hold refuse liquids and waste matter on-site).

SCADA: SCADA is acronym for Supervisory Control and Data Acquisition. It is a kind of software application program used for process control and gather real time data from remote locations for exercising this control on equipments and conditions. The SCADA System consists of hardware and software components. The hardware collects and feeds data into a computer with SCADA software installed. The data is then processed by the computer before presenting it in a timely manner. The function of SCADA is recording and logging all events in a file that is stored in a hard disk or sending them to a printer. If conditions become hazardous, SCADA sounds warning alarm.⁷⁹

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Service lateral: A sewer connecting a building or house to the mainline sewer.

Single-family dwelling (SFD) unit equivalent: A unit of measure equal to 210 gallons per day, used to estimate the amount of wastewater generated by a single-family residence.

Specific Capacity: The specific capacity of a water well depends on hydraulic characteristics of the aquifer and on the construction of the well. Specific capacity is determined by dividing the wells production by the drawdown that occurs during pumping. Higher specific capacities in wells tend to be indicative of higher aquifer production.⁸⁰

Specific Yield: The specific yield for a water well is the percent of space in the ground that will drain by gravity when the water table drops. Specific yield is reported as a percent. Higher specific yields tend to be indicative of higher aquifer production. An example of a good specific yield is 7 percent, which is a typical average specific yield of aquifers in the Sacramento Valley.⁸¹

Sphere of Influence (SOI): The probable physical boundaries and service area of a local agency, as determined by the Local Agency Formation Commission (LAFCO) of the county.

Surcharge: A condition occurring in sewers when flows exceeding the sewer's capacity are imposed on the system, causing the hydraulic grade line to rise above the sewer crown.

⁷⁹ <http://www.scadaworld.net/>, July 3, 2009.

⁸⁰ Lake County Watershed Protection District, "Lake County Groundwater Management Plan", March 31, 2006, P. 2-4.

⁸¹ Lake County Watershed Protection District, "Lake County Groundwater Management Plan", March 31, 2006, P.2-4.

System Analysis Model: A computer program used to model a sanitary sewer system for various flow conditions.

Total Dissolved Solids (TDS): A quantitative measure of the residual minerals dissolved in water that remains after evaporation of a solution. Usually expressed in milligrams per liter. Abbreviation: TDS.⁸²

Transmissivity: Transmissivity is a term used to define the ability of an aquifer to convey or transport water, similar to the capacity of a pipeline. Transmissivity is related to hydraulic conductivity and saturated thickness of an aquifer or groundwater basin. Hydraulic conductivity is that rate at which groundwater moves through the aquifer. More porous aquifers, such as sand and gravel aquifers, have high hydraulic conductivities. The saturated thickness is the total depth of groundwater in an aquifer or basin. The term transmissivity combines both these terms so it is a good overall indication of the capacity of a groundwater basin to produce water. Higher transmissivity values tend to be indicative of higher aquifer production. An example of a good transmissivity is 100,000 gallons per day per foot (gpd/ft), which is the average transmissivity of a productive aquifer in the Sacramento Valley.⁸³

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Urban: Of, relating to, characteristic of, or constituting a city. Urban areas are generally characterized by moderate and higher density residential development (i.e., three or more dwelling units per acre), commercial development, and industrial development, and the availability of public services required for that development, specifically central water and sewer service, an extensive road network, public transit, and other such services (e.g., safety and emergency response). Development not providing such services may be “non-urban” or “rural”. CEQA defines “urbanized area” as an area that has a population density of at least 1,000 persons per square mile (Public Resources Code Section 21080.14(b)).

Urban Services: Utilities (such as water, gas, electricity, and sewer) and public services (such as police, fire protection, schools, parks, and recreation) provided to an urbanized or urbanizing area.

Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

Water Quality: Used to describe the chemical, physical, and biological characteristics of water, usually in regard to its suitability for a particular purpose or use.⁸⁴

Water Year: A water year is a continuous 12-month period for which hydrologic records are compiled and summarized. In California, it begins on October 1 and ends September 30 of the following year.⁸⁵

Zoning: The division of a city by legislative regulations into areas, or zones, that specify allowable uses for real property and size restrictions for buildings within these areas; a program that implements policies of the general plan.

⁸² <http://rubicon.water.ca.gov/v1cwp/glssry.html>

⁸³ Lake County Watershed Protection District, “Lake County Groundwater Management Plan”, March 31, 2006, P. 2-4.

⁸⁴ <http://rubicon.water.ca.gov/v1cwp/glssry.html>

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