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I. EXECUTIVE SUMMARY

State mandates enacted in 2000 establish requirements for a Local Agency Formation Commission to conduct comprehensive reviews of all municipal services (MSRs) in its County. This MSR serves as the basis for the accompanying sphere of influence determinations and the background information that will be utilized when considering future government reorganizations through the establishment of South Tahoe PUD's sphere of influence (SOI).

This MSR is part of the Commission's adopted schedule for the second cycle of MSR/SOI updates. It is also part of the Fiscal Year 2010-11 Work Plan. Some of this report's key findings are summarized in the table below:

Agency	Agency Population (2010 estimated)	Average Property Tax Increment	Total Revenues FY2012 (all services, not including reserves)	Reserve Revenues FY2012	Total Agency Expenditures FY2012 (all services and capital expenditures)
South Tahoe PUD	29,784	11%	$35.8 million	$45.5 million	$74.8 million

The information contained in this document does not explicitly plan for future services, nor will any action or change in services result directly as a result of LAFCO's adoption of the document. This MSR provides a description of existing services provided by the district and is inherently retrospective, taking a "snapshot" of existing conditions. However, this document will be used as a guide for future decisions by LAFCO in determining the agency's ability to provide services.

The services provided by STPUD are water, wastewater and lighting; however, the District is only a billing mechanism for the latter and is therefore not an active service where the District is expending money or resources to provide. STPUD's boundaries have changed since its formation; however they have remained relatively unchanged in the last two decades. The District has invested heavily into its water and wastewater system in the last decade, with its imminent replacement of its original 1959 wastewater treatment plant and continuous upsizing of waterlines and meter installations. The District has also experienced relative governmental stability in both management and governance board.

For each of the six categories of required determinations, LAFCO staff has prepared recommendations recognizing unique land use and planning conditions, government organization and fiscal circumstances, effects of rapid demographic changes and growth, communities with different and similar service needs, and efforts to enhance service and impediments to doing so.

The service review and LAFCO's adoption of a resolution making determinations are categorically exempt from the California Environmental Quality Act (Class 6, §15306). In undertaking this service review and making determinations, LAFCO also considered its responsibilities under federal and state civil rights and environmental justice laws.

II. BACKGROUND

A. Legislative Framework

In 1997, the State Legislature established the Commission on Local Governance for the 21st Century (CLG). The CLG was tasked with assessing governance issues and making recommendations, directing special attention to the Cortese-Knox Local Government Reorganization Act of 1985, the then-57 Local Agency Formation Commissions governed by the Act and citizen participation in local government. CLG members included a broad spectrum of constituent groups and perspectives including counties, cities, special districts, educators, industry and elected officials.

The CLG concluded that LAFCOs needed more specific background information, before decisions on specific applications were considered, to encourage orderly growth and to provide planned, well-ordered, efficient urban development patterns and to advantageously provide for the present and future needs of each county and its communities. Specifically, the CLG recommended that information on public service capacity and issues be gathered through periodic service reviews. These service reviews would ultimately constitute a statewide body of knowledge that could be used to resolve California's growth-related public service issues. Based on these recommendations, the State Legislature enacted Government Code §56430 as part of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (CKH), which became effective on January 1, 2001.

Section 56430 of the CKH Act, in part and as amended effective January 1, 2012, states as follows:

(a) In order to prepare and to update spheres of influence in accordance with Section 56425, the commission shall conduct a service review of the municipal services provided in the county or other appropriate area designated by the commission. The commission shall include in the area designated for service review the county, the region, the sub-region, or any other geographic area as is appropriate for an analysis of the service or services to be reviewed, and shall prepare a written statement of its determinations with respect to each of the following:

(1) Growth and population projections for the affected area.

(2) The location and characteristics of any disadvantaged unincorporated communities within or contiguous to the sphere of influence.

(3) Present and planned capacity of public facilities, adequacy of public services, and infrastructure needs or deficiencies including needs or deficiencies related to sewers, municipal and industrial water, and structural fire protection in any disadvantaged, unincorporated communities within or contiguous to the sphere of influence.

(4) Financial ability of agencies to provide services.

(5) Status of, and opportunities for, shared facilities.

(6) Accountability for community service needs, including governmental structure and operational efficiencies.

(7) The potential effect of agency services on agricultural and open space lands.

(b) In conducting a service review, the commission shall comprehensively review all of the agencies that provide the identified service or services within the designated geographic area. The commission may assess various alternatives for improving efficiency and affordability of infrastructure and service delivery within and contiguous to the sphere of influence, including, but not limited to, the consolidation of governmental agencies.

(c) In conducting a service review, the commission may include a review of whether the agencies under review, including any public water system as defined in Section 116275, are in compliance with the California Safe Drinking Water Act (Chapter 4 (commencing with Section 116270) of Part 12 of Division 104 of the Health and Safety Code). A public water system may satisfy any request for information as to compliance with that act by submission of the consumer confidence or water quality report prepared by the public water system as provided by Section 116470 of the Health and Safety Code.

(d) The commission may request information, as part of a service review under this section, from identified public or private entities that provide wholesale or retail supply of drinking water, including mutual water companies formed pursuant to Part 7 (commencing with Section 14300) of Division 3 of Title 1 of the Corporations Code, and private utilities, as defined in Section 1502 of the Public Utilities Code.

(e) The commission shall conduct a service review before, or in conjunction with, but no later than the time it is considering an action to establish a sphere of influence in accordance with Section 56425 or 56426.5 or to update a sphere of influence pursuant to Section 56425.

In addition, several sections of CKH empower LAFCOs to obtain information for service reviews:

- Section 56378 authorizes LAFCOs to initiate and make studies of existing governmental agencies. "In conducting those studies, the commission may ask for land use information, studies, and plans of cities, counties, districts, including school districts, community college districts, and regional agencies and state agencies and departments. (Those agencies) shall comply with the request of the commission for that information..."

- Section 56846 states, "Every officer of any affected county, affected city, or affected district shall make available to a reorganization committee any records, reports, maps, data, or other documents which in any way affect or pertain to the committee's study, report, and recommendation and shall confer with the committee concerning the problems and affairs of the county, city, or district."
- Section 56844 authorizes the Commission to undertake a study or report in place of a reorganization committee, thereby transferring those access rights.

B. Relationship Between Spheres of Influence and Service Reviews

The CKH Act requires LAFCOs to develop and determine the sphere of influence (SOI) for each applicable local governmental agency that provides services or facilities related to development. Government Code §56076 defines a SOI as "a plan for the probable physical boundaries and service area of a local agency." Service reviews must be completed prior to the establishment or update of SOIs (§56430(a)). Spheres of influence must be reviewed and updated, as necessary, not less than once every five years (§56425). El Dorado LAFCO's policies already contain the update requirement (Policy 4.2).

The information and determinations contained in a municipal service review are intended to guide and inform SOI decisions. Service reviews enable LAFCO to determine SOI boundaries and to establish the most efficient service provider for areas needing new service. They also function as the basis for other government reorganizations. Section 56430, as noted above, states that LAFCO can conduct these reviews "before, in conjunction with, but no later than the time it is considering an action to establish a SOI."

In addition to the factors in Government Code §§56425 and 56430, the Commission's Policies and Guidelines Section 4.4 require that it make the following determinations prior to establishing a sphere of influence:

(1) The service capacity, level and types of services currently provided by the agency and the areas where these services are provided.

(2) Financial capabilities and costs of service.

(3) Topographic factors and social and economic interdependencies.

(4) Existing and planned land uses, land use plans and policies; consistency with county and city general plans and projected growth in the affected area.

(5) Potential effects on agricultural and open space lands.

(6) A description of the services that will be provided to any areas which may be added to the sphere and the timing and method for funding expansion of facilities or services.

(7) An analysis of the effects a proposed sphere of influence on other agencies and their service capabilities.

C. Service Review Guidelines

The Governor's Office of Planning and Research (OPR) was directed by statute (§56430) to prepare guidelines to assist LAFCOs in complying with the new service review requirements. In that regard, the final *Local Agency Formation Commission Municipal Service Review Guidelines* was released in August 2003. These guidelines were utilized in the preparation of this MSR.

The guidelines identify several possible goals and objectives for municipal service reviews to be achieved through written determinations in the nine required areas. These goals and objectives are as follows:

- Promote orderly growth and development in appropriate areas with consideration of service feasibility, service costs that affect housing affordability and preservation of open space, important agricultural land and finite natural resources.
- Encourage infill development and direct growth to areas planned for growth in general plans.
- Learn about service issues and needs.
- Plan for provision of high quality infrastructure needed to support healthy growth.
- Provide tools to support regional perspectives or planning that address regional, cross-county or statewide issues and processes.
- Develop a structure for dialogue among agencies that provide services.
- Develop a support network for smaller or ill-funded districts that provide valuable services.
- Provide backbone information for service provider directories or inventory reference documents for counties that do not have them.
- Develop strategies to avoid unnecessary costs, eliminate waste and improve public service provision.
- Provide ideas about opportunities to streamline service provision through use of shared facilities, approval of different or modified government structures, joint service agreements, or integrated land use planning and service delivery programs.
- Promote shared resource acquisition, insurance policies, joint funding requests or strategies.

The guidelines emphasize that "LAFCOs may need to modify these recommendations to reflect local conditions, circumstances and types of services that are being reviewed." To that end, El Dorado LAFCO also utilized its own set of policies for service reviews (Policy 5 et seq.), which incorporate the goals and objectives listed above.

D. The 2008 MSRs and Their Immediate Results

In the inaugural cycle of municipal service reviews (2001-2008), studies were conducted based on the type of services provided by an agency, not on the agency itself. Consequently, as part of this initial cycle, South Tahoe PUD appeared in two MSRs. The first was the *Water, Wastewater and Power Municipal Services Review*, adopted by the Commission in January 2008, which reviewed the District's water and wastewater capacity. The *General Government Services I Municipal Services Review*, adopted in February 2008, completed the study of STPUD's water and wastewater services. Both studies led to the affirmation of the District's existing sphere of influence, which was to expand inward to assume the service area of two mutual water companies that currently provide service in the southern portion of the Tahoe Basin.

All of these reports found that STPUD was providing adequate services across the board and that enough revenues were being generated to offset service. Since those reports, the District has experienced a decline in year-round population and some decline in property tax values due to the economic recession. However, that has not stopped the District from implementing various system upgrades and replacements. The District has been aggressive in securing grants to augment its own resources to implement its capital improvement program.

III. AGENCY DESCRIPTION

South Tahoe Public Utilities District

Contact Information

Address: 1275 Meadow Crest Drive, South Lake Tahoe, CA 96150

Phone: (530) 544-6474

Website: www.stpud.us

Management Information

Manager: Richard Solbrig

Governing Body: Board of Directors

Board Members:

Chris Cefalu, Director	Term: 12/2009-12/2013
James R. Jones, Vice-President	Term: 12/2009-12/2013
Randy Vogelgesang, Director	Term: 12/2011-12/2015
Kelly Sheehan, Director	Term: 12/2011-12/2015
Eric Schafer, President	Term: 12/2009-12/2013

Board Meetings: Monthly—First and Third Thursday, 2:00 pm

Staffing: Kathy Sharp, Executive Services Manager/Clerk of the Board
Paul Sciuto, Assistant General Manager
Gary Kvistad, Legal Counsel
Refer to District website for the listing of other staff

Service Information

Empowered Services: Lighting and landscape (billing only), water and wastewater services

Services Provided: Lighting and landscape (billing only), water and wastewater services

Latent Powers: N/A

Area Served: Approximately 27,000 acres or 42.2 square miles

Population Served: Approximately 29,784 residents; 13,524 voters

Major Infrastructure: Water lines, wells, wastewater treatment plant, sewer lines, lift stations, booster stations

Fiscal Information

Budget (per division): $11,651,936 Water Enterprise Fund Expenditures
$7,619,425 Water Capital Outlay Reserve Expenditures
$20,235,990 Wastewater Enterprise Fund Expenditures
$20,098,042 Wastewater Capital Outlay Expenditures

Sources of Funding: User Charges, Water/Sewer billings, Connection fees, Property Tax Receipts

Rate Structure: Flat rate for wastewater depending upon connection; flat water rate for non-metered homes and consumptive rate for metered homes

Background

The South Tahoe Public Utility District (STPUD) was formed in 1950 to provide wastewater services in the southern portion of the Tahoe Basin. At the time, small private companies and water mutuals provided water service. The District's original infrastructure consisted of two redwood septic tanks. In 1960 the District built its wastewater treatment plant, which has since been expanded to a treatment capacity of 7.7 million gallons per day (MGD). STPUD began providing domestic water service in the mid-1970s through the acquisition of the companies and mutuals that could no longer meet regulatory requirements for drinking water. The District's mission is to "Furnish our customers with reliable water and wastewater services, and provide those services safely, efficiently, and cost effectively."

The District serves a diversified mix of inhabitants, from the City of South Lake Tahoe to northern Christmas Valley and to the isolated communities of Fallen Leaf and Cascade Lakes. The major access roads/inhabited corridors are Highways 50 and 89 and Pioneer Trail and North Upper Truckee Road /Lake Tahoe Boulevard (refer to Map 1). STPUD's boundary encompasses approximately 42 square miles (27,000 acres). Its sphere of influence currently contains two service area holes completely surrounded by the District.

The District faces four general challenges in service provision:

- Estimating Customer Base – STPUD personnel must ensure it has sufficient capacity to serve not just the permanent population of the District, but also the large influx of visitors and second homeowners who descend on the Tahoe area during peak season.
- MTBE Contamination – A significant portion of the District's water supply was contaminated by Methyl tertiary-butyl ether (MTBE) leaks from area gas stations in the early to mid-1990s. While the District was ultimately successful in getting a settlement large enough that allowed STPUD to recover water supplies and/rehabilitate some wells, the MTBE contamination caused the District to close and abandon over half of its wells.
- Water Meters – A good portion of the District's customers are not on water meters, making water use difficult to estimate or predict. According to the District's Final Urban Water Management Plan, commercial and new residential accounts are equipped with meters. The District has begun an active program

of installing meters on unmetered residential accounts and, currently, approximately one-third of the customer base is metered.

- Water Infrastructure Replacement – The vast majority of water infrastructure within the District's service area was acquired from small privately held water companies in the early 1970s through mid-1980s. This infrastructure was intended for domestic use only and is inadequate for the flows necessary for firefighting. Beginning in 1993, the District embarked on an intensive water infrastructure replacement program that continues to this day. According to District staff, the Board of Directors has consistently placed this effort at the top of the water system Capital Improvement Plan.

Land Use and Population Forecasts

STPUD serves an area within the southern portion of the Tahoe Basin in El Dorado County. This includes the City of South Lake Tahoe and a number of unincorporated communities such as Montgomery Estates, Tahoe Paradise, Meyers, Angora Highlands, Fallen Leaf Lake, and Christmas Valley. The current estimated population from the 2010 Census is 29,784 residents. Due to growth restrictions imposed by TRPA, future growth will be very limited through 2030, with historic growth rates within the District at 0.4% per year. Nevertheless, existing development will continue to need public water and wastewater services to ensure a reliable source of water supply and to meet stringent regulatory requirements regarding the treatment and disposition of wastewater.

The majority of the District's customers are single family and multifamily residential properties with some commercial uses. A vacant land survey prepared from the El Dorado County Assessor's records in 2002 identified 11,985 acres consisting of 27 parcels within the South Tahoe area. The development of these parcels would be limited to approximately 460 dwelling units due to TRPA regulations. This equates to the development of 92 units per year over a five year period.

The Lake Tahoe Region is known for its exceptional recreational opportunities and tourism is a significant aspect of the region's economy. The area has a significant number of part-time residents and experiences population influxes due to seasonal tourism. Although this non-permanent population is not included in the population estimates, STPUD must factor in the increased demands on the water and wastewater systems during peak tourist season. Visitors to the District's service area, especially during the summer season, can easily double the population numbers.

In addition, there is a significant amount of existing and planned non-residential development that serves the visiting population. In the District's service area, non-residential land uses are primarily concentrated in the City of South Lake Tahoe and City's General Plan serves a good basis for employment projections.

Services Provided

The South Tahoe Public Utility District (STPUD) provides municipal water and wastewater services in the southern portion of the Tahoe Basin. Street lighting services is typically also listed as a provided service; however, as noted below, the District's role is very limited.

Water Services

STPUD relies on local groundwater for its water supply. The District's water infrastructure includes wells with treatment facilities and a storage and distribution system to serve 15 water service zones. According to the District's website, it currently has over 14,000 residential water connections and 660 commercial and government sites. STPUD has 16 active wells. While the District had to shut down a number of wells because of the MTBE contamination 15 years ago, it has recaptured the drafting levels back to pre-MTBE levels. In addition, District staff reports that through a successful conservation program, metering and smaller demand, it has adequate supply because there is a lower water demand.

Other water purveyors within the City's limits are Lukins Brothers and Lakeside Mutual Water Companies, which together serve approximate 1,100 largely non-residential connections, and Tahoe Water Company which serves 1,529 water connections in the largely built-out Tahoe subdivision.

Wastewater Services

The District's wastewater facilities include collection, conveyance, treatment, and discharge to agricultural lands in Alpine County. The District's website indicates 330 miles of sewer lines that it has 42 lift stations and over 17,000 connections. STPUD's Treatment Plant has a capacity to treat 7.7 million gallons daily (MGD – dry weather flows).

Street Lighting

As the 2008 General Government Services I MSR clarified, the District's only role in the area of street lighting services is to serve as a billing mechanism for a small number of special assessment districts that were formed in the early 1960s to provide street lighting in a number of small residential subdivisions. The District has not, and does not now, install or maintain the lighting fixtures or infrastructure. The District also does not bill for power consumption. Since the District does not play an active role in the provision of this service, no further discussion or analysis will be made in this MSR/SOI study to street lighting services.

Infrastructure

Water Services

The District has had as many as 34 wells in the Basin, but has had to reduce the use of its well field because of water quality issues associated with widespread

methyl tertiary butyl ether (MTBE) contamination. Arsenic and uranium levels in some wells have also limited their use. Consequently, the District had to minimize or stop the use of some wells, reducing the number to 16 wells. The District uses 16 booster stations, 21 water tanks and approximately 253 miles of pipe to deliver service from the wells to homes and businesses. According to the 2008 Water, Wastewater and Power MSR, the District's storage capacity is 9.9 million gallons. Within the 2005 Groundwater Management Plan, the District established a safe pumping yield of 9,528 acre-feet per year. The District also has rights to divert water from Cold Creek and Upper Truckee River, but has chosen not to do so.

The District produces and supplies potable water directly to customers. The District does not receive potable water from other water suppliers. Although the District produces recycled water, this water cannot be used within the Lake Tahoe hydrologic basin because of restrictions in the Basin Plan per the Porter-Cologne Water Quality Control Act and as overseen by the Lahontan Regional Water Quality Control Board.

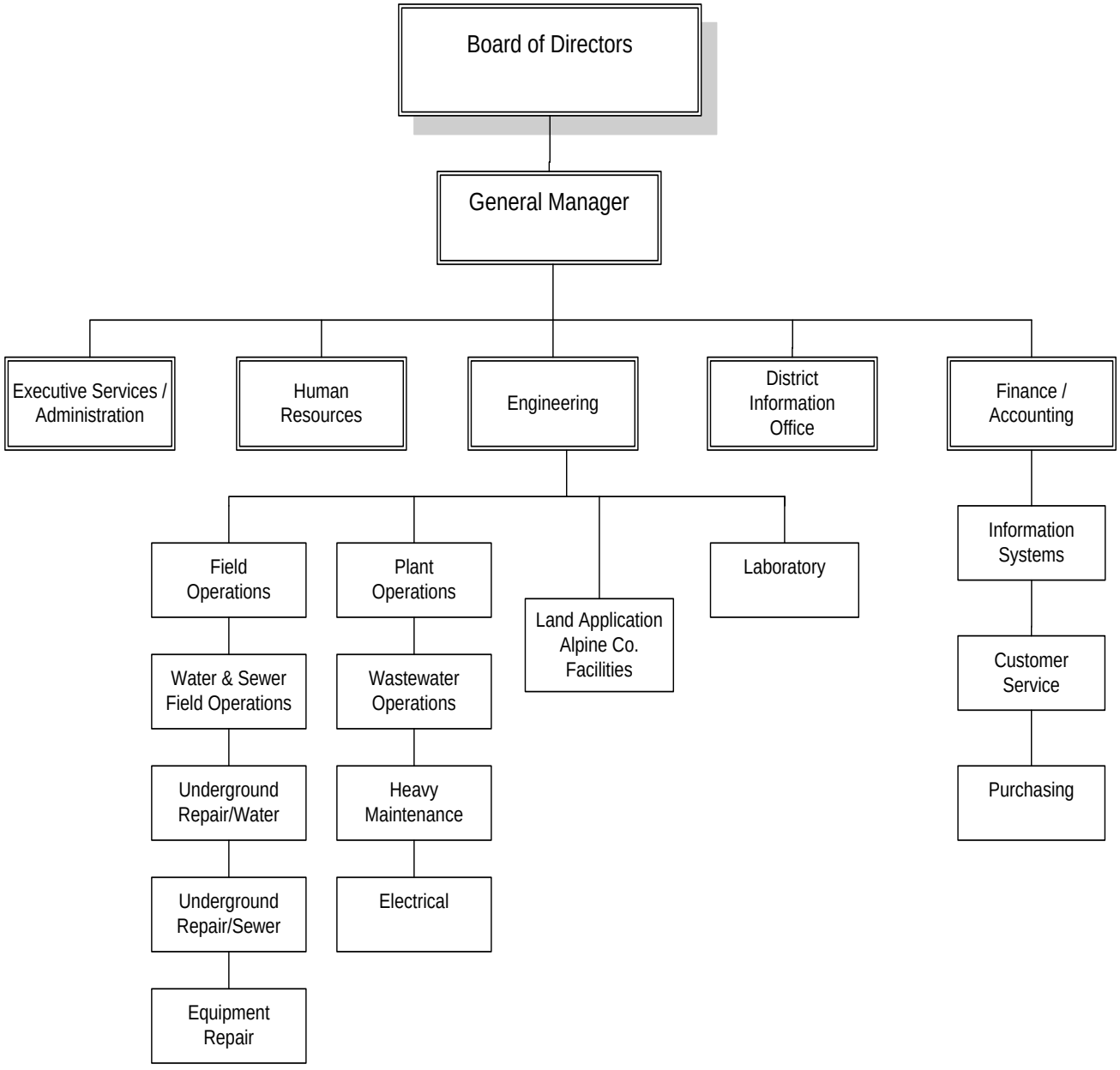
Wastewater Services

At the time of the District's formation, its original mission was to be the Southern Basin's sewer operator. That role has expanded, as well as the District's service capacity. It has a wastewater treatment plant with a capacity to treat 7.7 MGD, with 17,800 connections, 42 lift stations and 314 miles of sewer lines. This is sufficient to handle the average dry daily flow of 4.2 MGD.

Although the District produces recycled water, this water cannot be used within the Lake Tahoe hydrologic basin because of restrictions in the Basin Plan adopted by the Lahontan Regional Water Quality Control Board. Consequently, the District puts its recycled water to beneficial use outside of the Lake Tahoe hydrologic basin. Since 1968, the District has delivered its treated effluent through a 26 mile export system, over Luther Pass (a lift of 1,200 feet), to Alpine County. The recycled water is stored during the winter months in 3,800 acre foot District-owned Harvey Place Reservoir and distributed to six ranches for irrigation purposes in the dry summer months in Alpine County.

Personnel and Staffing

Staffing at the District is comprised of approximately 115 full time-equivalent employees (113 full time and 2 part time). The District's organizational structure has one general manager supported by five divisional directors who oversee various functions. The chart below represents STPUD's organizational structure:


Board of Directors
General Manager
Executive Services / Administration
Human Resources
Engineering
District Information Office
Finance / Accounting
Field Operations
Plant Operations
Land Application Alpine Co. Facilities
Laboratory
Information Systems
Water & Sewer Field Operations
Wastewater Operations
Customer Service
Underground Repair/Water
Heavy Maintenance
Purchasing
Underground Repair/Sewer
Electrical
Equipment Repair

Administration Management and Operations

Board of Directors

STPUD is governed by a five-member Board of Directors elected at large by voters within the District. District elections take place after the first Monday in November of odd-numbered years. The directors' terms are four years and are staggered. Meetings are held on the first and third Thursday of each month at 2:00 pm at the District office. Board members receive a stipend of $400 per month for up to $4,800 a year. Directors are also offered health and dental insurance and CalPERS retirement benefits; however, only two directors are eligible to participate in the District's retirement program.

Board members sit on standing committees for executive, finance, water and wastewater operations and capital improvement program, as well as various ad hoc committees. Meeting agendas, including the time and location of meetings, are posted at the District's administrative building, as well as on the District's website.

In the 2011 election there was some turnover on the Board, with two contested elections. Director Kelly Sheehan defeated an incumbent and Director Randy Vogelgesang beat three other candidates to fill an open seat due to retirement.

Much of the board's attention in 2011 was taken up by the issue of water rates, since only a portion of the District's residential customers are on meters and those customers claim that they are being unfairly charged for their water usage.

Administration—General

STPUD's administrative offices are located at 1275 Meadow Crest Drive in South Lake Tahoe and are open during business hours. The District's website is www.stpud.us.

As noted earlier, the District's personnel is organized into departments based on function. STPUD has had little turnover in the managerial positions. Any turnover at the line staff level has been mostly due to retirements, with only a couple of positions currently left vacant due to budget constraints.

Administration—Financial

The District is financed primarily through user charges, water/sewer billings, connection fees and property taxes. Other revenue streams include inter-government financing, grants, reimbursements and interest income. Available on the web are the District's current financial statement, the most current adopted budget, its Comprehensive Annual Financial Report and its Ten Year Financial Plan. The audit for fiscal year 2010-2011 states that STPUD's records represent a fair reflection of the district's financial position and that its statements are free from identified material weaknesses.

Water

According to the District's FY2010-11 budget, almost half of the funding for water services come from service charges/water rates (at least 49%, though a subsequent chart in the budget had the percentage as high as 67%); however, other sources include capacity fees, interest earnings and grants and loans. The latter two are used on capital and one-time expenses, such as retrofitting homes with meters, water line upsizing or improving fire flow.

Wastewater

According to the District's FY2010-11 budget, funding for wastewater services comes primarily from service charges (32%) and property taxes (22%). Other revenue sources are also used, such as "capacity fees," monies from the Rate Stabilization Fund reserve and interest income. One-time costs and system upgrades can also be financed via grants and loans. The District contracted with the State Water Resources Control Board and the California State Revolving Loan program to receive low interest loans for pond liner replacement, Luther Pass pump generator replacement and the treatment plant headworks project.

Funding and Budget

The discussion in this section is descriptive and amounts cited are approximate, based on information provided to LAFCO or available at the time of this report from other reliable sources. STPUD is funded through a variety of sources, including property taxes, service charges, capacity fees, reserve accounts, grants and loans.

Water

The overwhelming source of revenues for STPUD's water division are service charges, comprising between 52% to 59% of revenues for this service. The District expects a $600,000 increase after three straight years of decline. This is due to an increase in water rates. As it can be seen in the chart below, the recession has impacted all revenue streams, in some cases the impact was significant. With the exception of grant revenue, the District has budgeted a modest rebound in capacity charges.

Table 1: South Tahoe Public Utility District Funding and Budget – Water Enterprise Fund Revenues

Revenues	2008-2009 Actual	2009-2010 Actual	2010-2011 Actual	2011-2012 Estimated	2012-2013 Budgeted
Beginning Cash Balance	$ 1,628,894	$ 1,598,420	$ 1,648,540	$ 1,684,877	$ 1,684,479
Service Charges	7,742,634	7,445,435	7,163,768	7,696,000	7,893,000
Restricted Revenue for Capital	1,448,000	1,448,000	1,448,000	1,448,000	1,448,000
Capacity Charges	586,310	236,686	172,576	803,758	139,000
Interest/Penalty Revenues	607,082	331,161	102,031	91,000	74,000
Grant Revenue	3,941,877	2,991,826	4,376,841	2,956,000	1,494,904
Miscellaneous Revenues	683,584	167,750	166,529	476,000	485,000
Accrual to Cash Adjustments	49,473	47,625	56,553	56,553	56,553
Total Revenues	**$16,687,854**	**$14,266,903**	**$15,134,838**	**$15,212,188**	**$13,238,936**

The District has a capital outlay reserve to fund major projects, such as waterline replacement and upsizing, increasing storage capacity, upgrading and replacement of pumps, developing new wells, and installing water meters to comply with a State mandate. STPUD's water capital reserve balances are as follows:

Table 2: South Tahoe Public Utility District Funding and Budget – Water Capital Outlay Reserves

Reserves	2008-2009 Actual	2009-2010 Actual	2010-2011 Actual	2011-2012 Estimated	2012-2013 Budgeted
Beginning Cash Balance	$ 19,366,619	$ 14,994,784	$ 9,920,794	$ 7,464,756	$ 5,783,854
Revenues	2,028,585	1,681,565	1,659,000	2,098,487	1,587,000
Transfers from Enterprise Fund	1,838,001	1,025,664	8,019,918	3,419,964	7,132,909
Accrual to Cash Adjustments	288,316	3,423,747	-148,800	0	0
Total Reserves	**$ 23,521,521**	**$ 21,125,760**	**$ 19,450,912**	**$12,983,207**	**$14,503,763**

Wastewater

The largest portion of funding for wastewater services comes from service charges (50%) and property taxes (37%). The recession's impact on the wastewater division has been mixed. Some streams have declined, more significantly in the grant amounts. Budgeted property tax revenues are $540,000 lower than in FY2010-2011. According to the Annual Budget Report, the District may tap into the Rate Stabilization Fund reserve to cushion any further property tax declines.

Other revenue streams have increased, though service charges may be more due to rate increases approved by the STPUD Board.

Table 3: South Tahoe Public Utility District Funding and Budget – Wastewater Enterprise Fund Revenues

Revenues	2008-2009 Actual	2009-2010 Actual	2010-2011 Actual	2011-2012 Estimated	2012-2013 Budgeted
Beginning Cash Balance	$ 2,602,064	$ 2,542,002	$ 2,677,267	$ 2,733,188	$ 2,849,521
Service Charges	9,701,278	9,724,307	9,890,044	10,261,732	10,832,732
Property Taxes	7,405,836	7,393,982	6,378,912	6,735,070	6,667,719
Capacity Charges	1,253,434	590,012	645,883	355,000	221,000
Interest/Penalty Revenues	1,380,447	879,671	469,721	239,000	250,000
Grant Revenue	481,835	219,913	2,556,078	0	0
Miscellaneous Revenues	420,497	421,198	-45,894	267,000	272,000
Total Revenues	**$23,245,391**	**$21,771,085**	**$22,572,011**	**$20,590,990**	**$21,092,972**

The District's wastewater capital reserve are used for engineering projects and related expenses. In Fiscal Year 2011-12, funds will be used for treatment plant headworks construction and replacement of retention basin liner. Engineering Department salaries, benefits and operating expenses are included in the cost amounts. The reserve's balances are as follows:

Table 4: South Tahoe Public Utility District Funding and Budget – Wastewater Capital Outlay Reserves

Reserves	2008-2009 Actual	2009-2010 Actual	2010-2011 Actual	2011-2012 Estimated	2012-2013 Budgeted
Beginning Cash Balance	$ 26,735,546	$ 22,912,364	$ 23,135,793	$ 21,237,683	$ 16,773,379
Revenues	1,260,684	596,362	765,296	355,000	221,000
Borrowings	0	0	0	8,352,062	0
Transfers from Enterprise Fund	5,060,849	3,526,678	3,198,718	2,634,970	3,095,846
Accrual to Cash Adjustments	-794,254	1,069,313	2,926,511	7,817	7,817
Total Reserves	**$ 32,262,825**	**$ 28,104,717**	**$ 30,026,318**	**$ 32,587,532**	**$ 20,098,042**

As implied above, the District channels most of its property tax revenues to wastewater. The total assessed value within the District was $5,769,126,285 in FY 2011-2012. STPUD currently receives an average 12.4428% of the property tax revenue within district boundaries.

Other Funds

The District also has two additional reserve funds. The first is an MTBE reserve fund which was funded as a result of a lawsuit brought against oil companies for their use of the chemical MTBE in gasoline which subsequently infiltrated the District's water supply. The funds available in the MTBE fund, however, are completely used to fund capital at the end of FY 2011-2012. The other is the Rate Stabilization Fund, which contains a cash reserve equal to 10% of annual water rate revenue and one year's net property tax receipts. According to the Budget Report, the fund has $6 million for wastewater services. This fund is used as a contingency fund in case actual receipts do not equal projected revenues.

Service Rates

In FY 2010-11, the District contracted a water cost of service analysis to determine a fair and equitable manner to collect sufficient funds to meet the STPUD's overall financial needs in the near future. According to the Water Cost of Service Study, the "cost of service analysis allocates costs between the different customer classes of service based on each customer class's *(sic)* consumption patterns and facility (infrastructure) requirements. The general classification and allocation of costs for the District's study were commodity (average day needs), capacity (peak day needs), customer, and fire protection related. The revenue requirement (O&M and capital expenses) was classified between these components and each class of service was equitably allocated costs based on their proportional share of each component (e.g., average day, peak day, etc.)."

The District serves water to approximately 14,000 homes and businesses. One challenge STPUD faces is that only a third of its residential customers are on metered service. It is an engineering challenge to determine rates that are roughly comparable from one class to another and, therefore, "fair." As a result, STPUD has seven different customer consumption classes for non-metered homes based on housing type for residential and pipe size for businesses. For metered customers, there are nine different consumption classes. These fees were updated May 2011. An example of the various residential rates is shown below; a complete list of current rates can be found in Appendix A:

Table 5: Single Family Residential Water and Wastewater Rates (Quarterly)

Type	2009	2010	2011
Water Charge			
Not metered	$116.97	$119.89	$119.90
Meter (3/4" meter)	$62.03 plus $2.20 per ccf	$63.59 plus $2.26 per ccf	$66.00 plus $2.05 per ccf
Wastewater Charge			
Sewer Charge*	$85.53	$87.24	$89.85

* Example: Typical Single Family Dwelling is 3 Sewer Units (2 toilets, 1 kitchen sink)

Grants

In the past, the District has been very successful in securing grants for major system upgrades, for infrastructure replacement and improvements, for water conservation, and for water meter installment. Since 2002, STPUD was awarded almost $19 million in grants, the bulk of them coming in the last four years. Fiscal Year 2010-2011 was a banner year for STPUD for both the water and wastewater divisions. Combined, the District obtained approximately $6.9 million, which will be used for waterline upsizing, waterline replacement, storage capacity, conservation programs, and improved pumping to increase fire flow capabilities. While the total FY2011-12 grant amount is smaller than the total grants secured in FY2010-11, the $3.2 million is average across the past four fiscal years.

Expenditures

Table 6: South Tahoe Public Utility District Funding and Budget – Water Enterprise Fund Expenditures

Expenditures	2008-2009 Actual	2009-2010 Actual	2010-2011 Actual	2011-2012 Estimated	2012-2013 Budgeted
Salaries and Benefits	$4,448,876	$4,598,993	$4,719,435	$4,660,729	$4,630,025
Salaries/Wages	*2,909,385*	*2,974,620*	*3,075,926*	*2,956,166*	*2,934,275*
*Benefits **	*1,539,491*	*1,624,373*	*1,643,509*	*1,704,563*	*1,695,750*
Operations & Maintenance	2,862,362	2,582,878	2,851,556	2,942,873	3,005,523
Debt Service	313,260	278,289	311,000	274,000	235,000
Capital Outlay Fund Transfer	1,838,001	1,025,664	8,019,918	3,419,964	2,132,909
Operating Reserves	1,598,420	1,648,540	1,684,877	1,648,479	1,648,479
Total Expenditures	**$11,060,919**	**$10,134,364**	**$17,586,786**	**$12,946,045**	**$11,651,936**

* Includes Retirement, Disability, Medicare, Unemployment, Flexible Benefits, Health Insurance & Worker's Compensation

The primary expenditures for STPUD are salaries and benefits, capital outlay and operations and maintenance. Salaries and benefits have remained relatively flat, with the Fiscal Year 2011-12 Budget Report indicating that costs for salaries have been down due to turnover and no cost of living adjustments; although, benefit costs have increased. The significant increase in capital outlay expenditures in FY2010-11 was due to an American Recovery and Reinvestment Act grant that allowed the District to install 2,449 water meters. Water meter installation, waterline replacement and other infrastructure repairs are planned for the current year. According to the District's Ten Year Financing Plan, 71% of the District's water projects are self-funded, 1% grant funded and the remainder financed through loans.

Table 7: South Tahoe Public Utility District Funding and Budget – Water Capital Outlay Reserve Expenditures

Expenditures	2008-2009 Actual	2009-2010 Actual	2010-2011 Actual	2011-2012 Estimated	2012-2013 Budgeted
Salaries and Benefits	$1,043,597	$1,245,754	$1,049,501	$1,001,950	$998,475
Salaries/Wages	*746,215*	*903,608*	*760,501*	*698,400*	*694,375*
*Benefits **	*297,382*	*342,146*	*289,000*	*303,550*	*304,100*
Operations & Maintenance	155,372	142,147	121,750	142,400	110,850
Capital Outlay	6,560,714	9,015,152	9,790,468	5,186,003	4,665,000
Debt Service	767,054	801,913	838,000	869,000	911,000
MTBE Contamination Remediation Reserve	10,527,539	7,355,784	2,257,506	0	0
Rate Stabilization Reserve	0	0	0	914,400	934,100
Total Expenditures	**$19,054,276**	**$18,560,750**	**$14,057,225**	**$9,115,703**	**$7,619,425**

As the name implies, this reserve expends money on large infrastructure construction, repair and replacements. In addition, the Capital Outlay Reserve budget includes a portion of the salaries, benefits and operations expenses for the District's Engineering Department.

Table 8: South Tahoe Public Utility District Funding and Budget – Wastewater Enterprise Fund Expenditures

Expenditures	2008-2009 Actual	2009-2010 Actual	2010-2011 Actual	2011-2012 Estimated	2012-2013 Budgeted
Salaries and Benefits	$7,664,943	$7,763,793	$7,628,838	$7,975,754	$7,956,675
Salaries/Wages	*4,949,254*	*4,995,049*	*4,759,723*	*5,081,791*	*5,071,375*
*Benefits **	*2,715,689*	*2,768,744*	*2,869,115*	*2,893,963*	*2,885,300*
Operations & Maintenance	4,758,390	5,437,919	5,376,648	5,723,745	5,749,197
Debt Service	970,968	931,223	965,887	1,052,000	1,161,000
Capital Outlay Fund Transfer	5,060,849	3,526,678	3,198,718	2,634,970	3,095,846
Operating Reserves	2,542,002	2,677,267	2,733,188	2,849,521	2,909,254
Total Expenditures	**$20,997,152**	**$20,336,880**	**$19,903,279**	**$20,235,990**	**$20,235,990**

With the exception of FY2007-08, salaries and benefits are the largest expenditure items. Of the years shown here, the second largest expenditure alternates between transfers to the capital outlay fund and operations & maintenance. In the case of latter line item, its size can be affected by expenses related to utility costs (electricity, natural gas, etc.); thus, explaining the fluctuations year-over-year.

Finally, expenses related to debt service are charged to this fund. The District has an obligation for the 2004 Revenue Certificates of Participation and bank qualified debt secured in 2007. Both were used for the financing of sewer capital projects.

According the FY2011-12 Budget memo, the first principal and interest payment is due on the loan used to finance the Luther Pass pump station generator. In addition, the District is securing additional financing through the State Water Resources Control Board and other sources, thereby increasing STPUD's annual debt service beginning in FY2012-13. Despite these loans, however, the District's Ten Year Financial Plan states that 72% of the District's large capital projects are self-funded.

Table 9: South Tahoe Public Utility District Funding and Budget – Wastewater Capital Outlay Expenditures

Expenditures	2008-2009 Actual	2009-2010 Actual	2010-2011 Actual	2011-2012 Estimated	2012-2013 Budgeted
Salaries and Benefits	$828,919	$900,338	$1,288,039	$1,001,950	$998,475
Salaries/Wages	*619,389*	*680,739*	*994,174*	*698,400*	*694,375*
*Benefits **	*209,530*	*219,599*	*293,865*	*303,550*	*304,100*
Operations & Maintenance	99,953	72,325	146,946	102,675	132,175
Capital Outlay	7,492,752	3,038,260	6,360,883	13,468,528	3,357,500
Debt Service	928,837	958,001	992,767	1,241,000	1,458,000
Rate Stabilization Fund	6,494,392	6,456,263	5,999,509	5,775,000	5,775,000
Operating Reserves	16,417,972	16,679,530	15,238,174	10,998,379	8,376,892
Total Expenditures	**$32,262,825**	**$28,104,717**	**$30,026,318**	**$32,587,532**	**$20,098,042**

As on the water side, the Capital Outlay budget pays for a portion of the Engineering Department's salaries and benefit expenses. This budget pays for large wastewater infrastructure improvements and replacements. Recent projects include Phase II of the treatment plant headworks project, the Diamond Valley Ranch effluent irrigation improvement project, and the replacement of the emergency retention basin liner.

Cooperative Efforts

South Tahoe PUD partners with the City of Lake Tahoe, the Tahoe Resource Conservation District and 14 other public and non-profit entities to develop the Tahoe Sierra Integrated Regional Water Management Plan (Tahoe Sierra Plan). Adopted by the majority of partners through a Memorandum of Understanding, the Tahoe Sierra Plan integrates a set of coordinated strategies for the management of water resources and for the implementation of projects that protect the Tahoe Sierra communities from drought, protect and improve water quality and improve local water security. Specifically, the goals of this group, known as the Tahoe Sierra Regional Water Management Group are:

- Foster a collaborative water management planning environment;
- Promote integration of water management across geographies of the region;

- Recommend priorities for implementation projects;
- Cooperatively apply for and obtain funding for implementation projects;
- Revise and update the Tahoe Sierra IRWM Plan as needed; and,
- Communicate the best available information to decision makers, stakeholders and the public.

STPUD has also partnered with the Lahontan Regional Water Quality Board and other entities to preserve Lake Tahoe's renowned clarity. This includes water quality improvement projects such as stormwater treatment, erosion and sediment control, and restoration of creek, wetland or reservoir habitat. Many of the projects also include an education and outreach component that will help to foster environmental stewardship within the Lake Tahoe Basin community.

Boundaries

STPUD serves an area of 42.2 square miles with a population of approximately 37,700. Most of STPUD's external boundaries were set in 1950 by the boundary commission that preceded LAFCO. The District occupies most of the land in the southern Tahoe Basin. While there have been some changes to the District's outer boundaries, most notably a detachment near Cascade Lake in the 1960s and the annexation of a large portion east of the City of South Lake Tahoe in the 2000s, most of the annexations since STPUD's formation have been infill-related. Indeed, infill is the current direction since the District's current sphere of influence encompasses an additional 3.2 square miles, which consists of lands in the central portion of the District.

IV. ENVIRONMENTAL REVIEW

The California Environmental Quality Act (CEQA, Public Resources Code §21000 et seq.) requires public agencies to evaluate the potential environmental effects of their actions. OPR's Service Review Guidelines Chapter 7, *Integrating Municipal Service Reviews with the California Environmental Quality Act,* advises that "no two municipal service reviews will be exactly alike and each needs to be evaluated on its specific merits and characteristics." The environmental review for El Dorado LAFCO's Service Review of the STPUD is specific to this study and may differ from the environmental review of other service reviews and other LAFCOs.

Service reviews are intended to support sphere of influence updates, including the creation and amendment of SOI boundaries, as well as other government reorganization proposals. Such activities could influence future growth patterns, and, as such, are considered discretionary projects under CEQA. LAFCO has the principal responsibility for carrying out and approving this service review and, therefore, the principal responsibility for preparing CEQA documents as lead agency.

Exemption

This service review qualifies for a Class 6 categorical exemption as outlined in Public Resources Code §15306. This exemption "consists of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. These may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded" (CEQA Guidelines §15306). This service review may lead to actions such as government reorganizations and SOI updates that could potentially affect the environment. However, as these actions have not yet been approved, adopted, or funded by LAFCO, the Class 6 exemption is applicable. A notice of exemption is attached as Appendix B. Any future projects that make use of this service review and the information contained herein will be subject to separate environmental review under CEQA.

V. ENVIRONMENTAL JUSTICE

State law defines environmental justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies" (Government Code §65040.12(e)). OPR explains that "as the primary agency with responsibility for approving changes in boundaries, LAFCOs play an important role in coordinating growth and ensuring that proposed changes are consistent with environmental justice obligations." Changes of organization must be consistent with spheres of influence, and the information contained in this service review will guide future updates to agency spheres of influence.

OPR identifies several uses for data obtained in the service review process:

1. Improving the community participation process.
2. Identifying low-income/minority neighborhoods under-served by public facilities and services that enhance the quality of life.
3. Considering the equitable distribution of public facilities and services.
4. Considering infrastructure and housing needs.
5. Identifying low-income/minority neighborhoods where facilities and uses that pose a significant hazard to human health and safety may be over-concentrated.
6. Screening of issues for potential environmental justice implications.

Consideration of the issues listed above will assist LAFCO and other public agencies in identifying, preventing, and reversing historical problems of procedural and geographic inequity. In undertaking this service review and making the nine determinations, LAFCO used an open public participation process to screen for and identify environmental justice issues.

Demographic data for the study area is limited and generally does not clearly distinguish between population groups of different races, cultures, and incomes. The most recent data available, from the 2010 Census, is displayed on Table 10 below. Unfortunately, the Census area boundaries do not correspond to agency boundaries or General Plan Community Region boundaries, but the data provides a demographic framework for the evaluation of environmental justice issues countywide. In addition, a statistically significant population of Hispanic/Latino (of any race) are located in the City of South Lake Tahoe (26.7%).

Data is available from the El Dorado County Office of Education regarding ethnicity of student populations. These statistics are based on school attendance areas and school districts. For school areas generally, the data confirms that minority populations tend to be small and dispersed throughout the county. The largest ethnic minority population listed is Hispanic/Latino in low percentages (4-9%) in the

unincorporated areas and statistically significant Hispanic/Latino populations in the two cities (e.g. approximately 32% in Lake Tahoe Unified School District and approximately 13% in the Placerville Union School District).

The El Dorado Community Foundation recently conducted a study of the needs of Latino populations in the county. The Foundation estimated that the Latino population of El Dorado County might be about 24.7% of the total county population. Census data above notes 14,566 Hispanic or Latino persons in the county population, about 9.3%. Spanish-speaking volunteers conducted a home-based survey in areas where clusters of Latinos live near one another in Placerville-Pollock Pines and Cameron Park. Their analysis was more anecdotal and identified only small clusters of Latinos population groups.

The demographic data from the Census suggests that the unincorporated county is relatively homogenous with low numbers of racial or ethnic minorities counted. Income data available from the census does not suggest that there are low income population concentrations in the countywide study area. While service levels vary greatly within the county, no specific ethnic or economic neighborhoods could be identified by LAFCO staff that are underserved by public facilities. Infrastructure and housing distribution is relatively even throughout the developed areas of the county with much lower levels of infrastructure and housing in the more outlying communities. No low income/minority neighborhoods were identified where facilities and uses pose a significant hazard to human health and safety.

The 2004 County General Plan does not address environmental justice directly. Although the Environmentally Constrained Alternative did contain related land use and housing policies, the 1996 Alternative and the 2004 General Plan do not contain those sections. The 2004 General Plan Housing Element includes Goal HO: "To provide housing that meets the needs of existing and future residents in all income categories." The housing element also discusses the following special needs groups: people with disabilities, seniors, agricultural employees, female heads of households, homeless persons, and large families and households.

Table 10: Study Area Population by Race

Area	Total	RACE							Hispanic or Latino (Of Any Race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
El Dorado County	156,299	140,209 (89.7%)	813 (0.5%)	1,566 (1.0%)	3,328 (2.1%)	209 (0.1%)	5,547 (3.5%)	4,627 (3.0%)	14,566 (9.3%)

Source: 2000 Census
Percentages may not add due to rounding

VI. SERVICE REVIEW ANALYSIS AND DETERMINATIONS

As explained in Section II of this report, State Law requires the Commission to make certain determinations in an MSR (Government Code §56430) and prior to establishing an SOI (Government Cod §56425). The Commission's Policies & Guidelines Section 4.4 also requires additional determinations prior to establishing a sphere. To the extent that is feasible, both sets of determinations will be addressed in this section. In addition, the following sections will detail the meaning of each factor and explain how it applies to the fire suppression and emergency services agencies.

1. Growth and population projections for the affected area.

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

Information in this section addresses #3 and #4 of LAFCO Policy 4.4, which are:

- Topographic factors and areas of social and economic interdependencies.
- Existing and planned land uses, land use plans and policies, consistency with county and city general plans, and projected growth in the affected area.

STPUD serves the most populated area of El Dorado County's portion of the southern Tahoe Basin. This includes the City of South Lake Tahoe and a number of unincorporated communities such as Montgomery Estates, Tahoe Paradise, Meyers, Angora Highlands, Fallen Leaf Lake, and Christmas Valley. Most of the residential and commercial growth occurs along Highways 50 and 89 and along major arteries such as Pioneer Trail and Lake Tahoe Boulevard. The majority of the District's customers are single family and multifamily residential properties with some commercial uses.

A 2012 land inventory prepared by the Tahoe Regional Planning Agency (TRPA) identified 1,776 acres, on 482 parcels, of developable vacant parcels within the South Tahoe area (refer to maps 2 and 3). These maps were generated based upon certain assumptions. They are considered vacant but developable based upon a complex formula that takes into account certain factors: soil composition, erosion hazard, proximity to lake and location, both relative to water quality zones and habitat sensitivity. The development of these parcels would most likely be limited to dwelling units due to the size and location of the lots, though some lots may never have anything built on them. This latter scenario may be because of the parcels being too small for a house or are located in a marginally sensitive area. In those cases, TRPA regulations allow for the development rights to be transferred to other, more suitable sites.

All land in the Lake Tahoe region, including the City and the District's service area, falls under the jurisdiction of the TRPA as defined in the Tahoe Regional Planning Compact. The Compact requires that all local jurisdiction planning be consistent

with a series of environmental thresholds. Even in the best of economic times, population growth is very limited because of restrictions contained in the TRPA Compact.

The District serves water to approximately 14,000 homes and businesses. Approximately two-thirds of the District's served population is within the City, with the remainder in the unincorporated area. Because the City's land use strategies are anticipated to be consistent with the TRPA Regional Plan, the growth rates calculated for the City can be used to estimate overall population growth within the District's service area. Using this metric, the District utilized the City's 2030 General Plan to estimate both the projected growth rate and the number of non-resident water demand. This estimating method acknowledges that planned growth rates within the City of South Lake Tahoe are being applied to the unincorporated area within the District's service area.

While the reported growth percentages in the Basin vary, they do not differ by much. TRPA estimates 0.4% annual growth. Utilizing the aforementioned City of South Lake Tahoe's General Plan projections through 2030, the 2010 UWMP estimated a 0.36% growth rate. Even with this low rate, existing development will continue to need public water and wastewater services to ensure a reliable source of water supply and to meet stringent regulatory requirements regarding the treatment and disposition of wastewater.

The 2010 Urban Water Management Plan estimated the District's population to be 33,124 based on information purchased from Demographics Now. The UWMP stated that this population number is "within 1% of the estimates developed in the 2005 UWMP." By the District's own estimates, the population forecast is:

Table 11: District Estimate Population – Present and Projected

	2010	2015	2020	2025	2030
Service Area Population*	33,124	34,194	35,264	36,334	37,404

* Service area population is defined as the population served by the distribution system.

It must be noted that because the other water companies serving the City either serve built-out subdivisions or commercial development, the District anticipated that the majority of the planned residential growth will occur in the District's service area.

For the 2011 *Fire and Emergency Services* MSR, TRPA provided data on comparable years for the entire El Dorado County portion of the Tahoe Basin, summarized in the table below. As noted elsewhere on the report, growth in the Basin is severely curtailed due to TRPA's regulations, which limit the annual amount of development that can occur around Lake Tahoe. Based on TRPA's data, the El Dorado County portion of the Lake Tahoe Basin grew at a rate of 0.4% per year between 2000 and 2006. It must be kept in mind that the TRPA assumptions were based on the population and housing boom of the early 2000s.

Consequently, this estimate was generated prior to the recession and assumed positive growth would continue throughout the decade.

Table 12: TRPA Estimated Population for the Tahoe Basin – Present and Projected

	2000	2017	2030
City of South Lake Tahoe	20,142	26,100	32,392
Unincorporated	11,617	10,603	13,434
TRPA Total	***31,759***	***36,703***	***45,826***

LAFCO staff estimated population from the 2010 Census as 29,784 permanent residents based on figures at the Census Block level. This number is approximately 30% fewer residents than the estimate contained in LAFCO's 2008 Water, Wastewater and Power MSR and 22% lower than the District's 2010 UWMP estimate as noted above. There is reason enough to support the LAFCO population as an accurate estimate. The US Census estimate for the City of South Lake Tahoe's population is as follows:

Table 13: 2000 and 2011 Census Population Count of the City of South Lake Tahoe

	2000	2010
City of South Lake Tahoe	23,609	21,403

Using the UWMP formula of two thirds of the District's residents living within the City brings the estimated population to a number that is very close to the LAFCO estimate of 29,784:

Table 14: El Dorado LAFCO's 2000 and 2011 Census Population Estimate of South Tahoe PUD

	2000	2010
South Tahoe PUD	31,400	28,466

This decrease in population, if real, can be attributed to the reported job losses in the area because of the depressed economy. The gambling and hospitality sectors have been hit particularly hard since the recession hit in 2008 and the 2011-12 skiing season had a very late start due to a warmer than normal winter. In their June 2012 issue, the California Planning and Development Report stated that "casino employment in South Lake Tahoe is down to about 3,200 workers, from over 7,000 in the mid-1990s." Consequently, a decrease in the District's permanent population is plausible.

Applying the 2010 UWMP-calculated growth rate to the LAFCO-estimated population yields the following forecast:

Table 15: LAFCO Estimate Population – Present and Projected

	2010	2015	2020	2025	2030
Service Area Population*	29,784	34,194	35,264	36,334	37,404

Growth In Demand For Tourism and Non-Permanent Population

The area has a significant number of part-time residents and experiences population influxes due to seasonal tourism, with STPUD staff estimating that 65% of residences in the service area are second homes. In addition, there is a significant amount of existing and planned non-residential development that serves the visiting population. Although this non-permanent population is not included in the population estimates, STPUD has factored in the demands on the water and wastewater systems. The UWMP includes a sophisticated analysis based on the City of Lake Tahoe's General Plan's estimate of non-residential square footage to derive that the District must have the capacity to serve 17,072 non-residents in 2007. By 2030, STPUD estimates it must have the capacity to meet the non-residential demand of approximately 21,504 people. Using these two endpoints, LAFCO staff estimates that in 2010 the District had to accommodate the non-residential demand of about 17,650 people. It must be noted, however, that District staff report a decline in demand both for water and wastewater services since the economic downturn of 2008.

2. The location and characteristics of any disadvantaged unincorporated communities within or contiguous to the sphere of influence.

Purpose: To identify the communities within the agency's service area or sphere of influence that has been traditionally unserved or underserved.

For the past five years, various legislators have attempted to address the problem of fringe communities that lacked basic municipal services despite their proximity to cities and other local agencies providing those services. Senate Bill 244 (Wolk), among other things, was written to assist disadvantaged communities that have been traditionally unserved or underserved. Through the MSR process, the assistance comes in two ways. First, the MSR is now required to identify said communities. Second, the MSR is to document deficiencies in service related to basic public services, such as domestic water, sanitary sewers, paved streets, storm drains, and street lights. Beyond the MSR process, the bill also encourages local agencies to bring services to the disadvantaged communities up to the same standard as surrounding communities.

"Disadvantaged communities" are defined as inhabited territory with 12 or more registered voters that constitutes all or a portion of a "disadvantaged community," which is defined in the Water Code to be "a community with an annual median household income that is less than 80 percent of the statewide annual median household income." The United States Census does not publish demographic

information related to income data at a level below "Census places." For this report, LAFCO relied on a State Department of Water Resources (DWR) report on disadvantaged communities in California and on the California State Parks' (CSP) Community Fact Finder viewer for income data.

The statewide median household income according to the US Census is $57,708, making $34,624 the median household income for a disadvantaged community. According to DWR, the City of South Lake Tahoe (SLT) contains residents living in disadvantaged communities (refer to Map 4). No community in the unincorporated areas within STPUD were identified as disadvantaged by DWR. These findings are supported by CSP's data, which showed that the median household income at or close to $34,624 tended to be on the eastern side of Al Tahoe Boulevard north of or along Pioneer Trail. These data also indicated that the percentage of people below the poverty line exceeded 15%. Other parts of STPUD's service area, especially in the unincorporated communities did not have poverty rates above 10% and the median household income above $50,000.

3. Present and planned capacity of public facilities, adequacy of public services and infrastructure needs or deficiencies including needs or deficiencies related to sewers, municipal and industrial water, and structural fire protection in any disadvantaged, unincorporated communities within or contiguous to the sphere of influence.

Purpose: To evaluate the infrastructure needs and deficiencies of a district in terms of capacity, condition of facilities, service quality, and levels of service and its relationship to existing and planned service users, especially those in areas that have been traditionally unserved or underserved.

Information in this section addresses #1 and #6 of LAFCO Policy 4.4, which are:

- Service capacity, level and types of services currently provided by the agency, and areas where these services are provided.
- A description of the services that will be provided to any areas which may be added to the sphere and the timing and method for funding expansion of facilities or services.

Summary

STPUD relies on groundwater produced from the Tahoe Valley South Basin for its water supply. The District's water infrastructure includes wells with treatment facilities and a storage and distribution system to serve 15 water service zones. There are significant plumes of MTBE-contaminated groundwater within the Tahoe Basin and the District must provide MTBE treatment on certain wells. The District has destroyed some contaminated wells and has constructed new wells that are not impacted. While the MTBE settlement provided the District with funds to address contamination issues, the settlement monies will run out in 2012. Per

STPUD's 2010 Urban Water Management Plan, supplies will be adequate to meet projected demands through 2030 under normal conditions, as well as single and multiple dry year scenarios. Waterline replacement and installing meters on non-metered water accounts will be an infrastructure need for several years as the District systematically implements measures to comply with the requirements of SBx7-7 calling for 20 percent per capita reduction in urban water use statewide by 2020.

The District's wastewater facilities include collection, conveyance, treatment, and discharge to agricultural lands in Alpine County. Due to strict environmental regulations, all wastewater must be exported out of the Tahoe Basin. The District exports advanced secondary treated effluent to Alpine County for land application and fire suppression use. For wastewater infrastructure, major improvements are scheduled for the Wastewater Treatment Plant as well as improvements at the Alpine County facilities. The District has planned for the infrastructure needs of its water and wastewater services through its ten-year CIP.

Water

Supply and Demand

STPUD extracts groundwater from the Tahoe Valley South Subbasin of the Tahoe Valley Groundwater Basin (refer to Map 5). Water use within the Tahoe Basin is governed by the 1971 California-Nevada Interstate Compact Concerning Water of Lake Tahoe, Truckee River, Carson River, and Walker River Basins (Compact). For the California side of the Tahoe Basin, the Compact allows for a total annual surface water and groundwater diversion of 23,000 acre feet per year (AF/Yr). The State Water Resources Control Board adopted a related policy in 1972; the Policy for the Administration of Water Rights in the Lake Tahoe Basin states that all surface water and groundwater diversions shall not exceed the allocations set forth in the Compact.

The District's groundwater studies confirm that the underground basin is supported by Lake Tahoe, the largest alpine lake in North America. With a depth of 1,646 feet, surface area of 191 square miles, Lake Tahoe contains about 39.8 trillion gallons of water. Consequently, the lake acts as the hydraulic buffer that protects the underwater basin even in dry years. By way of example, during the drought of 1985-1991, lake levels dropped 10 feet, but the static water level decline observed in District wells was less than 4 feet and observed in only a few wells.

The major water issue in the Tahoe Basin is not of water supply one, but of water quality. The groundwater in this area has been impacted by the fuel additive methyl tertiary butyl ether (MTBE). In 1996, MTBE was detected in one of the District's wells. Gasoline/MTBE leaking from local gas station tanks travels easily through porous granitic soil into groundwater supplies. MTBE is a suspected carcinogen and, even at low levels, the chemical causes a foul taste and odor. The District has made enormous efforts to combat this contaminant and, since 1996,

MTBE has become the primary limiting factor to the District's supply and operations.

In 1999, the STPUD Board of Directors adopted a policy that prohibits the delivery of drinking water containing detectable concentrations of MTBE. The extent of the contaminated plumes required STPUD to take 13 wells out of production. The District was successful in settling its lawsuit against the oil companies held as the responsible parties for the contamination and, in August 2002, received a settlement of $69.1 million. A District Ordinance restricts the use of the settlement funds to MTBE-related projects, including well treatment, securing alternate potable water sources, and improving the distribution system. In 2011, the District reported 16 active wells and two limited us/stand-by wells and five wells used for sampling/monitoring purposes.

In terms of production, the Bayview Well, put on line in summer of 2007, produces 3,600 gallons of water per minute, and is the District's highest producing well. South Upper Truckee Well No. 3, put on line in 2008, adds another 1,200 gallons per minute of supply. Appendix C contains the production for all of STUD active and stand-by wells. These new supplies were accompanied by distribution system improvements. The District has nearly returned to pre-MTBE production capability.

In 2000, the District's unaccounted for water loss was 13 percent. This includes water losses due to leaks, meter inaccuracies, operational flushing, fire suppression use, and other causes. This percentage is higher than the industry benchmark of 10 percent.

In 2006, STPUD had approximately 13,900 water service accounts, of which 95 percent are residential and the remainder is commercial. This distribution is expected to remain fairly constant through 2030.

Of the aforementioned 23,000 AF/Yr maximum established in the Compact, STPUD has rights to 9,528 AF/Yr. However, the District reports that historical and current demand is below this level and has been declining since 2007. The table below contains the current and projected water supply and demand in the District under various scenarios. While the total system demand is known for years prior to 2010, the data breakdown for the "water use sectors," such as single family, multi-family, duplex/triplex, etc, are estimates. As stated earlier, only a third of the District has water meters; therefore, STPUD does not publish actual water use for non-metered accounts. LAFCO staff utilized metered volume as a guide to determine the proportional water use per sector. This is why those numbers are italicized and should only be considered estimates of use and these data are included for illustrative purposes only. Based on this analysis, the District will have adequate water supplies through 2030 under normal conditions, as well as single and multiple dry year scenarios:

Table 16: STPUD Water Supply and Demand – Present and Projected (in Acre Feet per Year)

	2007	2008	2009	2010	2015*	2020*	2025*	2030*	2035*
Maximum Rights	9,528	9,528	9,528	9,528	9,528	9,528	9,528	9,528	9,528
Supply	8,161	7,635	6,920	6,546	5,353	4,824	4,484	4,587	4,701
Demand	**8,161**	**7,635**	**6,918**	**6,546**	**5,353**	**4,824**	**4,484**	**4,587**	**4,701**
Single Fam	*N/A***	*N/A***	*N/A***	*69.4*	2,479	2,190	1,971	1,998	2,031
Multi-Fam	*N/A***	*N/A***	*N/A***	*935.3*	387	363	343	341	341
Dplx/Triplex	*N/A***	*N/A***	*N/A***	*0*	189	153	127	126	126
Commercial	*N/A***	*N/A***	*N/A***	*3,291.8*	1,597	1,411	1,326	1,388	1,451
Other	*N/A***	*N/A***	*N/A***	*55.5*	44	36	32	34	35
System Losses**	*N/A***	*N/A***	*N/A***	*626*	658	671	684	700	717

* Projected
** STPUD defines it in the UWMP as "the difference between water production and water consumption and represents 'lost' water"
*** Data not available

As evidenced in the summary table above and in the UWMP, the District is highly confident about the reliability of its water supply: "The District's developed supply exceeds demand by 44% to over 50% throughout the UMWP planning period which provides a significant buffer against hydrologic variability."

As mentioned earlier, STPUD's concern is not of water supply but of water quality. When it drafted its Emergency Response Plan (ERP, refer to Appendix D for a summary plan), drought was not in the mind of STPUD and its staff. It views groundwater contamination as the biggest risk for catastrophic loss of supply. In the ERP, STPUD has adopted percentage reductions in domestic supply depending on the level of severity.

From a financing standpoint, reduced demands would result in reduced water sales revenue; although, because about two-thirds of the customer base pays flat rates rather than metered rates, the District concludes that this scenario, in the near term, is "unlikely." In the event of a water shortage, the District has a five stage water shortage contingency plan. The first stage is for normal conditions and includes provisions that prevent water waste. The second stage would impose additional conservation measures with only a two percent reduction in supply.

Lastly, it should be noted that the District has filed several applications with the State Water Resources Control Board for additional water rights of 12,100 acre feet per year (AF/Yr) on Lake Tahoe. These applications are in review, and approval could take many years. STPUD also has water rights to 7,142 AF/Yr

from Cold Creek and the Upper Truckee River. These rights are not used due to water quality issues; the District does not believe they may be usable in the foreseeable future and are not factored into the District's water supply projections.

System Infrastructure

STPUD's water distribution system originated from small private water companies that began serving the area in the late 1940s. For years the District has had to address the aging water system infrastructure, including undersized waterlines that provide inadequate fire flow and lack of water meters to measure consumption. Since the 1990s, the District has undertaken an aggressive infrastructure replacement program costing approximately $62 million over two decades. STPUD uses a ten-year planning horizon for its Capital Improvement Program (CIP). The current CIP extends through FY 2016/2017 and includes approximately $59 million in water system projects. The District reports that in Fiscal Years 2010-11 and 2011-12, the replacement costs totaled a combined $11.6 million for new and upsized waterlines, booster station improvements and additional storage facilities. The funding for these projects is provided through existing reserves, capital improvement charges, service charges, and grants.

The District has 15 water service zones; 16 booster stations and 21 water tanks are used to distribute water and maintain adequate flows in the system. The District also has 23 pressure-reducing valves and 253 miles of water mainlines. The District has 16 active wells that have a maximum active production capacity of 22.17 million gallons per day (MGD). The water is chlorinated at the wellhead, so STPUD does not have a central treatment facility. Two wells have advanced oxidation MTBE treatment systems. The treatment process meets State Department of Public Health standards to treat to non-detectable levels so that the water can be used as potable water supply.

Although legally not required to provide water for fire suppression, as a public benefit, the District installs and provides service to fire hydrants in areas where new water mains are installed. STPUD has also installed six emergency fire suppression hydrants along a short section of its export pipeline that makes recycled water available for catastrophic fire. These hydrants serve a small residential community and a wastewater pumping station at the base of Luther Pass.

For the past twelve years, the District has been replacing water mains that are undersized or in poor condition. The District has identified 85,000 lineal feet of undersized waterlines (4-inches or less), primarily in older neighborhoods, that need to be replaced with six-inch or greater lines to accommodate water demand and to provide for fire suppression. In addition, the District has identified 50,000 to 75,000 lineal feet of waterlines that are either leak-prone or of substandard material.

STPUD's water system has emergency interties with Edgewood Water Company, which is adjacent to STPUD and primarily provides water service to Stateline and Edgewood Golf Course, and with the three private water utilities within the District service area, Lukins Brothers Water Company, Lakeside Park Mutual Water Company and Tahoe Keys Property Owners Association. The Lukins Brothers Water Company system has severe capacity issues due to undersized infrastructure. At Lukins' request, STPUD conducted an engineering study of their system, which serves approximately 980 customers. More than $20 million in capital investment would be needed to bring the Lukins system up to STPUD standards. A funding mechanism to address the infrastructure needs (one that would not require the existing customer base to bear the cost) would be needed in order for the District to consider purchasing the system.

As of 2010, approximately 66% percent of the District's residential accounts are not metered along with 60% of the commercial accounts. In 2004, the State enacted legislation requiring that urban water suppliers install water meters on all municipal and industrial service accounts by January 1, 2025 (Water Code Section 527). Furthermore, the law requires that on or after January 1, 2010, any urban water supplier seeking financial assistance from the State for a wastewater treatment project, water use efficiency project, drinking water treatment project, or for a permit for a new or expanded water supply must demonstrate compliance with this law. STPUD is considered an urban water supplier due to the number of customers and volume of water supplied annually. In addition, the District proactively pursues grant funding to assist in this effort. In 2009, the District secured a $4.4 million grant that allowed it to install 2,500 meters in FY2010-11. The District is working with the State on a potential extension of the timeframe for compliance due to the limited construction season.

Wastewater System Infrastructure

STPUD operates the only wastewater treatment system in South Tahoe Basin. The wastewater infrastructure consists of facilities for collection, conveyance, treatment, and discharge. STPUD's wastewater treatment plant has a capacity of 7.7 MGD with average flows of 4.0-5.0 MGD. The treatment process produces advanced secondary treated effluent. The District estimates it treats and exports 1.6 billion gallons (approximately 4,900 acre feet) of recycled water annually. The plant has a 20 MGD emergency pump to handle wet weather flows and 58 mg of storage that can be used during export system shutdowns, high effluent events, or other disruptions. The plant also has three emergency generators capable of providing sufficient power to maintain normal operations during power outages.

The California Integrated Water Quality System (CIWQS) noted a number of potential water quality violations for the District between 2007 and 2009; however, no new violations have been cited since June 2009. It should be noted these are subject to review and may be dismissed by the Regional Water Quality Control Board upon satisfactory resolution of the issue.

The Tahoe Preservation Act requires that all wastewater be exported out of the Tahoe Basin watershed. Therefore, STPUD conveys treated effluent 26 miles to Alpine County for agricultural irrigation or fire suppression use. The recycled water to be used for irrigation is stored in the 3,800 AF Harvey Place Reservoir in Alpine County, then delivered through the Diamond Ditch system to several ranches that contract with STPUD to provide recycled water discharge. The reservoir is designed and operated to have sufficient capacity to hold wastewater effluent plus maximum flood flow. There have been challenges with some of the areas for land application due to soil conditions and limited percolation capacity. In the late 2000s, the District acquired the Diamond Valley Ranch for agricultural land application of recycled water.

The District's wastewater facilities include its Luther Pass Pump Station, C-Line Export Pipeline, Harvey Place Reservoir (HPR), Diamond Valley, Diamond Ditch, and contract land application sites. The District's collection system consists of approximately 420 miles of gravity collection lines and 42 lift stations. In January 2007, the District initiated the preparation of a Wastewater Collection Master Plan and it was completed and adopted in December 2009. The Master Plan includes recommended improvements to provide adequate hydraulic capacity and improve the collection system's condition and reliability, recommendations that the District has started planning for and implementing.

STPUD is within the jurisdictional boundaries of the Lahontan Regional Water Quality Control Board (RWQCB) – Region 6. In 2006, the State Water Resources Control Board adopted the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WQO No. 2006-003-DWQ) and STPUD (as part of the Lahontan Region) started reporting all sewer system overflows to the CIWQS on September 2007.

In addition, the Order requires that the District prepare and implement a Sewer System Management Plan (SSMP), which the District complied with on August 2009. The SSMP provides a plan and schedule to manage, operate, and maintain all parts of the sanitary sewer system to reduce and prevent SSOs and mitigate any SSOs that do occur.

As indicated earlier in the report, the District has made several investments to its collection system with the goal of replacing all of the original 1959 Wastewater Treatment Plant. The District's ten year CIP includes $64 million for wastewater projects through FY 2016/2017, including pump replacement, treatment process improvements, and the May 2011 start of "Phase II" of the $14 million, multi-year Headworks Replacement Project. Phase II construction includes the headworks building which will house bar screening, grit removal, and a more modern and accurate flow monitoring system. Once the new facility is operational, estimated to be in mid-2012, the older structures will be demolished and the area landscaped with native vegetation. All other portions of the original plants have been replaced. STPUD estimates that these facilities will have a useful lifespan of 50 to 70 years.

Infrastructure needs or deficiencies in service to disadvantaged unincorporated communities

As noted earlier, SB 244 requires LAFCOs to identify disadvantaged communities in the MSR and to document service deficiencies to these communities in the following areas:

- Unsafe drinking water.
- Inadequate wastewater.
- Inadequate sidewalks, storm drains, gutters and street lights.
- Dilapidated and/or unpaved roads.
- Insufficient garbage collection.
- High crime rates and inadequate law enforcement.
- Inconsistent emergency services.

For purposes for this report, only the first two bullet points apply given the services provided by STPUD. The California State Department of Water Resources, using 2010 US Census data, indicated that the area with the largest pockets of disadvantaged communities within the southern Tahoe Basin were in the City of South Lake Tahoe. Reviewing the District's documents, it is apparent that any infrastructure needs and deficiencies in service delivery within the disadvantaged communities is the same as those in the rest of the District: Some undersized water and wastewater pipes, lack of water meters and insufficient funding to correct both situations. The MTBE contamination from the last decade affected the water quality of all customers and the measures STPUD took to mitigate the impact were district-wide. Because the disadvantaged communities are found in an urban setting, correcting the infrastructure deficiencies becomes slightly more complicated because of other considerations (such as tearing up streets or limited space for easements). On the other hand, most of the improvements and capital investments made by the District, such as improved water quality and storage and the replacement of wastewater facilities, should also benefit these communities.

3. Financial ability of agencies to provide services.

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

4. Status of, and opportunities for, shared facilities.

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

Information in this section addresses #2 of LAFCO Policy 4.4, which is:

- Financial capabilities and costs of service.

A successful financing plan for government services requires the right match between the type of expense and the source of funds. Types of expenses generally fall into one of three categories: (1) acquisition of facilities and major capital equipment (2) employee expense (3) ongoing operations and maintenance. Sources of revenue for local agencies include:

- Existing residents/taxpayers who provide ad valorem property taxes, special tax and benefit assessment district funding, funds to repay general obligation bonds, certificates of participation, and loans.
- Future residents in the form of hookup fees and property tax increment growth.
- Users who pay fees for water and wastewater.
- Grants from the Federal or State government and other entities.

Funding Sources

Property Tax Revenues

The District receives, on average, 11% of the one percent property tax base assessed on parcels within its boundaries. This revenue source is exclusively utilized as a revenue stream for the wastewater enterprise budget. While this revenue source amounted to $6.8 million in Fiscal Year 2011-12, it must be kept in mind that there is little development in the Tahoe Basin and a significant portion of land is under public ownership. Consequently, the growth is more of the result of land sales rather than new development.

Rates and Service Charges

STPUD accounts for its water and wastewater services as business activities, with services funded through service charges. For FY 2011-12, total revenues for the District were budgeted at $31.9 million, which is almost $3 million more than FY 2005-06. Total expenses for FY 2011-12 were budgeted at $19.6 million, which are $5 million lower than FY 2005-06. The Water Utility Enterprise Fund had an unrestricted net asset balance of $21.4 million at June 30, 2011. The Sewer Enterprise Fund had $6.3 million in unrestricted net assets at June 30, 2011.

STPUD periodically reviews its rate structure and capital fees. Service rates were last updated effective July 1, 2011; the previous rate change occurred on July 1, 2007. Rate stabilization is a priority for the District, and the District maintains reserves and uses a ten-year horizon for financial and capital improvement planning for this purpose. It should be noted that, unlike service areas with steady demand, the District must have available capacity to serve the seasonal population and part-time residences even though they will have periods of limited consumption. The percentage of the service fee considered the base charge (or readiness to serve cost) is critical for STPUD.

For water service, STPUD has both flat rates for non-metered accounts and consumption based rates for metered accounts. In 2012, a single family dwelling without a meter pays $489.20 annually. A metered single family dwelling with a ¾" connection pays an annual service charge of $360.00 plus a consumption charge based on per hundred cubic feet of water consumed (1.25 from 1-45 ccf to 1.88 of for 45 ccf and above).

The District uses flat rates for sewer service, with four price levels based on the type of connection. The highest rate is paid by commercial uses, restaurants, laundromats and related uses with higher levels of wastewater loading. The current rate structure was last adjusted in May 2011.

The current connection fee schedule became effective January 1, 2012. Connection fees are based on the number of wastewater service units and water lines feeding into the dwelling. For example, a typical single family dwelling with two bathrooms and a kitchen (3 service units) and a ¾" water line has a connection fee of $25,851 ($14,840 sewer plus $11,011 water).

Reserves

STPUD maintains reserves designated for operations, capital improvements, self-insurance, and rate stabilization. The District's reserve policy establishes the minimum and maximum amount of reserves for each purpose and when those funds may be utilized. The following summarizes the adopted reserve limits and budgeted amounts for Fiscal Year 2011-12:

Table 17: STPUD Fiscal Year 2011-12 Reserves

	Budgeted Amounts	Reserve Limit
Operations	$4.4 million	$6.7 million
Capital	$21.7 million	$172.9 million
Self-Insurance	$300,000*	$2.2 million
Rate Stabilization	$6.9 million	$9.3 million

* Amount is budgeted at that level each fiscal year and draws down as claims are filed against it

STPUD uses a pay-as-you-go approach to fund capital projects where feasible and obtains financing or grants when necessary for larger projects. A majority of the District's customers pay a flat rate for water and sewer service so the District's revenue streams are relatively stable. STPUD has the financial resources to maintain adequate service levels and provide for capital needs. The District has successfully pursued federal assistance and other grant funding, and leverages the use of project financing where appropriate.

Debt

STPUD has several long-term debt obligations related to capital improvements, including a note payable, an installment agreement, and water and sewer revenue

bonds. The outstanding balance of the long term debt at June 30, 2011 was $50.8 million ($23 million for the Sewer Enterprise Fund and $27.8 million for the Water Enterprise Fund). The average annual debt service payments through FY 2010-11 was $783,932. For FY2011-12, the District budgeted $1.9 million. The installment agreement and revenue bonds have requirements regarding thresholds for net water and sewer revenues and maximum outstanding debt obligations. The District is in compliance with these requirements.

MTBE Funds

As noted earlier, in 2002 STPUD received a legal settlement of $69.1 million for damages related to MTBE contamination in the groundwater (litigation fees reduced this amount to approximately $48.1 million). By District Ordinance, these funds are restricted for use in mitigating MTBE issues, including well treatment facilities and developing alternate sources of water supply. The last of these funds will be spent by the end of 2012.

Capital Assets

As a result of its heavy investments in infrastructure, the District has a significant amount of assets, net of depreciation. These assets include land and easements; water rights; treatment plant and equipment; and projects in construction. The Water Utility Enterprise Fund had capital net asset balance of $81.5 million at June 30, 2011. The Sewer Enterprise Fund had $114.6 million in capital net assets at June 30, 2011.

Cost Control and Containment

STPUD controls costs through the use of an asset management system that allows the District to predict asset failure and establish optimal replacement schedules. This avoids costly outages and emergency repairs. The Luther Pass Pump Station, which is the main recycled water pumping station, has state-of-the-art software to maximize pumping efficiency. It also allows the District to leverage the use of the lowest cost electricity rates. The District works cooperatively with public and private interests in Alpine County to ensure that the recycled water system is efficient and meets regulatory requirements.

While the District has employed various water reduction strategies, including a turf buy-back program, energy efficient appliance rebates and water audits, in keeping with best management practices, the District should consider adopting a tiered rate structure for metered accounts to encourage more conservation. The District will be encouraging reductions in customer water demand through mainly the implementation of the 14 Demand Management Measures (DMMs) included in this plan with a particular focus on DMM D (Metering with commodity rates for all new connections and retrofit of existing connections), which can be found at the end of the Urban Water Management Plan.

Opportunities for Shared Facilities

STPUD shares facilities with other agencies in the Tahoe region, including the following:

- Grant administrator position shared with Alpine County
- Water pump station shared with Lake Valley Protection District in Alpine County
- Recycled water provided to Diamond Valley area of Alpine County that has limited water storage capabilities
- Potable water supply provided to Tahoe Keys Association
- Joint preparation of several studies, including the Integrated Regional Water Management Plan

The District participates in regional planning efforts for the Tahoe Basin and participates in the Lake Tahoe Wastewater Infrastructure Partnership (LTWIP). Members of the LTWIP collaborate on efforts to ensure the efficient use of US Army Corps grant funding for Tahoe Basin wastewater programs.

5. Accountability for Community Service Needs, Including Governmental Structure and Operational Efficiencies

Purpose: To consider Government structure options, including advantages and disadvantages of consolidation or reorganization of service providers; an evaluation of management efficiencies; and local accountability and governance.

Information in this section addresses #7 of LAFCO Policy 4.4, which is:

- An analysis of the effects of a proposed sphere of influence on other agencies and their service capabilities.

General Governance and Accountability

STPUD serves the City of South Lake Tahoe and unincorporated area within the southern portion of the Tahoe Basin. The District's service area is in El Dorado County; however, the District has facilities in Alpine County for the discharge of its recycled water. The District is providing adequate service and has implemented policies and spent capital to ensure and expand its water supply, as well as identify and plan for the operational needs for its water and wastewater services.

Other than maintaining the status quo, one government structure option was identified that would consolidate STPUD with the Tahoe City Public Utility District (TCPUD), which serves the area to the north and along the western shore of Lake Tahoe. The 2008 *Water, Wastewater and Power MSR* explored this option, concluding that although the two districts provide similar water and wastewater services, the option is infeasible. The Districts are focused on serving the needs of the communities within their respective service areas and maximize the use of

gravity flow. A consolidation could result in increased costs, loss of efficiency, and loss of local control regarding capital improvements.

Local Accountability and Governance

STPUD is governed by a five-member Board of Directors elected by voters within five sub-districts. The prior two District elections, in November 2009 and 2011, have been contested, with two incumbents losing their re-election bids and one open seat. All contests but one attracted more than two candidates. As indicated earlier, STPUD Directors receive a stipend and are also offered health and dental insurance and CalPERS.

STPUD meetings are open to the public. The District posts meeting notices and the agenda at the District office and on the District's website (www.stpud.us). The District produces a newsletter for its customers and the District's website includes information on the District's services, finances, awards, and capital projects. The District's Helping Hands program provides emergency assistance to customers for payment of their water and sewer bills when they have no alternative financial assistance.

The District publishes annual "Consumer Confidence Reports" detailing water quality results data as required by Health and Safety Code §116470. The report intends to inform the public whether and how the drinking water is safe for consumption and whether it meets state safety standards. This report can be found on the STPUD website under "H2O Quality."

6. The potential effect of agency services on agricultural and open space lands.

Information in this section addresses #5 of LAFCO Policy 4.4, which is:

- Potential effects on agricultural and open space lands.

STPUD is within the Lake Tahoe Basin land use zoning area, which consists primarily of the Tahoe Agricultural District. This area is also simultaneously under the jurisdiction of the TRPA, which regulates growth near Lake Tahoe and has designated approximately 85-90% of the territory for conservation or recreation. Residential, commercial and tourist areas are concentrated in the City of South Lake Tahoe and along major roadways (Highways 50 and 89). Building within the district is severely restricted, and only approximately 115 residential permits are issued within the entire Lake Tahoe Basin each year. Consequently, it is extremely unlikely that the land use within STPUD will change significantly as a result of the District's operations.

VII. SOI DETERMINATIONS

STPUD's sphere of influence includes 3.2 square miles within the central portion of the District's service area. The lands within the SOI are bounded by the District. Given the water quality concerns in the region and regulations regarding wastewater, these areas may need to annex to the District at some point in the future and, therefore, should remain in the District's SOI.

In determining the sphere of influence for each local agency, Government Code §56425(e) requires the Commission to consider and prepare a written statement of determinations with respect to four factors. Staff recommends the following determinations for updating South Tahoe Public Utility District's sphere of influence:

1. **The present and planned land uses in the area, including agricultural and open space lands.**

   Present land use in the STUPD area includes residential, recreational, commercial and tourist-related uses. Primary residential areas within STPUD tend to follow the major highways and roads that bisect the district. Growth and development potential is limited largely by TRPA regulations and there are not expected to be any substantial changes in the planned land use as a direct result of this review.

2. **The present and probable need for public facilities and services in the area.**

   Present needs for public facilities and services are currently being met. Probable needs for public facilities and services are not currently anticipated to vary from present needs, as future demands are expected to remain relatively the same.

   For the past five years, STPUD's demand have remained consistent. Of its approximately 14,000 water service accounts, 95 percent are residential and the remainder is commercial. This distribution is expected to remain fairly constant through 2030.

   STPUD operates the only wastewater treatment system in South Lake Tahoe. The District treats approximately 4,200 AF of wastewater flows. Flows are projected to increase to 5,000 AF per year by 2030.

3. **The present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide.**

   The present capacity of public facilities provided is adequate to serve the existing community.

   The major water issue in the Tahoe Basin is one of water quality rather than water supply. STPUD relies on groundwater for its water supply and there are

significant plumes of MTBE-contaminated groundwater within the Tahoe Basin. The District has funds designated to address these contamination issues and must provide MTBE treatment on certain wells. Per STPUD's 2011 Urban Water Management Plan, supplies will be adequate to meet projected demands through 2030 under normal conditions, as well as single and multiple dry year scenarios.

Due to strict environmental regulations, all wastewater must be exported out of the Tahoe Basin. The District exports advanced secondary treated effluent to Alpine County for land application and fire suppression use. The District is in the final stages of replacing all of the remaining large facilities left over from the original 1959 wastewater treatment plant. The expected lifespan of the new treatment facilities is estimated to be 50 to 70 years.

Waterline replacement and installing meters on non-metered accounts will be an infrastructure need for several years as the District systematically implements the improvements. The District has planned for the infrastructure needs of its water and wastewater services through its ten-year CIP.

4. The existence of any social or economic communities of interest in the area if the Commission determines that they are relevant to the agency.

Social or economic communities of interest in the area do not extend beyond the District boundaries. In addition to the City of South Lake Tahoe, STPUD serves a number of unincorporated communities such as Montgomery Estates, Tahoe Paradise, Meyers, Angora Highlands, Fallen Leaf Lake, and Christmas Valley. The City of South Lake Tahoe is the primary concentrated, social or economic community of interest that is within the district. Due to TRPA land use regulations, these communities' populations are expected to remain relatively stable.

Based upon the information contained in this document, it is recommended that the South Tahoe Sphere of Influence be updated to affirm its current sphere, as shown in the map labeled Map 6 of this report.

VIII. REFERENCES AND SOURCES

South Tahoe Public Utility District Documents

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- Grant Thorton LLP. Financial Statements and Report of Independent Certified Public Accountants. June 30, 2011.
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- STPUD Sewer System Management Plan. August 1, 2009, Revision March 1, 2010.
- Tahoe Resource Conservation District. Tahoe Sierra Integrated Regional Water Management Plan. June 2006, Revised July 19, 2007.
- Winzler & Kelly. Final 2011 Urban Water Management Plan. April 2011.

South Tahoe Public Utility District's website (www.stpud.us)

- Board of Directors page
- Administration Department page
- Finance Department page
- H2O Quality
- Plan Documents page
- Rates page
- Water Conservation page

Interviews with District Staff

- Dennis Cocking, STPUD Public Information Officer

El Dorado County Documents:

- El Dorado Registrar of Voters Election Results for Consolidated Districts Election November 3, 2009
- El Dorado Registrar of Voters Election Results for Consolidated Districts Election November 3, 2011
- 2004 El Dorado County General Plan
- Census maps generated by the El Dorado County Surveyor's Office

El Dorado Local Agency Formation Commission Municipal Service Reviews:

- Water, Wastewater and Power Municipal Services Review, adopted 2008
- General Government Services I Municipal Services Review, adopted 2008

Other Sources

- California Integrated Water Quality System Project (www.waterboards.ca.gov/ciwqs) Facility At-A Glance Report for South Tahoe Public Utility District
- California Department of Water Resources' Resources & Links (http://www.water.ca.gov/irwm/integregio_resourceslinks.cfm)
- California State Parks' Community Fact Finder (http://www.parkinfo.org/factfinder2011/grantee.html)
- Mountain Democrat website (www.mtdemocrat.com)
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- Sacramento Area Council of Governments (www.sacog.org):
- US Census Service – Population Projections (www.census.gov)

IX. APPENDICES

Appendix A: STPUD Water and Sewage Rates 2012/2013

Appendix B: Notice of Exemption (not included)

Appendix C: STPUD Well Production

Appendix D: Emergency Response Plan Summary

X. MAPS

Map 1: District Map

Map 2: TRPA Land Inventory—SLT Vacant Private Lots

Map 3: TRPA Land Inventory—Unincorp Vacant Private Lots

Map 4: DWR Disadvantaged Communities Map

Map 5: Tahoe South Subasin

Map 6: STPUD Sphere of Influence