

MUNICIPAL SERVICE REVIEW AND SPHERE OF INFLUENCE UPDATE

SMALL TO MEDIUM WATER PURVEYORS IN EL DORADO COUNTY

Final

September 2022



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EXECUTIVE SUMMARY

The El Dorado Local Agency Formation Commission (“LAFCO”) is preparing this Municipal Service Review (“MSR”) and Sphere of Influence (“SOI”) update for Water District Services within the County, following the requirements of State law and LAFCO policies. LAFCO acts as the countywide oversight agency that coordinates logical and timely changes to local government boundaries. A primary objective for this MSR is to provide LAFCO with a recommendation on Spheres of Influence for the following agencies covered in this report:

- Georgetown Divide Public Utilities District
- Grizzly Flats Community Services District
- South Tahoe Public Utilities District

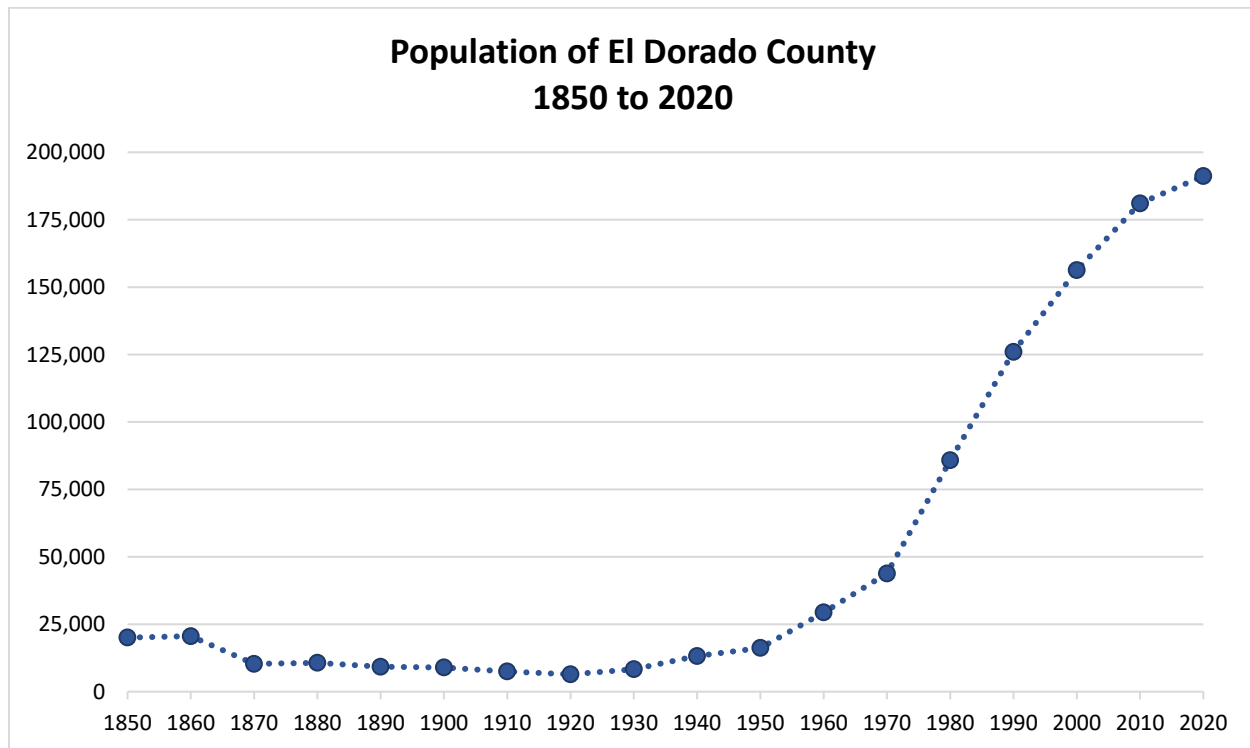
Water service providers in rural areas often face unique obstacles in the provision of services including large remote service areas, alternative conveyance structures including mining ditches and tunnels, storage capacity for wildfire response and more. This MSR will take a systems approach to reviewing the current level of services and identifying potential areas of opportunity to increase efficiency and resiliency. This report is organized as follows:

- This Executive Summary provides an overview of the County including recent drought and wildfire impacts, and a summary of MSR findings.
- A Background section with additional discussion of LAFCO responsibilities, the legal requirements of MSR and SOI updates, and the methodology and data sources used.
- Service Review sections for each agency within the study area.

EL DORADO COUNTY OVERVIEW

When the state was originally formed in 1850, El Dorado County had a population of 20,057 in large part due to the gold rush triggered by discovery of gold in Coloma. However, by 1900 the population dropped to 8,986 and remained relatively low until roughly 1960 when the population began to grow substantially. The graph below shows the population of El Dorado County from 1850 to 2020. The most dramatic increase can be seen from 1970 to 1980 where the population almost doubled from 43,833 to 85,812.

Figure 1: Population from 1850 to 2020¹



Current population densities are greatest in El Dorado Hills (50,547), Cameron Park (18,881), South Lake Tahoe (21,330), and Placerville (10,747). Populations in the northern and southern areas of the County are generally less dense due to the more rural nature of the areas. Based on a recent study conducted by BAE Urban Economics, El Dorado County is expected to grow at an average annual growth rate of 0.9 percent and could reach a total population of 208,457 by 2030².

Table 1: El Dorado County Population by Race³

Census Year	Total Population	Hispanic or Latino	Single Race						Two or More Races
			White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	
2020	191,185	26,459	140,141	1,436	1,273	9,024	276	1,215	11,361
2010	181,058	21,875	144,689	1,296	1,553	6,143	261	318	4,923
2000	156,299	14,566	140,209	813	1,566	3,328	209	5,547	4,627
% Change	+22.3	+81.6	0.0	+76.6	-18.7	+171.2	+32	-78.1	+145.5

¹ US Census Bureau, Census of Population and Housing. Historical Census data for 1850 to 2010. Accessed from <https://www.census.gov/prod/www/decennial.html> on October 21, 2021.
2020 Census data pulled from data.census.gov on October 20, 2021.

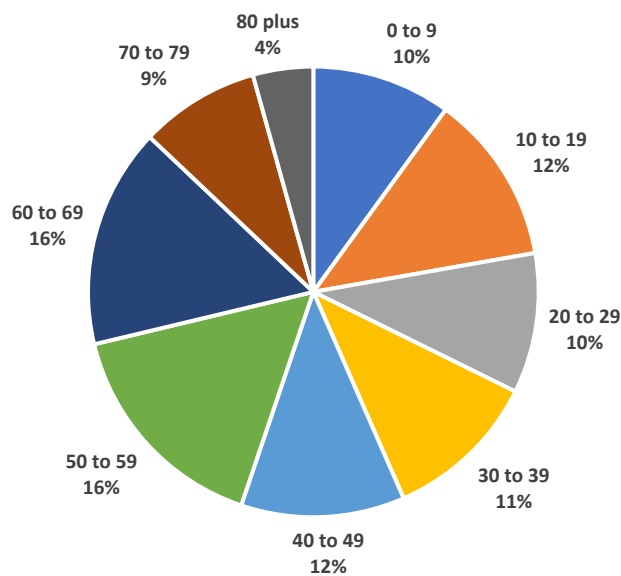
² El Dorado County, General Plan Housing Element - Section 2: Housing Assessment and Needs. Adopted August 31, 2021.

³ US Census Bureau, Decennial Census, Table P2. Race and Hispanic or Latino. Accessed October 19, 2020 from data.census.gov.

With regard to race and ethnicity, the population makeup of the County has been predominantly white since 1850. In the last two decades however, there has been an increase in the number of persons identifying as non-white with the most notable increase seen in Asian and Hispanic or Latino populations as shown in Table 1 above. There has also been a substantial increase in the number of persons identifying as two or more races or some other race.

The age distribution of the County as of 2019 is shown in Figure 2 below. There is a fairly even distribution of ages in the county with a median age of 45.9 and a slightly higher percentage of persons from 50 to 69. Persons that can be included in the typical workforce age group (20 to 54) make up approximately 40 percent of the total population⁴.

Figure 2: El Dorado County Age Distribution



WATER IN EL DORADO COUNTY

El Dorado County has direct access to Sacramento and San Francisco along major transportation corridors (Highway 50 and 80) and water ways (Middle and South Fork American River). During the initial population boom of the county in the 1850's, an intricate system of mining ditches and flumes was set up to supply water to the many towns and gold claims in the area. Some of these historic ditches are still used by water purveys to supply water throughout the county which provides unique challenges for maintenance and repair.

Much of the water on the western slope of El Dorado County is provided by surface water diversions from the American and Consumnes Rivers that are impounded in a series of reservoirs and diverted through miles of flumes, ditches, and pipelines before reaching end users. Areas located outside of major water purveyor jurisdictions often rely on individual wells or other small community well systems. Existing water infrastructure was developed based on historic climate patterns where the annual snowpack held much of county's water until it slowly melted later in the water year. However, changing climate patterns are leading towards more precipitation as rain and earlier snow melt which means more water is flowing

⁴ US Census Bureau, 2019 American Community Survey 5-year Estimate, Table S0101.

through the system earlier in the year to prevent flooding and there is less water available later in the water year when it is needed most.

A recent study conducted by the El Dorado County Water Agency estimated a total water demand of 78,000 acre-feet for western slope purveyor areas by 2070 with a potential shortage of 29,000 acre-feet in supply based on current population and climate projections⁵. This water imbalance will likely be further impacted by drought conditions which means that in the upcoming years, water purveyors on the western slope will need to plan for and adapt to changing patterns to ensure there is adequate water supply for communities. This is particularly true for communities in the southern portion of the county which lack major water storage reservoirs and rely on continuous diversions from creeks and rivers.

In the Tahoe Basin, water is primarily sourced from groundwater which is recharged by rain and snowmelt. This source of water is less susceptible to changing climate patterns and there will likely be enough water to meet demands for the foreseeable future. However, the basin is susceptible to ground water contamination and needs to be monitored regularly.

WILDFIRES

A culmination of factors including historic logging, prior fire suppression efforts, climate change, and population growth are creating unprecedented wildfire conditions in California. In the past decade, the State has experienced some of the largest and hottest wildfires on record. The largest fire was the 2020 August Complex which burned over 1 million acres across seven counties. While these fires can be devastating to communities, wildlife, and ecosystems, they can also have a long-term impact on water systems and quality.

Over the last few decades, El Dorado County has experienced dozens of wildfires including multiple fires in Kelsey, Kyburz, and Salmon Falls. Until 2021, the largest fire in the county was the 2014 King Fire which burned 97,600 acres from Pollock Pines to Hell Hole Reservoir. Then in 2021, the Caldor Fire erupted just south of Grizzly Flats and burned over 221,000 acres across three counties destroying 1,003 structures and displacing thousands⁶. The community of Grizzly Flats was completely devastated including the Grizzly Flats Community Services District which provides water to the community. While much of the District's major infrastructure remained intact, there was extensive damage throughout the system and potable water service was unavailable for two months after the fire.

Large, intense, wildfires can have multiple effects on water purveyors. These can include short term infrastructure impacts such as damaged facilities and long-term impacts such as sediment build up and lower water quality. When an intense wildfire burns through a watershed it disrupts the natural flow and filtration of water. Increased water runoff can erode soil faster causing more sediment to be present in creeks and rivers. Ash and debris from burned trees, homes, vehicles, and property can carry hazardous substances leading to reduced water quality and the need for a higher level of water treatment. Increased runoff during future storm events can lead to more debris in water conveyance facilities which may clog pipelines and increase turbidity past acceptable drinking water levels.

⁵ El Dorado County Water Agency, Water Resources Development and Management Plan. October 21, 2019.

⁶ CalFire, Top 20 Largest California Wildfires. October 6, 2021,

MSR BACKGROUND

ROLE AND RESPONSIBILITY OF LAFCO

Local Agency Formation Commissions (LAFCOs) are independent regulatory commissions established by the State legislature in 1963 to encourage the orderly growth and development of local governmental agencies including cities and special districts. Today, there is a LAFCO in each of California's 58 counties. El Dorado LAFCO is a seven-member commission comprised of two members of the El Dorado County Board of Supervisors, two City Council members, two Special District representatives, and one Public Member-At-Large. The Commission also includes one alternate member for each represented category.

LAFCO is responsible for implementing the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 ("CKH Act") (California Government Code Section 56000 et seq.) for purposes of facilitating changes in local governmental structure and boundaries that fosters orderly growth and development, promotes the efficient delivery of services, and encourages the preservation of open space and agricultural lands. Some of LAFCO's duties include regulating jurisdictional boundary changes and the extension of municipal services. This includes city and special district annexations, incorporations/formations, consolidations, and other changes of organization. LAFCO seeks to be proactive in raising awareness and building partnerships to accomplish this through its special studies, programs, and actions.

The CKH Act outlines requirements for preparing Municipal Service Reviews (MSRs) for periodic Sphere of Influence (SOI) updates. MSRs and SOIs are tools created to empower LAFCO to satisfy its legislative charge of "discouraging urban sprawl, preserving open space and prime agricultural lands, efficiently providing government services, and encouraging the orderly formation and development of local agencies based upon local conditions and circumstances" (§56301). CKH Act Section 56301 further establishes that "one of the objects of the commission is to make studies and to obtain and furnish information which will contribute to the logical and reasonable development of local agencies in each county and to shape the development of local agencies so as to advantageously provide for the present and future needs of each county and its communities." SOIs therefore guide both the near-term and long-term physical and economic growth and development of local agencies, and MSRs provide the relevant data to inform LAFCO's SOI determinations.

PURPOSE OF MUNICIPAL SERVICE REVIEWS

As described above, MSRs are designed to equip LAFCO with relevant information and data necessary for the Commission to make informed decisions on SOIs. The CKH Act, however, gives LAFCO broad discretion in deciding how to conduct MSRs, including geographic focus, scope of study, and the identification of alternatives for improving the efficiency, cost-effectiveness, accountability, and reliability of public services. The purpose of a MSR in general is to provide a comprehensive inventory and analysis of the services provided by local municipalities, county service areas, and special districts. A MSR evaluates the structure and operation of the local municipalities, county service areas, and special districts and discusses possible areas for improvement and coordination. While LAFCOs have no direct regulatory authority over cities and special districts, MSR's provide information concerning the governance structures and efficiencies of service providers – and may also serve as the basis for subsequent LAFCO decisions. The MSR is intended to provide information and analysis to support a sphere of influence update. A written statement of the study's determinations must be made in the following areas:

- (1) Growth and population projections for the affected area.
- (2) Location and characteristics of any disadvantaged unincorporated communities within or continuous to the sphere of influence.
- (3) Present and planned capacity of public facilities, adequacy of public services, and infrastructure needs or deficiencies.
- (4) Financial ability of the agency to provide services.
- (5) Status of and opportunities for shared facilities.
- (6) Accountability for community service needs, including governmental structure and operational efficiencies.
- (7) Any other matter related to effective or efficient service delivery, as required by Commission policy.

This MSR is organized according to these determinations listed above. Information regarding each of the above issue areas is provided in this document.

PURPOSE OF SPHERES OF INFLUENCE

In 1972, LAFCOs were given the power to establish SOIs for all local agencies under their jurisdiction. As defined by the CKH Act, “‘sphere of influence’ means a plan for the probable physical boundaries and service area of a local agency, as determined by the commission” (§56076). All boundary changes, such as annexations, must be consistent with an agency’s sphere of influence with limited exceptions. The municipal service review process is intended to inform the Commission as to the availability, capacity, and efficiency of local governmental services prior to making sphere of influence determinations.

LAFCO is required to make five written determinations when establishing, amending, or updating an SOI for any local agency that address the following (§56425(c)):

- (1) The present and planned land uses in the area, including agricultural and open space lands.
- (2) The present and probable need for public facilities and services in the area.
- (3) The present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide.
- (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.
- (5) For an update of an SOI of a city or special district that provides public facilities or services related to sewers, municipal and industrial water, or structural fire protection, the present and probable need for those public facilities and services of any disadvantaged unincorporated communities within the existing sphere of influence.

Service reviews may also contain recommendations for sphere of influence or government structure changes needed to implement positive service changes. Where more detailed analysis of service options is necessary, service reviews may contain recommendations for special studies where there is the potential to reduce service gaps and improve service levels.

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. Municipal 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.

This service review and accompanying sphere of influence determinations qualify for a statutory exemption as outlined in Public Resources Code §15061(b)(3). These activities are covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. The MSR and sphere of influence update have no possibility for causing a significant effect on the environment. Any future projects that make use of this service review and the information contained herein will be subject to separate environmental review under CEQA.

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)). The Governor’s Office of Planning and Research (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.

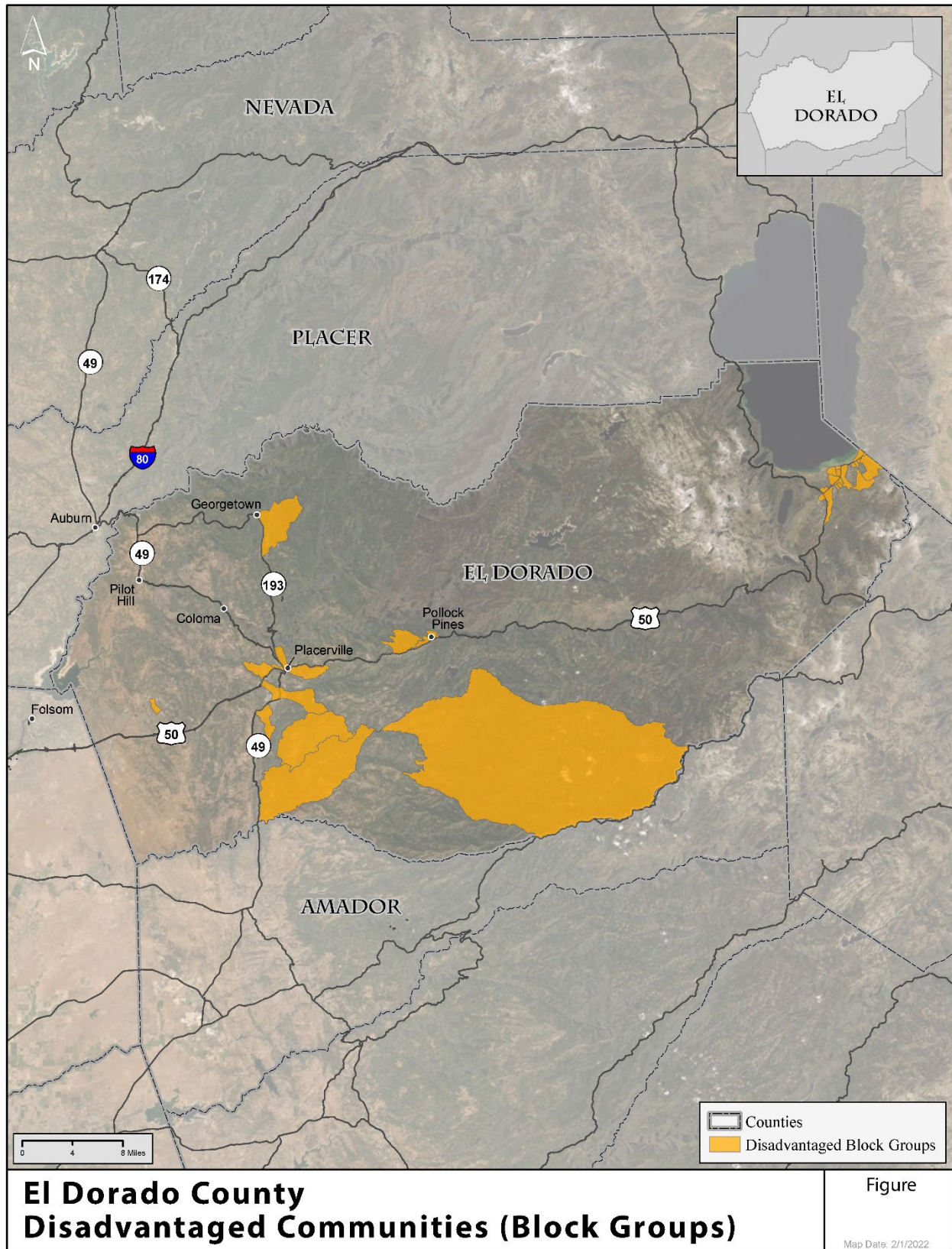
OPR identifies several uses for data obtained in the service review process:

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 overconcentrated.
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 determinations, LAFCO used an open public participation process to screen for and identify environmental justice issues.

County population and demographic data is provided in the Regional Background section above. This provides an overview of the distribution of peoples and potential disadvantaged communities throughout the County. Specific information for each District is included under their respective agency profile.

Figure 3: El Dorado County Disadvantaged Communities



DISADVANTAGED UNINCORPORATED COMMUNITIES

Disadvantaged unincorporated communities, or “DUCs,” are inhabited territories (containing 12 or more registered voters) where the annual median household income is less than 80 percent of the statewide annual median household income. CKH Act Section 56375(a)(8)(A) prohibits LAFCO from approving a city annexation of more than 10 acres if a DUC is contiguous to the annexation territory but not included in the proposal, unless an application to annex the DUC has been filed with LAFCO. The legislative intent is to prohibit selective annexations by cities of tax-generating land uses while leaving out under-served, inhabited areas with infrastructure deficiencies and lack of access to reliable potable water and wastewater services. DUCs are recognized as social and economic communities of interest for purposes of recommending SOI determinations pursuant to Section 56425(c).

Within El Dorado County there are eight census tracts that qualify as disadvantaged since their MHI is less than 80 percent of the California MHI of \$75,235. These include much of the City of South Lake Tahoe, portions of Pollock Pines and Diamond Springs, and much of the southern portion of the County including Grizzly Flats (Figure 3 above). The County as a whole has a MHI of \$83,377 which is above the California MHI⁷.

METHODOLOGY AND DATA SOURCES

Key tasks and activities in the completion of this MSR include data collection, interviews, district profile development, determination analysis, public review of MSR, and the adoption of the final MSR. The MSR began with a complete and thorough review of available data and documents. In collecting data, adopted budgets, comprehensive financial reports, capital improvement plans, strategic plans, and general plans were assessed to develop a comprehensive overview of each agency. Following data collection and interviews, agency profiles were developed based on the information collected and as required for the completion of the MSR per the CKH Act. This includes key characteristics such as municipal services offered, staffing levels, population and growth, service providers, infrastructure, financial condition, and boundary areas and maps. District profiles can be found in the following sections of this MSR.

This MSR also reviews situations where the subject agencies are providing "extraterritorial services", whether by contract or other arrangement, to areas outside their district boundaries. Per Government Code Section 56133, a district may provide extraterritorial services only if it first requests and receives written approval from LAFCO approval and certain requirements are met.

⁷ US Census, 2019 ACS 5-year Estimate. Table S1903 for California, El Dorado County, and various census tracts.

GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

AGENCY OVERVIEW

Contact Information	
Mailing Address	P.O. Box 4240, Georgetown CA 95634
Physical Address	6425 Main St, Georgetown CA 95634
Phone	(530) 333-4356
Website	www.gd-pud.org
Management Information	
Manager	Adam Cohan, General Manager; Adam Brown, Operations Manager
Governing Body	5 Member Board of Directors
Board Members	Michael Saunders, President; Mitch MacDonald, Vice President; Mike Thornbrough, Treasurer; Donna Seaman; Gerry Stewart
Board Meetings	Second Tuesday of each month at the District office (6425 Main St), Georgetown starting at 2:00 P.M.
Staffing	24 FTE employees and 1.5 FTE contract employees
Service Information	
Empowered Services	Water, wastewater and hydroelectric power generation
Services Provided	Same as empowered
Latent Powers	All others included under the CA PUD Act (Public Utilities Code §15501 et seq.)
Area Served	Georgetown Divide (Georgetown, Garden Valley, Kelsey, Greenwood, Cool and Pilot Hill)
Population Served	9,112 water customers, District population estimate is 11,200
Fiscal Information	
FY 2021-22 Budget	Projected Revenues: \$5,324,956 Projected Expenses: \$5,292,994
Sources of Funding	Property taxes, user charges
Rate Structure	Water: Base rate and volumetric fee dependent on service type Wastewater: Bi-monthly fee dependent on connection type

FORMATION

PRINCIPAL ACT

The Georgetown Divide Public Utility District (GDPUD or District) was established as an independent special district pursuant to Section 9 of "The Public Utility District Act" (Public Utilities Code § 15501 – 18055). Under this act, a PUD may be authorized to acquire, construct, own, operate, control, or use works for supplying light, water, power, heat, transportation, telephone service, or other means of communication, or means for the disposal of garbage, sewage, or refuse matter. In addition, a PUD can be authorized to provide a wide variety of services including fire protection, street lighting, public parks and other recreation facilities, and stormwater drainage of roads, streets, and public places. PUDs are governed by a board of directors, all of whom are elected at large.

Formation Proceedings

The District was formed on June 4, 1946 however the origins of District facilities can be directly traced back to 1852 and the El Dorado, Pilot and Rock Creek Canal Companies, one of the first established water purveyors in the State of California – a result of James Marshall’s discovery of gold in nearby Coloma. Following the decline in gold production, agriculture and lumbering became the staple industries on the Divide for many years.

Since its formation in 1946, the District has grown to over 3,600 connections and supplies approximately 12,000 acre-feet of water per year. This qualifies the District as an Urban Water Supplier subject to the regulations of the State Water Resources Control Board⁸. As a Public Utility District, GDPUD is also subject to regulations of the California Public Utilities Commission.

BOUNDARY AND SOI

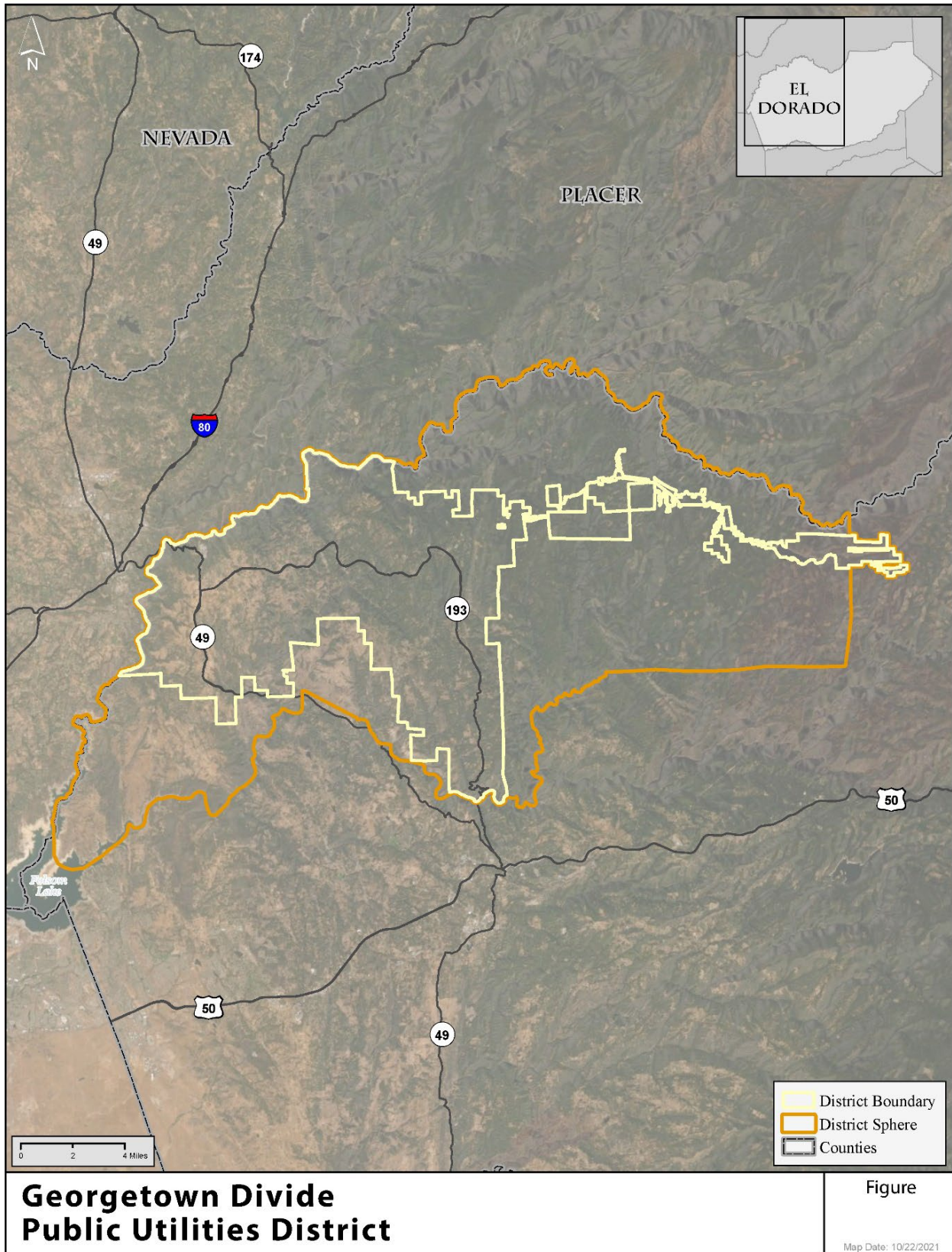
GDPUD is situated on the west slope of the Sierra Nevada foothills, approximately 45 miles northeast of Sacramento, California in El Dorado County. It straddles a ridge which separates the drainage basin of the Middle Fork American River and the Rubicon River (a tributary to the Middle Fork of American River) to the north from the South Fork American River to the south. Access is through Highway 50 and Interstate 80 which allows for easy access to metropolitan areas in the Sacramento Valley and recreational activities in the Lake Tahoe region.

The district’s boundary encompasses communities along Highways 193 and 49 including Kelsey, Garden Valley, Georgetown, Greenwood, Cool, and Pilot Hill in the heart of California’s Gold County. The boundary also extends to numerous parcels along Wentworth Springs Road and Pilot Creek up to and including Stumpy Meadows Reservoir. The existing boundary encompasses approximately 75,898 acres (112 square miles) with approximately 30,000 acres currently having some form of water service available. The District’s sphere of influence is bounded on the north, south, and west by Middle Fork and South Fork American rivers (Figure 4). The sphere of influence covers approximately 173,000 acres (270 square miles). While much of the SOI is unlikely to be annexed in the near term, having these lands within the SOI helps protect the larger watershed and allows the District to provide input on its management.

The communities of Georgetown, Garden Valley, Kelsey, Greenwood, Cool and Pilot Hill make up the majority of the District’s customers. With the exception of Georgetown and Cool, the majority of parcels within the District are greater than two acres, reflective of a large geographical distribution of customers. The Auburn Lake Trails subdivision, located in the community of Cool, has approximately 1,200 customers, and makes up nearly one-third of the District’s customer base.

⁸ Public Water Code, Division 6, Part 2.6: Urban Water Management Planning, Chapter 2: Definitions, Section 10617: Urban Water Supplier.

Figure 4: GDPUD Boundary and SOI



LAND USE

Land uses within the District are currently subject to the El Dorado County General Plan and Zoning Regulations (El Dorado County Code Title 130). Due to the large size of the District and varied topography of the area, there is a wide range of land uses present within the District boundary. Land uses are largely Rural Residential, Low Density Residential, and Natural Resources with some Agricultural lands. There is also Public Open Space, Commercial, High Density Residential, and Public Facility. Overlays consist of Airport, Mineral Resource, and Platted Land. A large portion of the District is also designated an Important Biological Corridor.

Land Use within the District's SOI east of Georgetown is predominantly Natural Resource with some Rural and Low Density Residential around Volcanoville. The SOI area to the west of the District includes a wider variety of designations including Open Space, Rural and Low Density Residential, Agricultural, and Tourist Recreational. It also includes the Important Biological Corridor, Agricultural District, and Platted Land overlays.

The El Dorado County 2004 General Plan Land Use Element designates the following communities in GDPUD as "Rural Centers" that are expected to have higher intensity development than other rural areas: Cool, Garden Valley, Greenwood, Georgetown, Kelsey, Quintette, and Pilot Hill. The Rural Center boundaries as depicted on the General Plan land use map serve as the established urban limit line based on the availability of infrastructure, public services and existing uses. To meet the commercial and service needs of the residents of the Rural Centers and Rural Regions, the predominant land use type within Rural Centers is commercial and higher density residential development⁹.

POPULATION

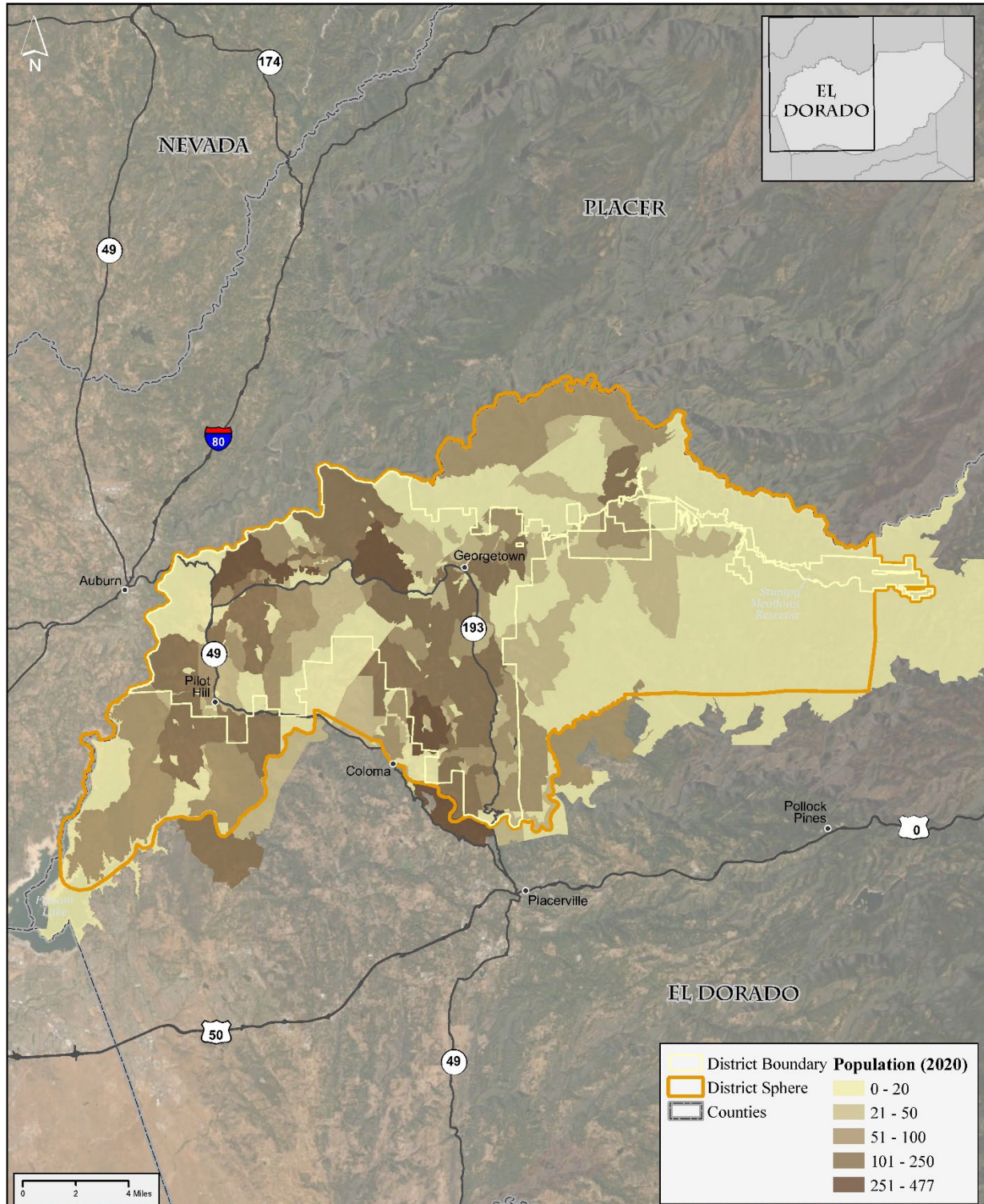
Using 2020 US Census data for census blocks in the District boundary, the estimated District population is 11,200. However, since the boundary of the District does not line up exactly with census boundaries, the actual population may be slightly larger or smaller than the estimate. The District estimates the total population within the District boundary to be roughly 15,000. The total population served by water connections is estimated to be 9,559. As noted previously, there are several communities within the District boundary. However, based on the size of census blocks and their margin of error, it is difficult to break up the population into these smaller areas. Figure 5 shows the level of population for census blocks within the District.

The US Census utilizes census designated places (CDP) in unincorporated areas where larger established communities exist. Within the District there are two CDPs including Georgetown and Auburn Lake Trails. The Auburn Lake Trails CDP would more accurately be called Cool CDP as it includes the larger community of Cool in which the Auburn Lake Trails development is located. When looking at population counts for Georgetown and Auburn Lake Trails CDPs (Figure 6 and Table 2) it can be seen that these two areas make up a large percentage of the population within the District (combined population of 5,643; approximately 50%). Both areas have seen a decrease in population since 2010 with an estimated annual decline of 0.48% for Georgetown and 0.11% for Auburn Lake Trails¹⁰.

⁹ El Dorado County, 2004 Rural Centers, Objective 2.1.2 and subsequent Policies. Accessed on January 27, 2022 from https://www.edcgov.us/Government/planning/pages/2004_rural_centers.aspx.

¹⁰ US Census Bureau, 2020 and 2010 Decennial Census Data, Table P2: Hispanic or Latino, and Not Hispanic or Latino by Race.

Figure 5: GDPUD Population Distribution



**Georgetown Divide
Public Utilities District - Population (by Census Block)**

Figure

Sources: Parcels - Humboldt County GIS, Roads - US Census TIGER. Map

At this time, it is unknown if the District population will increase or decrease over the next five to ten years. Rising annual temperatures and increased fire danger may cause people to move away from the area. However, increased housing costs and crowding in nearby cities may cause people to move into the area. Whether there is an increase or decrease in population overtime, the change is likely to be minimal and have a limited effect on the District's ability to provide services.

Figure 6: Location of Auburn Lake Trails and Georgetown CDPs



Table 2: Georgetown Area Population and Race Summary

Census Year	Total Population	Hispanic or Latino	Single Race						Two or More Races
			White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	
Georgetown CDP									
2020	2,255	232	1,783	40	27	10	3	15	145
2010	2,367	177	2,021	47	45	18	1	4	54
Auburn Lake Trails									
2020	3,388	297	2,801	13	35	47	3	16	176
2010	3,426	208	3,052	6	25	34	5	9	87

DISADVANTAGED UNINCORPORATED COMMUNITIES

As noted previously, a DUC is defined as any area with 12 or more registered voters where the annual MHI is less than 80 percent of the statewide annual median household income. Within a disadvantaged community, three basic services are evaluated: water, sewer, and fire protection. Georgetown Divide PUD provides water and wastewater services and is therefore responsible for assuring that these services are

adequately provided to the community. The Georgetown Fire Protection District (FPD), Garden Valley FPD, and El Dorado County FPD provide fire protection services to areas within and surrounding GDPUD.

Areas served by GDPUD can be classified as disadvantaged. Georgetown CDP has an estimated 2019 MHI of \$54,077 which is 74% of the statewide MHI of \$75,235. Additional areas around Volcanoville, which lies within the District's SOI, also have a MHI that is less than 80 percent of the state MHI. Special consideration should be given to these areas to ensure there is adequate water and wastewater services where practical. Areas to the west and south of Georgetown have a MHI that is close to or above the state MHI. This includes Auburn Lake Trails CDP which has a reported 2019 MHI of \$100,541¹¹. An income survey conducted in 2015 estimated the District-wide MHI at \$66,359. In order to obtain a more accurate representation of income, the District may want to consider conducting an updated population and income survey. A District specific income survey would show the income levels of all communities served. It may also allow the District to apply and be more competitive for additional grant funding.

SERVICES

WATER

GDPUD currently provides domestic and irrigation water service to the communities of Georgetown, Garden Valley, Kelsey, Greenwood, Cool, and Pilot Hill. Water services are the District's primary function and accounts for the bulk of their work.

Source

The District's primary water supply is Stumpy Meadows Reservoir (created by the Mark Edson Dam) on Pilot Creek on the eastern edge of the District. It has a capacity of 20,000 acre-feet and a surface area of approximately 330 acres. Pilot Creek is a tributary to the Rubicon River and part of the larger American River watershed. The District originally had facilities and water rights in the Upper Rubicon Basin but the District sold those facilities to the Sacramento Municipal Utility District (SMUD) in 1957. Proceeds of the sale were used by the District to develop the Stumpy Meadows Project¹².

Water is released from the reservoir into Pilot Creek and then reddiverted into the District's water supply system by the Pilot Creek Diversion Dam located approximately two miles downstream of the dam near Mutton Canyon Creek. Water is diverted into the El Dorado Conduit where it is then conveyed through approximately 70 miles of supply ditches and conduits throughout the District. Raw water is impounded at Walton Lake and the newly constructed Sweetwater plant for treatment and distribution to potable water customers.

Treatment

GDPUD operates two water treatment plants. The Walton Lake plant, serving the communities of Georgetown, Garden Valley and a portion of Greenwood was built in 1974 and has a capacity of three million gallons per day (MGD). The Auburn Lake Trails (ALT) plant, serving Cool, Pilot Hill, Cherry Acres, Meadow View Acres and a portion of Greenwood, was built in 1971 but was recently demolished and replaced by a new treatment plant.

¹¹ US Census Bureau, American Community Survey 2019 5-year Estimates. Table S1903 for Georgetown, Auburn Lake Trails, and California.

¹² GDPUD, 2020 Urban Water Management Plan. June 2021.

In February 2004, the CA State Department of Public Health issued an order to GDPUD to modify or replace the treatment process at both plants. The Walton plant was upgraded in 2007 but the ALT plant needed complete replacement. In 2015, the GDPUD Board of Directors decided to move forward with the project and approved a 20-year loan in the amount of \$10,000,000 from the State for the construction of the ALT treatment plant. The newly named Sweetwater Treatment Plant was completed in December 2019 and has a treatment capacity of three MGD¹³.

The raw water treatment process consists of adding a coagulant to reduce turbidity, filtration through a series of mixed media filters, pH adjustments with soda ash, and disinfection with pre- and post-treatment chlorination¹⁴.

Storage and Distribution

The District's treated water distribution system consists of eight generalized pressure zones, 10 treated water storage tanks, 200 miles of distribution mains, and six booster stations. The system is linear in nature, generally relying on topographic relief for conveyance from the Stumpy Meadows Reservoir to the east and a system of pipes and ditches to convey water downslope to the west to various places of use¹⁵.

Distribution lines consist of 40% asbestos cement (transite), 50% PVC, 8% ductile iron, and 2% steel piping. As of May 2019, the lines were considered to be in good condition¹⁶. Pressure is maintained throughout the system by numerous pressure reducing valves and six booster stations at various locations around the District. Booster pumps are utilized to pump water to higher elevation water storage tanks so it can then be gravity fed to customers.

Table 3: GDPUD Storage Tanks

Name	Capacity (MG)	Year Installed
Walton Lake Clearwell No. 1	0.3	1974
Walton Lake Clearwell No. 2	0.3	1991
Hotchkiss Hill No. 1	0.5	1974
Hotchkiss Hill No. 2	0.06	1974
Black Oak Mine	0.3	1978
Garden Park	0.2	1978
Kelsey	0.214	1992
Spanish Dry Diggins	0.2	1978
ALT – Angel Camp	0.5	1971
ALT – Deer Ravine	0.25	1971

In total the District has 2.824 MG of treated water storage spread out over 10 welded steel water storage tanks (Table 3). The tanks are considered to be in good condition with minor cleanup and maintenance issues such as the need for new vent screens, debris buildup on roofs, and pest control. Based on the

¹³ GDPUD, 2020 UWMP. June 2021.

¹⁴ State Water Resources Control Board, 2019 Compliance Inspection of the Georgetown Divide Public Utility District Public Water System (PWS NO. 0910013). Dated May 6, 2019. Conducted by Ali R. Rezvani, P.E.

¹⁵ 2020 Georgetown Divide Urban Water Management Plan.

¹⁶ SWRCB, 2019 Compliance Inspection. May 2019.

available storage, the District has less than one day's worth of peak water demand during the summer months¹⁷.

Demand

In 2021, the District utilized a total of 9,431 acre-feet (ac-ft) of water with 2,769 ac-ft of their firm yield remaining¹⁸. In 2020, the District supplied approximately 1,800 acre-feet (ac-ft) of treated drinking water and 6,500 ac-ft of raw irrigation water to a total of 3,689 active customers¹⁹. Treated water customers consisted primarily of residential customers, with 96% of the District's accounts (3,595 accounts) serving single family dwellings. There are also 10 multi-family unit accounts serving 94 households and 138 commercial/governmental accounts. The District is fully metered with the exception of three unmetered governmental connections and will be switching over to a fully automated meter system in 2022. There are also seven large landscape accounts which account for 0.2% of treated water accounts including a nine-hole golf course owned by the Auburn Lake Trails Property Owner's Association, two cemeteries, and the Georgetown Divide Recreation District parks.

The highest demand for potable water typically occurs in the summer months of July and August. Maximum day demand for treated water in 2017 was 3.88 million gallons with an associated monthly demand of 80.13 MG for July²⁰. Based on the combined available treatment capacity of six MGD, the District is able to adequately meet current demands.

In 2020, there were 382 irrigation accounts that utilized 3,941 ac-ft of water, which is approximately 74% of total water usage by the District. Raw irrigation water, which is limited to a maximum of 5,000 ac-ft for the season, is used for various agricultural purposes including Christmas tree farms, vineyards, pasture, orchards and hay production. Irrigation water is available five months out of the year from May 1 to September 30 and can be curtailed in the event of drought conditions. A large portion of the systems canals remain unlined and are therefore subject to high water losses. In 2020, the District estimated operational losses in the ditch conveyance system of approximately 3,619 ac-ft²¹. The District continues to work on lining the ditches as funding becomes available in order to further reduce these losses.

According to the District's 2020 Urban Water Management Plan, projected 2040 water use is calculated at 1,800 ac-ft for treated water and 5,000 ac-ft for raw irrigation water. Without accounting for improvements, total projected water uses in 2040, including treated and raw water losses, is estimated at approximately 9,500 ac-ft annually²². While Stumpy Meadows Reservoir has the capacity to meet this demand, should the supply lines between the reservoir and the treatment plants fail, there is no other source of water to support District needs. The District is aware of this issue and continues to research alternative sources of water, such as wells, to increase overall system redundancy and resiliency.

The District is aware of the amount of water losses in the system and continues to implement policies and projects to reduce the amount of water loss in the system. This includes lining earthen irrigation ditches, replacing ditches with pipelines, and improving operations. Water meters continue to serve as the primary

¹⁷ SWRCB, 2019 Compliance Inspection - Section E. May 2019.

¹⁸ GDPUD, 2021 Water Supply and Demand Summary. February 2022.

¹⁹ 2020 UWMP. Ch 4: Water Use Characterization.

²⁰ SWRCB, 2019 Compliance Inspection - Section A.4. May 2019.

²¹ GDPUD, 2020 UWMP.

²² GDPUD, 2020 UWMP.

tool in promoting water conservation and the automated water meter replacement project is anticipated to further improve conservation efforts.

Drought

The District's only source of water is Stumpy Meadows Reservoir and as a surface water source, it is susceptible to low precipitation and drought conditions. The District assesses the total volume of water available in the reservoir during the second week of April every year. Based on the amount of water present at that time, the Board makes decisions on availability of water for the season and potential drought conditions. The District has six stages for its Water Shortage contingency Plan as shown in Table 4.

The lowest recorded April volume occurred in 1977. At that time, there was 11,060 ac-ft of water in the reservoir. Even at this historic low, the District estimates there would be enough water to support demand. During the 2013-16 major drought the District Board made a Stage 3 water declaration which resulted in a 50% reduction in irrigation water and was coupled with the State's mandated 32% reduction of treated water. During this time, Stumpy Meadows Reservoir dropped to 12,724 ac-ft, the lowest level since 1977²³.

In planning for multiple dry years, the District's UWMP utilizes the 1977 low of 11,060 ac-ft for all years. Accounting for five years of drought, it is estimated that there would still be an excess of approximately 1,800 ac-ft based on projected demand for 2025²⁴. Even though there is likely enough water to support demand in drought conditions, conservation measures are still put in place to ensure adequate water supply is available for District needs, downstream users, habitat sustainability, wildfire, and other uses.

Table 4: Summary of GDPUD Water Shortage and Stages

Shortage Level	Percent Shortage	Condition	Responses
Stage 1	Up to 10%	18,000 AF	Water supply is slightly restricted. Customers are informed of possible shortages and asked to voluntarily conserve up to 10 percent.
Stage 2	Up to 20%	16,000 AF	Water supply is moderately restricted. Additional voluntary and mandatory measures are implemented to achieve a demand reduction goal of up to 20 percent.
Stage 3	Up to 30%	14,000 AF	Water supply is severely restricted. The enforcement of mandatory measures to achieve a demand reduction goal of up to 30 percent.
Stage 4	Up to 40%	12,000 AF	Shortage would require measures to reduce water use by 40%;
Stage 5	Up to 50%	10,000 AF	Water supply is extremely restricted. This would require water rationing for health and safety purposes in order to achieve a 50 percent reduction of demands.
Stage 6	Greater than 50%	Less than 10,000 AF	Same as Stage 5.

²³ GDPUD, 2015 UWMP - Section 6.1.2 Yield Analysis. June 15, 2016.

²⁴ GDPUD, 2020 UWMP – Table 7-4: Multiple Dry Years Supply and Demand Comparison.

In an effort to support conservation and ensure adequate supplies are available for potable water customers, District policies call for an annual evaluation of the District's water supply. This allows the District's Board to modify deliveries accordingly to ensure State of California and the District health and safety priorities are met to provide a reliable and consistent supply of safe drinking water to customers. In addition, with the projected increase in demand the District actively evaluates demand measurement methods in order to ensure adequate and reliable water supply.²⁵

Fees

The District implemented a new rate structure in 2018 after completing a full Proposition 218 process. Rates were scheduled to increase on an annual basis for five years in order to help build reserves to complete capital improvement projects. However, the District Board has chosen to freeze rates at the 2018 level. Customers are charged a monthly base rate according to meter size and a consumption fee of \$0.0255 per cubic foot²⁶. The District will be conducting a new rate study in the near future that includes more detailed background financial information about the District and implements a small annual increase.

Irrigation water customers are charged bi-monthly by the miner's inch (MI) based on whether they have a piped connection (\$77.00 per MI) or open ditch connection (\$154.20 per MI). Historically, the miner's inch was the quantity of water that discharged through a square inch opening under a prescribed head. This is approximately equal to 0.025 cubic feet per second (cfs) or 11.22 gallons per minute (gpm)²⁷.

During the pandemic, the District elected to suspend penalties and late fees in addition to the moratorium on utility shutoffs. This was done in order to assist households who may have lost income due to widespread shutdown of non-essential businesses.

Table 5: GDPUD Water Base Charge by Meter

Meter Size*	Monthly Base Rate as of January 1, 2018
5/8, 3/4, or 1"	\$29.41
1 1/2"	\$98.02
2"	\$156.83
3"	\$313.66
4"	\$490.09

*An Auburn Lake Trails (ALT) treatment plant supplemental charge of \$15.08 per month is also added to the above listed monthly base charge for all treated water customers

WASTEWATER

Wastewater disposal within the District is primarily handled with onsite wastewater treatment systems (septic tanks) due to the rural and spread out nature of the communities. However, the Auburn Lake Trails development located in Cool was designed to include a community disposal system for lots that are too small to accommodate an onsite treatment system. In 1984, the GDPUD Board of Directors approved the creation of the Auburn Lake Trails Subdivision On-site Wastewater Disposal Zone and took on oversight responsibilities²⁸. GDPUD is responsible for operation and maintenance of this system including inspection

²⁵ GDPUD, 2020 UWMP.

²⁶ GDPUD, Rates – Domestic (Treated) Water Rate Schedule.

²⁷USFS, Stream Systems Technology Center, Stream Notes – "Ask Doctor Hydro". January 1997.

²⁸ GDPUD, Resolution 84-6. August 8, 1984.

of new onsite systems and monitoring of surface and groundwater for any potential contamination from the system.

Collection

Homes within the Auburn Lake Trails development generally have onsite septic tanks and leech fields. Parcels that are unable to support a full onsite treatment system pump wastewater from the tanks to the community disposal system. Connection to the community system has been limited to 139 parcels by Waste Discharge Requirements put in place by the Regional Water Quality Control Board. The collection system consists of 13,300 feet of mains that are four to eight inches diameter PVC, ABS, or ACP pipe. Mains typically utilize gravity flow where possible but there are approximately 2,950 feet of force mains that pump effluent up to the community disposal fields²⁹.

Treatment

Treatment of effluent begins on each parcel where solids, oil, and grease typically settle out in the onsite tank which are then pumped out as needed and hauled away to a designated disposal facility. The remaining liquid effluent then flows, or in some cases is pumped, through the community system to the community disposal fields just east of Trading Post Court. There are five fields consisting of approximately 11,600 linear feet of disposal trench that are permitted to dispose of an average daily wastewater volume of 71,800 gallons. The trenches are fully contained underground and interconnected with an underground piping system. Effluent is distributed to the various disposal fields on a systematic basis to maximize treatment and ensure longevity of the system³⁰.

One lift station exists near American River Trail and Blue Tent Court. A wet well at this location collects effluent and the lift station pumps it up Paymaster Trail and then into the community disposal fields. In the event of an emergency, a chlorination system is available to treat water and assist with sewer overflow cleanup.

Demand

A total of 137 parcels out of the permitted 139 are connected to the community disposal system. From 2013 to 2017, the average daily flow and average dry weather flow were recorded at 21,197 gallons per day (gpd) and 17,700 gpd³¹ respectively. Dry weather months are considered to be June, July, August. During wet weather months such as January and February, flows can reach up to 89,500 gallons for the month. Since the system is permitted for up to an average of 71,800 gallons per day, there appears to be more than adequate capacity to meet current and future demand.

Fees

All parcels within the Auburn Lake Trails development are subject to wastewater fees. Parcels that are part of the community disposal system are charged a bi-monthly fee of \$91.38 for developed lots and \$35.20 for undeveloped lots. Parcels that are not part of the community disposal system are charged a bi-monthly fee of \$19.79 for developed lots, and \$17.13 for undeveloped lots. These fees are used to offset the costs of system maintenance and repair in addition to regular groundwater and soil monitoring. The District also

²⁹ GDPUD, Sewer System Management Plan. September 2018.

³⁰ GDPUD, SSMP, Section 1.2.1. September 2018.

³¹ GDPUD, SSMP, Section 9.2.3. September 2018.

charges fees for connections, new onsite system inspections, and other inspection requests as noted in the Table 6 below.

In 2019 the District conducted a rate study for the Auburn Lake Trails wastewater system. The study found that the reserves for the system were higher than required to support capital needs over a five year period. As such, the study recommended a reduction in rates that would gradually drawdown reserves without drastically reducing the account or unfairly providing reimbursements to new incoming or outgoing residents. Based on this study and its recommendations, the District implemented an updated rate schedule for wastewater services. This schedule, shown in the table below, included an initial decrease in rates for many customers with subsequent minor rate increases from FY2019/20 to FY2023/24. The District is encouraged to conduct an updated rate study at the end of this period and, if required, a Proposition 218 process to ensure that funds generated from fees for services are able to continue supporting operation, maintenance, and upgrades required for the system.

Table 6: GDPUD Wastewater Fees for Additional Services

One Time Wastewater Fees	
Escrow Inspection	
Escrow inspection, report, follow-up and final inspection	\$260
Each additional inspection (above the first two for the same lot)	\$100
Special Inspection Request	
Examples: Construction of barns, garages, patio additions, fencing and swimming pools	\$100
Wastewater System Design and Inspection Fees	
Design review, site analysis, testing review and inspection services	\$820
Community Disposal System	
Design Review inspection	\$740
Connection fee	\$2,470

Table 7: Rate Study Recommended Wastewater Fee Schedule

Customer Type	Bi-Monthly Fee					
	Current (May 2019)	FY 19/20 Yr 1	FY 20/21 Yr 2	FY 21/22 Yr 3	FY 22/23 Yr 4	FY 23/24 Yr 5
Community Disposal System (CDS)		Rates Paid every 2 Months (Bi-Monthly)				
Developed Lot	\$101.74	\$75.42	\$83.24	\$91.38	\$99.77	\$108.58
Undeveloped Lot [1]	\$35.20	\$56.03	\$62.45	\$69.09	\$76.01	\$83.35
Non-CDS						
Developed Lot	\$40.72	\$15.40	\$17.54	\$19.79	\$22.19	\$24.76
Undeveloped Lot	\$32.26	\$13.10	\$15.05	\$17.13	\$19.35	\$21.75

POWER GENERATION

Facilities

GDPUD has an agreement with a private entity to re-power, operate and maintain the District's Tunnel Hill and Buckeye Hydroelectric Plants. On average, the two plants produce a combined total of 3.6 million kilowatt hours annually. The District receives a portion of the revenue from the power sold to Pacific Gas and Electric (PG&E). GDPUD has no operational responsibilities or financial obligations associated with these projects at this time. At the end of the 20 year contract agreement (2026), the District is scheduled to take over the project.

Hydroelectric facilities can be considered a renewable energy source and generally have long operational lifespans. However, these projects can be impacted heavily by drought and it is becoming more difficult to construct the necessary surface water storage to support power generation. The District is planning to take on management of the current facilities and has been looking into opportunities for expanding hydroelectric capabilities in the future. However, based on current drought conditions and limited return on investment for these types of projects, other more cost effective measures may be considered.

OTHER SERVICE PROVIDERS

Fire Services

The GDPUD boundary includes three fire protection districts including Georgetown FPD, Garden Valley FPD, and El Dorado County FPD. Georgetown FPD provides fire services from Georgetown to Volcanoville. Garden Valley FPD provides services from Kelsey to Greenwood, and El Dorado County FPD provides services along highway 49 from Placerville to Cool and also Auburn Lake Trails (in addition to its other service areas throughout the county). The District is also in State and Federal Responsibility Areas and there are multiple CalFire and United States Forest Service Stations that monitor for and tackle wildfire in the region. In total, there are 12 fire stations within the District that provide services. However, only three are staffed year-round while the others are typically unstaffed.

Areas in and around the District are densely forested and at risk for wildfire. In 2014, the King Fire burned though the eastern portion of the District around Stumpy Meadows Reservoir and up through the Rubicon River Drainage to Hell Hole Reservoir with a total of 97,717 acres burned and 80 structures destroyed.

Others

Electricity, as noted previously, is provided by PG&E. Weekly solid waste services are provided by El Dorado Disposal which also includes recycling pickup. Internet services can be obtained from numerous service providers including Xfinity, HughesNet, Viasat, EarthLink, and others.

ORGANIZATIONAL STRUCTURE

GOVERNANCE

The District is governed by a five-member Board of Directors elected at-large for four-year overlapping terms. The District's management is under the direction of the General Manager. There is also a Clerk and ex-officio Secretary of the Board, who is appointed by and serves at the pleasure of the Board.

Table 8: GDPUD Board of Directors

Name	Title	Term
Michael Saunders	President	2018-2022
Mitch MacDonald	Vice President	2020-2024
Mike Thornbrough	Treasurer	2020-2024
Donna Seaman	Director	2018-2022
Gerry Stewart	Director	2018-2022

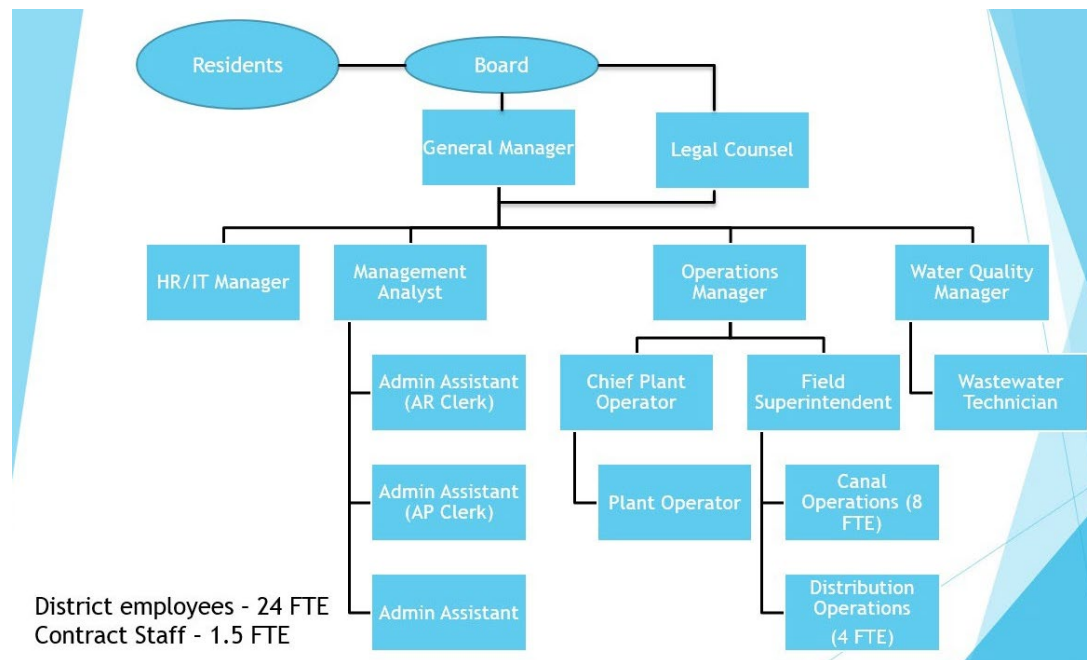
The Board of Directors meets on the second Tuesday of each month. Unless otherwise noticed, meetings are held at the District office located at 6425 Main St, Georgetown and start at 2:00 P.M. During the Covid-19 pandemic, Board meetings were typically held via Zoom videoconference with options for online and telephone participation. Currently, the Board is conducting hybrid meetings with in person attendance available at the GDPUD office in addition to virtual and teleconference options available via Zoom. There are also two standing committees that meet on a regular basis; the Finance Committee and the newly formed Irrigation Committee.

Director's must adhere to the policies set forth in the adopted policy manual. Each Director receives a monthly stipend of \$400 if they attend the regular monthly meeting and are eligible to receive reimbursement for expenses incurred for District business. Additionally, Director's participate in required training on ethics.

STAFFING

The District is operated by 24 employees including a General Manager, Operations Manager, Office/Business Manager, Water Resources Manager, and Human Resources/IT specialist along with multiple administrative, operations, and field staff. Staff is responsible for the day-to-day operations of the District including routine inspections and maintenance, billing, system repairs, treatment plant, field maintenance, and general customer service. The District offers employees benefits including medical, dental, vision, life insurance, and participation in CalPERS.

Figure 7: GDPUD Organizational Chart



ACCOUNTABILITY AND TRANSPARENCY

The District maintains a website in accordance with SB929 that is regularly updated by District staff. Board meetings follow the Brown Act, and local and state regulations regarding meetings held during a state of emergency. Meeting agendas are posted at least 72 hours in advance on the District website as well as at the District office. Meeting minutes are posted to the website when available along with other important documents including annual budgets and audits.

FINANCIAL OVERVIEW

BUDGET

The District adopts an annual budget prior to June 30th in accordance with PUD law. Annual budgets provide line items for revenues and expenses covering the District water and wastewater operating funds as well as their non-operating funds. Table 9 provides an overview of the last five fiscal years' adopted budgets.

Major revenue for the District includes fees for services and property taxes. In FY2021-22 sales for treated water and irrigation water accounted for 62% of the District's total revenue (approximately \$3.3 million) while property taxes accounted for 32% (approximately \$1.7 million) and lease revenue accounted for 2% (approximately \$109,000). Major expenses for the District include personnel (salaries and benefits) which account for 62% (approximately \$3.3 million), utilities, and materials and supplies needed for distribution of raw and treated water.

Table 9: GDPUD Budget Summary

	FY2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Revenue					
Water Fund	\$4,591,258	\$5,647,659	\$5,912,406	\$5,330,256	\$5,324,956
Wastewater (Zone) Fund	\$348,000	\$426,600	\$190,500	\$200,317	\$221,401
<i>Total</i>	<i>\$4,939,258</i>	<i>\$6,074,259</i>	<i>\$6,102,906</i>	<i>\$5,530,573</i>	<i>\$5,324,956</i>
Expenses					
Water Fund	\$4,591,258	\$5,647,659	\$6,787,923	\$5,201,743	\$5,012,701
Wastewater (Zone) Fund	\$361,096	\$402,671	\$294,505	\$338,819	\$280,293
<i>Total</i>	<i>\$4,952,354</i>	<i>\$6,050,330</i>	<i>\$7,082,429</i>	<i>\$5,540,562</i>	<i>\$5,292,994</i>
Total Net Income (Deficit)	(\$13,096)	\$23,929	(\$979,523)	(\$9,989)	\$31,962

Over the last five fiscal years reviewed, the District has seen a fluctuation of budgeted net income. In January 2018 the District implemented a new treated and irrigation water rate schedule after completing a rate study and Proposition 218 process. The change in rates was intended to build up reserve funds in order to pay for necessary capital improvements to the system^{32,33}. The rate increases coupled with grant funding has allowed the District to construct capital improvement projects including replacement of the Auburn Lake Trails Water Treatment Plant, commencing construction of the Walton Water Treatment Plant, tank recoating, water line repair, and other projects as needed. However, the Board chose to freeze the annual rate increases at the 2018 levels. This has resulted in less funding for capital reserves than what was initially planned over the last several years. Additionally, in 2019, the Board chose to reduce wastewater fees for the Auburn Lake Trails area in an effort to draw down a high reserve balance for the wastewater treatment zone³⁴.

In order to better balance operating revenues and costs across all service types, the District is encouraged to conduct a new rate study and Proposition 218 process to implement a rate structure that is both beneficial for the District and economical for customers.

Capital Improvement Plan

The District maintains a Capital Improvement Plan (CIP) that outlines planned improvements over the next five fiscal years. The CIP, while not a financial commitment by the Board, is taken into consideration when developing the proposed budget each year. It allows the District to keep track of and plan for major upcoming projects such as storage tank recoating, ditch lining, pump upgrades, and other major capital projects. As of FY 2021-22, the District had \$6.8 million in planned capital improvement projects with \$10.2 million in available funding from a combination of capital reserves, capital facility charges, and the dedicated ALT wastewater treatment plant capital reserve³⁵.

³² GDPUD, Annual Financial Report for the Year Ended June 30, 2018. Prepared by LSL CPAs and Advisors.

³³ Rural Community Assistance Corporation, Georgetown Divide PUD Water Financial Analysis: Requested by California State Water Resources Control Board. October 2017.

³⁴ GDPUD, Fiscal Year 2019-2020 Budget, Wastewater Charges/Fees (Pg 6). June 2019.

³⁵ GDPUD, Board Meeting Agenda for September 14, 2021, Agenda Item No. 8.B: Five-Year CIP.

AUDIT

The most recent audit completed by the District is FY 2020-21. The District's current operating revenue does not cover the total operating cost. However, as discussed under Budgets, the District has additional revenue sources that has provided for a net surplus of funds over the last three fiscal years reviewed. Due to the age of the District, they were previously able to secure a portion of the ad valorem property tax. This additional income, along with hydroelectric royalty payments, grants, and other minor income, helps offset rising operating costs³⁶.

Table 10: GDPUD Net Position Summary

	FY2016-17*	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Assets	\$26,910,042	\$34,144,079	\$36,843,659	\$37,935,382	\$37,757,989
Liabilities	\$9,721,780	\$17,684,586	\$19,197,402	\$18,966,119	\$17,299,322
Net Position	\$17,188,262	\$16,459,493	\$17,646,257	\$18,969,263	\$20,458,667
Net Position Change	-	-\$728,769	+\$1,186,764	+\$1,232,006	+\$1,489,404

*The FY2016-17 audit was not conducted according to generally accepted accounting principles in the United States of America as only partial prior-year comparative information was utilized. As such, the net position presented may not accurately reflect the net position of the District for that fiscal year.

As shown in Table 10, the District has been able to increase its net position over the last three fiscal years. This is largely due to investment in capital projects such as the Auburn Lake Trails water treatment plant and water line replacements.

Table 11: GDPUD Audit Revenues Summary

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Operating Revenues					
Residential Water Sales	\$1,350,610	\$1,862,227	\$2,411,551	\$2,439,724	\$3,139,700
Commercial Water Sales	\$224,924	\$260,936	\$315,496	\$306,099	-
Irrigation Water Sales	\$224,156	\$317,330	\$416,369	\$407,856	\$395,020
Water Disposal Fees and Charges	\$347,582	\$344,440	\$344,072	\$169,244	\$226,129
Penalties	\$43,652	\$48,499	\$53,323	\$82,276	\$159,909
Connections	\$33,044	\$10,854	\$8,741	\$4,172	\$9,697
Other	\$32	-	-	-	-
Non-Operating Revenues					
Property Taxes	\$1,524,159	\$1,577,792	\$1,657,978	\$1,710,211	\$1,769,095
Interest Income	\$67,985	\$88,287	\$225,148	\$197,437	\$7,211
Capital Facility Payments	\$53,200	\$26,892	\$27,600	\$2,300	\$20,700
Lease Revenue	\$65,795	\$128,399	\$132,847	\$151,215	\$394,809
Hydroelectric Royalty Payments	\$49,655	\$28,858	\$173,896	\$57,714	\$36,619
SMUD Payment	\$107,729	\$109,315	\$111,613	\$114,339	\$116,443
Gain on Sale of Asset	-	\$875	-	-	\$3,500
Surcharge	\$328,751	\$657,545	\$659,594	\$660,026	\$662,210
Capital Contributions	\$715,365	\$221,856	\$58,936	\$531,492	-
Other	\$4,488	-	\$33,658	-	\$404,592
Total Revenues	\$5,141,124	\$5,684,105	\$6,630,822	\$6,834,105	\$7,345,634

³⁶ GDPUD, Annual Financial Report for the Year Ended June 30, 2020. Prepared by LSL CPAs and Advisors.

Tables 11 and 12 provide a more detailed summary of the District's revenues and expenses for the last five fiscal years. Interest income and capital facility payments decreased over the last two years due to fluctuations in market results and slower economic growth. Property tax revenue increased to \$1,769,095. Capital contributions increased to \$531,492 in FY 2019-20 from \$58,936 in the prior FY due to an increase in grant reimbursements related to the CABY Grant for Auburn Lake Trails Treatment Plant project.

Table 12: GDPUD Audit Expenses Summary

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Operating Expenses					
Sources of Supply	\$291,251	\$507,060	\$1,096,171	\$299,154	\$332,810
Raw Water Distribution	\$416,978	\$694,663	\$689,590	\$735,658	\$761,268
Water Treatment	\$576,938	\$835,115	\$807,877	\$799,087	\$800,000
Treated Water Distribution	\$692,748	\$806,764	\$828,145	\$775,740	\$959,039
Customer Service	\$245,576	\$217,882	\$215,433	\$179,778	\$259,308
Admin, Claims, Hydroelectric	\$956,416	\$1,431,594	\$849,939	\$1,720,075	\$1,667,210
Depreciation and Amortization	\$666,864	\$652,963	\$646,938	\$634,425	\$927,189
On-Site Wastewater Disposal Zone	\$272,233	\$338,696	\$265,447	\$194,429	\$292,524
Non-Operating Expenses					
Loss on Disposal of Capital Assets	-	-	-	\$1,598	-
Interest Expense	\$25,210	\$138,046	\$27,147	\$161,470	\$161,861
Other	\$55,673	\$4,370	\$17,371	\$9,685	\$1,460
Total Expenses	\$4,199,887	\$5,627,153	\$5,444,058	\$5,511,099	\$5,843,926
Total Revenues	\$5,141,124	\$5,684,105	\$6,630,822	\$6,834,105	\$7,345,634
Gain/(Loss)	\$941,237	\$56,952	\$1,186,764	\$1,323,006	\$1,501,708

LONG-TERM DEBT

As of June 30, 2021, the District had \$9,542,930 in long-term debt including direct borrowing, capital leases, compensated absences, custodial funds. Included in this debt are three long-term contracts entered into with the California State Water Resources Control Board (SWRCB):

- Kelsey North Water Assessment District 1989: Contract amount \$630,000. Two payments annually of \$15,398. Beginning April 1993 and ending October 2027 with an interest rate of 3.3712%.
- Walton Lake Water Treatment Plant Filter Replacement. Contract amount \$400,511. Two payments annually of \$12,529. Beginning October 2010 and ending April 2030 with an interest rate of 2.2836%.
- Auburn Lake Trails Water Treatment Plant Upgrade. Contract amount up to \$10,000,000. Two payments annually ranging between \$200,000-\$300,000. Beginning July 2019 and ending January 2040 with an interest rate of 1.6%.

Additional long-term debt includes a long-term capital lease with Verizon for construction of a permanent cell tower that is owned by the District, and long-term capital lease for a 2016 Dodge Ram 5500. The District

also has a net pension liability of \$6,000,118. More detailed information on the District's current debts can be found under Notes 5, 6, 7, 12, and 14 of the FY2019-20 audit.

Another long-term loan was secured by the District in July 2021 in the amount of \$1,726,046 for the automated meter reading project. This loan will be included in future audits.

GRANT FUNDING

Over the past several years, the District has been successful in obtaining grants to fund intrastate upgrades and equipment purchases. These grants include:

- California Office of Emergency Services: \$119,514 was awarded for purchase of a generator.
- US Bureau of Reclamation – Water Smart Program: \$500,000 was awarded to the District to support installation of automated meters.

MSR DETERMINATIONS

As set forth in Section 56430(a) of the CKH Act- In order to prepare and to update the SOI 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 a 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.

- a) Based on US Census blocks compared to the District boundary, there is an estimated population of 11,200 within the District.
- b) Due to economic conditions, topography, zoning, and sewage disposal constraints, the District's population is not expected to significantly increase in the next five to ten years.

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

- a) Areas in and around the GDPUD boundary and SOI can be classified as DUCs. These include areas around Georgetown and Volcanoville which have MHIs that are 74% and 63% of the statewide MHI, respectively. These areas are rural in nature with limited development and potential population growth.

(3) Present and planned capacity of public facilities and adequacy of public services, including infrastructure needs or deficiencies.

- a) Both water treatment plants recently underwent upgrades to meet current state standards for treatment. They can both produce up to three MGD which is adequate to serve the needs of the District.
- b) Irrigation water is transported through a series of pipelines and open ditches which are subject to large water losses primarily from seepage and infiltration through unlined ditch segments. The District is encouraged to continue its ditch lining/piping program in order to further decrease irrigation water losses.
- c) While the District currently has sufficient water supply to meet current and projected needs, the single source of supply is potentially vulnerable to interruption from damage to the supply line. The District is encouraged to work with State and Federal agencies to obtain funding for a second source of water to help build resiliency into the supply system.
- d) The community disposal fields for the Auburn Lake Trails development are able to accommodate current demand and are in generally good condition.

(4) Financing ability of agencies to provide services.

- a) The District's combined operating and non-operating revenues are currently adequate to cover budgeted expenditures. While operating revenues do not entirely cover operating costs, the District has diverse non-operating revenue streams, including property tax, lease revenue, and

hydroelectric income, that allows them to cover all budget expenditures and build reserves to fund ongoing maintenance and repair.

- b) The District is encouraged to continue with its current rate study efforts to determine whether rate restructuring would further benefit the District while taking into consideration the economic impacts to its customers.

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

- a) The District currently maintains agreements with Verizon wireless for a communication tower on District property and receives royalty payments for hydroelectric facilities.
- b) In the event of emergency situations, the District may be able to transport water on a case by case basis to other water suppliers who are in need if the District determines there is an adequate surplus of water.

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

- a) The District operates under a governing five-member Board of Directors elected at-large for four-year overlapping terms. The District's management is under the direction of the General Manager, Clerk, and ex-officio Secretary of the Board, who is appointed by and serves at the pleasure of the Board.
- b) The District maintains a website where information on Board meetings and other District events is posted on a regular basis.

(7) Any other matter related to effective or efficient service delivery.

- a) It is recommended that the District continue planning for long-term operation and maintenance of existing hydroelectric facilities.

SOI DETERMINATIONS

In order to carry out its purposes and responsibilities for planning and shaping the logical and orderly development of local governmental agencies to advantageously provide for the present and future needs of the county and its communities, the commission shall develop and determine the sphere of influence of each city, as defined by G.C. Section 56036, and enact policies designed to promote the logical and orderly development of areas within the sphere. In determining the sphere of influence of each local agency, the commission shall consider and prepare a written statement of its determinations with respect to the following:

(1) Present and planned land uses in the area, including agricultural and open-space lands.

- a) Due to the large size of the District and varied topography of the area, there is a wide range of land uses present within the District boundary and SOI. Land uses are largely Rural Residential, Low Density Residential, and Natural Resources with some Agricultural lands.
- b) Areas within the District's SOI are largely Natural Resource, Open Space, Low Density Residential, and Tourist Recreational. A designated Agricultural District also exists near Lilyama Road and Highway 49 just west of Coloma.

(2) Present and probable need for public facilities and services in the area.

- a) The area continues to be populated and supports the small rural communities of Georgetown, Garden Valley, Kelsey, Greenwood, Pilot Hill, Cool, and Volcanoville (within the District's SOI but served by a separate water company).
- b) Based on the limited potential for growth in the area, it is not expected that the District will need to expand services in the near future.

(3) Present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide.

- a) The District is currently able to provide adequate water and wastewater services to the area.
- b) The District relies on a single source of water to supply the entire District. In the event the raw water pipeline from the diversion point to the Walton treatment plant is damaged or otherwise becomes inoperable, the District would have limited supply to fulfill customer demands. It is recommended that the District continue to seek out additional emergency sources of water such as wells or other surface water diversions.

(4) Existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency.

- a) The City of Auburn is located approximately six miles northwest of Cool on Highway 49. This city provides a full range of services to meet community needs including groceries, medical care, recreation activities, and other amenities.
- b) The City of Placerville is located approximately 15 miles south of Georgetown along Highway 193. This city also provides a full range of services to meet community needs including groceries, medical care, recreation activities, and other amenities.
- c) The City of Folsom is located approximately 15 miles southwest of Pilot Hill along Salmon Falls Road. This can be considered a major metropolitan area and is part of the greater Sacramento area.

(5) For an update of a sphere of influence of a city or special district that provides public facilities or services related to sewers, municipal and industrial water, or structural fire protection, the present and probable need for those public facilities and services of any disadvantaged unincorporated communities within the existing sphere.

- a) No change to the SOI is proposed at this time.

GRIZZLY FLATS COMMUNITY SERVICES DISTRICT

AGENCY OVERVIEW

Contact Information	
Mailing Address	P.O. Box 250, Grizzly Flats, CA 95636-0250
Physical Address	4765 Sciaroni Road, Grizzly Flats, CA 95636-0250
Phone	(530) 622-9626
Website	http://grizzlyflatscsd.com/
Management Information	
Manager	Jodi Lauther, General Manager
Governing Body	Five-member Board of Directors, elected by popular vote of the general public who reside within the District boundaries
Board Members	Lynn Hannblom, Chair; Bob Chigazola, Director; Art Davidson, Director; Sherry McKillop, Director; Kent Malonson, Director
Board Meetings	2 nd Thursday of each month at 6:30 PM at the District office located at 4765 Sciaroni Rd, Grizzly Flats, CA 95636
Staffing	Jodi Lauther, General Manager Kim Gustafson, Office Facilitator/ Board Secretary Andy Vicars, Maintenance Technician/ Distribution Operator
Service Information	
Services Provided	Water services for domestic use and fire protection
Latent Powers	All others in CSD formation law, not included above
Area Served	1,736 acres in the community of Grizzly Flats
Population Served	~1,100 (pre-Caldor Fire)
Fiscal Information	
2021-22 Budget Summary	O&M Revenues: \$590,000 CIP Revenues: \$81,120 O&M Expenses: \$585,202 CIP Expenses: \$41,186
Funding Sources	Fees for Services; Standby Charges; Penalties; Grant Funding
Rate Structure	Base rate of \$68.97, plus a volumetric charge of \$1.20 per hundred cubic feet (748 gallons)

FORMATION

PRINCIPAL ACT

The CSD principal act is the Community Services District Law (Government Code §61000, et seq.) which authorizes CSDs to provide up to 31 types of governmental services within their boundaries. Grizzly Flats CSD is authorized to provide water services only. Other services, facilities, functions or powers enumerated in the District's principal act but not identified in the formation resolution are "latent," meaning that they

are authorized by the principal act under which the District is formed but are not being exercised. Latent powers and services activation require LAFCO authorization as indicated in Government Code §25213.5.

FORMATION PROCEEDINGS

Grizzly Flats CSD was formed by the El Dorado County Board of Supervisors on October 27, 1987 (Resolution No. 387-87). The special district was formed for the purpose of providing water services for domestic, irrigation, sanitation, industrial, fire protection and recreational use to area residents.

BOUNDARY AND SOI

The District's jurisdictional boundary and Sphere of Influence (SOI) are coterminous and cover approximately 1,736 acres. The District's service area includes the Grizzly Park subdivisions and several larger perimeter parcels. The District estimates that approximately 1,220 parcels could require water within the service area once full build-out of the community is reached.

Grizzly Flats CSD's service area is overwhelmingly surrounded by a significant amount of U.S. Forest Service Land designated as natural resource, along with a few rural and medium density residential parcels. Grizzly Flats CSD's SOI was amended in 2008 to remove these parcels from the SOI, resulting in a new SOI that is coterminous with the District's service boundaries^{37,38} (Figure 7).

The District's current boundary and SOI adequately cover the anticipated service area for the District and as such, no changes to either are proposed at this time.

CALDOR FIRE

On August 14, 2021, the Caldor Fire erupted just southwest of the District near Omo Ranch Road. Due to extreme fire conditions including less than normal precipitation, warm weather and high winds, the fire spread rapidly and exhibited erratic and unprecedented fire behavior. Within days the fire reached Grizzly Flats and destroyed much of the community including historical buildings, the elementary school, post office, and nearly 400 homes. The fire continued to spread throughout El Dorado County and reached 221,835 acres before reaching full containment in October 2021³⁹.

Fire impacts to District infrastructure included loss of the reservoir metering building, and two storage/booster pump stations. Additional impacts included damage to the water storage tanks, distribution lines, and both water intakes. Even with the extensive amount of damage to the system, the District worked with contactors and state personnel to reestablish water service to much of the community in October 2021⁴⁰. Long term recovery efforts are planned to begin once water service has been fully restored to the community.

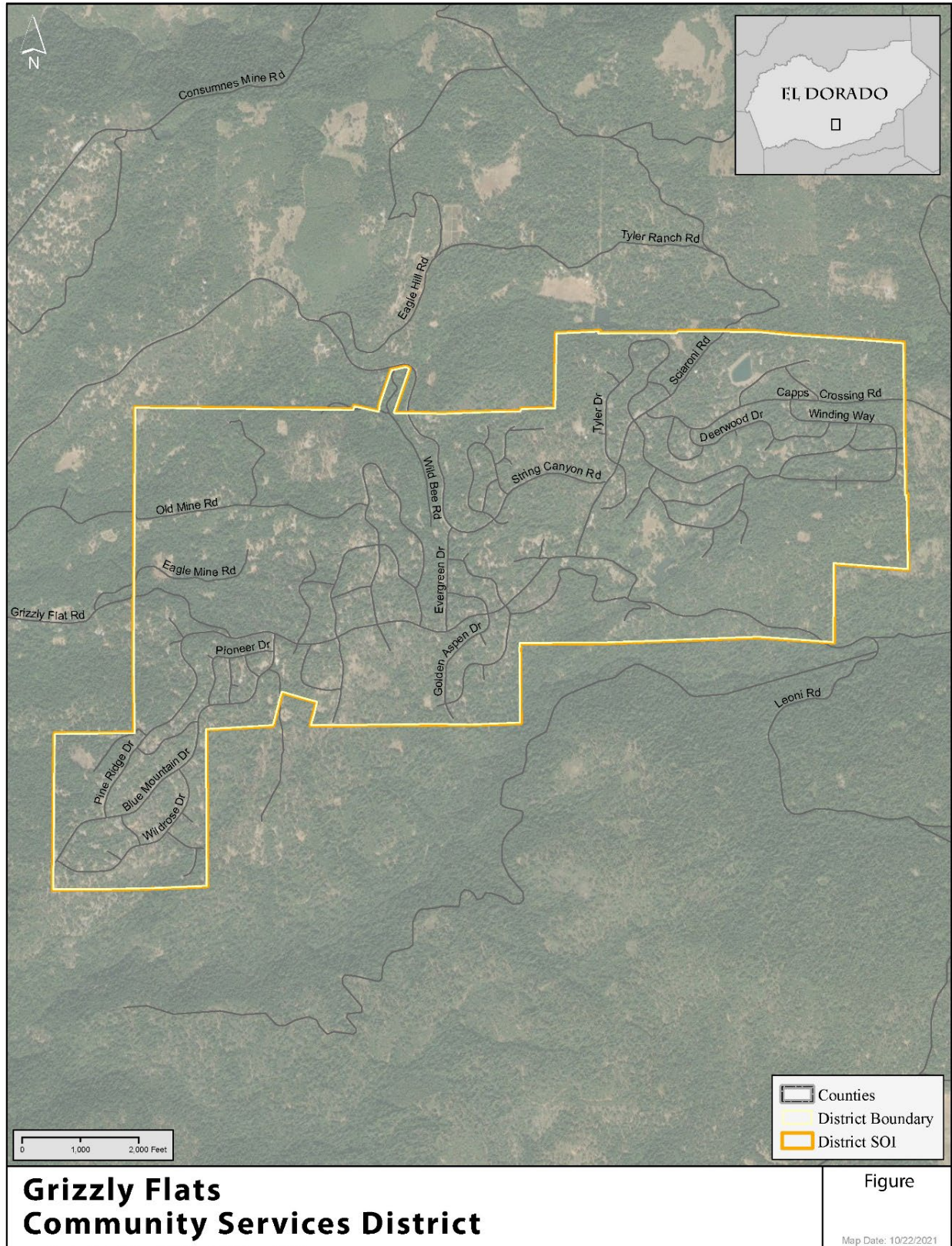
³⁷ El Dorado LAFCO, Resolution L-2008-03: update to the Grizzly Flats Community Services District Sphere of Influence. January 30, 2008.

³⁸ El Dorado LAFCO, GFCSD MSR Update 2014.

³⁹ InciWeb – Incident Information System, Caldor Fire Incident Information. Accessed October 29, 2021 from <https://inciweb.nwcg.gov/incident/7801/>.

⁴⁰ Grizzly Flats CSD, Caldor Fire Recovery Status Reports for September 22, 2021 and August 30, 2021.

Figure 8: GFCSD Boundary and SOI



LAND USE

Grizzly Flats is a rural community center characterized by dense forest lands over hilly terrain. Approximately 1,220 parcels exist with the District boundary varying in elevation from 3,600 feet to 4,200 feet. Steep river canyons for the North Fork and Steely Fork Consumnes Rivers are located to the north and south of the District with other smaller creeks and streams running though the District.

Land uses within the District are currently subject to the El Dorado County General Plan and Zoning Regulations (El Dorado County Code Title 130). Under the current General Plan, land uses within the District are a mix of Low, Medium, and High Density Residential with limited Public Facility, Open Space, and Commercial designated land. Areas surrounding the District are almost entirely natural resource, a large portion of which is National Forest Service lands. Additional land to the west of the District is designated as Rural Residential Platted Land, which indicates that the existing density level of parcels in the area is inappropriate for the Rural Residential designation and cannot be further subdivided⁴¹.

POPULATION

Grizzly Flats is a Census Designated Place (CDP) within El Dorado County with a boundary that is slightly larger than the District. According to the 2020 Decennial Census there is a population of 1,093 within the CDP. This is a slight increase from the 2010 census estimate of 1,066⁴². Based on data collected in the 2020 Decennial Census, the population of Grizzly Flats is predominantly white with a small percentage of Hispanic/Latino, and other races as shown in the Table 13 below.

Table 13: Grizzly Flats CDP Population by Race

Census Year	Total Population	Hispanic or Latino	Single Race						Two or More Races
			White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	
2020	1,093	99	868	3	17	13	0	6	87
2010	1,066	96	891	5	14	7	2	1	50

At this time, it is unknown how the Caldor Fire will impact overall population in the area. Some property owners in the area who lost homes may choose to live on the land in mobile housing units and/or rebuild while others may leave the area. It has been estimated that approximately 40% of the population in the area was underinsured and 25% had no insurance at all which severely impacts property owners' ability to rebuild and repopulate the community. Based on the number of homes lost, lack of adequate insurance, and rising costs of building, there will likely be a dramatic decrease in population over the next few years.

⁴¹ El Dorado County, General Plan Land Use Element, Policy 2.2.2.3. Amended August 2019.

⁴² US Census Bureau, 2020 and 2010 Decennial Census, Table P1 for Grizzly Flats CDP.

DISADVANTAGED UNINCORPORATED COMMUNITIES

LAFCO is required to evaluate water service, wastewater service, and structural fire protection within disadvantaged unincorporated communities (DUC) as part of this service review, including the location and characteristics of any such communities. Grizzly Flats CSD provides water service only and is therefore responsible for assuring that this service is adequately provided to the community. Wastewater service is provided by individual septic systems and the Pioneer Fire Protection District provides fire protection services to areas within and surrounding Grizzly Flats CSD.

Grizzly Flats Census Designated Place (CDP) has a median household income (MHI) of \$50,757 which is 67% of the statewide MHI of \$75,235 and therefore qualifies as disadvantaged⁴³. The block group boundary for this area is substantially larger than the District boundary and income estimates cannot be refined further. In order to obtain a more accurate income estimate, the District may want to conduct an income survey within their boundaries. A more accurate estimate could provide access to more funding opportunities to assist with recovery efforts and long term planning.

SERVICES

WATER

Source

The District obtains its water supply by direct diversion of stream flows from North Canyon and Big Canyon Creeks which are tributaries to the North Fork Cosumnes River. Flows are diverted through the Eagle Ditch pipeline and are pursuant to water rights dating back to the 1850's. The District's primary water right is a pre-1914 right to divert water from the two creeks. Based on historical records, the District is allowed to divert up to 12.5 cubic feet per second (500 miner's inches) on a year-round basis. Additional water rights include a permitted storage right for 31 acre-feet from the creeks for storage in Grizzly Reservoir between November 1 and June 15, and a licensed storage right for 3 acre-feet from an unnamed tributary to the Steely Fork of the Cosumnes River for storage in a small pond for fire suppression from November 1 to June 15⁴⁴.

While the system can be susceptible to low water flows in late summer, especially during dryer than normal or drought years, the District has implemented conservation measures that help ensure year-round water availability for residents. A pipe was installed in the Eagle Ditch to reduce seepage and evaporative losses, splitter boxes were installed in the ditch to ensure adequate down stream flow to support healthy aquatic habitats, and Grizzly Reservoir was lined to prevent seepage⁴⁵. These measures help ensure that water diverted and stored during the wet weather season is available throughout the summer even if diversion infrastructure runs dry.

Intake infrastructure was damaged during the Caldor Fire which stopped flows into Grizzly Reservoir. The District completed a temporary repair at Big Canyon diversion to re-establish flows into the raw water reservoir, and will be assessing the total damage to begin repair work at North Canyon when it is safe to do so. Since the reservoir remained full throughout the fire and precipitation began falling in October,

⁴³ US Census Bureau, 2019 American Community Survey 5-Years Estimates, Table S1903 for Grizzly Flats CDP.

⁴⁴ ECORP Consulting, Inc., Grizzly Flat Community Services District Water Rights Compliance Evaluation. May 24, 2013.

⁴⁵ Ibid.

reestablishing the North Canyon diversion connection is a lower priority than reestablishing potable water for surviving residences in the District.

Treatment & Storage

Diversions through Eagle Ditch pipeline terminate at Grizzly Reservoir, a 31-acre foot High Density Polyethylene (HDPE) lined raw water reservoir, which serves as the headworks to the water treatment plant where water is fully treated to meet drinking water standards. The treatment plant has a total capacity of 400 gpm and typically operates on an as needed basis determined by water levels in the 200,000 gallon water tank located next to the plant⁴⁶. In total, the District has 600,000 gallons of water storage over four water tanks as listed below:

- Clearwell (200,000 gallons)
- Tyler (200,000 gallons)
- Winding Way (100,000 gallons)
- Forest View (100,000 gallons)

The metering building at the plant was destroyed but the water treatment plant was left largely unharmed and remained functional as did the Clearwell and Forest View tanks. Unfortunately, the water storage tanks at Tyler and Winding Way were heavily damaged during the fire and are currently being evaluated for structural integrity⁴⁷.

Distribution

Water is distributed to customers through the piped distribution system mainly by gravity. Due to the varying terrain, pumping is required in limited areas in the northeastern portion of the District near the treatment plant to maintain adequate service pressures. Before the Caldor Fire the District maintained 615 water connections, with 221 connections (36 percent) remaining after the fire.

Throughout the District there is a total of 28 miles of water mains ranging in size from two to twelve inches. Pipelines include ductile iron, asbestos cement, and PVC and are generally in fair condition. It is estimated that five to ten percent of the mains (approximately one and half to three miles) of pipeline will need to be replaced in the next five to ten years. To assist with maintaining water pressure throughout the system there are three booster pump stations. There were previously four, however, two were lost in the Caldor Fire which will be replaced by a single new station. There are also 150 fire hydrants all of which maintain adequate flow for fire suppression efforts and are replaced on an as needed basis utilizing the fire hydrant reserve fund.

During the Caldor Fire, the largest impact to the distribution system was the loss of connections to individual homes. Nearly all the water service connections to homes that were destroyed were damaged beyond repair and will need to be replaced. Additional damage included a significant leak in a distribution main on Sciaroni Road and loss of two booster pump stations on Tyler Drive and Winding Way⁴⁸.

⁴⁶ NEXGEN Utility Management, Water Supply and Demand Update for Grizzly Flats CSD. August 2017.

⁴⁷ Mountain Democrat "Grizzly Strong- a community of grit returns." September 15, 2021
<https://www.mtdemocrat.com/news/grizzly-strong-a-community-of-grit-returns-home/>

⁴⁸ Grizzly Flats CSD, Caldor Fire Update – September 7, 2021 and August 30, 2021.

Thanks to dedication and hard work from District staff and its water services consultant, water service was returned to much of the service area by October 14, 2021 although several areas still remained under restrictions. The water treatment plant was also fully restored⁴⁹.

Following the Caldor Fire, in accordance with direction from the State Office of Drinking Water, District staff recharged each section of the distribution system with highly concentrated chlorinated water and checked each section to determine if it held pressure. During this process, services associated with damaged homes were flushed and isolated, and any damage, leaks, or other deficiencies were documented for emergency and disaster funding, depending on the issue.

Demand

Demand is the amount of water, usually in acre-feet per month or acre-feet per year that must be supplied from the treated water holding tank to meet the community need. Demand can be calculated for the entire system or for an individual residence (dwelling unit) depending upon the discussion. Annual water usage for the District was calculated at 0.132 acre-feet per dwelling unit (AF/du) for the years 2012-2017. Water usage decreased from the period 2009-2011 when it was 0.19 AF/du⁵⁰. As of 2017, the water system supported 608 meters while the District's supply had the capacity to meet a total demand of 895-1,288 meters.

The total amount of water produced by the treatment plant in 2019 was 132 AF and in 2020 was 139 AF. Total customer usage in 2019 was 78 AF and in 2020 was 91 AF. The increase in customer usage during 2020 may be attributed to local and state stay at home orders that were issued in response the Covid-19 pandemic. The highest monthly total was 10.78 AF in July 2020⁵¹.

Based on the highest use reported in July 2020 (approximately 113,359 gallons per day) and the pre-1914 water rights for up to 12.5 cfs (approximately 134,640 gallons per day), the District is utilizing approximately 84 percent of its water supply. However, this does not consider actual creek flows or the additional storage right for Grizzly Reservoir. In 2017, an updated hydrologic model was prepared for the District that determined safe and firm water yields for the water diversion and treatment system that takes into account typical creek flows and overall water storage. The model determined that the system can produce a safe yield of 170 AF per year and a firm yield of 207 AF per year⁵². Based on the annual 2020 water usage of 139 AF, the District is using approximately 82 percent of its safe yield. This indicates that under normal water conditions the District has enough supply to meet pre-fire service demands.

Fees

Water customers are charged a based rate of \$68.97 plus a usage fee of \$1.20 per hundred cubic feet. These rates are based on a water rate study and Proposition 218 process that took place in 2016. This process set increases from FY2016/17 to FY20/21. In order to increase rates moving forward, a new Proposition 218 process will be required.

⁴⁹ GFCSO, Caldor Update – October 14, 2021.

⁵⁰ NEXGEN Utility Management, Water Supply and Demand Update for Grizzly Flats CSD. August 2017.

⁵¹ Grizzly Flats CSD, Water Production and Customer Usage Data. Provided by District Staff August 2021.

⁵² NEXGEN Utility Management, Water Supply and Demand Update for Grizzly Flats CSD. August 2017.

Staffing

The District has three employees including a General Manager, Office Facilitator, and one Maintenance Technician/ Distribution Operator. Additional operations, technical support, and engineering services are provided by H2O Urban Solutions, Inc. based out of South Lake Tahoe, CA. The District also utilizes volunteers to assist with regular District activities including reading meters, conducting building maintenance, providing brush cleanup, and other activities as needed.

OTHER SERVICE PROVIDERS

Fire Services

Pioneer Fire Protection District (FPD) is the provider of structural fire protection. Fire Station 35, with an unstaffed Type 4 engine, is in Grizzly Flats. Before the Caldor Fire, the Station 35 Battalion Chief lived next to the fire station which aided in providing quick responses to emergency situations. Fire Station 31 is about 10 miles west of Grizzly Flats and is staffed by volunteers during a part of the year. The next nearest Fire Station is Station 38 in Mt. Aukum, a full-time staffed station about 35 minutes away.

The El Dorado County Fire District's Station 19, located in Pleasant Valley, has structure firefighting equipment and the closest ambulance. Station 19 equipment is approximately 35 minutes away. Grizzly Flats CSD is predominantly within a State Responsibility Area (SRA) while areas around the community and to the east are Federal Responsibility Areas (FRA). Cal Fire and USFS provide wildland fire protection. The closest Cal Fire Stations are in River Pines and Camino. Both are approximately 60 minutes away. The USFS Engine 63 and Hand Crew 25 are based in Grizzly Flats. These crews are staffed during wildfire season, from May until November, depending on the wildfire season's length. Engine 63 and its crew respond to Federal forest fires across the nation, which can leave the Station unoccupied for periods of time^{53,54}.

Others

Wastewater service in the District is currently provided by individual onsite septic systems. At this time there are no plans for a community wastewater system as individual lots are typically large enough to support onsite systems. Weekly solid waste services are provided by El Dorado Disposal which also includes recycling and green waste pickup. AT&T provides internet services in the area, while satellite internet from HughesNet is also available.

ORGANIZATIONAL STRUCTURE

GOVERNANCE

Grizzly Flats CSD is governed by a five-member Board of Directors that are elected to staggered four-year terms. Directors are volunteers from the community and have a vested interest in overseeing the business of the District to the best of their ability during their term of office.

⁵³ El Dorado County Community Wildfire Protection Plan 2017.

⁵⁴ El Dorado National Forest, Temporary Fire Hire. Accessed December 6, 2021 from <https://gacc.nifc.gov/oncc/forests/enf/enfjobscontacts.html>.

Table 14: Grizzly Flats CSD Board of Directors

Board Member	Title	Term Expiration
Lynn Hannblom	Chair	December 2022
Kent Malonson	Director	December 2024
Bob Chigazola	Director	December 2022
Art Davidson	Director	December 2022
Sherry McKillop	Director	December 2024

Grizzly Flats CSD Board members are required to live within the district boundaries and are elected by voters within the district during even year elections. Board members spend between 2 and 10 hours per month (hours may vary depending on special assignments or committee tasks) working on district business without any compensation. Grizzly Flats CSD Board members, past and present, regularly volunteer their time, equipment and expertise to help reduce costs for district customers and community. Board members are required to complete ethics training every two years.

ACCOUNTABILITY AND TRANSPARENCY

The District maintains a website in accordance with SB929 that is regularly updated by District staff. Board meetings follow the Brown Act, and local and state regulations regarding meetings held during a state of emergency. Meeting agendas are posted at least 72 hours in advance on the District website as well as at the District office. Meeting minutes are posted to the website when available along with other important documents including annual budgets and audits.

During the Caldor Fire, the District regularly provided updates to community members on the District website and through social media platforms. Information included status of community access during active fire conditions, system damage assessments, water quality updates, and availability of emergency resources.

FINANCIAL OVERVIEW

BUDGET

The District adopts an annual budget for the Fiscal Year (FY) before June 30th in accordance with CSD law. The budget is presented in three separate sections based on funding sources. This includes the general Operations and Maintenance (O&M), the Asset Management budget, and the Capital Improvement Projects (CIP) budget. At this time, it is unknown how the loss of connections from the Caldor Fire will impact overall District finances.

The O&M budget includes day to day expenses for administration of the District and maintaining the water system. The main source of O&M revenue is water charges, while the main expenses include personnel salaries and benefits, operations and utilities, water treatment, system maintenance, vehicle expenses and employee expenses. The table below shows the budgeted income and expenses over the last five fiscal years.

The additional accounts described in the annual budgets are for specific purposes. The Asset Management account is designated for replacement of O&M equipment and is funded by a portion of the fees for services (noted in Table 15 as Reserve Account under expenses). This way the District can save up for equipment

purchases over time. As of June 30, 2021, the estimated balance in this account was \$60,413 with estimated contributions of \$21,600 and estimated expenses of \$40,000 for FY2021/22. However, due to the Caldor Fire, actual contributions and expenses will likely vary greatly from the approved budget.

Table 15: Grizzly Flats CSD O&M Budget Summary

	FY2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Income					
Fees for Services	\$477,660	\$500,765	\$527,650	\$550,543	\$559,000
Penalties & Liens	\$15,000	\$13,000	\$15,000	\$12,000	\$14,000
Misc. Income	\$5,400	\$5,200	\$2,500	\$4,000	\$4,000
Pooled Interest	\$1,000	\$3,500	\$5,000	\$7,000	\$2,000
New Meters	\$8,000	\$16,000	\$25,000	\$10,000	\$11,000
<i>Total Income</i>	<i>\$507,060</i>	<i>\$538,465</i>	<i>\$575,150</i>	<i>\$583,543</i>	<i>\$590,000</i>
Expenses					
Salaries & Benefits	\$226,939	\$249,897	\$269,331	\$270,390	\$279,720
Contract Operations	\$163,158	\$166,648	\$169,556	\$183,549	\$183,576
Operations & Utilities	\$14,642	\$15,670	\$19,020	\$18,520	\$18,865
Water Treatment	\$8,400	\$8,000	\$9,000	\$7,500	\$8,500
Maintenance	\$33,250	\$37,400	\$47,750	\$37,625	\$34,000
Vehicles	\$7,750	\$8,350	\$9,200	\$11,250	\$10,000
Employee Expenses	\$1,950	\$1,700	\$1,700	\$1,650	\$1,700
Administration	\$22,750	\$20,800	\$23,500	\$24,980	\$23,600
Professional Services	\$23,835	\$23,370	\$25,505	\$29,007	\$25,241
Reserve Account	\$4,386	\$6,630	\$588	(\$928)	\$21,600
<i>Total Expense</i>	<i>\$507,060</i>	<i>\$538,465</i>	<i>\$575,150</i>	<i>\$583,543</i>	<i>\$606,802</i>
Net Income (Loss)	\$0	\$0	\$0	\$0	(\$16,802)

Table 16: Grizzly Flats CSD CIP Budget Summary

	FY2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Income					
Standby Charges	\$58,800	\$58,800	\$58,800	\$58,800	\$58,560
Penalties	\$0	\$0	\$0	\$0	\$0
New Connections	\$12,060	\$18,090	\$30,150	\$12,060	\$12,060
Grants	\$163,173	\$443,525	\$213,000	\$25,000	\$7,500
Pooled Interest	\$1,000	\$1,000	\$8,000	\$8,000	\$3,000
<i>Total Income</i>	<i>\$235,033</i>	<i>\$521,415</i>	<i>\$309,950</i>	<i>\$103,860</i>	<i>\$81,120</i>
Expenses					
Debt Service	\$41,186	\$41,186	\$41,186	\$41,186	\$41,186
System Improvements	\$34,500	\$10,000	\$10,000	\$0	\$0
Grant Projects	\$203,173	\$451,025	\$116,240	\$50,000	\$0
Hydrant Reserve	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
<i>Total Expense</i>	<i>\$290,859</i>	<i>\$514,211</i>	<i>\$179,426</i>	<i>\$103,186</i>	<i>\$53,186</i>
Net Income (Loss)	(\$55,826)	\$7,204	\$130,524	\$674	\$27,934

The CIP budget is funded by the District's standby charge which is separate from the District's monthly base charge and fees for services. It is collected from all parcels within the District as part of the County property tax bill. The District will be keeping this charge in place for all properties within the District for the

foreseeable future. Additional income comes from new connection fees, grants, and pooled interest. This revenue is used to pay for debt service on two loans, depreciation costs, system improvements, and on-going projects such as Water Master Plan updates and fire hydrant replacements. Depreciation is included as an expense for accounting purposes only and does not affect account balances. The table below lists the CIP income and expenses over the last five fiscal years (without depreciation).

AUDIT

Grizzly Flats CSD conducts audits on an annual basis and posts them, when available, on the District's website. Table 17 below shows a summary of the District's actual income and expenses over the last five fiscal years for which audits are available. From year to year, the District's operating expenses typically exceed their operating revenue. However, standby fees and grant income, which are included under nonoperating revenue, help offset the operating deficit in most years.

Table 17: Grizzly Flats CSD Audited Financial Statements Summary

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Operating Revenue					
Water Sales	\$431,658	\$459,624	\$482,917	\$506,354	\$530,047
Penalties	\$15,542	\$14,357	\$12,594	\$15,190	\$12,279
Other	\$5,280	\$15,829	\$32,178	\$3,438	\$7,815
<i>Total Revenue</i>	<i>\$452,480</i>	<i>\$489,810</i>	<i>\$527,689</i>	<i>\$524,982</i>	<i>\$550,141</i>
Operating Expenses					
Water Treatment	\$7,183	\$9,115	\$8,732	\$13,830	\$9,448
Distribution	\$257,523	\$313,874	\$307,358	\$349,958	\$330,354
Administration	\$201,283	\$171,679	\$229,250	\$218,631	\$242,666
Depreciation	\$83,312	\$92,215	\$94,318	\$92,180	\$89,960
<i>Total Expense</i>	<i>\$549,301</i>	<i>\$586,883</i>	<i>\$639,658</i>	<i>\$674,599</i>	<i>\$672,428</i>
Net Nonoperating Revenue/ Expenses	\$280,803	\$65,905	\$103,872	\$213,722	\$122,361
Net Income (Loss)	\$183,982	(\$31,168)	(\$8,097)	\$64,105	\$74

The District's net position is in good standing and assets continue to exceed liabilities for all fiscal years examined. Although water system operation expenses typically exceed water system operating revenue, total capital assets in the form of the water treatment plant, equipment and vehicles are high and leads to a strong net position.

Table 18: Grizzly Flats CSD Net Position Summary

	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Assets	\$3,559,853	\$3,512,464	\$3,481,916	\$3,692,216	\$3,539,555
Liabilities	\$981,115	\$964,894	\$942,443	\$1,088,588	\$935,853
Net Position	\$2,578,738	\$2,547,570	\$2,539,473	\$2,603,628	\$2,603,702

LONG-TERM LIABILITIES

The District has a USDA Loan for a water system improvement project (WSIP) with a balance of \$836,000 as of June 2020. Annual payments are \$16,500 for an estimated payoff year of 2070.

In September 2011, Certificates of Participation for \$952,000 were issued to Grizzly Flats CSD. Proceeds from these certificates were used for the construction of improvements to its domestic water system and

related structures and equipment. The certificates are secured by a lien on the District's net revenues. The interest rate is 3.00% and is payable on April 1 and October 1 of each year. Principal on certificates is payable annually on October 1 through 2050. The total repayment on the loan is \$1,284,070 when interest is included⁵⁵.

FIRE RECOVERY

The loss of homes and subsequently, water connections, caused by the Caldor Fire may have a severe impact on the District's ability to maintain adequate revenues to cover expenditures. At the forefront of this issue is the District's ability to repair damages caused by the fire. Recently, with help from El Dorado County Water Agency and Georgetown Divide Resource Conservation District, the District was awarded a \$1,875,000 WaterSMART grant that will help restore the District's watershed and ensure they are able to maintain a safe and reliable water supply.

The WaterSMART grant projects will include:

- Restoring portions of the watersheds to provide water supply to the Grizzly Flats community that were affected by the Caldor Fire. This will protect the to-be restored water intakes from further damages from fallen trees, debris, and erosion;
- Conducting site preparation and planning to re-establish forest cover;
- Increasing potential carbon sequestration and greenhouse gas emissions reduction through the reforestation of the burned area; and
- Identifying additional measures that may be required to improve watershed health and water quality protection for important domestic water supply sources⁵⁶.

While the WaterSMART grant will help restore the District's watersheds, it will not assist with ongoing operating costs and loss of revenues from homes that were destroyed. From August 2021 to March 2022, the District did not bill property owners with established connections that lost their home in the fire. However, this would eventually lead to a \$333,600 revenue gap for the year. As such, the District Board voted to begin billing all customers with a connection again in April 2022. This means that any customer with an installed meter will be billed the monthly base rate of \$68.97 (\$827.64 per year). This will help reduce the revenue gap but will not provide for sustainable revenues long-term⁵⁷. The Board has also decided to avoid developing a policy that would allow property owners to remove their water service connection which would then terminate the monthly base charge.

The District contracted with HDR to assess options for rate restructuring and other potential revenue sources. The initial Phase I assessment provided a series of policy options that included raising the monthly base rate, creating new account types to better represent the types of connections that are in place, increasing the "stand-by" fee charged to all parcels within the District, and a number of other options. The Board is in the process of assessing which policies to pursue which will inform a more detailed Phase II assessment conducted by HDR. Other potential options being considered by the Board include a fire recovery surcharge and possible disaster assistance grants and/or loans.

⁵⁵ GFCSD, Financial Statements for the Fiscal Year Ended June 30, 2020. Note 4 – Long-Term Liabilities.

⁵⁶ El Dorado Water Agency, Press Release: El Dorado Water Agency Leads Post-Caldor Fire Watershed Restoration Efforts to Ensure Grizzly Flats Community Has Reliable Water Supply, July 11, 2022.

⁵⁷ GFCSD, Customer Billing Update, March 23, 2022 and Regular Board Meeting Update May 12, 2022.

MSR DETERMINATIONS

As set forth in Section 56430(a) of the CKH Act- In order to prepare and to update the SOI 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 a 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.

- a) The District's service area covers approximately 1,736 acres and includes the Grizzly Park subdivisions and several larger perimeter parcels. The District estimates that approximately 1,220 parcels could require water within the service area once build-out of the community is reached in the future.
- b) Due to impacts from the Caldor Fire, the population of the District is likely to decrease over the next several years with a potential rebound in population in the next five to ten years.

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

- a) Grizzly Flats is a Disadvantaged Community with a median household income that is 67% of the statewide MHI of \$75,235 according to ACS estimates. To provide a more accurate estimate, the District may want to consider conducting an income survey.

(3) Present and planned capacity of public facilities and adequacy of public services, including infrastructure needs or deficiencies.

- a) Based on a system safe yield of 170 AF per year and 2020 demand of 139 AF, the District is utilizing approximately 82 percent of its water supply. This indicates that the District has adequate water to meet current and future demands.
- b) The Caldor Fire damaged portions of the water system including diversion and distribution infrastructure. While potable water service has been reestablished for much of the District, full repair of the system will likely take a year or more to complete.

(4) Financing ability of agencies to provide services.

- a) Grizzly Flats CSD's net position is in good standing, and assets continue to far exceed liabilities for all fiscal years examined. Although water system operation expenses exceed water system operating revenue, total capital assets in the form of their water treatment plant, equipment and vehicles is high and leads to a strong net position.
- b) The District has a strong reserve policy, putting aside \$21,600 annually into their emergency reserve fund. However, their reserve fund has been drastically depilated by a loss in revenue from fees for services due to loss of homes in the area.

- c) The District is facing an annual deficit of over \$300,000 due to a loss in revenue from the destruction of homes during the Caldor Fire. This could lead to a potential failure of the District if outside funding, and/or new revenue sources are established to cover fixed operating costs.

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

- a) Due to the District's remote location, there is limited opportunity for shared services.

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

- a) Grizzly Flats CSD Board members are elected to staggered four year terms and adhere to all applicable rules and regulations for providing an open and transparent governance process.
- b) The District regularly utilizes volunteer time to assist with District activities including meter reading and regular maintenance. This helps reduce overall costs for the District and helps community members feel invested in their District.

(7) Any other matter related to effective or efficient service delivery.

- a) A full system assessment and recovery plan should be developed as soon as is feasible. This will help prioritize projects for emergency funding and help ensure the system is able to adequately continue providing service long-term.
- b) The District has proven its skill and responsiveness to emergency situations which has been vital in quickly reestablishing water service to much of the area after the fire.
- c) Based on the rapidly changing state of the District and its current financial concerns, it is recommended that a brief MSR update be conducted in three years in order to provide current information on the recovery of the District.

SOI DETERMINATIONS

In order to carry out its purposes and responsibilities for planning and shaping the logical and orderly development of local governmental agencies to advantageously provide for the present and future needs of the county and its communities, the commission shall develop and determine the sphere of influence of each city, as defined by G.C. Section 56036, and enact policies designed to promote the logical and orderly development of areas within the sphere. In determining the sphere of influence of each local agency, the commission shall consider and prepare a written statement of its determinations with respect to the following:

(1) Present and planned land uses in the area, including agricultural and open-space lands.

- a) The District's service area is surrounded by a significant amount of U.S. Forest Service Land designated as natural resource, along with a few rural and medium density residential parcels. Grizzly Flats CSD's SOI was amended in 2008 to remove these parcels from the SOI, resulting in a new SOI that is coterminous with the District's service boundaries.

- b) Based on the surrounding land use designations, substantial growth in the area is unlikely over the next five to ten years.

(2) Present and probable need for public facilities and services in the area.

- a) Portions of the District that were not damaged by the fire have been repopulated. As recovery efforts continue over the next several years, a reliable source of water is vital for the community.

(3) Present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide.

- a) The District's current water diversion, treatment, and distribution facilities are adequate to meet current and future demand in the area.
- b) The District will need to further assess damages and replace major infrastructure as needed in order to continue providing adequate service long-term.

(4) Existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency.

- a) The City of Placerville is located approximately 45 minutes from the District and is the closest major population area where vital services can be obtained such as health care. Other smaller communities exist in closer proximity to the District where residents can get groceries and fuel as needed.

(5) For an update of a sphere of influence of a city or special district that provides public facilities or services related to sewers, municipal and industrial water, or structural fire protection, the present and probable need for those public facilities and services of any disadvantaged unincorporated communities within the existing sphere.

- a) The District and surrounding areas qualify as disadvantaged. Due to impacts from the Caldor Fire, the provision of water services is more vital than ever to help with residential and overall ecosystem recovery.
- b) At this time, it is recommended that the SOI remain coterminous with the District's jurisdictional boundary.

SOUTH TAHOE PUBLIC UTILITY DISTRICT

AGENCY OVERVIEW

Contact Information	
Address	1275 Meadow Crest Drive South Lake Tahoe, CA 96150
Phone	(530) 544-6474
Email	info@stpud.us
Website	www.stpud.us
Management Information	
Leadership	John Thiel, General Manager Paul Hughes, Chief Financial Officer
Governing Body	Five-member Board of Directors, elected at large by voters who reside within the District boundaries
Board Members	Kelly Sheehan, President; David Peterson, Vice President; Chris Cefalu, Director; Shane Romsos, Director; Nick Exline, Director
Board Meetings	First and third Thursday of each month, at 2:00 p.m. Meetings are held at the District office, located at 1275 Meadow Crest Drive, South Lake Tahoe, CA
Staffing	The District currently has over 100 employees to support its water and wastewater operations
Service Information	
Services Provided	Potable water and wastewater services
Latent Powers	All others listed under PUD law that are not currently empowered
Area Served	Approximately 27,000 acres or 42.2 square miles
Population Served ⁵⁸	Approximately 31,000 residents; 13,524 ⁵⁹ voters
Fiscal Information	
FY 2021-22 Budget	Available Funds: \$84,839,669 Expenses: \$53,066,145
Sources of Funding	Fees for Services, Property Taxes, Grants
Rate Structure	Metered Water Connections: Quarterly Base Rate and Consumption Rate Unmetered Water Connections: Quarterly Base Rate Wastewater Connections: Quarterly Base Rate by Customer Class

⁵⁸CA State Water Boards
https://sdwis.waterboards.ca.gov/PDWW/JSP/WaterSystemDetail.jsp?tinwsys_is_number=290&tinwsys_st_code=CA&wsnumber=CA0910002.

⁵⁹ El Dorado LAFCO: Special Districts Information https://www.edLAFCO.us/files/0b823775e/SouthTahoePUD_Jan+2019.pdf.

FORMATION

PRINCIPAL ACT

The South Tahoe Public Utility District (STPUD) was established as an independent special district pursuant to Division 7 of "The Public Utility District Act" (Public Utilities Code § 15501 – 18055). Under this act, a PUD may be authorized to acquire, construct, own, operate, control, or use works for supplying light, water, power, heat, transportation, telephone service, or other means of communication, or means for the disposal of garbage, sewage, or refuse matter. In addition, a PUD can be authorized to provide a wide variety of services including fire protection, street lighting, public parks and other recreation facilities, and stormwater drainage of roads, streets, and public places. PUDs are governed by a board of directors, all of whom are elected at large.

STPUD is authorized to provide water and wastewater services. All other remaining services, facilities, functions or powers enumerated in the District's principal act but not being exercised are considered "latent". Activation of these latent powers and services requires LAFCO authorization.

The District previously provided billing services on behalf of Liberty Utilities for streetlights located within the STPUD boundary. However, this service was transferred over to the City of South Lake Tahoe and the District no longer provides any services for lighting or landscaping. Currently exercised services are water and wastewater only, and therefore lighting and landscaping is considered latent.

FORMATION PROCEEDINGS

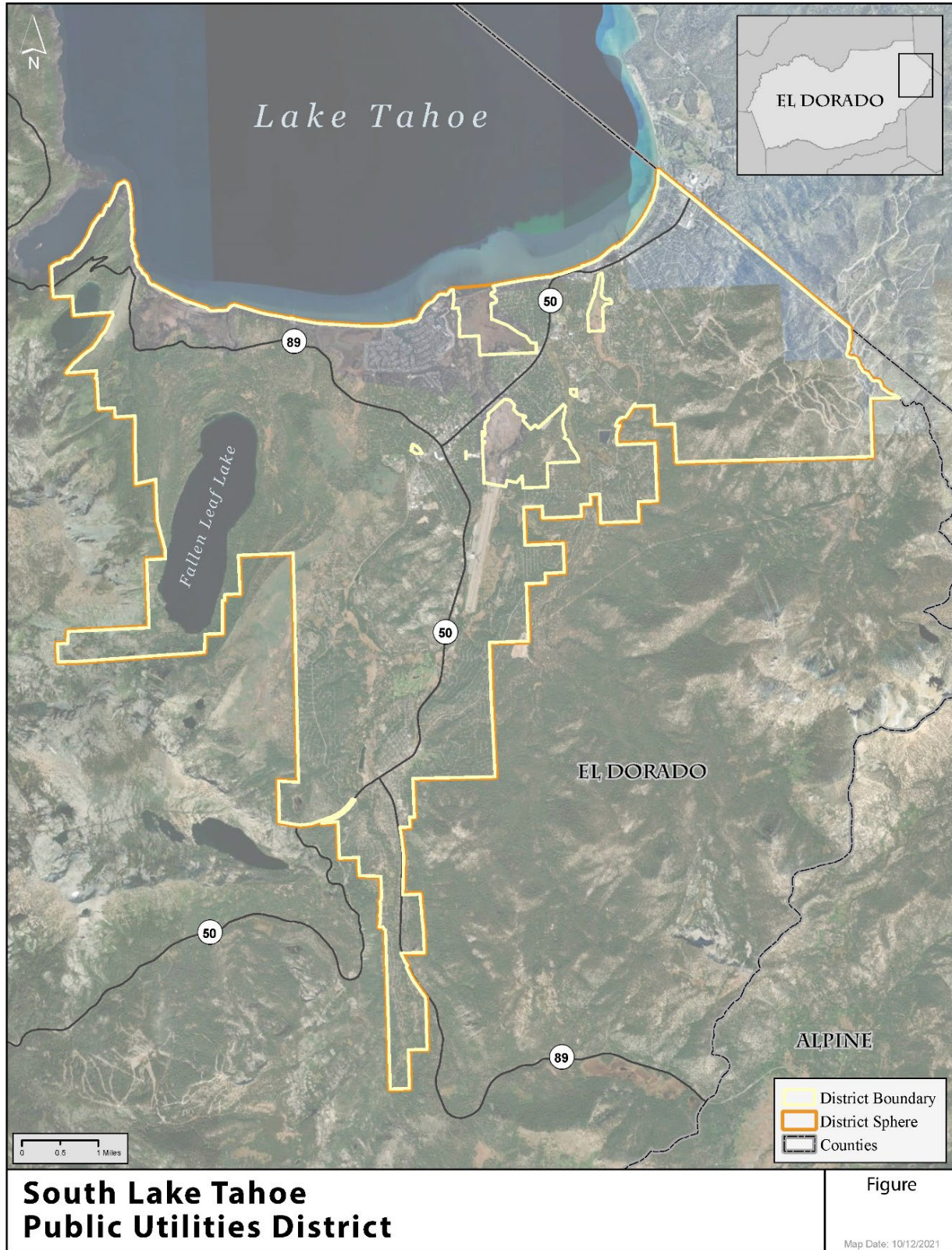
STPUD was established on September 28, 1950 to provide wastewater services in the southern portion of the Tahoe Basin. In the mid-1970's, the District acquired local small water companies and began providing domestic water service to the area. It now provides domestic drinking water service in addition to sewage collection, treatment, and export to protect the Lake Tahoe basin's delicate ecosystem.

BOUNDARY AND SOI

The District's boundary encompasses 26,823 acres in eastern El Dorado County on the southern shore of Lake Tahoe. The service area extends west to include Emerald Bay, east to the California Nevada State Line, and south to include Christmas Valley. The service area includes most, but not all, of the City of South Lake Tahoe and portions of unincorporated El Dorado County. The District's SOI is slightly larger than the District boundary and there are no proposed changes at this time.

There are several islands within the District that are within the SOI but not within the District service area. These islands are primarily designated recreation or conservation lands under Tahoe Regional Planning Agency land use designations and have a total area of 688.8 acres (Figure 8).

Figure 9: STPUD Boundary and SOI



LAND USE

The STPUD boundary includes both incorporated and unincorporated lands within the Tahoe basin. Land use within the STPUD service area is primarily regulated by the Tahoe Regional Planning Agency (TRPA). TRPA's Lake Tahoe Regional Plan is the primary document governing land use in the area. Supplemental area plans for specific regions within the basin have also been developed. These include the Meyers Area Plan (adopted March 2018), Tahoe Valley Area Plan (adopted July 2015 and amended January 2021), and the Tourist Core Area Plan (adopted October 2013). In addition to TRPA, the City of South Lake Tahoe regulates land within its incorporated boundary which is guided by the City's General Plan.

Land use designations within STPUD's boundary are primarily residential, with some mixed-use, recreation, and tourist areas, as well as large portions of forested areas set aside for conservation and open space use⁶⁰. Residential uses are concentrated in Meyers and South Lake Tahoe with additional communities in Christmas Valley and along Highway 89 to Emerald Bay.

TAHOE REGIONAL PLANNING AGENCY

TRPA was created in 1969 as the first bi-state regional land use planning agency in the country with unique land use authority to manage development within the Lake Tahoe basin. It is governed under a compact enacted by the states of California and Nevada, affirmed by the United States Congress, and then signed by the states' governors and the President of the United States. In 1980, the compact was amended to bring broader, statewide representation to the Governing Board. Recent bi-state legislation addressed the need to update the Compact with an explicit recognition of economic conditions concerning environmental planning in Lake Tahoe⁶¹.

TRPA receives direction on decisions from a 15-member Governing Board and a 21-member Advisory Planning Commission, as well as many stakeholders and members of the public⁶². As discussed under Land Use, TRPA regulates land uses within the Tahoe Basin and provides discretionary approval for projects undertaken in the basin. This includes projects STPUD may take on to improve water and wastewater systems such as installing new water mains, replacing wastewater lines, or constructing new water tanks or other buildings and facilities.

POPULATION

The District service area boundary does not match up exactly with census tract or block group zones. Existing service population was therefore estimated using data from both the 2020 Census count of 28,900 permanent residents and a CA State Water Boards estimate for population served of 33,124, giving an average of approximately 31,000 people within the District^{63,64}. Based on estimated County growth of 0.9 percent per year, this provides an estimated population of 33,900 by 2030. However, as discussed below, this estimated population may not accurately help predict actual water and wastewater demand for the District.

⁶⁰ STPUD, Water System Optimization Plan. July 21, 2016.

⁶¹ TRPA Strategic Plan 2020.

⁶² Tahoe Regional Planning Agency website <https://www.trpa.gov/how-we-operate/board-members/>.

⁶³ US Census Bureau, 2020 Decennial Census, Table P1 for census tracts 320.02, 305.06, 305.07, 305.02, 305.04, 204.02, 304.04, 304.03, 303.02, 303.01, 302.01, 302.02, 316.02, and 316.01.

⁶⁴ CA Drinking Water Watch, Water System Details, South Tahoe PUD – Main. Accessed November 10, 2021 from https://sdwis.waterboards.ca.gov/PDWW/JSP/WaterSystemDetail.jsp?tinwsys_is_number=290&tinwsys_st_code=CA&wsnumber=CA0910002.

The service area demographics present a unique challenge in estimating population served. The census data only includes permanent residents. However, the District serves a much larger population during high-season periods and on the weekends when tourists and vacation homeowners visit. This phenomenon shifted during the 2020 calendar year due to the COVID-19 pandemic. The District saw an increase in the use of vacation homes for extended periods of time and an increase in full-time residents, which is reflected in increased water usage. The seasonal fluctuations in the tourist season also affect the seasonal nature of the workforce. These demographics impact the District's water demands resulting in seasonal and weekly variations much different than a typical California city⁶⁵.

The District utilizes the DWR Population Tool to estimate population for their Urban Water Management Plan (UWMP). The tool uses historic connections and population data from the US Census to provide a persons per water connection that can then be applied to projected future connections to estimate future population served. Based on this tool, the population within the District's service area is 2.19 persons per connection. This provides a 2020 estimate of 29,824 in 2020 which is anticipated to grow to 30,948 by 2030 which is 2,000 persons less than the estimated population based on the average provided above. The District acknowledges the population served is actually larger than the permanent resident population and will continue to track this discrepancy and modify its served population estimates as necessary⁶⁶. For the purposes of this review, an estimated 2030 population of 33,900 will be utilized in order to assess the potential water and wastewater demands for the highest anticipated population.

Table 19: STPUD Population by Race Summary

Census Year	Total Population	Hispanic or Latino	Single Race						Two or More Races
			White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	
City of South Lake Tahoe									
2020	21,330	6,558	12,244	145	136	1,192	21	119	915
2010	21,403	6,665	12,818	138	122	1,155	32	34	439
Meyers Census Designated Place*									
2020	2,163	238	1,742	14	4	29	0	16	120

*No data was available for the 2010 Decennial Census.

DISADVANTAGED UNINCORPORATED COMMUNITIES

LAFCO is required to evaluate disadvantaged unincorporated communities (DUCs) as part of this service review, including the location and characteristics of any such communities. A DUC is defined as any area with 12 or more registered voters where the annual median household income is less than 80 percent of the statewide annual median household income (pursuant to Government Code Section 56033.5 and Water Code Section 79505.5). Within a disadvantaged community, three basic services are evaluated: water, wastewater, and fire protection. South Tahoe PUD provides water and wastewater services and is

⁶⁵ STPUD, Urban Water Management Plan. June 2021.

⁶⁶ STPUD, Urban Water Management Plan. June 2021.

therefore responsible for assuring that these services are adequately provided to the community. Both the City of South Lake Tahoe and the Lake Valley Fire Protection District provide fire protection services to areas within and surrounding STPUD.

While the City of South Lake Tahoe is incorporated, it is considered a Disadvantaged Community by the California Department of Water Resources with a 2018 median household income (MHI) of \$48,653 which is 65% of the 2018 statewide MHI of \$71,228⁶⁷. Areas within the City that are considered severely disadvantaged include the Y and AI Tahoe neighborhoods.

With regard to DUCs, much of the unincorporated area within the District has a MHI that is equal to or higher than the statewide MHI. As such, there are no DUCs within the District. However, special consideration should be given to the disadvantaged portions of the City of South Lake Tahoe to ensure that they continue to receive adequate water and wastewater services.

SERVICES

WATER

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 the mid-1980s. This infrastructure was intended for domestic use only and was inadequate for the flows necessary for firefighting. However, since acquiring the systems, the District has been working diligently to update infrastructure to meet the needs of the community.

Source

The District is 100% reliant on groundwater sources to meet its water system demands. The District does hold California State Water Resources Control Board (SWRCB) surface water permits and has a SWRCB surface water application in progress to maintain its water rights on the Upper Truckee River, but currently does not divert or use surface water⁶⁸. The District previously held surface water rights to Cold Creek as well but let the permit expire due to water quality constraints.

The District maintains a total of 15 wells, with water supply currently provided by 11 active supply wells and four standby wells. Well pumping capacity ranges from 90 gallons per minute (gpm) to over 3,000 gpm. In addition to the supply wells, the District, as a monitoring entity, maintains thirty (30) observation wells for groundwater level monitoring under the California Statewide Groundwater Elevation Monitoring (CASGEM) program⁶⁹.

All the District's drinking water is pumped from the Tahoe South Subbasin (TSS) (designated by the California Department of Water Resources (DWR) as Groundwater Subbasin 6-005.01) of the Tahoe Valley Groundwater Basin (6-005)). The District is the largest water purveyor in the TSS and the recognized Groundwater Sustainability Agency for the subbasin. In 2005, the District established a safe pumping yield of 9,528 acre-feet per year (AFY) for the subbasin. This is well below the Sustainable Groundwater

⁶⁷ CA Department of Water Resources, DAC Mapping Tool. Accessed on October 7, 2021 from <https://gis.water.ca.gov/app/dacs/>.

⁶⁸ California State Water Resources Control Board, Electronic Water Rights Information Management System, Water Rights Records Search for South Tahoe Public Utility District. Accessed November 11, 2021.

⁶⁹ STPUD, Urban Water Management Plan. June 2021.

Management Act sustainability criteria which provides a safe yield of no more than 39,000 AFY which is the average groundwater recharge from 1983 to 2015⁷⁰.

Groundwater has been and continues to remain an issue within the subbasin. In the early to mid-1990s, a significant portion of the District's water supply was contaminated by Methyl tertiary-butyl ether (MTBE) leaks from area gas stations and currently there is known tetrachloroethylene (PCE) plume in the South Y area from a former laundry facility located in the current Raley's shopping center^{71,72}. While this District does not currently have any wells that are affected by these contaminants, due to a lengthy remediation process for MTBE and PCE, the District continues to monitor activity and participate in efforts to remediate contamination including assisting other water purveyors affected by contamination such as Lukins Brother Water Company and the Tahoe Keys Property Owners Association.

Treatment

Minimal treatment is conducted on pumped water as it is already of high quality. Some wells with known contamination or water quality issues receive wellhead treatment and a small amount of chlorine is added to the system to reduce contamination from naturally occurring bacteria.

STPUD maintains a full-scale laboratory that monitors drinking water, wastewater, surface water, ground water, and soils. Lab results are used by District staff to determine treatment efficiency and needs in addition to monitoring compliance with State and Federal water reclamation criteria, Safe Drinking Water requirements, and other regulations. Water quality testing is conducted on a frequent basis to ensure high quality water is delivered to customers. The lab collects 20-40 samples each week from the system which allows the District to quickly identify and correct any water quality issues⁷³.

Transfers

The District does not transfer or exchange any of its groundwater to other water agencies on a long-term basis at this time. The District does maintain emergency interties with neighboring water companies which can be used in the event of an emergency or major water shortage. Due to water quality and production issues with the Tahoe Keys Property Owners water system which is located along the shoreline of Lake Tahoe adjacent to the mouth of the Upper Truckee River, the District has been investigating the possibility of long term service to the development. This would likely be done through a long-term bulk water sale agreement with the Association. However, the District is still in the early stages of planning for this⁷⁴.

Storage and Distribution

The storage and distribution system is comprised of 16 booster pump stations, 23 storage tanks, 26 pressure-reducing valves, and 320 miles of potable water pipe. Due to the topography of the District's service area, the overall distribution system is separated into 15 pressure zones⁷⁵. STPUD completed a

⁷⁰ STPUD, UWMP – Section 6.2.2. June 2021.

⁷¹ STPUD, UWMP – Section 6.2.1. June 2021.

⁷² Lahontan Regional Water Quality Control Board (LRWQCB), Cleanup and Abatement Order (CAO) R6T-2022-(Proposed) for 1024 Lake Tahoe Blvd. June 16, 2022.

⁷³ STPUD, Who We Are – Departments – Laboratory. Accessed on October 7, 2021 from <https://stpud.us/about/departments/laboratory/>.

⁷⁴ STPUD, Chief Financial Officer, Personal Communication on August 24, 2021.

⁷⁵ STPUD, UWMP. June 2021.

needs assessment for its potable water system in 2016, which found that critical assets within the water system were in good condition, when evaluating them as a whole⁷⁶.

The District's 23 tanks are distributed throughout the service area. In total, there is 9.76 million gallons of storage.

Table 20: STPUD Water Storage Tanks

Tank Name	Location	Year Constructed	Volume (gal)
Lookout	Lookout Point Circle	1998	300,000
Echo View	Echo View Estates	2010	203,000
Tata	Tata Lane	1968	395,328
Angora	Aberdeen Circle	2010	249,000
Arrowhead	Pinewood Drive	1995	1,078,513
Christmas Valley	Grass Lake Road	1998	185,000
Country Club	Skyline Drive	2008	355,000
Flagpole #1	Chiapa Drive	1964	221,000
Flagpole #2	Chiapa Drive	1999	176,000
Forest Mountain	Forest Mountain Drive	2001	158,000
Gardner Mountain #1	Panther Lane	2002	212,000
Gardner Mountain #2	Panther Lane	1998	212,000
H Street	H Street and Tata Lane	1980	106,000
Heavenly Valley	Heavenly Ski Resort	1984	1,050,000
Iroquois #1	Iroquois Circle	1959	230,000
Iroquois #2	Iroquois Circle	2001	300,000
Keller #1	Sherman Way	1963	208,000
Keller #2	Sherman Way	1963	123,000
Stateline #1	Van Sickle Bi-State Park	1994	2,250,000
Stateline #2	Van Sickle Bi-State Park	1994	1,250,000
Cold Creek Tank	Cold Creek Drive	1980	500,000

As mentioned previously, the District's unique water distribution system is an amalgam of small private water systems dating back to the late 1940s. The District began acquiring these private water companies in the 1970s after the passage of the Clean Water Act, when many of these companies sought to sell their systems instead of complying with the new, costly regulations. In addition to regulatory challenges, most of the waterlines in the systems did not meet the District's standards with regard to size. Smaller sized waterlines impact potable water pressure and delivery of fire-fighting water. Approximately 10% of the water distribution system is undersized and does not provide adequate fire flows to meet fire protection standards⁷⁷.

The District has worked diligently on replacing waterlines to improve water quality, quantity, and fire suppression capabilities. New waterline projects include fire hydrant installation at 500-foot intervals consistent with the California Fire Code. The District considers the upsizing of waterlines and the installation

⁷⁶ STPUD, Water System Optimization Plan. July 2016.

⁷⁷ STPUD, Annual Financial Report with Independent Auditor's Report. June 30, 2020.

of fire hydrants to be a public service for community safety⁷⁸. During FY 2019-20, the district spent \$300,000 on waterline replacements⁷⁹.

Demand

The District maintains 14,235 municipal water connections which are approximately 96% metered. As of 2020, there were only 116 unmetered connections remaining. Since 2009 when the District initiated metering, water usage per account has decreased almost 20% from 0.498 AFY per account in 2009 when 6% of the accounts were metered, to 0.406 AFY per account in 2020. Metering has been an effective means of conservation and has allowed District staff to communicate directly to customers regarding water use and leaks, as well as provide education and resources to increase water conservation.

In 2020, the District supplied 5,778 acre-feet (AF) of water over four different categories as shown in the table below. The largest use of water was for single family homes with the next largest category being system losses. Based on the current annual rate for new connections and the average water use per connection, the District estimates there will be an annual water demand of approximately 6,222 AFY by 2040 for a population of approximately 32,115⁸⁰. Compared to the District's calculated annual safe yield for the South Tahoe groundwater subbasin (9,528 AFY), there is enough water to meet current and future demand. Based on this MSRs 2030 population estimate of approximately 33,900, the District could potentially see a demand of 6,284 AFY by 2030 instead of 2040. However, this is still within the groundwater subbasins annual safe yield⁸¹.

Table 21: STPUD 2020 Water Demand

Use Type	2020 Volume (acre feet)	Percentage of Total
Single Family	3,306	57.2%
Multi-Family	787	13.6%
Commercial	750	13.0%
Losses	935	16.2%
<i>Total</i>	<i>5,778</i>	<i>100%</i>

While water use in the winter is typically lower than in the summer months, STPUD provides water to Heavenly Ski Resort which utilizes ample water supplies for snowmaking during winter months. Heavenly is one of the District's largest users with an average use of 153 AFY⁸².

Fees

The District utilizes different rate schedules for metered and unmetered water connections and bills on a quarterly schedule. Metered connections are charged a base quarterly rate according to meter size and then a consumption charge per 100 cubic feet (CCF) of water according to use type. Unmetered connections are charged a base quarterly rate according to use type. For example, a typical single family

⁷⁸ STPUD, Local Hazard Mitigation Plan. 2019.

⁷⁹ STPUD, Annual Financial Report with Independent Auditor's Report. June 30, 2020.

⁸⁰ STPUD, Urban Water Management Plan – Table 4-1 and 4-2. June 2021.

⁸¹ Based on the Districts estimated usage of 0.406 AFY per connection, a population estimate of 2.19 persons per connection, and the estimated safe yield of 9,528 AFY, the District could potentially support up to 23,468 connections or approximately 51,395 people. This is a rough estimate and can change based on actual water usage, groundwater basin yield, and population density.

⁸² STPUD, Personal Communication – Chief Financial Officer Paul Hughes. December 13, 2021.

home with a $\frac{3}{4}$ " metered connection is charged a base quarterly rate of \$138.16 and then a consumption charge of \$1.58 per CCF up to 45 CCF and then \$2.40 per CCF for any additional usage⁸³.

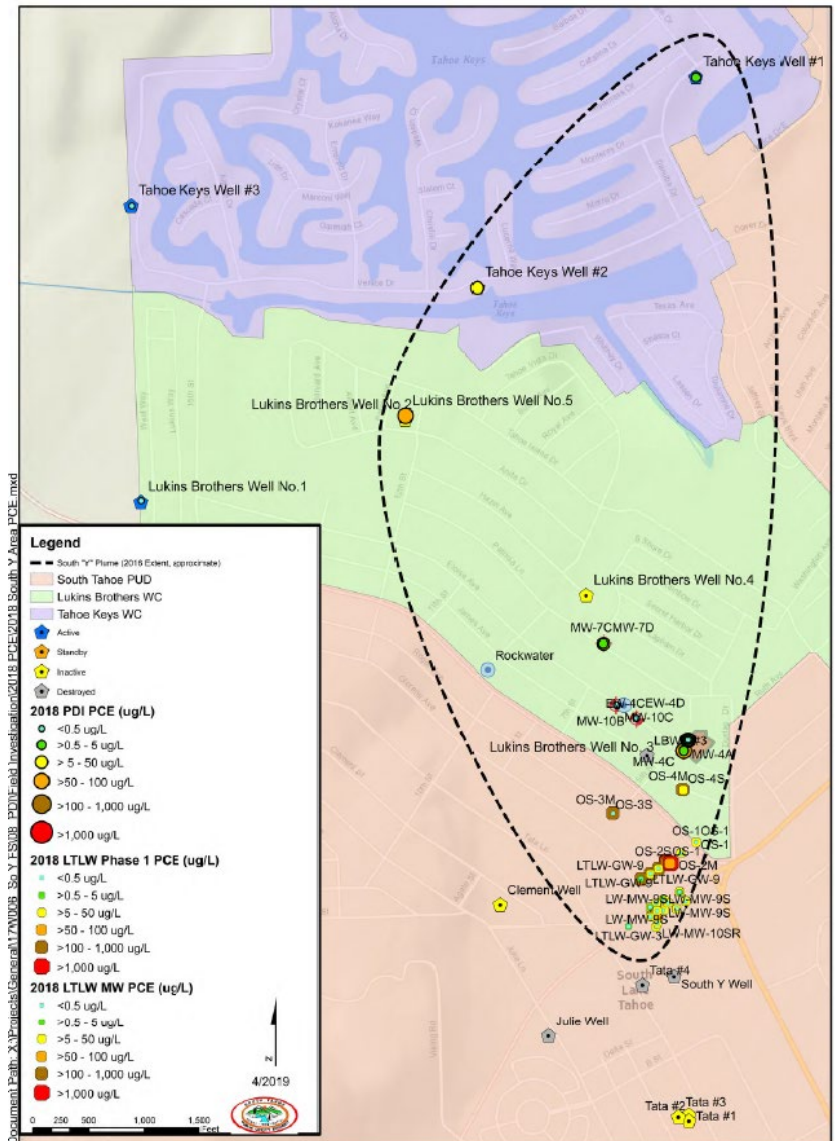
Other Water Service Providers

Lukins Brothers Water Company, Lakeside Park Association, and Tahoe Keys Water Company are small private water providers within or adjacent to the District's service area. These private water companies are mostly built out and serve approximately 2,600 total connections. All three water purveyors have interties with STPUD, as well as active wells.

Both Tahoe Keys and Lukins Brothers have cooperated on addressing drinking water contamination with STPUD. The three water purveyors detected tetrachloroethylene (PCE) concentrations in groundwater wells exceeding drinking water standards in the South Y area of the City of South Lake Tahoe (Figure 9)⁸⁴. The affected wells have since been taken offline, but remediation is still being pursued with funding from STPUD.

There are also over 600 private wells in the South Lake Tahoe area that are monitored by STPUD upon request. The majority of these wells are located in the Bijou and Al Tahoe neighborhoods near the lake. Additional wells are located along Highway 50 from Meyers to the Y area with another dense cluster located in the southern portion of Christmas Valley as shown in the figure below. These wells vary greatly in condition and water quality based on location⁸⁵.

Figure 10: PCE Plume in South Tahoe "Y" Area

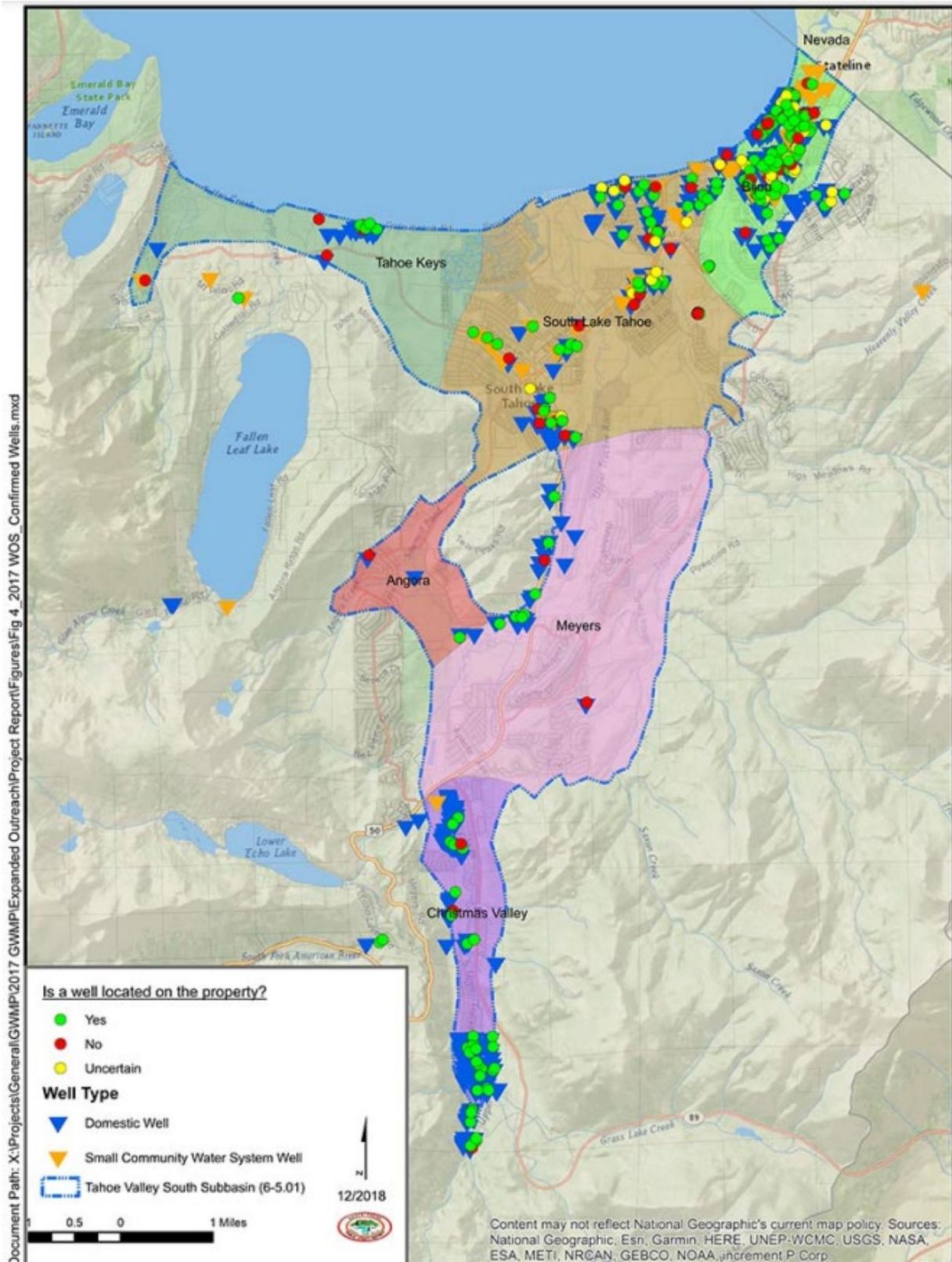


⁸³ STPUD, Customer Resources – Rates (Water and Sewer). Accessed November 16, 2021 from <https://stpud.us/customers/rates-water-and-sewer/>.

⁸⁴ STPUD South Y Facilities Feasibility Study, May 2020.

⁸⁵ STPUD, TVS Groundwater Basin – Survey of Well Owners. February 2017. Prepared by Allegro Communication Consulting.

Figure 11: Distribution of Domestic and Small Community Water System Wells in the Tahoe South Groundwater Basin



WASTEWATER

Collection & Treatment

STPUD maintains over 300 miles of sewer mains throughout the area which collects wastewater and transports it to the District's treatment plant located off of Meadow Crest Drive. The treatment plant has a capacity to treat 7.7 million gallons daily (MGD – dry weather flows) and serves approximately 18,000 connections⁸⁶.

The District's treatment system consists of two primary clarifiers, three aeration basins, three secondary clarifiers, two settling ponds, and a bank of filters that treats the water before it is sent over Luther Pass to Alpine County. The system also contains equalization basins to help regulate flow, an emergency retention basin, and various pumps, centrifuges, and air blows to help filter out debris, regulate flow, and control odor⁸⁷. The treatment plant is currently permitted for "secondary 23" recycled water. This means the water has been oxidized and disinfected so that it is generally suitable for agricultural and some industrial uses but is not suitable for unrestricted irrigation use.

Export/ Disposal

The District recycles 100% of its treated wastewater and biosolids. While the District does produce recycled water suitable for some agricultural and industrial uses, the Porter-Cologne Water Quality Act prohibits the use of recycled water within the Lake Tahoe Basin. Therefore, all the wastewater treatment plant effluent is pumped to Harvey Place Reservoir in Alpine County and stored and used for agricultural purposes⁸⁸. Biosolids are delivered bi-weekly to Bently Agrodynamics in Douglas County, NV where it is turned into fertilizer⁸⁹.

As effluent flows from the top of Luther Pass down to Diamond Valley along Highway 89, it is routed through hydroelectric turbines that were installed in 2017. Utilizing the pressure created by the drop in elevation, the pumps generate an average of 53,962 kWh of renewable energy per year⁹⁰. Once effluent reaches Alpine County, it is stored and utilized for agricultural irrigation by local ranchers and at the District's Diamond Valley Ranch where alfalfa is grown for feed stock. In 2020, 147 AF of recycled wastewater was used in the irrigation of DVR between April 23rd and September 30th.

There are three dams located on land owned by the District in Alpine County: Harvey Place Dam and Harvey Place Auxiliary Dam, which hold back Harvey Place Reservoir, and Indian Creek Dam, which holds back Indian Creek Reservoir. Both of the Harvey Place dams are used to hold treated wastewater. If dam failure were to occur, it could result in treated wastewater entering Millich Ditch or Indian Creek (both freshwater channels) and eventually the Carson River, a main source of water for Carson City.

Despite the prohibition on recycled water use within the District's own service area, through a special legislative act in 2000, the District was able to install six fire hydrants along a short section of its recycled water export pipeline. These hydrants provide emergency fire suppression to a small residential community in Christmas Valley that does not have municipal water service and also to the District's critical wastewater pumping station at the base of Luther Pass. The availability of recycled water in the event of a catastrophic

⁸⁶ STPUD, UWMP – Section 6.3.1. June 2021.

⁸⁷ STPUD, Wastewater Treatment Process Diagram. August 2010.

⁸⁸ STPUD, UWMP. June 2021.

⁸⁹ STPUD Environmental Policy March 2020.

⁹⁰ STPUD, Personal Communication with Public Affairs and Conservation Manager. September 13, 2022.

fire in this heavily forested area provides a level of security to the residents, the District, and the Lake Valley Fire Department. However, during the Caldor Fire this service was not needed. Four additional hydrants were installed in Alpine County to provide similar fire protection as the export line makes its way to Harvey Place Reservoir.

Demand

The total volume of wastewater collected by STPUD in 2020 was 3,498 AFY with 3,351 AFY stored in the Harvey Place Reservoir for use in Alpine County and 147 AFY used by DVR for direct irrigation purposes. Based on the treatment plants capacity of 7.7 MGD, which equals approximately 10,300 AFY, the District is utilizing approximately 34% of the system's annual capacity. This does not account for peak wet weather flows which may at times exceed the system's daily capacity. Excess wastewater that cannot be treated right way is diverted into several equalization basins or, if necessary, the emergency retention basin until it can be processed through the system.

Fees

The District utilizes a flat rate structure for wastewater billing that is based on the number of sewer units for the property and type of use. Charges are billed on a quarterly basis along with water use for each connection. The table below lists the rates as of 2021.

Table 22: STPUD Sewer Service Charges

Type of Connection	Quarterly Service Charge per Sewer Unit
Single Family	\$44.46
Multi-Family	\$42.94
Motels/Hotels/Timeshares	\$42.21
Trailer/Mobile Home Parks/Campgrounds	\$42.16
Non-Residential	\$44.46

ADDITIONAL SERVICE PROVIDERS

Fire and Emergency Response Services

Community fire protection services are provided by South Lake Tahoe Fire and Rescue under the administration of the City of South Lake Tahoe. Ambulance service is provided to the area though the Cal Tahoe Joint Powers Agreement. Lake Valley FPD also provides service in the area outside the City of South Lake Tahoe. Their response area includes much of the South Lake Tahoe region including Christmas Valley, Echo Lake, Emerald Bay, Heavenly Ski Resort and large portions of wilderness areas along Highways 50 and 89.

The United States Forest Service and CALFIRE maintain stations in Meyers, along Angora Ridge, and off of Pioneer Trail. These stations are operated in coordination with the Lake Valley FPD. In 2021, these fire departments were instrumental in saving homes during both the Tamarack and Caldor fires. Fire protection agencies in the South Tahoe area have been dedicated to fuel reduction and homeowner education programs which have proven to be effective in combating wildfires. Their continued dedication to fire preparedness will help ensure the long-term resiliency of the communities they serve.

Solid Waste

The South Lake Tahoe Basin Waste Management Authority was created to encourage construction of a materials recovery facility and other solid waste handling facilities in the Tahoe Basin. The South Lake Tahoe Basin Waste Management Authority is a Joint Powers Authority (JPA) consisting of three jurisdictions, including City of South Lake Tahoe, El Dorado County, and Douglas County. The JPA oversees operation of South Tahoe Refuse.

South Tahoe Refuse provides commercial and residential trash and recycling services to the greater South Lake Tahoe and Stateline area. Their service area extends from Glenbrook to Emerald Bay and Christmas Valley. They are complying with SB 1383 regulations in collecting organic material to reduce methane emissions from landfills within California, including a 75% disposal rate achieved by 2025.

Others

Electricity and natural gas services in the area are provided by Liberty Utilities. High speed internet is provided by Spectrum, AT&T, Viasat and others.

The Tahoe Resource Conservation District (Tahoe RCD) provides recreational opportunities and runs the boat inspection program to prevent additional aquatic invasive species (AIS) from entering Lake Tahoe. Tahoe RCD works to prevent the introduction of new invasive species, educate the public on AIS, control existing populations of AIS, and monitor for new populations around the Lake. Tahoe RCD is the co-chair of the Lake Tahoe Aquatic Invasive Species Coordination Committee (LTAISCC), designed to collaborate on prevention, control, and early detection of AIS. The LTAISCC shares resources and information, standardizes methods for treatment and data collection, performs coordinated education and outreach activities, prioritizes projects, obtains grants, and organizes effective control efforts.

The California Tahoe Conservancy (Conservancy) is a State agency, established in 1985, with a mission to lead California's efforts to restore and enhance the extraordinary natural and recreational resources of the Lake Tahoe Basin. The Conservancy owns and manages nearly 4,700 parcels of land, totaling around 6,500 acres, for the purpose of protecting the natural environment and promoting public recreation and access to Lake Tahoe. The Conservancy's Tahoe Livable Communities Program helps reduce greenhouse gas emissions, restore sensitive lands, and revitalize the Basin's town centers through the acquisition of environmentally sensitive lands, the transfer of development rights, and the sale, lease, or exchange of the Conservancy's developable parcels in town centers. The Conservancy collaboratively leads large-scale watershed and landscape restoration initiatives with over 50 public agencies to reduce wildfire threat and plays a lead role in enhancing the Basin's resilience and ability to adapt to climate change. The Conservancy has funded hundreds of environmental improvement projects and has played a major role in the restoration of the Basin's most environmentally sensitive areas.

The Lake Tahoe Basin Management Unit of the US National Forests (USFS) manages Meiss Country Roadless Area and shares management duties of Desolation Wilderness with the El Dorado National Forest and the Mt. Rose Wilderness with the Humboldt-Toiyabe National Forest.

ORGANIZATIONAL STRUCTURE

GOVERNANCE

The District is governed by a five member Board, elected at large by registered voters that reside within the District boundaries. Anyone interested in running for a seat on the Board must be a registered voter within the District. Board Members receive District medical, dental and vision benefits and in accordance with Section 16002 of the Public Utility Code, also receive a \$400 per month stipend. Board meetings are held on the 1st and 3rd Thursday of the month at 2:00 p.m. in the District Board room located at 1275 Meadow Crest Drive, South Lake Tahoe.

Table 23: STPUD Board of Directors

Board Member	Title	Term Expiration
Kelly Sheehan	President	December 2024
David Peterson	Vice-President	December 2024
Chris Cefalu	Director	December 2022
Shane Romsos	Director	December 2022
Nick Exline	Director	December 2022

In addition to regular board meetings, there are also several standing committees that oversee and provide input on specific District activities. These include the Executive Committee, Water and Wastewater Operations Committee, System Efficiency and Sustainability Committee, and Finance Committee.

STAFFING

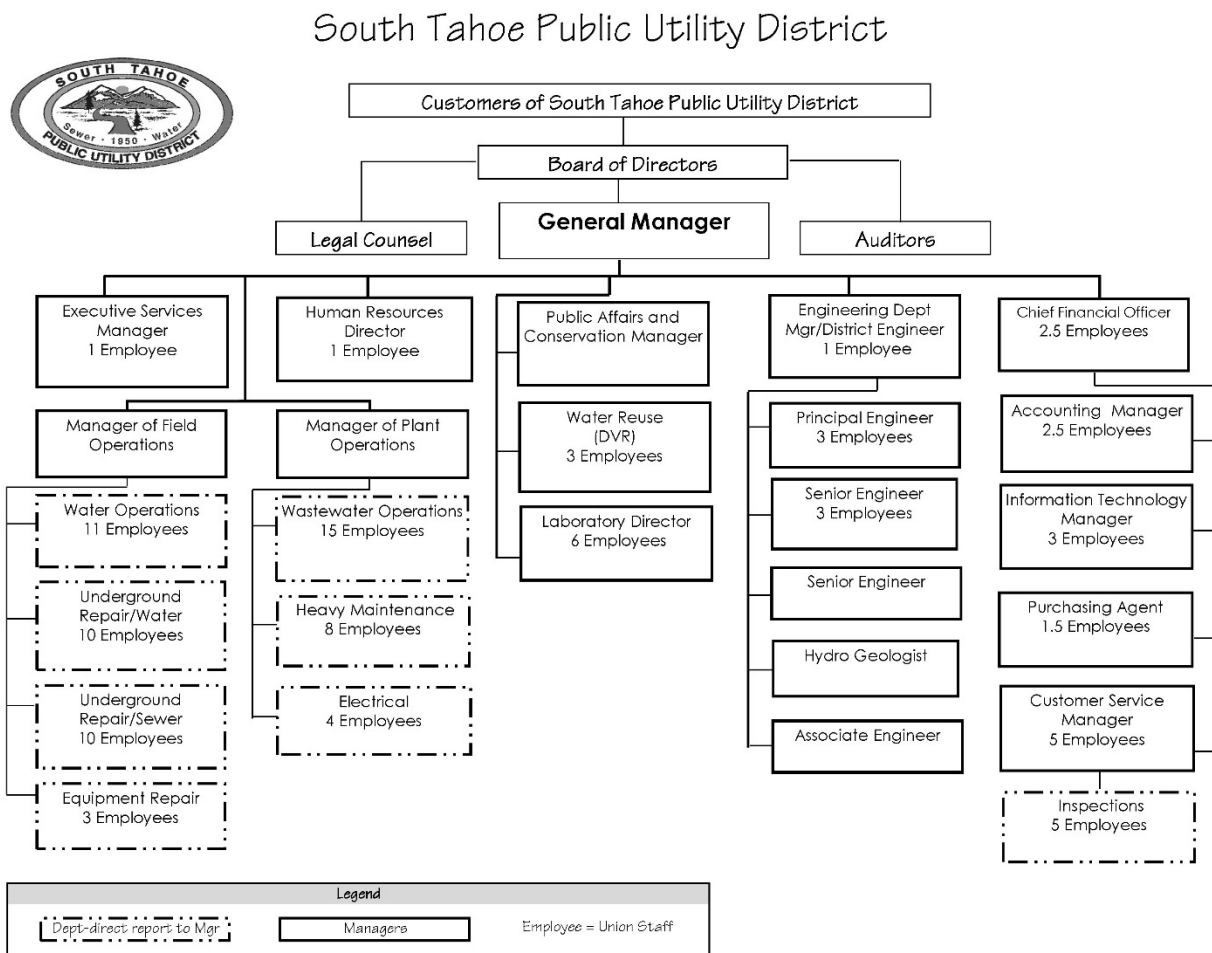
STPUD has over 100 employees that are critical in staffing their various departments ranging from Administration to Water Reuse. The organizational structure below shows the District's main departments (Figure 11).

The District maintains high employee retention with an average of 30 years of employment⁹¹. District employees can participate in a union and receive a full suite of benefits including medical, dental, vision, and retirement options⁹².

⁹¹ STPUD, Paul Hughes Personal Communication. August 24, 2021.

⁹² STPUD, Summary of Union Employee Benefits. Accessed November 19, 2021 from <https://stpud.us/asset/2681/>.

Figure 12: STPUD Organizational Chart



ACCOUNTABILITY AND TRANSPARENCY

As stated above, the STPUD Board of Directors regularly meets on the first and third Thursday of each month.. The agenda is accessible to the public at least 72 hours prior to Regular Board meetings and is posted on the outdoor reader board. A complete agenda packet is made available online and in the District office lobby during regular business hours. The District also maintains a website in accordance with SB929 where financial and other basic information can be found.

FINANCIAL OVERVIEW

BUDGET

The District prepares and adopts an annual budget for the fiscal year. The budget is separated into enterprise and capital revenues and expenses for each of the District's major funds; water and sewer. Each fiscal year, a rolling reserve (made up from unused funds from prior fiscal years) for each fund is utilized as part of overall revenues and helps to offset expenses (shown in Table 24 as Starting Balance). Revenues predominantly come from fees for services and property taxes while major expense categories include salaries/benefits and capital projects⁹³.

Table 24: STPUD Budget Summary

	FY2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Starting Balance					
Enterprise Fund	\$5,421,582	\$4,999,937	\$5,364,323	\$5,565,694	\$6,285,222
Capital Fund	\$25,212,219	\$27,390,715	\$32,178,931	\$33,444,416	\$31,652,418
<i>Total</i>	<i>\$30,633,801</i>	<i>\$32,390,652</i>	<i>\$37,543,254</i>	<i>\$39,010,110</i>	<i>\$37,937,640</i>
Revenues					
Enterprise Fund	\$33,967,841	\$23,385,026	\$38,032,450	\$39,284,737	\$39,508,907
Capital Fund	\$13,455,300	\$2,845,425	\$6,111,425	\$6,168,526	\$7,393,122
<i>Total</i>	<i>\$47,423,141</i>	<i>\$26,230,451</i>	<i>\$44,143,875</i>	<i>\$45,453,263</i>	<i>\$46,902,029</i>
Expenses					
Enterprise Fund	\$28,613,450	\$16,134,700	\$26,076,424	\$30,700,200	\$28,575,195
Capital Fund	\$21,623,000	\$13,400,450	\$26,171,438	\$22,930,650	\$24,491,550
<i>Total</i>	<i>\$50,236,450</i>	<i>\$29,535,150</i>	<i>\$52,247,862</i>	<i>\$53,630,850</i>	<i>\$53,066,745</i>
Transfers/Reserves	+\$9,051	\$0	+\$9,051	\$0	+\$9,051
Ending Balance					
Enterprise Fund	\$5,122,326	\$5,363,824	\$5,565,694	\$6,393,442	\$6,116,540
Capital Fund	\$27,307,217	\$24,076,052	\$23,882,624	\$27,448,130	\$25,665,435
<i>Total</i>	<i>\$32,429,543</i>	<i>\$29,439,876</i>	<i>\$29,448,318</i>	<i>\$33,841,572</i>	<i>\$31,781,975</i>

The District strives to keep costs as low as possible for its customers and utilizes a combination of fees for services, property taxes, investments, grants, and connection fees in addition to occasional loans for large capital improvements to offset expenditures. As shown in Figure 13 (taken from the FY 2021-22 adopted budget), Enterprise Fund revenues adequately cover the cash outlays for operating expenses. The District is able to transfer surplus Enterprise Fund revenues to the Capital Fund to help cover expenses for major capital outlay and its additional expenses without severely depleting the Capital Fund reserve. This allows the District to increase its overall net position while maintaining adequate reserve funds to support their Capital Improvement Program (discussed further below).

⁹³ STPUD, Adopted Annual Budget for Fiscal Years 2018 through 2022. Available at <https://stpud.us/documents/> under Rates & Finance.

Figure 13: STPUD Summary of FY 2021-22 Revenues and Expenditures

COMBINED FUNDS FISCAL YEAR 2021/22 BUDGET SUMMARY

	2021/22 FORECAST	2021/22 FORECAST
	<u>ENTERPRISE FUND</u>	<u>CAPITAL FUND</u>
BEGINNING CASH BALANCES	6,285,222	31,652,418
REVENUES	39,508,907	3,340,122
BORROWINGS	0	4,053,000
AVAILABLE FUNDS	\$ 45,794,129	\$ 39,045,540
SALARIES	11,021,575	1,787,600
BENEFITS	6,159,700	764,550
OPERATIONS AND MAINTENANCE	10,345,920	1,897,900
CAPITAL OUTLAY	0	16,367,500
DEBT SERVICE PAYMENTS	1,048,000	3,674,000
TOTAL CASH OUTLAYS	\$ 28,575,195	\$ 24,491,550
BALANCE BEFORE TRANSFERS	17,218,934	14,553,990
AVAILABLE TO TRANSFER TO CAPITAL FUND	-11,111,445	11,111,445
TRANSFER TO RESERVE FUNDS	0	-10,684,900
ACCRUAL TO CASH ADJUSTMENT	9,051	0
OPERATING AND CAPITAL RESERVES	\$ 6,116,540	\$ 14,980,535
RATE STABILIZATION RESERVE	\$ -	\$ 8,208,449
DEBT RESERVE	\$ -	\$ 2,476,451
TOTAL RESERVE(CASH) BALANCES 6/30/20	\$ 6,116,540	\$ 25,665,435

Figure 14: FY2021/22 Projected Combined Revenues (Water & Wastewater)

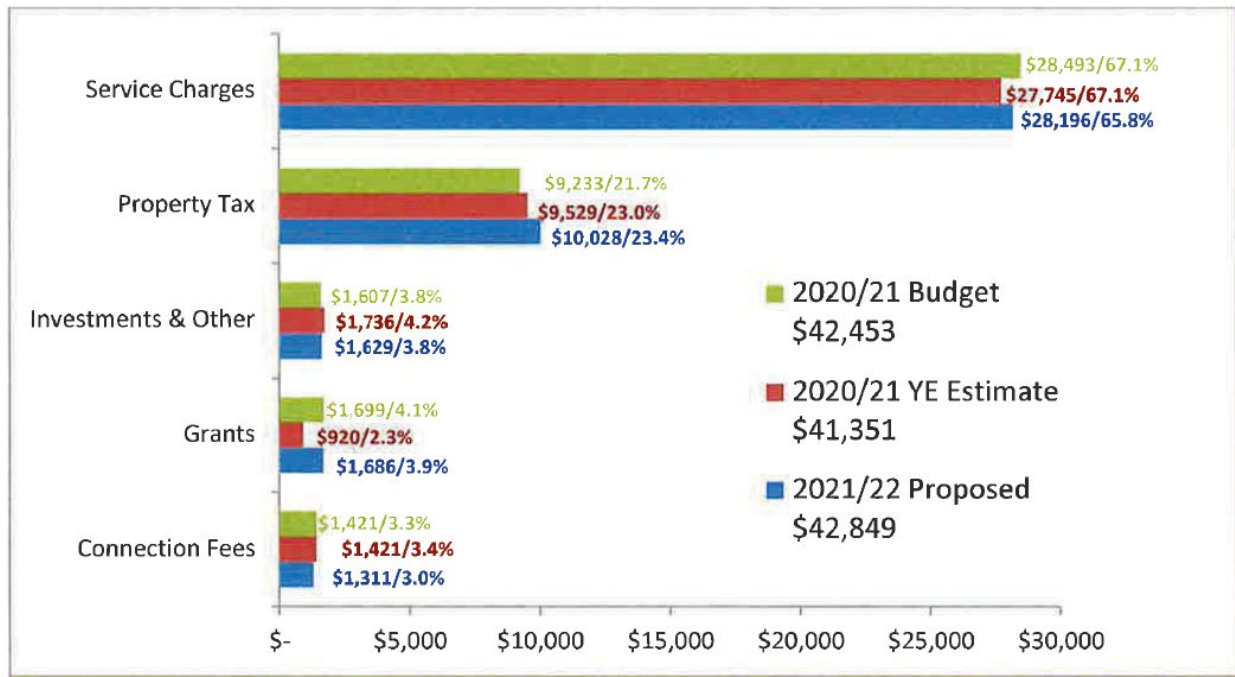
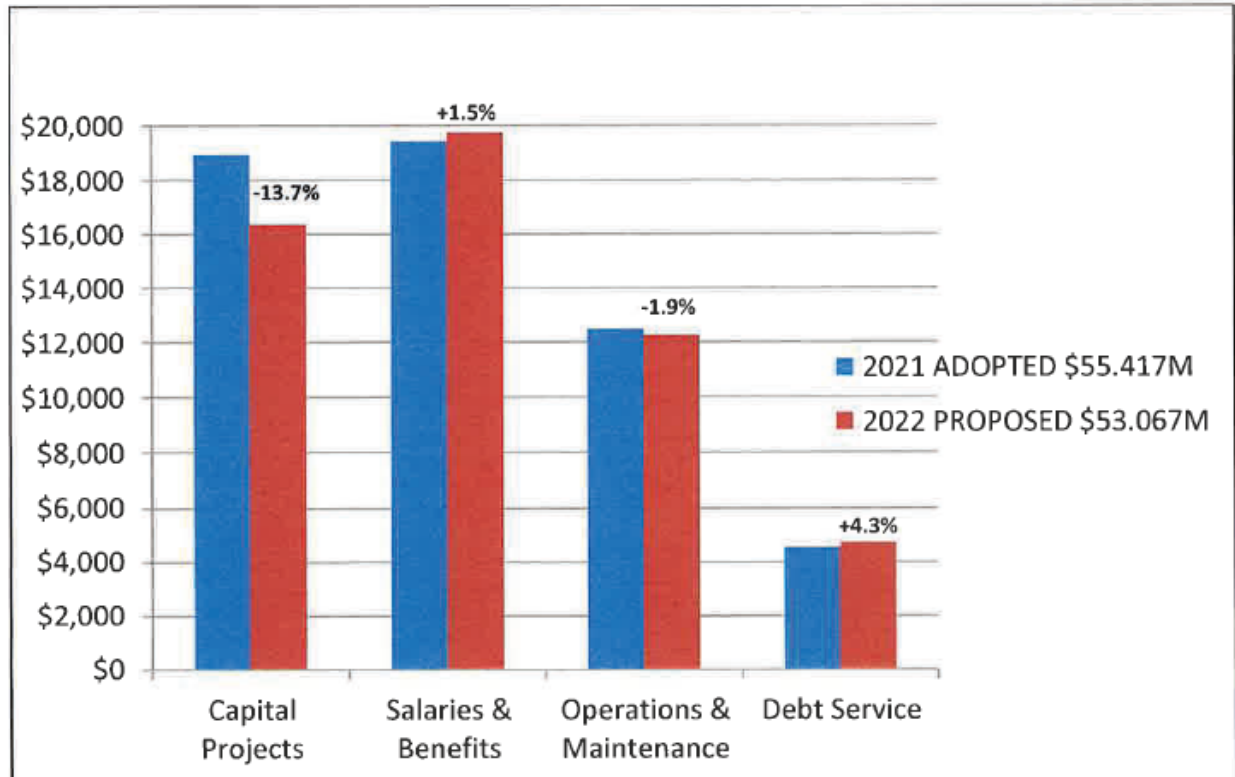


Figure 15: FY2021/22 Combined Planned Expenses (Water & Wastewater)

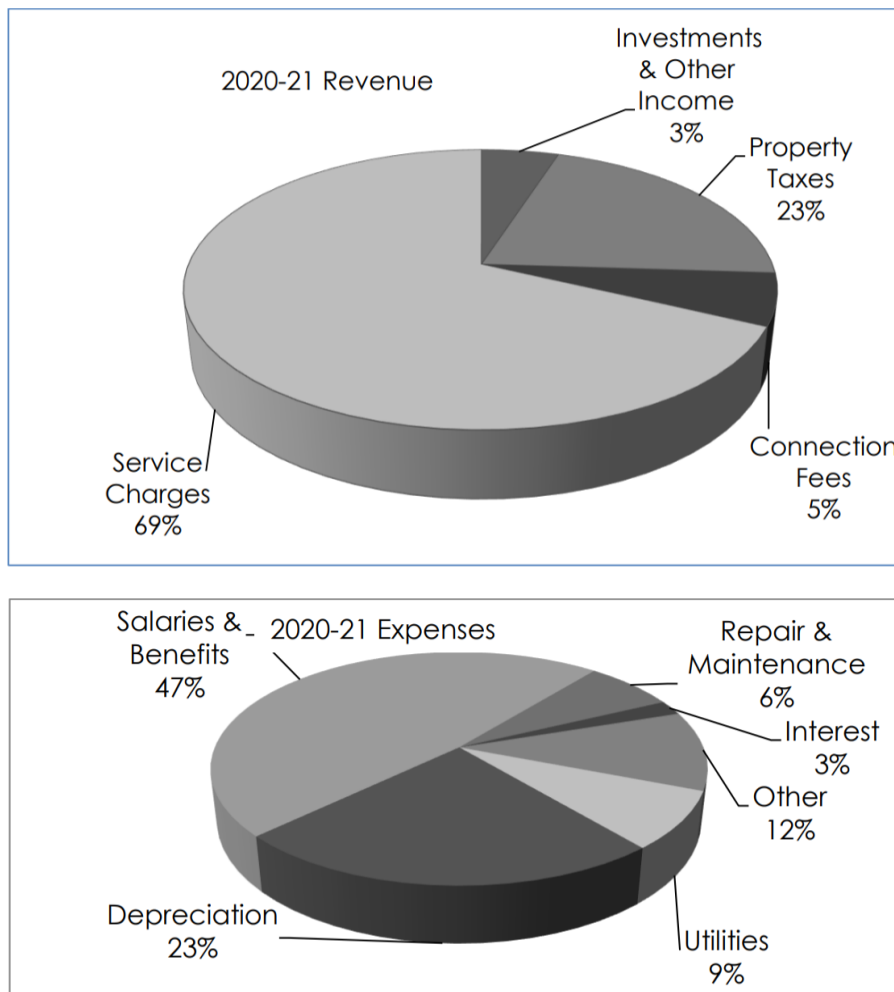


In FY 2019-20, the District also received grants totaling more than \$4.6 million following more than \$400,000 awarded in FY 2018-19 and \$900,000 in FY 2017-18. These grants will fund, among other things, waterline replacements, water pumping facilities and water conservation programs.

AUDIT

The District conducts an annual audit that is prepared by an independent certified public accountant. Based on the most recent audits available, the District's net position has increased by 8% from the end of FY 2016-17 to the end of FY 2020-21. In line with the annual budget, the major sources of the income continue to be fees for services and property taxes (Figure 14). Major expenses include salaries and benefits along with depreciation of assets⁹⁴.

Figure 16: STPUD Summary of Revenues and Expenses for FY 2020-21



⁹⁴ STPUD, Annual Financial Report with Independent Auditor's Report for FY 2016-17 to FY 2020-21. Available at <https://stpud.us/documents/> under Rates & Finance.

Table 25: STPUD Net Position Summary

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Assets	\$267,751,000	\$282,928,000	\$285,558,000	\$294,156,000	\$294,765,000
Liabilities	\$63,413,000	\$76,001,000	\$73,426,000	\$73,094,000	\$71,422,000
Net Position	\$201,513,000	\$203,823,000	\$207,443,000	\$215,935,000	\$217,675,000

CAPITAL IMPROVEMENT PROGRAM

The CIP Plan (also referred to as the “Ten-Year Plan”) is the District’s tool for budgeting Engineering project expenditures over a ten-year planning horizon. Once a project or program is sufficiently well defined to assign a cost, it is considered for inclusion in the CIP Plan. If Staff agrees on its need, it is included in the Ten-Year Plan. If the scope or cost of a project is ill-defined or the need is not considered immediate, a project is moved off of the Ten-Year Plan and onto the Unconstrained List. The CIP Annual Update does not address projects on the Unconstrained List, but instead focuses on projects that are adequately budgeted for and are ready to be implemented. Capital projects are generally funded through the District’s Capital Fund

In the fall of each year, the STPUD Engineering Department, together with Operations and Administration, meets extensively to discuss the state of the District’s water and sewer facilities resulting in a CIP Annual Plan Update, most recently adopted in April 2021⁹⁵.

During development of capital projects, the District seeks to minimize environmental impacts and reduce energy consumption by utilizing energy efficient equipment and installing monitoring systems to reduce consumption. As an example, two of the District’s top priorities are replacing aging water and wastewater pipes. Replacing water pipes reduces water leaking from pipes, which subsequently reduces the amount of water extracted from the groundwater basin and energy required to extract the water. Replacing sewer pipes reduces groundwater and surface water infiltration which reduces the amount of energy required to treat and export wastewater. The District continues to evaluate efficiency opportunities when identifying and prioritizing capital projects and is implementing a system to track efficiency gains⁹⁶.

DEBTS

The District is continuing to install water meters on all service connections to meet the CA State mandate that requires all water providers with greater than 3,000 service connections to be completely metered by 2025. Through the end of FY 2019-2020 approximately 10,000 additional meters have been installed. These meters increase the metered portion of the water system to about 90% and the remaining service connections will have meters installed within the next two years. The meter installation is funded through a \$14 million loan from the CA State Water Resources Control Board. The loan has a 30-year term, an interest rate of 1.8% and includes \$4 million in principle forgiveness.

⁹⁵ STPUD Capital Improvement Plan Annual Plan Update April 2021.

⁹⁶ STPUD Environmental Policy March 2020.

MSR DETERMINATIONS

As set forth in Section 56430(a) of the CKH Act- In order to prepare and to update the SOI 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 a 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.

- a) The District service area boundary does not match up exactly with census tract or block group zones. Existing service population is therefore estimated using data from both the 2020 Census of 28,900 permanent residents and a CA State Water Boards estimate for population served of 33,124, giving an average of 31,000 people within the District.
- b) While the unique nature of the permanent and part-time residents of the area make it difficult to calculate population projections, it is estimated that by 2030 there could be a population of 33,900 within the District.

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

- a) South Lake Tahoe is considered Disadvantaged Community with a median household income (MHI) of \$48,653 which is 65% of the statewide MHI of \$75,235. However, since it is incorporated, it is not considered a DUC.
- b) Unincorporated areas within the District boundary typically have a MHI that is at or above the statewide MHI and are therefore not considered DUCs.

(3) Present and planned capacity of public facilities and adequacy of public services, including infrastructure needs or deficiencies.

- a) Based on the calculated annual safe yield for the South Tahoe groundwater basin (9,528AFY), the District is currently using approximately 61% of available water supplies and is estimated to utilize approximately 65% by 2040. This has the potential to change based on active tourism and seasonal fluctuations of population in the region.
- b) Approximately 10% of the water distribution system is undersized and does not provided adequate fire flows. However, the District continues to update these areas as part of their CIP in order to provide better service for the community.
- c) Water usage has decreased in the past decade, showing that conservation methods have been effective. Water usage per account has decreased almost 20% from 2009 to 2020.
- d) The District is currently utilizing approximately 34% of its maximum wastewater capacity. All wastewater is treated to secondary 23 standards and exported for storage and use in Alpine County.

(4) Financing ability of agencies to provide services.

- a) The District's overall net position increased by 8% from the end of FY 2016-17 to the end of FY 2020-21. The District is continuing to invest in capital assets while keeping its debt at manageable levels.
- b) In FY 2019-20, the District received grants totaling more than \$4.6 million following more than \$400,000 awarded in FY 2018-19 and \$900,000 in FY 2017-18. These grants will fund, among other things, waterline replacements, water pumping facilities and water conservation programs.

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

- a) The District owns and operates the wastewater collection and treatment system. The system produces effluent at recycled water standards. However, the Porter-Cologne Water Quality Act prohibits the use of recycled water within the Lake Tahoe Basin. Therefore, all the wastewater treatment plant effluent is pumped to Alpine County and stored and used for agricultural purposes.
- b) The District provides lab services to other local water purveyors and non-profit organizations upon request.
- c) The District has emergency interties with Lukins Brothers Water Company and Tahoe Keys Water Company. These interties are being assessed and upgraded as necessary to provide support to these water purveyors.

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

- a) The District is governed by a five member Board, elected by popular vote of the general public who reside within the District boundaries.
- b) Agendas and meeting minutes are posted to the District website. Board members receive required ethics trainings under AB 1234 and have an enterprise system catalog that complies with SB 272.

(7) Any other matter related to effective or efficient service delivery.

- a) The District regularly monitors for groundwater contamination and continues to work with other local water purveyors on potential treatment and mitigation measures for contaminants.

SOI DETERMINATIONS

In order to carry out its purposes and responsibilities for planning and shaping the logical and orderly development of local governmental agencies to advantageously provide for the present and future needs of the county and its communities, the commission shall develop and determine the sphere of influence of each city, as defined by G.C. Section 56036, and enact policies designed to promote the logical and orderly development of areas within the sphere. In determining the sphere of influence of each local agency, the commission shall consider and prepare a written statement of its determinations with respect to the following:

(1) Present and planned land uses in the area, including agricultural and open-space lands.

- a) Areas within the District's SOI and outside its boundary are primarily natural resource and conservation lands that are not intended for development. Other surrounding areas are primarily national forest and wilderness areas. Based on the TRPA regulations and designated land uses in the area, it is unlikely there will be substantial outward growth over the next five to ten years.

(2) Present and probable need for public facilities and services in the area.

- a) There are many public facilities and recreational opportunities within the District. The Tahoe Resource Conservation District (Tahoe RCD) runs the boat inspection program to prevent more aquatic invasive species (AIS) from entering Lake Tahoe. The California Tahoe Conservancy owns and manages nearly 4,700 parcels of land, totaling around 6,500 acres, for the purpose of protecting the natural environment and promoting public recreation and access to Lake Tahoe.

(3) Present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide.

- a) The District currently has the capacity to support anticipated growth in the area. The City of South Lake Tahoe and surrounding communities continue to see regular use by full time residents and visitors.

(4) Existence of any social or economic communities of interest in the area if the commission determines that they are relevant to the agency.

- a) The District is located on Highway 50 which provides direct access to the San Francisco Bay Area, Sacramento, and Carson City in Nevada. Visitors from these areas frequent the Tahoe Basin for day, weekend, and extended trips. Additionally, residents of the Tahoe basin frequent these larger metropolitan areas for shopping, entertainment, and cultural activities.
- b) Additional communities of interest include smaller communities around Lake Tahoe such as Tahoma, Meeks Bay, Zephyr Cove, and Glenbrook and those outside the basin such as Strawberry, Kirkwood, Woodfords, and Markleeville. Residents of these areas may frequent areas within the District for medical appointments, shopping, entertainment, and recreation.

(5) For an update of a sphere of influence of a city or special district that provides public facilities or services related to sewers, municipal and industrial water, or structural fire protection, the present and probable need for those public facilities and services of any disadvantaged unincorporated communities within the existing sphere.

- a) It is recommended that the SOI for the District be reaffirmed with no changes.
- b) Disadvantaged communities within the District are typically found within the incorporated areas of the City of South Lake Tahoe and as such are not considered DUCs.