LOCAL AGENCY FORMATION COMMISSION OF LAKE COUNTY

(LAKE LAFCO)

Adopted September 16, 2009

COBB AREA COUNTY WATER DISTRICT MUNICIPAL SERVICE REVIEW

RESOLUTION 2009-08

LAKE LAFCO MSR COBB AREA COUNTY WATER DISTRICT

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Sphere of Influence Map for the Cobb Area Water District

1 INTRODUCTION

This Municipal Service Review is prepared for the Cobb Area County Water District in Lake County providing domestic water service. The Municipal Service Review (MSR) includes the following information:

- LAFCO requirements for MSRs
- Lake County and Cobb Area background
- Description of water service provided by Cobb Area CWD
- Analysis of Cobb Area CWD's capability to serve existing and future residents in the area

1.1 <u>LAFCO's Responsibilities</u>

Local Agency Formation Commissions are quasi-legislative local agencies created in 1963 to assist the State in encouraging the orderly development and formation of local agencies. The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code §56000 et seq.) is the statutory authority for the preparation of an MSR, and periodic updates of the Sphere of Influence of each local agency.

The Governor's Office of Planning and Research has issued Guidelines for the preparation of an MSR. This MSR adheres to the procedures set forth in the OPR's MSR Guidelines and Lake LAFCO's "Local Procedural Guidelines for Municipal Service Reviews" (January 2008).

A Sphere of Influence is a plan for the probable physical boundaries and service area of a local agency, as determined by the affected Local Agency Formation Commission (Government Code §56076). Unlike a Municipal Service Review, which is a study of the provision of a given service, a Sphere of Influence update and (or) amendment may be subject to the requirements of the California Environmental Quality Act.

Government Code §56425(f) requires that each Sphere of Influence be updated not less than every five years, and §56430 provides that a Municipal Service Review shall be conducted in advance of the Sphere of Influence update.

1.2 <u>Municipal Service Review</u> Requirements

The Cortese-Knox Act commencing with Government Code Section 56000, as amended by AB1744 call for a review of the municipal services provided in the county or other appropriate area designated by the LAFCO. The LAFCO is required, as part of the MSR, to prepare a written statement of findings of its determinations with respect to each of the following: (2)

- 1. Growth and Population
- 2. Capacity and Infrastructure
- 3. Financial Ability
- 4. Shared Facilities
- 5. Government Structure and Accountability

1.3 <u>Lake LAFCO Policies and</u> <u>Procedures Related to</u> <u>Municipal Services</u>

The Lake LAFCO adopted policies and procedures related to municipal services on March 20, 2002. There were amended by action of the Lake LAFCO on July 16, 2003 and November 28, 2007.

1.4 Preparation of the MSR

Research for this Municipal Service Review (MSR) was conducted from 2006 through spring 2008. This MSR includes the information available as of the date of LAFCO approval.

This MSR is intended to support preparation and update of Spheres of Influence, in accordance with the provisions of the Cortese-Knox-Hertzberg Act. The objective of this Municipal Service Review (MSR) is to develop recommendations that will promote more efficient and higher quality service patterns; identify areas for service improvement; and assess the adequacy of service provision as it relates to determination of appropriate sphere boundaries.

While LAFCO prepared the MSR document, LAFCO did not engage the services of experts in engineering, hydrology, law, fire protection and other specialists in related fields, but relied upon reports and Lake County and Cobb Area Water District staff for information, and other local experts, as feasible.

Therefore, this MSR reflects LAFCO's recommendations, based on available information during the research period and provided by Cobb Area County Water District staff to assist in its determinations related to promoting more efficient and higher quality service patterns; identifying areas for service improvement; and assessing the adequacy of service provision for the Cobb Area CWD.

1.5 <u>Description of Public</u> Participation Process

Lake LAFCO is a quasi-legislative body authorized by the California Legislature and delegated powers as stated in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (the Act). The LAFCO proceedings are subject to the provisions of California's open meeting law, the Ralph M. Brown Act (Government Code Sections 54950 et seq.)

The Brown Act requires advance posting of meeting agendas and contains various other provisions designed to ensure that the public has adequate access to information regarding the proceedings of public boards and commissions. Lake LAFCO complies with the requirements of the Brown Act.

The State MSR Guidelines provide that all LAFCOs should encourage and provide multiple public participation opportunities in the municipal service review process. Local MSR policies have been adopted by the Lake LAFCO.

Lake LAFCO has discussed and considered the MSR process in open session, and initially adopted a schedule for completing the various municipal service reviews and sphere of influence updates for Lake County. The initial schedule has been modified on an annual basis as part of LAFCO's annual work program. Each municipal service review will be prepared as a draft, and will be subject to public and agency comment prior to final consideration by the Lake LAFCO.

1.6 <u>California Environmental</u> <u>Quality Act (CEQA)</u>

The Municipal Service Review is a planning study that will be considered by Lake LAFCO in connection with subsequent proceedings regarding the Lake County CSAs and the Spheres of Influence. The Sphere of Influence review or update that will follow has not been approved or adopted by LAFCO.

This MSR is funded in the Lake LAFCO's 2008-2009 Budget. This MSR (along with the SOI update) includes an analysis, to the extent required by Section 15262 of the CEQA Guidelines, of the environmental factors that may be affected by the Municipal Service Review process, but will not include the preparation of an environmental review document.

2 LOCAL GOVERNMENT ISSUES

2.1 <u>Municipal Financial</u> Constraints

Municipal service providers are constrained in their capacity to finance services by their 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 the provision of services. Municipalities must obtain majority voter approval to increase or impose new general taxes and two-thirds voter approval for special taxes. In addition protest proceedings are required to establish or increase a fee, as is the case with domestic water services.

Limitations on property tax rates and increases in taxable property values are financing constraints in that little or no additional property tax is generated for a service district. Property tax revenues are subject to a formulaic allocation and are vulnerable to State budget demands. Agencies formed since the adoption of Proposition 13 in 1978 often lack adequate financing, likewise, is territory annexed to cities and districts. As a result of state raids on local government finances, viability (financial solvency) of local government entities is continuously becoming more precarious in California.

2.1.1 California Local Government Finance Background

The financial ability of cities, districts and counties (local government) to provide services is affected by financial

Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009 constraints. Local Government service providers rely on a variety of revenue sources to fund operating costs as follows:

- Property Taxes
- Benefit Assessments
- Special Taxes
- Proposition 172 Funds
- Other contributions from local government 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:

- It limits the ad valorem property tax rate
- It limits growth of the assessed value of property.
- It requires voter approval of certain local taxes.

Generally, this measure fixes the ad valorem property tax at one percent of the value at most recent sale plus an increase of 2 percent a year. In addition, taxes to repay certain voter approved bonded indebtedness are imposed. In response to the adoption of Proposition 13, the Legislature enacted Assembly Bill 8 (AB 8) in 1979 to establish property tax allocation formulas. These allocation formulas have significantly impacted local government entities who where fiscally prudent prior to the approval of Proposition 13.

B. AB 8

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 (1978).

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

Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009 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. Proposition 98 was part of a "budget deal" whereby the State shifted general purpose revenues for restricted revenues (Prop 172 funds) primarily for law enforcement and criminal justice purposes.

E. Proposition 218

Proposition 218, the right to vote on taxes act, 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. As a result of Proposition 218, Water and wastewater providers are now required to follow a protest proceeding process to raise water and sewer rates.

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. <u>Mello-Roos Community Facilities</u> 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.

G. 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.

2.1.2 Financing Opportunities that Require Voter Approval

Financing opportunities that require voter approval include the following:

- special taxes such as parcel taxes,
- increases in general taxes such as utility taxes,
- · sales and use taxes,
- · business license taxes, and
- 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.

2.1.3 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.

Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009 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.

2.2 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.

actions or threatened future action of the legislative body,...

2.3 <u>Public Participation in</u> 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

3 COBB AREA BACKGROUND

3.1 <u>Location of Cobb Area County</u> Water District

The Cobb Area County Water District is located in Southwestern Lake County, approximately two hours northwest of Sacramento and two hours northeast of San Francisco. The District lies north of Whispering Pines and south of Roundtop Mountain, on State Highway 175 with a service area of 1,160 acres.

The Cobb Area County Water District is named after Cobb Mountain, the highest peak of the Mayacamas Range at 4,722 feet and forms the Lake and Sonoma County's boundary in this area. Around Cobb Mountain numerous hot springs between Mount St. Helena and Mount Hannah can be found. At its foot, the community of Cobb lies in a small valley northwest of Middletown on Highway 175. Much of the Cobb Mountain area is predominantly rural.

3.2 Water Service in the Cobb Area

In addition to the Cobb Area CWD, there are several other water purveyors in the Cobb Mountain Area as follows:

- Cobb Mountain Water Company
- Pine Grove Water System
- Loch Lomond Mutual Water Company
- CSA No. 6 Bonanza Springs
- CSA No. 18 Starview-Cobb

Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009 Adams Springs Water District

Although there are six other water service providers in the area, the Cobb Area CWD has recently become the court ordered receiver of the Pine Grove Water System, and the operator of the Adams Springs Water District and the Loch Lomond Mutual Water Company. Wastewater service in the Cobb area is provided by individual on-site septic systems.

3.3 Cobb Mountain Area Plan

According to the **2008 Lake County General Plan** the Cobb area is described as follows:¹

Cobb is located in a small valley at the foot of Cobb Mountain, northwest of Middletown along State Highway 175 and Bottle Rock Road. The Cobb Mountain Area is a predominantly rural area dominated by pine forest, including Boggs State Forest. Mountain resorts and hot springs exist throughout the area, and there are two golf courses. Geothermal steam fields exist in the Cobb Mountain Planning Area.

This area is comprised of scattered resort developments and several older residential subdivisions. Existing development and land divisions are characterized by very small water systems and on-site sewage disposal systems. Land outside of the existing residential subdivisions is generally highly constrained, and therefore not conducive to subdivision to smaller

http://www.co.lake.ca.us/Assets/CDD/2008+General+Plan+Final+Version/2008+General+Plan+Docs/CH2.pdf

¹Lake County:

residential lots. Revitalization of existing resorts is encouraged in this area.

According to the 2000 census, Cobb had a population of 1,628 people. Commercial services include a grocery store, gas station, post office, and several restaurants. This area is served by both the Kelseyville and Middletown Unified School Districts.

3.4 Cobb Area Population Data

Cobb is a Census Designated Place (CDP). The population was 1,628 at the 2000 US Census. Cobb is located at an elevation of 2,600 feet. According to the United States Census Bureau, the CDP has a total area of 4.9 square miles which is larger than the Cobb Area County Water District.

As of the Census of 2000, there were 456 families residing in the CDP. There were 637 households out of which 32.8% had children under the age of 18 living with them, 58.1% were married couples living together, 8.6% had a female householder with no husband present, and 28.3% were non-families.

Twenty and 9/10% of all households were made up of individuals and 4.6% had someone living alone who was 65 years of age or older. The average household size was 2.56 and the average family size was 2.95.

In the CDP the population was spread out in age as follows:

Under the age of 18	26.7%
18 to 24	5.4%
25 to 44	26.2%

Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009 45 to 64 30.0% 65 years of age or older 11.8%

The median age was 41 years. For every 100 females there were 103.0 males. For every 100 females age 18 and over, there were 101.5 males.

The median income for a household in the CDP was \$53,182, and the median income for a family was \$65,938. Males had a median income of \$60,473 versus \$28,125 for females. The per capita income for the CDP was \$22,779. About 8.2% of families and 14.3% of the population were below the poverty line, including 21.8% of those under age 18 and none of those aged 65 or over.

Cobb Mountain was a popular recreation area in the 1960s and 70s. It is currently home to a handful of spirituality based retreat centers, including The Mountain of Attention Meditation sanctuary of Adidam and Harbin Hot Springs.²

In 2009, the Cobb Area County Water District reported 683 water service connections to the community of Cobb and the surrounding area.³ As of 2000, the population served by the District was approximately 1,628.⁴

²http://en.wikipedia.org/wiki/Cobb,_California

Cobb Area County Water District, Robert Stark, Manager, cawd@hughes.net, March 24, 2009.

⁴ Lake County General Plan 2008, page 2-11, http://www.co.lake.ca.us/Assets/CDD/2008+General+Plan+ Final+Version/2008+General+Plan+Docs/CH2.pdf

4 COBB AREA COUNTY WATER DISTRICT

4.1 <u>History of Cobb Area County</u> Water District

The Cobb Area County Water District was formed on October 1, 1991 (Resolution 91-224), under California Water Code Section 30000 et seq. Currently the Cobb Area CWD serves approximately 1,160 acres.

From 1953 to 1992 the Cobb Area County Water District was the Cobb Mutual Water Co. After formation of the Cobb Area County Water District, all assets and liabilities of the defunct Cobb Mutual Water Co. were taken by the newly formed District. Contracts for Operation and Maintenance of the Adam Springs Water District and the Loch Lomond Mutual Water Co. were included in this agreement.

Both of these entities had needs that were not being fulfilled with part-time staff and volunteers. The Cobb Area CWD has filled those needs and has benefited from the additional revenue generated to staff the full operation of the group.

4.2 <u>Cobb Area County Water</u> District Government

The current government structure of this service provider is a special district organized under the principal act County Water District Law, California Code §30000 et seq. The District provides water service within an isolated system and within a geographically distinct area. Consumer Confidence and DHS

Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009 reports indicate that the District has been shown to meet water quality standards and has adequate infrastructure.

A five-member Board of Directors governs the District and its staff. Local accountability is attributed to open and publicized meetings, regular elections, and locally available staff.

Directors are elected at-large by residents of the District to four-year terms. The Board of Directors meets on the 2nd Wednesday of each month at the District office, located at 16595 Highway175, Cobb, CA 95426.

The District complies with the Brown Act. The current makeup of the Board of Directors is as follows:⁵

President - Ralph Gerner P.O. Box 669, Cobb, CA 95426

Vice President - Renada Breeden P.O. Box 899, Cobb, Ca 95426

Director Ralph Gibson P.O. Box 145, Cobb, CA 95426

Director Robert Trautwein P.O. Box 852 Cobb, CA 95426

Director Kees Winkelman P.O. Box 946, Cobb. CA 95426

Robert Stark is the General Manager with the following contact information: Cobb Area CWD
P.O. Box 284, Cobb, CA 95426

⁵ Cobb Area CWD, Robert Stark, <u>cawd@hughes.net</u>, March 20, 1009.

Phone (707) 928-5262. E-Mail: cawd@hughes.net,

4.3 <u>Water Supply, Treatment and</u> Distribution Overview

In Lake County, the critical season for water supply occurs in the late summer because demand is higher at this time due to the increased tourist population and supply is lower until the winter rainy season starts again.

Lake County Code 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.⁶

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

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

regulation.7

other essentials.

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.⁸

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

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

 NSF International, "Feasibility of an Economically Sustainable Point-of-Use/Point-of-Entry Decentralized Public Water System Final Report", March 2005, p18. nsf.org/business/.../pdf/GrimesFinalReport_Dec05.pdf
 Brelje & Race Consulting Civil Engineers, "Preliminary Engineering Report Bonanza Springs Water System CSA #7 Lake County Special Districts", December 2006, page 8.

⁶ Brelje & Race Consulting Civil Engineers, "Preliminary Engineering Report Bonanza Springs Water System CSA #7 Lake County Special Districts", December 2006, page 6. Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009

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. 10

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).¹¹

4.4 Cobb Area CWD Water Source

4.4.1 Cobb Mountain Area Background

The Cobb Mountain Area's surface water resources are controlled by appropriative and riparian water rights. Diversion of surface waters for use other than on adjacent riparian lands must secure an appropriative permit from the State Water Resources Control Board.

Appropriated surface water permits have not been used on a widespread or large-scale basis in the area. As a result, most water used for domestic, commercial and agricultural water supply is groundwater.

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 ⁹ Brelje & Race Consulting Civil Engineers, "Preliminary Engineering Report Bonanza Springs Water System CSA #7 Lake County Special Districts", December 2006, p. 10.
 ¹⁰ Brelje & Race Consulting Civil Engineers, "Preliminary Engineering Report Bonanza Springs Water System CSA #7 Lake County Special Districts", December 2006, p. 11
 ¹¹ Mark Dellinger, Special Districts Administrator, 230A Main Street, Lakeport, CA 95453, Ph: (707) 263-0119 F: (707) 263-3826, October 22, 2008.
 Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009

4.4.2 Cobb Area CWD

Lake County has twelve groundwater basins and one groundwater source area. The Cobb Area CWD is located within the Clear Lake Pleistocene Volcanic Groundwater Management Plan Area.

A. Clear Lake Volcanics Location

The Clear Lake Volcanics Groundwater Source Area (GSA) is south of Clear Lake. The Clear Lake Volcanics share a boundary with the Big Valley Groundwater Basin to the west. The Franciscan Formation bounds the south and east of the area.¹²

The Clear Lake Volcanics Groundwater Source Area supplies water for the following water agencies:¹³

- 1. Adams Springs Water District
- 2. ACWD
- 3. B.1. Mutual Water Company
- 4. Clearwater Mutual Water Company
- 5. Cobb Area County Water District
- 6. Cobb Mountain Water Company
- 7. CSA No. 7 Bonanza Springs
- 8. CSA No. 18 Starview (Cobb)
- 9. CSA No. 20 Soda Bay
- 10. CSA No. 22 Mt. Hannah
- 11. Hidden Valley Lake CSD (part)
- 12. Jago Bay Mutual Water Company
- 13. Loch Lomond Mutual Water Co.
- 14. Mt. Konocti Mutual Water Company
- 15. Pine Grove Water System

¹² Lake County Watershed Protection District, "Lake County Groundwater Management Plan", March 31, 2006, P 2-40.

¹³ Lake County Watershed Protection District, "Lake County Groundwater Management Plan", March 31, 2006, P 1-4 and 1-5.

Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009 16. Riviera West Mutual Water Co.

 Sunrise Shore Mutual Water Company

This area has 667 wells as follows:

Domestic	537
Irrigation	59
Municipal	11
Monitoring	8
Other	52 ¹⁴

Approximately 50 percent of domestic wells are less than 200 feet deep and 50 percent of irrigation wells are less than 325 feet deep. 15

B. <u>Clear Lake Volcanics Water-</u> Bearing Formations

According to the "Lake County Groundwater Management Plan"

The Clear Lake Volcanics (GSA) consist of basalt, andesite, and other volcanic rocks in a complex sequence. The Clear Lake Volcanics are heavily faulted and fractured, and are over 4,000 feet thick near Mount Konocti. A well drilled near the intersection of Red Hills Road and State Highway 29 revealed that the formation was 1,600 feet think at that location.

Groundwater in the Clear Lake Volcanics (GSA) occurs primarily in the fractures, joints, and within weathered zones that formed in

 ¹⁴ Lake County Watershed Protection District, "Lake County Groundwater Management Plan", March 31, 2006, P 3-5.
 ¹⁵ Lake County Watershed Protection District, "Lake County Groundwater Management Plan", March 31, 2006, P 2-41.

between volcanic eruptions. The amount of groundwater available to a well in the formation is highly dependent on the size, openness, frequency, and interconnection of fractures and joints encountered in the well. ¹⁶

C. Clear Lake Volcanics (GSA) Groundwater Hydrogeology

According to the "Lake County Groundwater Management Plan"

Overall, the hydrogeologic properties in the Clear Lake Volcanics (GSA) vary widely between different locations in the area, and are not well defined. In some areas, pump tests have been performed to determine aquifer properties. Pump tests determine an aquifer's characteristics at a particular well location.

Pump tests typically reveal

- 1) specific capacity and
- 2) transmissivity.

Specific capacity is a calculated number based on the pumping rate in gallons divided by a measurement of the difference of static and pumping levels in the well. Higher specific capacities indicate a productive well, and low specific capacities indicate an unproductive well.

Transmissivity is the capacity of an aquifer to transmit water. A higher transmissivity indicates the aquifer is able to transmit more water.

A pumping test performed on a well east of Soda Bay Road in the Clear Lake Volcanics revealed a specific capacity of 43 gpm/foot, and a transmissivity ranging between 20,000 and 86,000 gpd/foot.

Other pump tests performed near the intersection of Red Hills Road and State Highway 29 indicated specific capacities of 1.25, 47.6 and 18.7 gpm/foot, and pumping rates of 555 gpm, 150 gpm and 670 gpm. Average-year agricultural groundwater demand in the Clear Lake Volcanics basin is approximately 2,271 acre-feet per year. 17

D. <u>Clear Lake Volcanics (GSA)</u> Groundwater Quality

According to the "Lake County Groundwater Management Plan", "Information obtained from DHS indicates that iron, aluminum and manganese have been detected above SWQLs (secondary water quality thresholds) in the Clear Lake Volcanics."¹⁸

¹⁷Lake County Watershed Protection District, "Lake County Groundwater Management Plan", March 31, 2006, P 2-40.
¹⁸ Lake County Watershed Protection District, "Lake County Groundwater Management Plan", March 31, 2006, P 2-40.

¹⁶ Lake County Watershed Protection District, "Lake County Groundwater Management Plan", March 31, 2006, P 2-40. Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009

4.5 <u>Cobb Area County Water</u> <u>District Water Supply</u>

The Cobb CWD provides commercial and domestic water from a total of three wells and two groundwater spring sources currently in production.

According to the District,

Our overall capacity ranges from **726,200 GPD to 907,200 GPD** including Well 3.

Without Well #3 as we are currently running our capacity ranges from 596,200 to 727,200 GPD.¹⁹

Annual delivery of water to customers in 2008 was 58,494,000 gallons.²⁰ August is the peak month for water use with 15,110,000 gallons consumed in 2008 or 258,233 gpd for the month.²¹ This is a lower rate of water use for August when compared to previous years because water conservation has become important.

Location and additional well and spring information is presented below and in Appendix B at the end of this report.

¹⁹ Cobb Area CWD, Robert Stark, <u>cawd@hughes.net</u>, April 8, 2009.

²⁰Cobb Area CWD, Robert Stark, <u>cawd@hughes.net</u>, April 8,

^{2009.}Cobb Area CWD, Robert Stark, <u>cawd@hughes.net</u>, April 8, 2009.

4.5.1 Wells #1 and #3

According to the Cobb Area CWD,

Well #1 flows between 175 to 250 gallons per minute(250,000 to 360,000 **GPD)**, and is considered our primary water source.

Well #3 flows at 90 to 125 gallons per minute (130,000 to 180,000 GPD) blends with Well #1 after treatment for iron, manganese, and SO4 removal. It alone can supply the system, but is considered secondary due to the lower flow rate. Currently Well #3 is off line due to needed maintenance on its filtration system.²²

Both wells are located in the northwestern corner of the District and blend together to serve Pine Summit 2. 3, 5, and 6, and the Pine View Heights subdivisions.

Well #1 uses a 20 HP 250-gpm pump, while Well #3 uses a 5 HP 125-gpm pump.

4.5.2 Well #2

According to the Cobb Area County Water District,

Well #2 flows at 75 to 125 gallons per minute (108,000 to 180,000 GPD), and is not tied into the main distribution system, and is used to supply between one and two subdivisions depending

upon the time of year and the flow rates 23

This well is located at the entrance to Boggs State Demonstration Forest and serves Pine Ridge Estates and Pine Summit subdivisions 1 and 4. Well #2 has been completely reconditioned within the last three years. Well #2 uses a 5 HP 125-gpm pump.

4.5.3 Schwartz Spring

Schwartz Spring is located in the southwestern corner of the District and serves the "downtown" area, Cobb Valley and Cobb Estates subdivisions. According to the Cobb Area CWD,

Schwartz Spring flows at 135 to 225 Gallons per minute (195,000 to 324,000 GPD), It supplies a limited area, and is the primary backup for the Boggs Spring service area. Schwartz Spring is also committed to supply the Rob Roy Golf Course for irrigation water from May to September (=/-), which can consume as much as one million gallons per week.²⁴

Schwartz Spring is proposed by the developer as the source of water for a new development, Pine Grove Resort and Spa.25

4.5.4 Boggs Spring

²²Cobb Area CWD, Robert Stark, cawd@hughes.net, April 8,

²³Cobb Area CWD, Robert Stark, <u>cawd@hughes.net</u>, April 8,

<sup>2009.
24</sup> Cobb Area CWD, Robert Stark, cawd@hughes.net, April 8,

²⁵ Charlton International Consulting, "Potable Water Supply Analysis Pine Grove resort & Spa", (Prepared for Christopher Layton and the Pine Grove Resort) October 15, 2008.

Boggs Spring is located in the most southeastern corner of the District and serves the golf course and Cobb View Heights subdivision. According to the Cobb Area CWD,

Boggs Spring flows at 30 gallons per minute (43,200 GPD), and serves as limited area, and in some months may need to be supplemented from another source. The flow rate has not changed in 25-years regardless of rainfall.²⁶

4.5.5 Water Summary

Lakeconews.com reported on the Lake County water supply for 2009 as follows:²⁷

For February, the normal rate of water production for the Cobb Area County Water District is 220 gallons a minute, said Robert Stark, Manager. This year, it's at 125 gallons a minute.

The District also keeps statistics for the state Department of Water Resources on rainfall, said Stark. The average rainfall for this time of year should be 40 inches, not the 21 inches it recently measured. The average annual rainfall for Cobb is 65 inches, but for the past two years they've been in the 40-inch range, he said.

Stark said if the district can get 40 inches of rain in a season they should be able to get through the year with no major problems.

Cobb has had water meters since 1987. Stark said that first year of metering, water consumption in the district dropped from 79 million gallons to 59 million gallons. Since then, they haven't reached the 60-million gallon mark again, despite having 300 more customers.

4.6 Water Treatment and Testing

The Cobb Area CWD performs bacteriological testing twice monthly at five separate sites throughout the District for a total of 120 tests per year. Additional raw water sampling is performed during the winter months for the Boggs Spring and Schwartz Spring sources.

All source water for the District is treated with chlorine to ensure disinfection of any bacteria. In addition, due to the fact that Well #3 does not meet secondary standards for iron and manganese, all water produced from this well is treated with ozone gas and filtered through a sand and anthracite (carbon) filter. After the treatment is employed and the water conforms to water quality standards, it is introduced into the distribution system.

²⁶ Cobb Area CWD, Robert Stark, <u>cawd@hughes.net</u>, April 8, 2009.

http://lakeconews.com/content/view/7407/764/, March 23, 2009.

4.7 Cobb Area County Water District Water Storage

The District uses nine storage tanks for a total of 830,000 gallons of total water storage as shown in the table below. This exceeds the DHS suggested storage standards.

Details of the specific tanks are as follows:

Tank Name	Tank Type	Capacity MG	Year Installed	Date of Last Inspection	Date of Last Cleaning	Date re- coated
Boggs	Elevated	0.2	2004	2006	2006	New Tank
Schwartz	Elevated	0.2	Unknown	1991	1991	1989
Forestry	Elevated	0.1	Unknown	1990	1990	Pre-1984
Horizontal	Elevated	0.025	Unknown	1995	1995	1989
Emerford	Elevated	0.0175	Unknown	2000	2000	1987
Lassen #1	Elevated	0.1	1985	2001	2001	Original
Lassen #2	Elevated	0.1	1986	2002	2002	Original
Lassen Pressure (x10)	Hydro- pneumatic	0.00140	1994	2006	N/A	Sealed
Block	Combination Ground & Elevated	0.086	Unknown	2005	2005	1987

The California Department of Public Health suggests a storage requirement based on the following formula: (22)

(Avg Day Demand)

- + 1/4(Peak Day Demand)
- +2,000 gpm fire flow for 2 hours
- = required storage

Using this formula, the District has a storage need as follows:

136,986 + 1/4(274,193) + 240,000 = 445,534 gallons needed storage

With 828,500 gallons of usable storage,²⁸ the District has more than enough water storage to comply with California DHS suggested requirements. In the event of a prolonged power outage, at 2008 peak usage (258,233 gpd)²⁹ the District would have approximately three days of water available for consumption.

²⁸ Cobb Area CWD, Robert Stark, <u>cawd@hughes.net</u>, April 8, 2009.

<sup>2009.
&</sup>lt;sup>29</sup> Cobb Area CWD, Robert Stark, <u>cawd@hughes.net</u>, April 8, 2009.

4.8 <u>Cobb Area County Water</u> <u>District Water Distribution</u> Infrastructure

The Cobb Area CWD uses water mains ranging in size from two- to six-inches, with laterals ranging from one- to two-inches. The District has an open distribution system with some backyard mains for a total of 12.5 miles of distribution piping. All newly installed piping is Class 150 to C-900 PVC. Some existing infrastructure is AC and steel piping.

The District has four booster pumps on the distribution system to accommodate the varied geography found in the area. These pumps include the following:

- Emerford Lift Station (25 HP, 225 gpm)
- Emerford Lift Station backup (15 HP, 150 gpm)
- Lassen Pressure Station (7.5 HP, 160 gpm)
- Big Fur Transfer Station (10 HP, 125 gpm)

Mains and laterals along the system are repaired as needed, and maintenance along the system lines occurs on a rotational basis.

4.9 Water for Fire Protection

4.9.1 Cobb Area County Water District Fire Flows

The area's declared fire season occurs from July 1 through October 15 following a normal rainfall year. The subregion has been historically subject to numerous wildland fires, among them the +9,000 acre Widow Creek burn of 1961. The potential for large and dangerous wildland fires in the area is considered high.

The California Department of Public Health (DPH) suggests a commercial district fire flow of 2,000 gpm for two hours which should be obtained by using 2 dry barrel hydrants that are on separate small mains, or on the same large main. Lake County desires 750 gpm in urban residential areas and 500 gpm in rural residential areas.

The District fire flows meet Lake County standards of 750 gpm for urban residential and 500 gpm for rural residential, though are slightly deficient when compared to the 2,000 gpm commercial fire flow recommended by DPH.

Since the Cobb Mountain Area is unincorporated, much of the area does not have infrastructure associated with fire prevention services. The Cobb Area CWD has set up hydrants within its boundaries to meet Lake County standards with fire flows ranging from 500 gpm to 1,200 gpm.

The District uses 78 wharf head and dry barrel hydrants spaced between 650 to

1000 feet apart. The District has a satisfactory ISO rating of 6 (1 is the best, 10 is the worst).

4.9.2 Cobb Area Fire Protection Districts

Below is an overview of the fire protection agencies in the Cobb Mountain Area:

The South Lake County Fire Protection District (FPD), the Kelseyville FPD, and the California Department of Forestry and Fire Protection (CALFIRE) provide fire and rescue services to the Cobb Mountain Area. The South Lake County FPD provides protection to a majority of the Cobb Mountain planning area, including Cobb Valley, Hobergs and Loch Lomond.

The northern portions of the planning area are served by the Kelseyville FPD. The entire planning area is classified as a State Responsibility Area (SRA) by CALFIRE. CALFIRE assumes primary wildland fire fighting responsibilities during the annual fire season and also responds to structural fires at that time.

The South Lake County FPD has four fire stations as follows:

- Cobb
- Loch Lomond
- Middletown
- Hidden Valley Lake

The District provides structural fire protection and wildland protection along with CALFIRE. District response time in the Cobb Valley area is up to five minutes from the time volunteers arrive at the Cobb station.

Response in the Loch Lomond area is of similar duration. The District's Cobb and Loch Lomond stations are both manned by volunteers. An ambulance service is also provided by the South Lake County FPD.

The Kelseyville FPD also responds to both structural and wildland fires within its jurisdiction. The District's stations in Kelseyville and Clearlake Riviera serve the northern portions of the Cobb Mountain Area. Both stations are manned, and the response time to the Wildcat Road area ranges from approximately six to eight minutes. The district also provides ambulance service.

Local CDF stations include the following two stations:

- Kelseyville-Cobb CDF
- Middletown CDF

A firefighting helicopter is stationed on Boggs Mountain by the state. CDF also provides air tanker attack to assist in fire suppression efforts during the declared fire season. CDF's station response time to Loch Lomond and Cobb Valley is approximately 10 minutes, and to the Hobergs area approximately 15 minutes.

More remote portions of the Cobb Mountain area receive considerably longer responses from both CDF and the South Lake County FPD. CDF responses automatically involve a minimum of 5 to 6 engine crews, a helicopter and one or two dozers, unless other statewide priorities cause need for the equipment elsewhere.

4.10 Projected Future Demand on the Cobb Area CWD System

The Cobb Area CWD is a district that provides domestic water provider located in southwestern Lake County, and includes the unincorporated communities of Cobb, Loch Lomond, and Hobergs (Whispering Pines is south of the District and Sphere of Influence boundary).

The District reported a total of 1000 existing service connections, serving a population of 2,500.³⁰ However this is a summary of all the water services managed by the Cobb Area County Water District. The Cobb Area County Water District has 686 connections. The District has an emergency tie-in to the Adams Springs Water District, as a backup water source (Adams Springs is a "State Water District").

The Pine Grove Water System (assigned under Court Ordered Receivership by the Department of Public Health) has 91 connections including one resort complex with 80 sites. The Cobb Area CWD also manages two additional districts with 270 connections. A large resort served by the Pine Grove Water System is currently applying for water from the District, as part of an expansion. A portion of the Pine Grove Water system, operates under receivership from the State of California and already receives Cobb Area Water District Water, due to reliability issues. The owners of the resort have been advised by the district that they will need to be annexed prior to receiving water. All of these connections would serve about 2500

people but the Cobb Area County Water District actually serves about 1700 residents at this time.³¹ The District has adequate source capacity to serve its existing customers under maximum day demands.

Between 2001 and 2006 the District experienced an average of 4 to 5 new connections per year (24 total connections added from 2001 to 2006). More recently there has been an increased connection rate, with the District averaging 21 new connections per year for the period between 2003 and 2007 (84 new connections added).

One of the main ideas for obtaining the water needed for new development is to use reclaimed wastewater (instead of potable water) for landscape and golf course irrigation. The Cobb Area Water District should work closely with the Lake County Special Districts Administration, the Lake County Department of Water Resources, the South Lake County FPD, and the State regulatory agencies on these projects.

4.11 Planned Improvements

The latest rate schedule was made available January 1, 2009 (See Appendix A at the end of this report). The District charges a bi-monthly water charge of \$63.60, which includes 2,000 gallons with a provision to increase the rate incrementally if usage per connection increases. The District charges a bi-monthly commercial rate of \$74.55, with the same provision to

³⁰ "Pine Grove Resort Wastewater Management Plan" Feb. 2009, Allied Engineers, Inc. 2303 Camino Ramon, Ste 290, San Ramon, Ca 94583, 925-867-4646, p 2. Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009

³¹ Cobb Area County Water District, Robert Stark, Manager, cawd@hughes.net, March 24, 2009.

incrementally increase the rate according to overall usage.³²

Rates developed for the District are based on the COLA Index for SSI and are generally consistent with the average water rate charges throughout Lake County. No other changes are scheduled for the District's water rates.

4.12 Projected Costs and Funding

As reported in FY 2004-05 Financial Statements, the District's income fluctuated between 2004 and 2005 with an overall revenue increase, while nearly every operating expense (except water purchases, contract services, supplies, maintenance and repairs and taxes, licenses and permits) increased.

The District's Operating Expenses for this period increased by \$32,057, while Revenues increased by \$35,555. During Fiscal Year 2004-2005 the District generated \$374,045 in income, and expended \$389,518 yielding a deficit of \$15,473.

In 2008, the District spent beyond its income in order to install a new water main, and rebuild its primary well. The district typically saves up and spends down. In 2008, the district had to install a water main ahead of schedule, since the County of Lake was set to reconstruct the roads in the area. This event put the district ahead of its original installation date by about 5-years.

In the 2009 current year, the district's operating expenses and revenues balance.

Cobb Area CWD Rates and Charges 2009.
 Cobb County Water District
 Lake LAFCO Resolution 2009-08
 Municipal Service Review
 Adopted September 16, 2009

The following Budget and Expense Tables show that the 2008 Budget was also projected to end with a deficit:

COBB DIRECT INCOME

	2007	PROJECTED 2008	PROPOSED 2009
ASSESSMENT	46,372	49,000	49,000
BULK WATER	4,350	535	500
HOOKUP FEES	33,500	16,500	10,000
INTEREST	33	40	50
LATE CHARGES	4,090	5,300	5,000
SERVICE CHARGES	1,683	1,800	1,800
STANDBY FEES	6,090	6,900	6,900
TAX ROLL ACCOUNT	1,531	2,000	2,000
WATER	275,375	295,000	325,000
SUB-TOTAL	373,024	377,075	400,250

COBB SECONDARY INCOME

LABOR	64,770	65,000	65,000
MATERIALS	280		500
TOTAL	438,074	442,075	465,750
COUNTY GRANT		80,000	
LOAN		80,000	
TOTAL INCOME		602,075	
TOTAL EXPENSES		630,256	
DIFFERENCE		-28,181	

COBB OVERALL EXPENSES

COBB OVERALL EXPENSES	-		
		PROJECTED	PROPOSED
	2007	2008	2009
BANK CHARGES		100	100
CAPITAL PROJECTS			
ESTATES	1250	195,000	5,000
SCHWARTZ SPRING	56,262	56,262	56,262
COMPUTER	5,055	700	1,500
CONTRACTORS	1,435	750	1,500
DIRECTORS	4,900	5,500	5,500
EQUIPMENT REPAIR	7,515	1,500	10,000
FEES & PERMITS		994	1,000
FUEL	6,965	11,500	9,000
INSURANCE, ALL	65,540	65,000	70,000
LOAN, TRUCK			8,650
LOAN, ESTATES			7,620
MATERIALS	15,205	4,250	12,000
MEETINGS, DUES	805	1,500	1,200
MISC (NO LONGER)	1,055		
OFFICE PHONE	1,420	1,600	1,600
OFFICE POWER	1,520	1,600	2,000
OFFICE SUPPLIES	3,190	4,725	4,000
OPERATIONS	2,035	3,250	3,500
OPS PHONE	2,620	2,750	2,750
OPS POWER	16,810	16,200	16,250
PAYROLL	177,800	222,000	210,000
POSTAGE	2,210	3,000	3,000
LEGAL/ACCOUNTING	1,030	2,360	2,000
PURCHASED WATER	4,765	3,250	3,250
RENT	7,995	8,230	8,300
RETURNED CHECKS	985	545	1,000
TESTING	7,040	10,850	9,500
TOOLS & EQUIPMENT	4,864	3,140	3,500
TRAVEL, ALL	495	700	700
TREATMENT	3,555	3,000	4,000
TOTAL	404,321	630,256	464,682

TOTAL	404,321	630,256	464,682

4.13 Adjacent Water Districts

In addition to the operation of the Cobb Area CWD, the District also operates the Adam Springs Water District and the Loch Lomond Mutual Water Co.

The Cobb Area CWD uses two charge formats as follows:

- 1) Adams Springs Water District pays a flat fee with an annual COLA for basic operations, maintenance, financial, and managerial services. Issues outside that scope are paid at an hourly rate.
- 2) The Loch Lomond Mutual Water Co. pays on an hourly basis for all services. Hourly charges are based on employee wages, plus a formulated overhead charge, based on the Cobb Area County Water District's previous years expenses plus the commensurate COLA increased received by employees.

5 COBB AREA COUNTY WATER DISTRICT MUNICIPAL SERVICE REVIEW

Lake 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:

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

The Final Municipal Service Review Guidelines (2003) prepared by the Governor's Office of Planning and Research recommend issues relevant to the jurisdiction be addressed through written determinations called for in the Cortese-Knox Hertzberg Act.

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

5.1 <u>Growth and Population</u> <u>Projections for the Cobb Area</u>

Purpose:

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

5.1.1 Cobb Area Population Projections

The District manages a total of 1000 connections as of 2009.³³ This includes the 683 connections for the Cobb Area County Water District and the other connections managed by the District.³⁴

The proposed Pine Grove Resort and Spa would create a large demand for water service if the project is approved and annexed to the Cobb Area County Water District. This would require a separate Environmental Review Study and application to Lake LAFCO for a Sphere of Influence Amendment and Annexation.

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

1-1) The Cobb Area County Water District has 683 water service

³³ "Pine Grove Resort Wastewater Management Plan" Feb. 2009, Allied Engineers, Inc. 2303 Camino Ramon, Ste 290, San Ramon, Ca 94583, 925-867-4646, p 2.

³⁴ Cobb Area County Water District, Robert Stark, Manager, cawd@hughes.net, March 24, 2009.

- connections.35 The district manages about 1000 connections.
- 1-2) The District has adequate capacity to serve existing residents at this time.
- 1-3) The District has limited capacity to serve future growth.
- 1-4) Approval of new projects which will require water service should be based on extensive engineering and hydraulic studies to assure that existing customers will not be adversely impacted.
- 1-5) With a maximum pumping and spring source capacity totaling 907,200 gpd,³⁶ the District has adequate water source supply until maximum pumping capacity is reached (August usage rates currently average about 258,233 gpd for the month).

- 1-6) The District should work together with the Lake County Community Development Department, Special District's Administration. Water Resources and the South Lake Co. FPD to do the following:
- understand the zoning and a) general plan designations for the area
- b) develop specific population and building projections
- c) coordinate studies and response to development proposals
- 1-7) The District should establish requirements for future annexations.
- 1-8) Prior to any new annexations and Sphere of Influence amendments being approved by LAFCO, the district shall complete a Master Plan to address long-term capacity issues.

³⁵ Cobb Area County Water District, Robert Stark, Manager, cawd@hughes.net, March 24, 2009.
 Cobb Area CWD, Robert Stark, cawd@hughes.net, April 8,

^{2009.}

5.2 <u>Capacity and Infrastructure for</u> <u>Cobb Area County Water</u> <u>District</u>

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 its boundaries and later in the Sphere of Influence.

It is important that such determinations of infrastructure availability occur when revisions to the Sphere of Influence and annexations occur.

5.2.1 Cobb Area County Water District Infrastructure Background

The Cobb Area CWD water supply (907,200 gpd pumping capacity³⁷) and associated pumping facilities are considered adequate.

The District has adequate water storage (828,500 gallons³⁸) meeting DHS suggested storage requirements.

The District's distribution piping (mains and laterals) appears to be adequate, although older sections of the system need repairs on a near monthly basis.

The District uses a portable 80 KW backup generator to supply emergency power to pumping facilities in the case of an outage. This is especially important given the rural nature of the District and the possibility of prolonged power outages where the District is without the ability to refill its storage tanks.

Bacteriological testing is performed regularly by the Cobb Area CWD as required by State and Federal Regulations.

The District does not have a current Master Plan for its water system.

³⁷Cobb Area CWD, Robert Stark, <u>cawd@hughes.net</u>, April 8, 2009

³⁸ Cobb Area CWD, Robert Stark, <u>cawd@hughes.net</u>, April 8, 2009.

- 5.2.2 MSR Determinations on Infrastructure for the Cobb Area County Water District
- 2-1) Prior to any new annexations and (or) sphere of influence amendments, the District shall develop a Master Plan to show the existing capacity and how the water service infrastructure will be upgraded in the future.
- 2-2) The District should develop a Capital Improvement Plan for maintaining and improving the infrastructure as part of a district the Master Plan.
- 2-3) The District does not have additional capacity to provide for more domestic customers since the fire flows are considered inadequate by DPH standards.
- 2-4) A rate schedule was established in 2009 that charges more for higher water use.
- 2-5) The District does not have a valve maintenance program, and should consider implementing such a program to avoid future problems. The valve maintenance program should be included in a district master plan.
- 2-6) The District has not prepared an Emergency Disinfection Plan.
 The Plan should include what actions will be taken in the event of a disinfection failure.

5.3 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 rates for public water service.

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.

5.3.1 Financial Considerations for the Cobb Area County Water District

A. Cobb Area CWD Budget

For 2008 the Cobb Area CWD projected the following:

TOTAL INCOME \$602,075 TOTAL EXPENSES \$630,256 DIFFERENCE -\$28,181

Clearly this type of deficit cannot continue indefinitely.

B. Cobb Area CWD Costs

The Cobb Area CWD uses a variety of cost avoidance measures in both its planning and operations. The District minimizes outsourcing of work through staff training and use of research, thus reducing costs.

Suppliers undergo a competitive bid process every two years, to ensure that the District is receiving supplies at the lowest available cost.

The District works with engineering firms bidding on improvement projects to provide initial design plans, thus reducing initial cost of planning improvements.

Insurance is provided through the California Rural Water Association's group pool, thus reducing costs of insurance provision.

The Cobb Area CWD budget is also designed to screen out unnecessary costs. A base budget is submitted to the District Board for review and

Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009 approval. The Board of Directors makes changes as necessary.
Overall, the Cobb Area County Water District takes advantage of every cost avoidance method available to them.

C. Cobb Area CWD Water Rates

The latest rate schedule was made available January 1, 2009 (See Appendix A at the end of this report). The District charges a bi-monthly water charge of \$63.60, which includes 2,000 gallons with a provision to increase the rate incrementally if usage per connection increases. The District charges a bi-monthly commercial rate of \$74.55, with the same provision to incrementally increase the rate according to overall usage.³⁹

Rates developed for the District are based on the COLA Index for SSI and are generally consistent with the average water rate charges throughout Lake County, and are considered reasonable. No other changes are scheduled for the District's water rates.

Charges associated with the operation and maintenance of the Adam Springs Water District and the Loch Lomond Mutual Water Co. are based on two charge formats: Adams Springs Water District pays a flat fee with an annual COLA for basic operations, maintenance, financial, and managerial services. Issues outside that scope are paid at an hourly rate.

The Loch Lomond Mutual Water Co. pays on an hourly basis for all services. Hourly charges are based on employee

³⁹ Cobb Area CWD Rates and Charges 2009.

wages, plus a formulated overhead charge, based on the Cobb Area Water Districts previous years expenses plus the commensurate COLA increased received by employees.

All new standard connections are charged a flat rate of \$5,000 with special connection needs determined individually. 40

Rates developed for this District are generally consistent with the average water rate charges in Lake County, and the rates are considered reasonable.

The 2008-2009 Grand Jury report identified several financial and procedural opportunities for improvement in financial reporting, internal controls, and physical security and made findings in its report with respect to these issues. The Grand Jury provided a list of recommendations to the district. The Grand Jury's review is attached as Appendix "C".

The Cobb Area Water District provided LAFCO with a response to both the findings and recommendations to the 2008-2009 Grand Jury Report. The District's response is attached as Appendix "D"

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⁴⁰ Cobb Area CWD Rates and Charges 2009. Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review

5.3.2 MSR Determinations on Financing for the Cobb Area County Water District

- 3-1) The District should exhaust all possible funding sources, including AB 1905 Funds, State Water System grants, rate increases or possibly loans from the State of California to ensure maintenance and operation of the Cobb Area CWD is adequate to ensure service provision.
- 3-2) To ensure that future funding will cover expenses, the district should adopt a capital Improvements plan and program.
- 3-3) The Cobb Area CWD has prepared a Purchasing Policy including a competitive bid requirement.
- 3-4) The District's budgeting process provides a forum for cutting unnecessary costs and placing resources where most needed.
- 3-5) The existing rate structure is considered reasonable and appropriate.
- 3-6) The contracts for Operation and Maintenance of the Adam Springs Water District and the Loch Lomond Mutual Water Co. appear to be cost-effective and designed to be beneficial to the Cobb Area CWD and both the Adam Springs Water District and Loch Lomond Mutual Water Co.

- 3-7) Rates and fees for services are established using the provisions of State Law. Public outreach is performed and hearings are held.
- 3-8) The District's policies provide that any annexation to the District shall be cost neutral to the existing residents.
- 3-9) The District could help stabilize future rates by investing in maintenance and upgrades.
- 3-10) The District maintains acceptable accounting practices.
- 3-12) The District should plan for the future and have a program of gradually increasing fees to cover increasing costs.
- 3-13) The District should prepare a Capital Improvement Plan to be prepared for future capital expenditures.
- 3-14) The District should become familiar with Community Facilities Districts and Mello-Roos Bonds as a means for new development to pay infrastructure costs.
- 3-15) LAFCO recommends preparation of a Cost of Services Study to ensure that the fees charged bear a reasonable nexus to the cost of providing that service. This report should provide a comprehensive analysis of the services provided by the District and actual costs of those services to the residents.

5.4 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.

5.4.1 Cobb Area CWD Facilities

The Cobb Area CWD operates a municipal water system consisting of three well sources and two spring sources, distribution lines, booster pumps and water storage tanks. Recent developments in the area have led the Cobb Area CWD to become the receiver of the Pine Grove Water System. Annexation of this area is being considered by the District, and it has been communicated that one of the subdivisions recently tied into the Cobb Area CWD to increase reliability.

The Cobb Area CWD provides operation and maintenance services to the Adam Springs Water District and the Loch Lomond Mutual Water Co, and is the court-ordered receiver of the Pine Grove Water System. All four service entities

Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009 have benefited from this development as quality of service and efficiency of the systems has increased, and the Cobb Area CWD has generated additional revenue.

Sharing of management and administrative resources are inherent in this relationship, and serve to reduce costs and improve coordination among the various providers.

There are several areas within the Districts immediate area that do not receive adequate water service at present, which could feasibly be served by the Cobb Area CWD. The Gordon Springs, Whispering Pines, Pine Grove, and Alpine Meadows subdivisions currently operate under individual private water systems that may not provide consistent, high quality water.

In addition, due to the close proximity to the Cobb Area CWD, it is entirely possible for these areas to be served by the Cobb Area CWD. Given existing conditions, the annexation of these areas into the Cobb Area CWD should be considered as well.

In addition, there are two County
Service Areas nearby which could also
be feasibly served by the Cobb Area
CWD. Revision of boundaries to realize
this service efficiency should also be
considered.

5.4.2 MSR Determinations on Shared Facilities for Cobb Area County Water District

- 4-1) Changes in government structure are harder to justify in small rural communities such as the Cobb area.
- 4-2) Exploration and consideration of a reorganization should be considered to allow potential efficiencies to be realized if consolidation is found to be feasible.
- 4-3) It may be desirable to permit the Cobb Area County Water District to takeover all of the smaller water companies and to provide a central service.
- 4-4) A larger sphere of influence for the Cobb Area CWD would simplify the consolidation process, but should be considered only after a proposal for annexation has been submitted.
- 4-5) Consolidation of the Cobb Area County Water District and the Adams Springs Water District should be considered.
- 4-6) A consolidation of close districts providing the same service could reveal potential improvements in budgeting, accounting, and operations.

4-7) There are two CSA's in the immediate vicinity that offer water service that could be feasibly served by the Cobb CWD.

Service provision to these areas by the Cobb CWD should be explored.

5.5 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.
- 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.

Lake 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.

5.5.1 Cobb Area CWD Government Structure

The District serves municipal water with approximately 683 customers. The District employs one full-time General Manager and depending on need, between 4 and 6 staff members. Staff members hold all licenses and

⁴¹ Cobb Area CWD, Robert Stark, cawd@hughes.net, March 24, 2009 Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review Adopted September 16, 2009 certificates required to operate a water system of this size and nature.

The District operates under the direction of a Board of Directors, with a General Manager to oversee planning and operations of the District. The District operates efficiently and effectively, and has financial and administrative practices and policies in place to ensure service provision. However, the district should complete a Master Plan including a capital improvement plan to better estimate costs and projected revenue.

The Cobb Area CWD employs a District manager and necessary staffing to ensure both managerial duties as well as fieldwork for operation of the water system is adequate. Given the nature of the system and overall workload, this appears to be the best possible management structure.

A five-member Board of Directors governs the Cobb Area CWD and its staff. The District Board meets at 6:00 PM on the second Wednesday of each month at the District Office, located at 16595 Highway 175, Cobb, CA.

Local accountability is attributed to open and publicized meetings (agendas are posted at the Post Office and at the District Office), regular elections, and locally available staff. Directors are elected at-large by residents of the District to four-year terms.

The Cobb Area CWD provides good quality water to customers within District boundaries, with good service levels maintained throughout its system. The District currently provides operations

and maintenance service to adjacent service providers (Adam Springs Water District, Loch Lomond Mutual Water Company). Although LAFCO has no authority over the Mutual Water Company, consolidation of the Adam Springs and Cobb Area CWD should be considered in order to realize potential improvements in budgeting, accounting, operations, and economies of scale.

The Cobb Area CWD has indicated that there is no service deficiency associated with the takeover of water provision in either of these areas. Thus, consideration of the expansion of Cobb Area CWD to include the properties within the CSA (as well as elimination of CSA provision of water service in these areas) should be investigated in further detail.

Setting a larger Sphere of Influence would set the stage for annexation of properties within the sphere. The areas that could be included within the sphere are presently served by a number of private water companies, which suffer similar financial problems.

Consolidation of the various entities mentioned above should ultimately be considered, especially in light of any dramatic population changes or shifts in local interests. However, there is little interest for this consolidation in the near future.

5.5.2 MSR Determinations on Local Accountability and Governance for the Cobb Area County Water District

- 5-1) The Cobb Area County Water District will provide water service for the 1,160 acres of land within its district boundaries and these services will meet customer expectations.
- 5-2) There are a number of areas in the immediate proximity of the Cobb Area CWD that are served by private water systems that could potentially be served water by the Cobb Area CWD. Such a structural change could potentially offer more consistent, higher quality provision of water service than individual water systems.
- 5-3) The District complies with necessary regulations and has regularly scheduled meetings whereby the public is invited.
- 5-4) The District has maintained relationships with the local media and is available to the ratepayers and the public. For increased public outreach and interaction, an online website would be beneficial.
- 5-5) The District adopts budgets (in October and November of each year) and rate changes at hearing where the public is notified and invited.

- 5-5) The Cobb Area CWD has made reasonable efforts to maintain public dialogue regarding land use and development projects in the Cobb area by coordinating with local land use agencies such as the Lake County Planning and Building Departments.
- 5-6) When building permits are considered for construction within District boundaries the County should include the District in its development review process.
- 5-7) Development of a Capital Improvements program would also be useful when assessing need for repairs, upgrades and additional infrastructure.
- 5-8) The District appears to have an efficient management structure, responsive to legal, administrative, and operational issues that arise in the provision of water service.
- 5-9) There are no alternative management structures which offer significant improvement over the current structure, and no recommendations are made related to changes in management structure and operations.

ABBREVIATIONS

AB Assembly Bill

AC Asbestos-Cement (pipe material)

ADWF Average Dry Weather Flows

AFY Acre-Feet per Year

AWWA American Water Works Association

AWWF Average Wet Weather Flows

BSSP Bacteriological Sample Siting Plan

CALFIRE California Department of Forestry and Fire Protection

CDP Census Designated Place

CEQA California Environmental Quality Act

CFD Community Facilities District

CIP Capital Improvement Plan

CKH Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000

COLA Cost-of-Living Adjustment

CSA County Service Area

CSD Community Services District

CRWQCB California Regional Water Quality Control Board

CWC California Water Code

CWD County Water District

DHS Department of Health Services (California)

District Cobb Area County Water District

DWR Department of Water Resources (California)

EDU Equivalent Dwelling Units

EMS Emergency Medical Service

EMT Emergency Medical Technician

ERAF Educational Revenue Augmentation Fund (California)

FPD Fire Protection District

FY Fiscal Year

gpd/GPD gallons per day

gpm gallons per minute

HSA Hydrologic Subarea

I&I Inflow and Infiltration

LAFCO Local Agency Formation Commission

MCL maximum contaminant level

mgd million gallons per day

MSR Municipal Service Review (LAFCO)

MTBE methyl tertiary-butyl ether

psi pounds per square inch

pvc poly-vinyl chloride

SCADA Supervisory Control and Data Acquisition

SDWA Safe Drinking Water Act

SOI Sphere of Influence (LAFCO)

SRA State Responsibility Area (fire protection)

SSI Social Security Insurance

SWQLs secondary water quality thresholds

TDS total dissolved solids

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, (2) as a cone or fan at the base of a mountain slope; esp., such a deposit of fine-grained texture (silt or silty clay) deposited during time of flood.⁴²

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.

Average dry-weather flow (ADWF): The 30-day rolling average wastewater flow from May through October.

Average wet-weather flow (AWWF): The 30-day rolling average wastewater flow from November through April.

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.

Capital Improvements Program (CIP): A program established by the City and reviewed by the Planning Commission, which schedules permanent improvements, usually for a minimum of five years in the future, to fit the projected fiscal capability of the City. The Program generally is reviewed annually, for conformance to and consistency with the General Plan.

Clay: The finest-grain particles in a sediment, soil, or rock. Clay is finer than silt, characterized by a grain size of less than approximately 4 micrometers. However, the term clay can also refer to a rock or a deposit containing a large component of clay-size material. Thus clay can be composed of any inorganic materials, such as clay minerals, allophane, quartz, feldspar, zeolites, and iron hydroxides, that possess a sufficiently fine grain size. Most clays, however, are composed primarily of clay minerals. Although the composition of clays can vary, clays can share several properties that result from their fine particle size. These properties include

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⁴² http://www.maden.hacettepe.edu.tr/dmmrt/index.html
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plasticity when wet, the ability to form colloidal suspensions when dispersed in water, and the tendency to flocculate (clump together) and settle out in saline water.⁴³

Coagulation: A process using coagulant chemicals and mixing by which colloidal and suspended materials are destabilized and agglomerated into flocs.

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.

Conventional Filtration Treatment: A series of processes including coagulation, flocculation, sedimentation, and filtration resulting in substantial particulate removal.

Cretaceous: Applied to the third and final period of the Mesozoic Era. Extensive marine chalk beds were deposited during this period.⁴⁴

Disinfectant: A chemical (commonly chlorine, chloramine, or ozone) or physical process (e.g., ultraviolet light) that kills microorganisms such as bacteria, viruses, and protozoa.

Disinfection: A process which inactivates pathogenic organisms in water by chemical oxidants or equivalent agents.

Distribution System: A network of pipes leading from a treatment plant to customers' plumbing systems.

Domestic Water Use: Water used for household purposes, such as drinking, food preparation, bathing, washing clothes, dishes, and dogs, flushing toilets, and watering lawns and gardens. About 85% of domestic water is delivered to homes by a public-supply facility, such as a county water department. About 15% of the Nation's population supplies their own water, mainly from wells.⁴⁵

Environmental Impact Report (EIR): A report required pursuant to the California Environmental Quality Act that assesses all the environmental characteristics of an area, determines what effects or impact will result if the area is altered or disturbed by a proposed action, and identifies alternatives or other measures to avoid or reduce those impacts. (See California Environmental Quality Act.)

Filtration: A process by which solids are filtered out of liquids, a stage in water treatment, a process for removing particulate matter from water by passage through porous media.

Finished Water: Water that has been treated and is ready to be delivered to customers.

⁴³ http://www.answers.com/topic/clay

http://www.webref.org/geology/c/cretaceous.htm

⁴⁵ http://ga.water.usgs.gov/edu/dictionary.html

Flocculation: A process where a solute comes out of solution in the form of floc or "flakes." The term is also used to refer to the process by which fine particulates are caused to clump together into floc. The floc may then float to the top of the liquid, settle to the bottom of the liquid, or can be readily filtered from the liquid.

Formation: A laterally continuous rock unit with a distinctive set of characteristics that make it possible to recognize and map from one outcrop or well to another. The basic rock unit of stratigraphy. 46

Franciscan Complex: Jurassic to Early Cretaceous rocks, characteristic of the Pacific coastal ranges of California, composed primarily of sandstones, cherts, serpentinites, and glaucophane schists. The Franciscan should not be visualized as a formation or sequence with ordinary physical, spatial, and temporal coherence, but rather as a disorderly assemblage of various characteristic rocks that have undergone unsystematic disturbance; a melange. The formation includes deep-water sediments and mafic marine volcanic material, locally accompanied by masses of serpentinite.47

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

Groundwater Basin: A groundwater reservoir, defined by an overlying land surface and the underlying aguifers that contain water stored in the reservoir. In some cases, the boundaries of successively deeper aquifers may differ and make it difficult to define the limits of the basin.⁴⁸

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.⁴⁹

Human consumption: the ingestion or absorption of water or water vapor as the result of drinking, cooking, dishwashing, hand washing, bathing, showering or oral hygiene.

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⁴⁶ http://geology.com/dictionary/glossary-f.shtml

⁴⁷ http://www.webref.org/geology/f/franciscan complex.htm

⁴⁸ http://www.rubicon.water.ca.gov/v1cwp/glssry.html

⁴⁹ http://en.wikipedia.org/wiki/Groundwater recharge Cobb County Water District Lake LAFCO Resolution 2009-08 Municipal Service Review

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: The water entering a sewer system and service connections from the ground, through such means as, but not limited to, defective pipes, pipe joints, connections, or manhole walls. Infiltration does not include, and is distinguished from, inflow.

Infiltration and inflow (I&I): The collective term used to describe the extraneous flow in a wastewater collection system from either rainfall-dependent infiltration and inflow or groundwater infiltration.

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. Lake LAFCO has seven members.

Maximum Contaminant Level (MCL): The highest level of a contaminant that EPA allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. EPA sets MCLs at levels that are economically and technologically feasible. Some states set MCLs which are more strict than EPA's.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant at which there would be no risk to human health. This goal is not always economically or technologically feasible, and the goal is not legally enforceable.

Maximum residual disinfectant level (MRDL): the maximum allowable level of disinfectant in public drinking water. Most often, compliance with an MRDL is based on an average of multiple samples.

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. Named after the program's legislative authors.

Monitoring: Testing that water systems must perform to detect and measure contaminants. A water system that does not follow EPA's monitoring methodology or schedule is in violation, and may be subject to legal action.

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

Parshall Flume: A Parshall flume has a special shaped open channel flow section that may be installed in a ditch, canal, or lateral to measure the flow rate. The Parshall flume is a particular form of venturi flume and is named for its principal developer, Ralph L. Parshall (Water Measurement Manual, U.S. Bureau of Reclamation, 1984).

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).⁵⁰

Percolation: The downward movement of water through the soil or alluvium to a ground water table.⁵¹

Piezometer: An instrument for measuring pressure head; usually consisting of a small pipe tapped into the side of a closed or open conduit and flush with the inside; connected with a pressure gage, mercury, water column, or other device for indicating head.⁵²

Pleistocene Epoch: The first epoch of the Quaternary Period, beginning 2 to 3 million years ago and ending approximately 10,000 years ago. ⁵³

Potable Water: Water of a quality suitable for drinking.⁵⁴

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

Public Notification: An advisory that EPA requires a water system to distribute to affected consumers when the system has violated MCLs or other regulations. The notice advises consumers what precautions, if any, they should take to protect their health.

Quaternary: The second period of the Cenozoic era, following the Tertiary; also, the corresponding system of rocks. It began 2 to 3 million years ago and extends to the present. It

⁵⁰ http://rubicon.water.ca.gov/v1cwp/glssry.html

⁵¹ http://rubicon.water.ca.gov/v1cwp/glssry.html

⁵² http://www.webref.org/geology/f/franciscan complex.htm

⁵³ http://www.webref.org/geology/p/pleistocene_epoch.htm

⁵⁴ http://ga.water.usgs.gov/edu/dictionary.html

consists of two grossly unequal epochs; the Pleistocene, up to about 10,000 years ago, and the Holocene since that time.⁵⁵

Secondary Drinking Water Standards: Non-enforceable federal guidelines regarding cosmetic effects (such as tooth or skin discoloration) or aesthetic effects (such as taste, odor, or color) of drinking water.

Sedimentation: A process of settling particles out of a liquid in a treatment plant, a process for removal of solids before filtration by gravity or separation.

Source Water: Water in its natural state, prior to any treatment for drinking.

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. ⁵⁶

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.⁵⁷

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.

Surface Water: Surface Water is the water that systems pump and treat from sources open to the atmosphere, such as rivers, lakes, and reservoirs.

Total Dissolved Solids (TDS): A quantitative measure of the residual minerals dissolved in water that remain after evaporation of a solution. Usually expressed in milligrams per liter. Abbreviation: TDS.⁵⁸

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

⁵⁵ http://www.webref.org/geology/q/quaternary.htm

⁵⁶ Lake County Watershed Protection District, "Lake County Groundwater Management Plan", March 31, 2006, P. 2-4.

⁵⁷ Lake County Watershed Protection District, "Lake County Groundwater Management Plan", March 31, 2006, P.2-4.

⁵⁸ http://rubicon.water.ca.gov/v1cwp/glssry.html

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 aguifer in the Sacramento Valley.⁵⁹

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

Turbidity: The cloudy appearance of water caused by the presence of tiny particles. High levels of turbidity may interfere with proper water treatment and monitoring.

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.

Urban Sprawl: Haphazard growth or outward extension of a city resulting from uncontrolled or poorly managed development.

Violation: A failure to meet any state or federal drinking water regulation.

Volcanic Ash: Sand-sized particles of igneous rock that form when a spray of liquid magma is blown from a volcanic vent by escaping gas.⁶⁰

Vulnerability Assessment: An evaluation of drinking water source quality and its vulnerability to contamination by pathogens and toxic chemicals.

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. ⁶¹

Water year: 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. ⁶²

Watershed: The land area from which water drains into a stream, river, or reservoir.

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⁵⁹ Lake County Watershed Protection District, "Lake County Groundwater Management Plan", March 31, 2006, P. 2-4.

⁶⁰ http://geology.com/dictionary/glossary-v.shtml

⁶¹ http://rubicon.water.ca.gov/v1cwp/glssry.html

⁶² http://rubicon.water.ca.gov/v1cwp/glssry.html Cobb County Water District Lake LAFCO Resolution 2009-08

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.

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PERSONS CONSULTED

Robert Stark, General Manager Cobb Area CWD, cawd@hughes.net, September 2003, March 2007, March, April 2009

PREPARERS

- John Benoit, Executive Officer LAKE LAFCO
 PO Box 2694, Granite Bay CA 95746
 Phone: 916-797-6003 johnbenoit@surewest.net
- Christy Leighton, Planning Consultant
 555 East Willow Street, Willows CA 95988

Phone: 530-934-4597 christyleighton@sbcglobal.net

APPENDIX A



COBB AREA COUNTY WATER DISTRICT

P.O. BOX 284 ---- PHONE (707) 928-5262 ---- FAX (707) 928-5263 ---- E-mail cawd@hughes.net---- 16595 HWY. 175

COBB, CALIFORNIA 95426

1/1/09

RATES AND CHARGES 2009

GENERAL RATE - \$63.60 bi-monthly base rate includes 2,000-gallons \$1.65 per 1,000 gallons 3,000 - 10,000 gallons \$1.90 per 1,000-gallons 11,000 - 15,000 \$2.15 per 1,000-gallons 16,000 – 20,000 \$2.45 per 1,000-gallons 21,000 - 25,000 \$2.70 per 1,000-gallons 26,000 – 30,000 \$3.00 per 1,000-gallons 31,000 = remainder COMMERCIAL RATE - \$74.55 bi-monthly base rate includes 2,000-gallons Gallonage charges are the same as the "General Rate" BULK WATER -----\$8.00 per 1,000 gallons NAME AND/OR ADDRESS CHANGE -----\$5.00 without meter reading \$10.00 with meter reading TRANSFER OF OWNERSHIP ------\$25.00 OTHER CHARGES AND FEES RE-HOOK-UP -----\$150.00 STANDARD CONNECTION/NEW HOOK-UP FEE ------\$5000.00

SPECIAL CONNECTION/NEW HOOK-UP FEE - Determined individually
DISHONORED CHECKS\$25.00
DEPOSITS FOR ACCOUNTS WITH TWO SHUT-OFF NOTICES WITHIN ONE YEAR PERIOD
LATE CHARGE (FOR ACCOUNTS 30-DAYS PAST DUE, AND EXCEEDING \$20.00) \$10.00 PER MONTH



COBB AREA COUNTY WATER DISTRICT



----- PHONE (707) 928-5262 ----- FAX (707) 928-5263 ----- E-mail cawd@hughes.net----- 16595 HWY. 175------

P.O. BOX 284, COBB, CALIFORNIA 95426

4/8/09

The District has five (5) sources of water:

The following two wells blend together, and are capable of transferring water to all District customers.

Well #1 flows between 175 to 250 gallons per minute(250,000 to 360,000 GPD), and is considered our primary water source.

Well #3 flows at 90 to 125 gallons per minute (130,000 to 180,000 GPD) blends with Well #1 after treatment for iron, manganese, and SO4 removal. It alone can supply the system, but is considered secondary due to the lower flow rate. Currently Well #3 is off line due to needed maintenance on its filtration system.

Well #2 flows at 75 to 125 gallons per minute (108,000 to 180,000 GPD), and is not tied into the main distribution system, and is used to supply between one and two subdivisions depending upon the time of year and the flow rates.

Boggs Spring flows at 30 gallons per minute (43,200 GPD), and serves as limited area, and in some months may need to be supplemented from another source. The flow rate has not changed in 25-years regardless of rainfall.

Schwartz Spring flows at 135 to 225 Gallons per minute (195,000 to 324,000 GPD), It supplies a limited area, and is the primary backup for the Boggs Spring service area. Schwartz Spring is also committed to supply the Rob Roy Golf Course for irrigation water from May to September (=/-), which can consume as much as one million gallons per week.

Our overall capacity ranges from **726,200 GPD to 907,200 GPD** including Well 3. Without Well #3 as we are currently running our capacity ranges from **596,200 to 727,200 GPD**.

We have a total storage capacity of **828,500 gallons** in the form of: (2) 200,000-gallon tanks

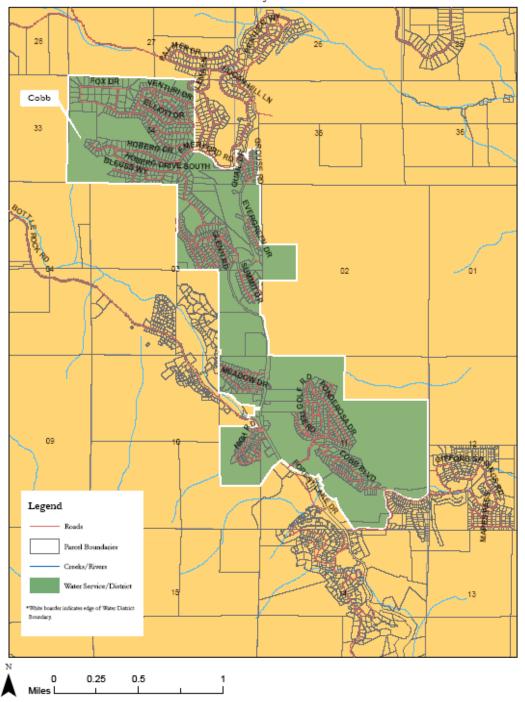
- (3) 100,000-gallon tanks
- (1) 86,000-gallon tank
- (1) 25,000-gallon tank
- (1) 17,500-gallon tank

For the year 2008 the District customers used **58,494,000-gallons**.

The greatest usage was in the July/August billing period and totaled 15,110,000-gallons, which averages to 258,233-GPD.

The only monthly numbers we have are raw production, which of course a greater than customer use.

Lake County, California Cobb Area County Water District



Projected Coordinate System:NAD_1983_StatePlane_California_II_FIPS_0402_Feet