WASTEWATER SERVICES IN EASTERN NEVADA COUNTY

MUNICIPAL SERVICES REVIEW

Final

Prepared for
NEVADA COUNTY
LAFCo

Featuring
Truckee Sanitary District
Also Including
Donner Summit PUD
Tahoe Truckee Sanitation Agency

Public Hearing: September 20, 2018

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Final - 2nd Round Municipal Service Review Update

TRUCKEE SANITARY DISTRICT

DONNER SUMMIT PUBLIC UTILITY DISTRICT

TAHOE-TRUCKEE SANITATION AGENCY

Prepared for:

Nevada LAFCo

950 Maidu Avenue
Suite 270
Nevada City, CA 95959

https://www.mynevadacounty.com/907/Local-Agency-Formation-Commission-LAFCo

Prepared by:

SWALE inc

Public Hearing Date: September 20, 2018

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ACRONYMS AND ABBREVIATIONS

ACS	American Community Survey
ADWF	Average Dry Weather Flow
AF	Acre-Feet
AFS	Annual Financial Statement
AMP	Asset Management Plan
BMP	Best Management Practices
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CIP	Capital Improvement Plan
CKH	Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000
DAC	Disadvantaged Community
DUC	Disadvantaged Unincorporated Community
DWR	Department of Water Resources
DSPUD	Donner Summit Public Utility District
EDU	Equivalent Dwelling Unit
FY	Fiscal Year
FTE	Full-Time Equivalent
GAAP	Generally Accepted Accounting Principles
GSAB	Government Accounting Standards Board
GIS	Geographical Information System
GPM	Gallons per Minute
I/I	Infiltration and Inflow
LAFCo	Local Agency Formation Commission
MGD	Million Gallons per Day
MHI	Median Household Income
MSR	Municipal Service Review
O&M	Operation & Maintenance
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition; a software application
SCS	Sustainable Communities Strategy
SFR	Single Family Residence
SOI	Sphere of Influence
SWRCB	State Water Resources Control Board
TRPA	Tahoe Regional Planning Agency
TSD	Truckee Sanitary District
T-TSA	Tahoe-Truckee Sanitation Agency

CHAPTER 1: EXECUTIVE SUMMARY

Photo Courtesy of the Tahoe-Truckee Sanitation Agency Website

1.A SUMMARY NARRATIVE

This Municipal Service Review (MSR) examines how wastewater services are delivered to eastern Nevada County by three providers: the Truckee Sanitary District (Chapter 3); the Tahoe-Truckee Sanitation Agency (Chapter 4); and the Donner Summit Public Utility District (Chapter 5). The MSR discusses service delivery and efficiency, including an analysis for each of the following analytical factors:

- Growth and population projections for the three affected areas;
- Disadvantaged unincorporated communities;
- Present and planned capacity of public facilities;
- Financial ability of each agency to provide services;
- Opportunities for shared facilities;
- Accountability for government service needs; and
- Any other matter related to service delivery as required by Commission Policy.

The areas of description and analysis contain the essential operational and management aspects for the three service providers and together constitute a review of each provider's ability to meet the service demands of the customers within their respective boundaries. Only wastewater collection, treatment, and disposal services are considered in this MSR Update. These services are primarily provided to residents and visitors by the three special districts, in cooperation with Nevada County, Placer County, and the Town of Truckee. These agencies operate under "principal acts," which govern the provision of one or more public services. Boundaries and spheres of influence (SOI) are determined by the Local Agency Formation Commission (LAFCo) of each agency's *principal county* (the county having the greater portion of the entire assessed value of all taxable property within the district, pursuant to Section 56066 of the Government Code). Several options for the Commission to consider when they next update the SOI for the Truckee Sanitary District are described in Appendix 1. Nevada

County is considered the principal county for the Truckee Sanitary District, while Placer County is the principal county for the Tahoe-Truckee Sanitation Agency and the Donner Summit Public Utility District. Since Nevada LAFCo is the Principal LAFCO for the Truckee Sanitary District, this MSR also presents a written statement of conclusions, known as determinations, for this District. The key facts that support each determination are discussed in Chapter 3.

1.1 OVERVIEW OF DISTRICTS

The Truckee Sanitary District (TSD) and the Tahoe-Truckee Sanitation Agency (T-TSA) were last reviewed by Nevada LAFCo in a 2003 MSR called the 'Eastern Nevada County Wastewater MSR.' The Donner Summit Public Utility District (DSPUD) was last reviewed by Nevada LAFCo through an MSR in 2005. Placer LAFCo has also initiated a Municipal Service Review that will examine all public services provided in eastern Placer County, including T-TSA and DSPUD. A regional map showing the location of each of these three districts is provided on Figure 1-1. The following table summarizes key features of the three Districts discussed in this MSR. The following pages provide a summary for each district profile.

Table 1-1: Summary of Districts

	TSD	DSPUD	T-TSA
Principal County	Nevada	Placer	Placer
Population[1]	17,329	93	33,184
Size (in square miles)	39	13	62.3
Services	Collection and conveyance of sewage	Collection, treatment, and disposal of sewage; and water treatment and distribution	Treatment and disposal of sewage and industrial waste
Number of sewer connections	16,838	272	28,361
Number of water connections	N/A	331	N/A
Gross Revenue	$7,792,105 (2016/17)	$2,452,052 (2015)	$16,554,918 (2011/12)
Monthly rate for a SFR[2] - Wastewater	$15.66 (Tax Rate) $20.52 (No Tax Rate)	$117.58 Inside Zone[3] No. 1 $167.02 Outside Zone No 1	N/A

[1]Population does not include visitor population
[2]Single Family Residence
[3]These are 2018 rates

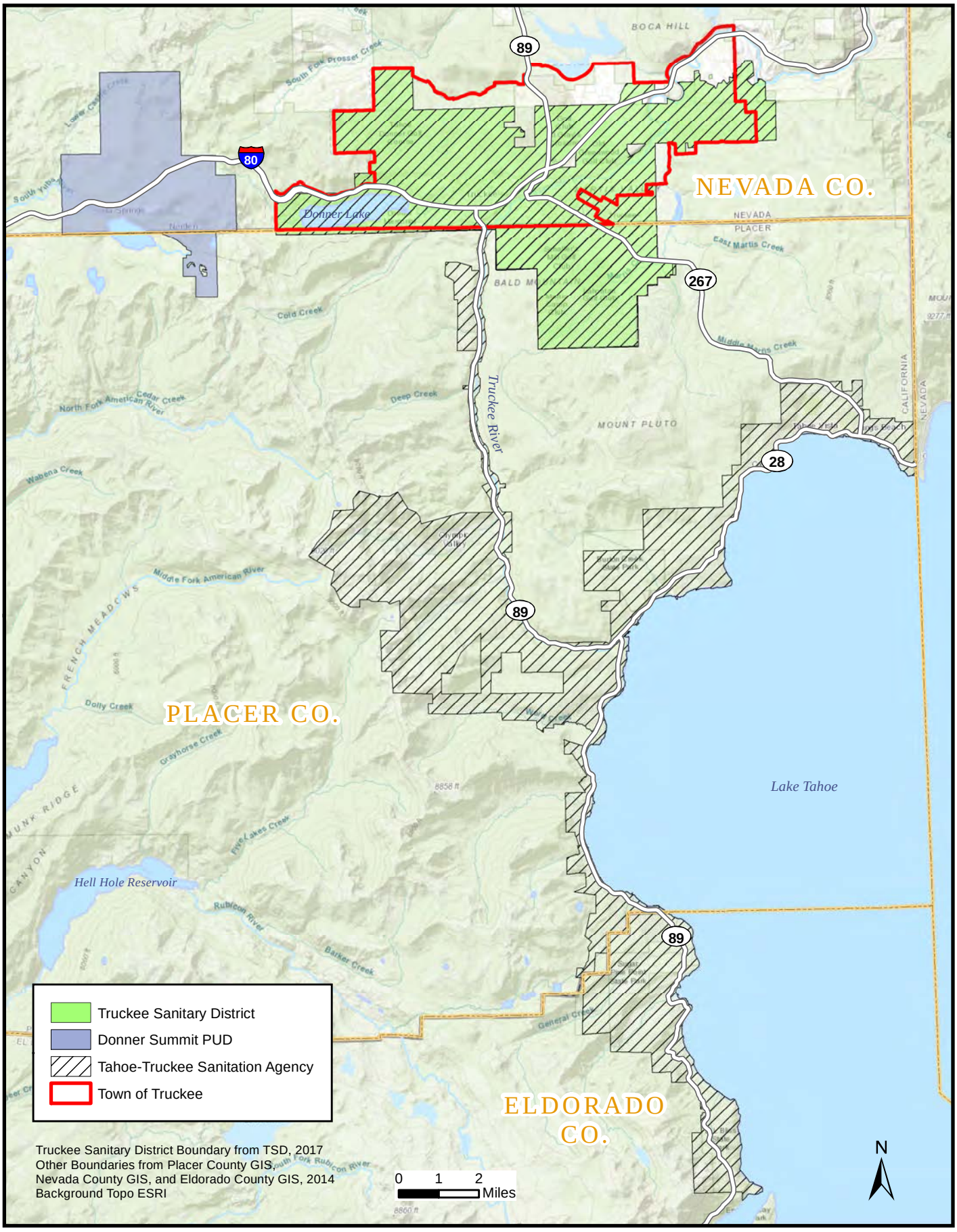


Figure 1 -1

REGIONAL MAP

Truckee Sanitary District Profile

Type of District: Sanitary District
Principal Act: Sanitary District Act of 1923. Complies with California Health and Safety Code Section 6400, *et seq.*

Functions/Services: Wastewater collection and conveyance
Number of Sewer Connections: 14,688 (plus an additional 2,150 for Northstar CSD)

Main Office: 12304 Joerger Drive, Truckee, CA 96161
Mailing Address: Same

Phone No.: (530) 587-3804
Fax No.: (530) 587-1340
Web Site: www.truckeesan.org

General Manager/Chief Engineer: Blake Tresan, P.E. **Email:** BTresan@truckeesan.org
Alternate Contact: Liz Coombs, Executive Assistant **Email:** LCoombs@truckeesan.org

Governing Body: Elected Sanitary District Board Members

Name	Position	Term Ends
Dennis Anderson	President	November 2020
Jerry Gilmore	Member	November 2018
Brian Kent Smart	Vice President & Finance Committee	November 2020
Ron Sweet	Member & Finance Committee	November 2018
Nelson Van Gundy	Member	November 2018

Meeting Schedule: Third Thursday of each month at 6:00 PM.

Meeting Location: Administrative Building, 12304 Joerger Drive, Truckee, CA

Date of Formation: 1906

Principal County: Nevada County
Other: Multi-county district serving Nevada County and Placer County

Donner Summit Public Utility District Profile

Type of District: Public Utility District
Principal Act: Public Utility District Act. Public Utilities Code §§ 15501-18055

Functions/Services: Water treatment and distribution, and sewer treatment and collection

Main Office: 53823 Sherritt Lane, Soda Springs, CA 95728
Mailing Address: P.O. Box 610, Soda Springs, CA 95728

Phone No.: (530) 426-3456
Fax No.: (530) 426-3460
Web Site: www.dspud.com

General Manager: Tom Skjelstad **Email:** tskjelstad@dspud.com
Other Contact: Julie Bartolini **Email:** jbartolini@ dspud.com

Governing Body: Elected Board of Directors – 4-year terms

Name	Position	Term Ends
Cathy Preis	President	12/31/2020
Sara Schrichte	Vice President	12/31/2020
Robert Sherwood	Secretary	12/31/2020
Alex Medveczky	Director	12/31/2018
Phil Gamick	Director	12/31/2018

Meeting Schedule: Third Tuesday of each month at 6:00 PM.

Meeting Location: District Office, 53823 Sherritt Lane, Soda Springs, CA 95728

Date of Formation: 1950

Principal County: Placer County
Other: Multi-county district serving Nevada County and Placer County

Tahoe-Truckee Sanitation Agency

Type of District: Statutorily created Special Purpose District
Principal Act: Water Code, Appendix, Chapter 114;
Tahoe-Truckee Sanitation Agency Act of 1971

Functions/Services: Treatment and disposal of municipal sewage and industrial wastewater

Main Office: 13729 Butterfield Drive, Truckee, CA 96161
Mailing Address: Same

Phone No.: (530) 587-2525
Fax No.: (530) 587-5840
Web Site: www.ttsa.net

General Manager: LaRue Griffin **Email:** lgriffin@ttsa.net

Governing Body: Board of Directors

Name	Representing District	Term
Dale Cox (President)	Squaw Valley Public Service District	2014-2018
S. Lane Lewis (VP)	North Tahoe Public Utility District	2016-2020
Jon Northrop	Alpine Springs County Water District	2016-2020
Dan Wilkins	Tahoe City Public Utility District	2014-2018
Blake Tresan	Truckee Sanitary District	2014-2018

Meeting Schedule: Second Wednesday of the month at 9:00 AM.

Meeting Location: Agency Board Room
13720 Butterfield Drive, Truckee, CA 96161

Date of Formation: November 17, 1971

Principal County: Placer County
Other: Multi-county district serving Nevada County and Placer County

1.2 Summary Of Analytical Factors

Chapters 3, 4, and 5 provide more detailed information on issues and challenges faced by the three Districts. For purposes of this Executive Summary, the key wastewater information regarding the three Districts are encapsulated below.

Growth and Population Projections

All three districts are located in areas substantially affected by seasonal variations, distinct user groups, and an abundance of second homes. Seasonal variations in demand for wastewater services fluctuate due to the popularity of skiing and winter recreation, as well as summer recreation opportunities. In addition, the economic downturn in 2007-09 slowed anticipated growth for major population centers such as the Town of Truckee and Northstar-at-Tahoe; and in both cases recent growth has not occurred on pace with expectations. The existing population of Truckee and Nevada County as a whole is described in Appendices 2 and 3.

TSD and T-TSA anticipate an approximately one-half to two percent growth rate in their respective service areas, while the DSPUD anticipates a very low growth rate. All three districts anticipate adequate capacity to meet service needs to the 2040 planning horizon of this MSR. However, variabilities in seasonal visitors, second homes, and upward growth trends may require additional facilities and infrastructure to support added demand.

Disadvantaged Unincorporated Communities

Senate Bill (SB) 244, which became effective in January 2012, requires LAFCo to consider the presence of any Disadvantaged Unincorporated Communities (DUCs) when preparing an MSR that addresses agencies that provide water, wastewater, or structural fire protection services. A DUC is a geographic area characterized as having a median household income of 80 percent or less of the statewide median household income ($67,739 in 2016). Nevada LAFCo has adopted specific policies regarding DUCs which recognizes those DUCs that have been designated by the County of Nevada, the Cities of Grass Valley and Nevada City, and the Town of Truckee. The County has identified five DUCs in the unincorporated portion of the County: Penn Valley; Rough and Ready; North San Juan; Washington; and Soda Springs. Additionally, the City of Grass Valley has identified the Alta Hill area as a DUC. Soda Springs is within the area served by the Donner Summit PUD as described in Chapter 5.

Placer County, including the area served by T-TSA, also has several DUCs located near north Lake Tahoe. Chapters 3-5 describe the areas that could potentially qualify as DUCs. All DUC areas receive adequate water, wastewater, and fire protection services with no public health or safety issues identified.

Present and Planned Capacity of Public Facilities

All three Districts have sufficient capacity to serve existing customers. Facilities will be able to accommodate future growth to at least 2025 due to slower than expected utilization of capacity of current facilities, partially as a result of the 2007-09 economic downturn. However, the Districts' ability to meet future demand for wastewater services will depend on the rate of future population growth and the associated private development of new housing and commercial facilities. The infrastructure and facilities for all three Districts were determined to be in adequate to good condition as described in Chapters 3, 4, and 5. For example, the DSPUD recently expanded its wastewater treatment facility. This MSR also studies compliance with state water quality regulations. These regulations are described in detail in Appendix 4. The use of septic systems (onsite wastewater systems) in eastern Nevada County is described in Appendix 5. Figure 1-1 shows the boundaries of the three districts: TSD, DSPUD, and T-TSA. Details about the three Districts included in this MSR are provided in Chapters 3, 4, and 5.

Financial Ability of the District to Provide Services

T-TSA has sufficient financing mechanisms in place to ensure short and long-term provision of services within its current service area. The DSPUD's current financing level is adequate to deliver current services and the District periodically reviews rates as needed. For the TSD, total revenue was less than the operating expenditures in each of the three study years. Expenses associated with capital improvement projects contributed to the expenditure totals during these years and contributions from the capital fund, dedicated land and improvement fund, and connection fees were used to offset the difference. It is recognized that capital improvement projects are expensive and necessary. A new 2014-2016 sewer rate study by HDR Engineering, Inc. determined TSD's rates to adequately cover expenses based on the best available data.

Opportunities for Shared Facilities

LAFCo aims to avoid the duplication of service and aims to increase efficiency through the shared use of facilities. This issue is relevant in the Truckee area because six local government agencies have overlapping boundaries: Town of Truckee, Truckee-Donner Public Utility District, Truckee Fire Protection District, Truckee Donner Rec and Park District, Tahoe-Truckee Sanitation Agency, and Truckee Sanitary District. Additionally, the Northstar Community Services District is located nearby. The T-TSA by design is a shared regional facility that receives and treats raw sewage from special districts within the North Tahoe Region as described in Chapter 5. Opportunities to expand sharing facilities between T-TSA and TSD are limited due to the distinct functions of the two providers. No opportunities for shared facilities were identified by either T-TSA or TSD during the preparation of this MSR. TSD does collaborate with local districts on a variety of projects. DSPUD is sharing facilities with another district, the Sierra Lake County Water District (SLCWD).

Accountability for Government Service Needs

Each of the three Districts provide notices for the public in relation to District meetings and compliance with the Brown Act. Each District also provides transparency through a robust online presence. Recommendations from the Nevada County Grand Jury about "How to be a Better Board Member" and which are applicable to all independent districts in Nevada County are listed in Appendix 6.

1.B RESOLUTION #18-05

This Municipal Service Review was approved by the Nevada LAFCO on September 20, 2018. The Commission adopted Resolution #18-05, which is shown on the following pages.

Resolution 18-05
of the
Local Agency Formation Commission
of
Nevada County, California

Approving a Municipal Service Review of Wastewater Services in Eastern Nevada County and Adopting Written Determinations Thereon

WHEREAS, the Sphere of Influence Plan is the primary planning tool for LAFCo and defines the probable physical boundaries and service area of a local agency; and,

WHEREAS, California Government Code Section 56425 requires that a Local Agency Formation Commission ("LAFCo") adopt and periodically review Sphere of Influence Plans for all agencies in its jurisdiction; and,

WHEREAS, California Government Code Section 56430 requires that prior to updating or adopting the Sphere of Influence Plan of an agency, the LAFCo shall conduct a review of the municipal services provided by the agency; and,

WHEREAS, the Nevada Local Agency Formation Commission has contracted with independent consultant SWALE, Inc. for the preparation of a Municipal Service Review of wastewater services provided within the geographic area of eastern Nevada County, including the services provided by the Truckee Sanitary District, the Tahoe Truckee Sanitation Agency and the Donner Summit Public Utility District; and

WHEREAS, the consultant has prepared a Municipal Service Review titled *Wastewater Services in Eastern Nevada County*, in accordance with the provisions of Government Code Section 56430 and Commission policy, and

WHEREAS, on July 19, 2018, the Commission held a workshop on the preliminary draft of the Municipal Service Review and has directed staff to circulate the draft to the public and affected agencies for comment; and,

WHEREAS, at the time and in the manner provided by law, the Executive Officer gave notice of the date, time, and place of a public hearing by the Commission upon the Municipal Service Review titled *Wastewater Services in Eastern Nevada County*, including approval of the report and adoption of the written determinations contained therein; and,

WHEREAS, the Commission hereby determines that the final draft of the Municipal Service Review titled *Wastewater Services in Eastern Nevada County*, and the written determinations contained therein will provide information for updating the sphere of influence of the Truckee Sanitary District and is otherwise consistent with the purposes and responsibility of the Commission for planning the logical and orderly development and coordination of local governmental agencies so as to advantageously provide for the present and future needs of the county and its communities; and,

WHEREAS, in making this determination, the Commission has considered the documentation on file in this matter prepared by the consultant and submitted by other interested agencies and individuals; and,

WHEREAS, the Commission has heard all interested parties desiring to be heard and has considered the proposal and report by the Executive Officer and all other relevant evidence and information presented at said hearing;

NOW, THEREFORE, the Local Agency Formation Commission of Nevada County hereby resolves, orders and determines the following:

1) The Municipal Service Review titled *Wastewater Services in Eastern Nevada County* is approved and the written determinations for the Truckee Sanitary District contained in Section 3 of the MSR, extracted and attached hereto as *Exhibit A*, are hereby adopted.
2) The Commission finds that this project qualifies for a Categorical Exemption to the California Environmental Quality Act under Article 19, Class 6 (Section 15306) of the Guidelines for Implementation of CEQA, Information Collection (which does not result in disturbance of an environmental resource).
3) LAFCo staff is directed to utilize the approved MSR for updating the sphere of influence of the Truckee Sanitary District, as provided for by the Commission's schedule for sphere updates.
4) LAFCo staff is further ordered to forward copies of the adopted Municipal Service Review to all appropriate agencies, including each subject service provider.

The foregoing resolution was duly passed by the Local Agency Formation Commission of Nevada County at a special meeting held on September 20, 2018, by the following roll call vote:

Ayes: Aguilar, Anderson, Grundel, Minett, Susman, Wilcox, Weston

Noes: None

Absentions: None

Absent: None

Signed and approved by me after its passage this 20th day of September, 2018.

Hank Weston

Hank Weston, Chair
Nevada LAFCo

Attest:

SR Jones, Executive Officer

SUMMARY OF MSR DETERMINATIONS: TRUCKEE SANITARY DISTRICT

Growth and Population Projections

1. The Truckee Sanitary District (TSD) provides wastewater conveyance services to approximately 14,688 equivalent dwelling units (EDUs), including commercial facilities, as well as approximately 2,150 EDU's from the Northstar Community Service District (NCSD).
2. The most recent Sphere of Influence (SOI) update in 2013 identified near-term and long-term annexation areas, generally encompassing the Town of Truckee boundaries and SOI. TSD's 39 square mile service area includes the Town of Truckee and neighborhoods in unincorporated areas of Placer and Nevada Counties.
3. Between the years 2015 and 2040, an additional 2,336 persons are expected to reside within TSD's boundaries as determined by the Slow Growth Rate shown in Table 3-6. This represents an overall 13 percent increase in projected future population.
4. Since the Town of Truckee General Plan did not foresee the economic downturn of 2007- 09, its population projections differ from the current reality; with the population decreasing between 2010 and 2015. This suggests that the Town will have enough land and infrastructure to accommodate future population growth past 2025 and that TSD has sufficient capacity to keep up with the Town's growth.

Disadvantaged Unincorporated Communities

5. According to the U.S. Census, the median household income (MHI) for the State was $63,783 in 2016 (US Census, ACS, 2012-2016). This yields a disadvantaged unincorporated community (DUC) threshold MHI of less than $51,026 (80 percent of the State MHI). As of 2016, the median household income (MHI) in the Town of Truckee was estimated to be $79,971 (per Appendix 2). This is significantly higher than the DUC threshold MHI.
6. No unincorporated areas were identified as DUC's within the TSD's boundaries or SOI.
7. Within TSD's Area of Interest, one block group in Placer County was identified with an average median income of $39,583, which meets the financial threshold to be classified as a DUC. No public safety issues have been identified in this area and it is not located within the TSD Near or Long Term SOI or existing boundaries.

Present and Planned Capacity of Public Facilities

8. The Truckee Sanitary District (TSD) provides wastewater conveyance services to approximately 14,688 equivalent dwelling units (EDUs), including commercial facilities, as well as approximately 2,150 EDU's from the Northstar Community Service District (NCSD).
9. The facilities and infrastructure for the TSD are in good condition, due to TSD's preventative maintenance program, with 24-hour monitoring, up-to-date mapping, CCTV inspections of sewer lines, sewer line cleanings, and prioritizing rehabilitation. TSD repairs and replaces infrastructure on a regular basis.
10. TSD conveys wastewater collected through its system to the T-TSA Water Reclamation Plant. Monthly flows to the T-TSA in 2016 averaged 1.61 MGD with a peak monthly average of 2.03 MGD in March. The T-TSA has a capacity of 9.6 MGD as of 2008.
11. TSD Hydraulic Modeling predicts future demand by 2025 to be 6.6 MGD assuming a buildout of 28,993 EDU's by 2025. This is a 72 percent increase in EDU's from 2017. The Slow Growth Scenario estimates a population of 18,099 persons by 2025, indicating TSD should have adequate infrastructure to meet future population growth.
12. The TSD's innovative use of renewable energy to offset the electricity cost associated with the sewer system demonstrates that it has already implemented several management practices which highlights the ongoing work at the local level to save energy and protect the environment by reducing

greenhouse gas emissions. It is recommended that TSD continue to implement best management practices that align with sustainability aims.

Financial Ability of District to Provide Services

13. TSD utilizes both property tax and sewer collection fees to finance services. All fees and charges are based on a comprehensive rate study.
14. On an annual basis, the TSD adopts a comprehensive budget and receives an audited financial statement. Summary financial information presented in a standard format and simple language.
15. TSD has several adopted management and budget policies contained in its Annual Financial Statements and its Purchasing Policy which addresses budget preparation, expense authorization, and other accounting items.
16. TSD has published its policy for reserve funds, including the size and purpose of reserves and how they are invested on the District website.
17. Compensation reports and financial transaction reports that are required to be submitted to the State Controller's Office are submitted and are also posted to the District website.
18. In FY 15/16, total annual revenue was $7.8 million and total annual expense was $9 million. Total revenue was less than the operating expenditures in each of the three study years. The difference between revenue and operating expenditures was partially due to the use of capital contributions to fund capital improvement projects such as vehicle replacements, pipeline rehabilitation, lift stations site improvements, and SCADA system upgrades as describe in the "Capital Improvement Plan", page 3-49 of this MSR, but a substantial portion was due to asset depreciation. It is recognized that capital improvement projects are expensive and necessary. This is typical of many wastewater districts in California.
19. Changes to the Net Position are shown in Table 3-14 to be variable. However, the decline in Net Position of $-40,204 was predominately due to Period Adjustment per Implementation of GASB 68 (an accounting measure to improve financial reporting by state and local governments for pensions) as described in Note 14 of TSD's CAFR 2016. This situation is typical of many wastewater districts in California.
20. 20. Reserves are projected to be maintained with positive balances through the year 2036. This data suggests that TSD has the financial ability to continue to provide public services into the future.
21. Rates and fees for services have been established at hearings that include public participation. Rates were adopted by the Board of Directors via Ordinance 1-2017.
22. Rates and the rate-setting process are consistent with requirements of Proposition 218 and other state laws as described within Ordinance 1-2017 and the minutes from the April 20, 2017 public meeting.
23. Rates are transparently displayed in the District Code Book on the District's website at: http://www.truckeesan.org/pix/31497562790.pdf.
24. There does not appear to be any institutional or financial obstacles to funding necessary maintenance and operation the TSD wastewater collection system. Overall, the District's financial situation remains stable, with no debt and adequate cash reserves (TSD Budget, 2017c).

Opportunities for Shared Facilities

25. TSD has a solid track record of working cooperatively with its neighboring government agencies including the T-TSA and NCSD, among others. For example, TSD does align its sewage collection infrastructure with the Northstar Community Services District and the Tahoe Truckee Sanitation Agency.
26. TSD cooperates with the local watershed associations and integrated regional water management groups and this demonstrates regional cooperation.
27. Due to the geographic location of the District, it is difficult for it to share wastewater collection infrastructure with its neighboring sanitation district to the west, Donner Summit PUD.

28. Since new development pays the entire cost of new infrastructure that is required to accommodate the new development through payment of connection fees to TSD, there is little additional opportunity to eliminate costs attributable to accommodating additional growth.
29. LAFCo's 2003 MSR and the 2013 SOI Updated recommended that TSD and other T-TSA member agencies should explore potential efficiencies that could be achieved through shared personnel, facilities and other cost-sharing arrangements. TSD has made significant progress in addressing this recommendation from LAFCo's 2003 MSR and 2013 SOI Update in that the District is currently involved with many collaborative activities with its neighboring government agencies including: 1) working with the Town of Truckee's Building Department and Placer County's Building Department in identifying backwater valve requirements; 2) jointly participating with the TDPUD in aerial data exchange of GIS information; and 3) many other collaborative activities as listed in the "Shared Facilities" (pages 3-59 to 3-60) section of this MSR. It is recommended that TSD continue its participation in these collaborative activities and continue to seek potential efficiencies that could be achieved through shared personnel, facilities and other cost-sharing arrangements that could be achieved over the long-term.

Accountability for Community Service Needs

30. The governance structure of TSD is that of an independent special district governed by a five-member board elected at-large from within District boundaries.
31. The TSD Board of Directors holds public meetings on a regular basis, scheduled for the third Thursday of each month at 6:00 PM in the Administrative Building at 12304 Joerger Drive, Truckee, California.
32. TSD Board meetings are noticed according to the Brown Act and the meetings provide an opportunity for public comment.
33. A key performance indicator suggests that archives of meeting minutes and agendas for three years be available on the district's website. Agendas and minutes are available going back to 2006, however full Board packets are only available beginning in 2015.
34. The TSD Board of Directors and staff have demonstrated that they understand the needs of their customers and aim to support and serve customers to the best of their ability.
35. TSD recently updated the Sewer System Master Plan and the Overflow Emergency Response Plan, linking together goals, objectives, actions, and best management practices to provide the best services for customers and quick response to incidences within its boundaries.

Any Other Matters Related to Service Delivery as Required by LAFCo Policy

36. There are no other aspects of the wastewater service required to be addressed in this report by LAFCo policies that would affect delivery of services.

CHAPTER 2: INTRODUCTION

2.1: ROLE AND RESPONSIBILITY OF LAFCO

Local Agency Formation Commissions (LAFCo's) are independent agencies that were established by state legislation in 1963 in each county in California to oversee changes in local agency boundaries and organizational structures. It is LAFCo's responsibility to:

- oversee the logical, efficient, and most appropriate formation of local cities and special districts;
- provide for the logical progression of agency boundaries and efficient expansion of municipal services;
- assure the efficient provision of municipal services; and
- discourage the premature conversion of agricultural and open space lands. (Government Code [GC] §§ 56100, 56301, 56425, 56430, 56378).

The Cortese-Knox-Hertzberg (CKH) Local Government Reorganization Act of 2000 (CKH Act) requires each LAFCo to prepare a Municipal Service Review (MSR) for its cities and special districts. MSRs are required prior to and in conjunction with the update of a Sphere of Influence (SOI). This review is intended to provide Nevada LAFCo with the necessary and relevant information related to three wastewater service providers within the eastern portion of Nevada County.

2.2: ABOUT NEVADA LAFCo

Although each LAFCo works to implement the CKH Act, there is flexibility in how these state regulations are implemented so as to allow adaptation to local needs. As a result, Nevada LAFCo has adopted policies, procedures and principles that guide its operations (adopted on April 28, 1994 and last updated March 2018). The policies and procedures can be found on Nevada LAFCo's website (https://www.mynevadacounty.com/963/Policies-Procedures).

In addition to providing background information for a future update of an agency's sphere of influence, an MSR is an information tool that can be used to facilitate cooperation among agency managers and LAFCo to achieve efficient delivery of services. Describing existing efficiencies in service deliveries and suggesting new opportunities to improve efficiencies is a key objective of this MSR, consistent with Nevada LAFCo's purposes. Since this MSR Update will be published on the LAFCo website, it also contributes to Nevada LAFCo's principle relating to public accessibility and accountability. A public hearing was conducted by Nevada LAFCo on this MSR, thereby contributing to the aim of encouraging an open and engaged process.

This MSR was written under the auspices of Nevada LAFCo. The mission of Nevada LAFCo is to serve the citizens, governmental agencies, and applicants of its jurisdiction by using its authority, knowledge, and expertise to make beneficial changes to the structure of public agencies through special studies, programs, and actions resulting in the resolution of conflicts; orderly growth, development and governance; cost-effective delivery of services; and timely processing of applications (Nevada LAFCo, 2015).

Nevada LAFCo has a public Commission with seven regular Commissioners and four alternate Commissioners as follows:

Commissioners

- County Members
  - Richard Anderson, Supervisor, District 5
  - Hank Weston, Supervisor, District 4
  - Dan Miller, Supervisor, District 3 (Alternate)
- Cities/Town Members
  - Vacant, Councilmember, Nevada City
  - Ben Aguilar, Councilmember, City of Grass Valley
  - Patrick Flora, Councilmember, Town of Truckee (Alternate)
- Special District Members
  - Kurt Grundel (Vice Chair), Board Member, Penn Valley Fire Protection District
  - Nick Wilcox, Board Member, Nevada Irrigation District
  - Ed Beckenbach, Board Member, North San Juan Fire Protection District (Alternate)

- Public Members
  - Josh Susman
  - Gloria Glenn (Alternate)

Staff / Administrative

- SR Jones, Executive Officer
- P. Scott Browne, Legal Counsel
- Deborah Gilcrest, Clerk/Analyst
- Marianna Brewer, Accounting

2.3: PURPOSE OF THE MUNICIPAL SERVICE REVIEW

MSRs are intended to provide a comprehensive analysis of services provided by each of the special districts and other service providers identified within an MSR, and that fall under the legislative authority of the LAFCo. This review studies three service providers: the Truckee Sanitary District; the Donner Summit Public Utility District; and the Tahoe-Truckee Sanitation Agency. Although both the Donner Summit Public Utility District and the Tahoe-Truckee Sanitation Agency are under the auspices of Placer LAFCo as the principal LAFCo, they are included herein because they provide critical services to portions of Nevada County.

This MSR Update provides technical and administrative information to support Nevada LAFCo's conclusions and written determinations, as required by law and as presented in Chapter 3, for the Truckee Sanitary District. Nevada LAFCo is ultimately the decision maker on approval or disapproval of any determinations, policies, boundaries, and discretionary items as related to the Truckee Sanitary District. This MSR forms the basis for specific judgments, known as determinations, about each agency that LAFCo is required to make (GC § 56425, 56430). These determinations are described in the MSR Guidelines from the Office of Planning & Research (OPR) as set forth in the CKH Act, and they fall into seven categories, as listed below:

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

An MSR must include an analysis of the issues and written determination(s) for each of the above determination categories. The determinations for the Truckee Sanitary District in Chapter 3 of this MSR Update may, in the near future, provide the basis for Nevada LAFCo to review proposed changes to the service provider's boundaries or SOI. An SOI is defined in GC §56425 as "a plan for the probable physical boundary and service area of a local agency or

municipality as determined by the Commission." LAFCo is required to adopt an SOI for each municipality and each agency in its jurisdiction. When reviewing and determining SOI's for the Truckee Sanitary District, LAFCo will consider and make recommendations based on the following information:

- The present and planned land uses in the area;
- The present and probable need for public services and facilities in the area;
- The present capacity of public facilities and adequacy of public services that the agency provides;
- The existence of any social or economic communities of interest in the area if LAFCo determines that they are relevant to the service provider; and
- The presence of disadvantaged unincorporated communities for those agencies that provide water, wastewater, or structural fire protection services.

Ideally, an MSR will support not only LAFCo but will also provide the following benefits to the subject agencies:

- Provide a broad overview of wastewater services within the geographic region of eastern Nevada County;
- Summarize agency operations including type and extent of services provided;
- Evaluate governance options and financial information;
- Demonstrate accountability and transparency to LAFCo and to the public; and
- Allow agencies to compare their operations and services with other similar agencies.

2.4 METHODOLOGY FOR THIS MSR

The CKH Act indicates that LAFCo should review and update a sphere of influence every five years, as necessary, consistent with GC § 56425(g) and § 56106[1]. The MSR for the two wastewater districts (TSD and T-TSA) was last updated in November 2003 as part of the Eastern Nevada County Wastewater Municipal Service Review, and approved as part of LAFCo Resolution No. 03-12. The MSR for the wastewater and water services district (Donner Summit PUD) was last updated by Nevada LAFCo in 2003. This MSR Update evaluates the structure and operation of each of the wastewater service providers and determines the capacity of each wastewater agency to service existing users, and accommodate additional service demands while evaluating timing and local issues. Key references and information sources for this study were gathered and include: published reports; review of agency files and databases (agendas, minutes, budgets, contracts, audits, etc.); master plans; capital improvement plans; engineering reports; environmental impact reports; finance studies; general plans; and state and regional agency information (permits, reviews, communications, regulatory requirements, etc.).

The consulting team, in coordination with the Nevada LAFCo Executive Officer, sent the Truckee Sanitary District a Request for Information (RFI) in 2017. Additionally, the consulting

[1] The CKH Act (GC § 56106) states that all timeframes are directives. Any provision governing the time in which Commission is to act, is deemed directory rather than mandatory.

team, in coordination with the Placer LAFCo Executive Officer, sent the Donner Summit PUD and the Tahoe-Truckee Sanitation Agency (T-TSA) a Request for Information (RFI) in 2013. Nevada LAFCo's Executive Officer and members of the consultant team also visited with the Truckee Sanitary District and personally interviewed District representatives during a kick-off meeting held on October 11, 2017. Each District's response to LAFCo's request for information is a key information source utilized in this analysis.

Water Quality and State Databases

The protection of agricultural resources and open space is one of LAFCo's key purposes as noted in the CKH Act. Natural streams and rivers are part of our system of open space and water quality is an important factor in their protection. Since wastewater treatment plants all have a risk of water quality problems, the California Integrated Water Quality System Project (CIWQS) database was queried for the Eastern part of Nevada County. The results of these database queries are presented in Chapters 3, 4, and 5.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) is contained in Public Resources Code § 21000, et seq. Under this law, public agencies are required to evaluate the potential environmental effects of their actions. This MSR is exempt from CEQA under a Class 6 categorical exemption. CEQA Guidelines § 15306 states that "Class 6 consists of basic data collection, research, experimental management, and resource evaluation activities that do not result in a serious or major disturbance to an environmental resource." It should be noted that when LAFCo acts to establish or update a SOI for the agencies, an environmental document could be needed to satisfy CEQA requirements. The lead agency for this future document would most likely be LAFCo.

2.5: PUBLIC PARTICIPATION

LAFCO held a public workshop on the Draft MSR Update on July 19, 2018 held in Truckee. Comments from agencies and the public were solicited. The public review draft of the MSR was considered at a public hearing at the Eric Rood Center in Nevada City on September 20, 2018. The Commission accepted the MSR and adopted Resolution #18-05. This MSR Update will be published on the Commission's website (https://www.mynevadacounty.com/907/Local-Agency-Formation-Commission-LAFCo), thereby making the information contained herein available to anyone with access to an internet connection. A copy of this Final MSR Update may also be viewed during posted office hours at LAFCo's office located at 950 Maidu Avenue, Nevada City, CA 95959. In addition to this MSR, LAFCo's office maintains files for each service provider and copies of many of the planning documents and studies that were utilized in the development of this MSR. These materials are also available to the public for review.

CHAPTER 3: TRUCKEE SANITARY DISTRICT

Figure 3-1: Aerial Photo provided by Google Maps

Chapter 3 Table of Contents

3.1 SERVICES, FORMATION, AND BOUNDARY

Background Information

The Truckee Sanitary District (TSD) is one of the oldest sanitary districts in California, formed in 1906 with initial facilities installed in 1908. The TSD provides services to areas within both Nevada and Placer Counties, encompassing the major population center of the Town of

Truckee, the Martis Valley community, and sparsely populated surrounding areas (Nevada LAFCo, 2013). As a Sanitary District, TSD operates consistent with its principal act, the Sanitary District Act of 1923. Additionally, TSD complies with California Health and Safety Code Section 6400, ***et seq.*** TSD's Main Office is located at 12304 Joerger Drive, Truckee, CA 96161 as shown in Figure 3-1, above. The District's General Manager/Chief Engineer is Blake Tresan, P.E. who can be contacted at email address**:** *BTresan@truckeesan.org*. An alternate contact is Liz Coombs, Executive Assistant at email**:** *LCoombs@truckeesan.org*. Information is shared with the public at the web site URL at: *www.truckeesan.org*. TSD is a multi-county district serving portions of both Nevada County and Placer County. Nevada LAFCo is the Principal LAFCo for TSD because Nevada County contains a greater portion of the assessed value of all taxable property, consistent with state law (GC § 56066). TSD's elected Board of Directors meets regularly on the Third Thursday of each month, 6:00 PM.

Services and Location

The primary function of the District is wastewater collection and transport.

Type and Extent of Services

Sanitary sewer systems collect sewage and other wastewater and transport it to a treatment and disposal facility. As mentioned earlier, the TSD is one of the oldest sanitary districts in California with services beginning in 1908. In 1923, the District was reorganized under the Sanitary District Act of 1923. The TSD Board of Directors may exercise specific powers under the Sanitary District Act of 1923, which allows for the acquisition, planning, construction, reconstruction, alteration, enlargement, laying, renewing, replacing, maintenance and operation of:

- Garbage dump sites, garbage collection, and disposal systems;
- Sewers, drains, septic tanks and sewerage collection and disposal systems, outfall treatment works, and other sanitary disposal systems;
- Stormwater drains and stormwater collection, outfall and disposal systems, and water reclamation and distribution systems; and
- Water recycling and distribution system.

(Nevada LAFCo, 2013)

Of those specific powers listed above, the Truckee Sanitary District provides only wastewater collection from residential and commercial customers, as well as wastewater from the Northstar Community Services District (NCSD). TSD conveys raw sewage to the Tahoe-Truckee Sanitation Agency (T-TSA) for treatment (TSD, 2015).

The Truckee Sanitary District operates and maintains an extensive wastewater collection system (TSD, 2015). The TSD provides direct "sewerage" collection services to approximately 14,688 Equivalent Dwelling Units (EDU's) customers, and approximately 2,150 EDU's from the NCSD customers (TSD, 2017b). The collection system primarily serves residential customers, with small businesses and restaurants contributing only a small percent of the total wastewater

flow. TSD does not service any heavy industrial customers (TSD, 2015). After raw sewage is collected in District facilities, it is transported to the Tahoe-Truckee Sanitation Agency (T-TSA) for treatment at T-TSA's regional wastewater treatment facility. In addition to its regular customers, TSD also accepts wastewater from the Northstar Community Services District, which is conveyed by TSD's collection system to the T-TSA (TSD, 2015).

Location and Size

The District is located in the eastern side of Nevada County, straddling both Nevada County and Placer County. Within the District boundaries can be found the incorporated area of the Town of Truckee and unincorporated areas of Martis Valley, and the residential communities of Prosser Lake Heights, Ponderosa Fairway Estates, as well as other populated unincorporated areas in both Nevada and Placer Counties. The District boundary encompasses approximately 39.5 square miles (25,294 acres) as shown in Figure 3-2 and as listed in Table 3-1. The near-term SOI, long-term SOI, and Area of Interest (AOI) for the District, includes all areas north of the existing boundary to the Nevada County line and areas to the east and west, as well as areas into Placer County, making up a total of 159.5 square miles (102,078 acres). The Town of Truckee, located in Nevada County, is the socioeconomic center of the District area.

Table 3-1: Geographic Summary	
TSD Boundary	25,294 acres
Sphere of Influence Near-term	4,912 acres
Sphere of Influence Long-term	6,362 acres
Area of Interest	90,804 acres
(Source: Truckee Sanitary District, 2017; Nevada County LAFCO, 2003; GIS Data from TSD and LAFCo and calculated by SWALE Inc.)	

The boundaries of the Truckee Sanitation District overlap in part with those of five other local agencies including the Town of Truckee, the Truckee Donner PUD, the Truckee Fire Protection District, Truckee Donner Rec and Park District, and the Tahoe-Truckee Sanitation Agency. Additionally, the Northstar Community Services District is located directly to the south, in Placer County.

Formation and Boundary

The Truckee Sanitation District (TSD) was formed in 1906 under the California statutes at the time relating to the formation of a sanitary district. An inspection occurred in 1916, identifying sewage from the Truckee Sanitary District, "after passing through a makeshift septic tank" flowed almost directly into the Truckee River (California Department of Public Health, 1916). The TSD reorganized in 1923 under the California Sanitary Act as a sanitary district, and currently operates under California Health and Safety Code Section 6400 *et seq*.

In 1923, due to the need for improved treatment and protection of the Truckee River, the District installed an Imhoff Tank and a series of stabilization ponds to treat wastewater. Effluent from the tank was discharged into ponds, which allowed wastewater to percolate into

the ground and evaporate into the atmosphere. With the formation of Tahoe-Truckee Sanitation Agency (T-TSA) in 1971, all wastewater collected by TSD could no longer be treated by TSD and was instead transmitted to the T-TSA treatment facility for processing (Nevada LAFCo, 2003).

Boundary History

From 1908 to 1962, substantial residential growth occurred in the Truckee-Donner Lake area. In 1962, the TSD annexed lands from Gateway (currently the Town of Truckee) to the foot of Donner Summit due to a high incidence of septic tank failures leading to high coliform counts in Donner Lake (TSD, 2017). This annexation increased the District's service area by 2.5 times its original size (Nevada LAFCo, 2003).

During the 1960s, the TSD participated in Congressional hearings regarding existing wastewater disposal practices in the Lake Tahoe and Truckee River Basins. These hearings culminated in the formation of a committee, called the "Five District Committee," in 1969 that included the Truckee Sanitation District, the North Tahoe Public Utility District, the Squaw Valley County Water District, the Tahoe City Public Utility District, and the Alpine Springs County Water District. The Porter Cologne Water Quality Control Act of 1972 formed the Tahoe-Truckee Sanitation Agency (T-TSA) out of this committee for the collection, treatment, and disposal of sewage, industrial waste and stormwater within the agency (Nevada LAFCo, 2003). The Town of Truckee, of which a majority of the TSD encompasses, was not incorporated until 1993, with the most recent General Plan Update occurring in 2006, the first update since the Town was incorporated (Town of Truckee, 2006).

Significant growth has occurred within the TSD service area since 2003. This includes development in both Placer and Nevada Counties. The Martis Valley Community, developed in the 2000s extending east of the TSD boundaries, includes the Northstar community and territory serviced by the Northstar Community Services District (NCSD). As of the TSD Sphere of Influence Update in 2013 (TSD, 2013), the district boundary made up 24,960 acres with 6,619.15 acres on the Placer County side, and 18,652.75 acres on the Nevada County Side. As of 2014, there were a total of 15,478 parcels located within the Nevada County side of the district. TSD's boundary area in Placer County has 2,600 parcels. (GIS Data, Nevada County and TSD, 2017)

A breakdown of TSD annexations from 1963 – 2016 can be seen in Table 3-2.

Table 3-2. Truckee Sanitary District Annexations (1963-2016)

Year	LAFCo Resolution	Title	Area
1968	Resolution 68-01	Area No. 2	52 acres
1970	Resolution 70-01	Tahoe Northwoods	4,200 acres
1974	Resolution 74-03	Alder Hill	553 acres
1974	Resolution 74-16	Bald Mountain	7,040 acres
1986	Resolution 86-02	Glenshire/Devonshire	4,000 acres
1989	Resolution 89-04	SF Fly Casting	30 acres
1990	Resolution 90-09	Weakley	36 acres
1993	Resolution 93-01	Weems/Chaney	5 acres

1994	Resolution 94-03	Long	45 acres
1995	Resolution 95-07	Shamrock Land, Inc	72 acres
1998	Resolution 98-04	Hopkins Property	1,382 acres
2002	Resolution 02-04	Prosser Creek School	169 acres
2002	Resolution 02-12	Tucker and Hartsock	39 acres
2003	Resolution 03-01	Landsberg	4.88 acres
2004	Resolution 04-08	Freed/Farrantine	1.09 acres
2004	Resolution 04-16	Landsberg/Huck	4.88 acres
2005	Resolution 05-08	Cheney	40.5 acres
2005	Resolution 05-12	Whitehorse	5.04 acres
2005	Resolution 05-19	Spring Creek	26.09 acres
2006	Resolution 06-11	Kitterman	4.8 acres
2010	Resolution 10-04	Waltman Property	19.9 acres
2013	Resolution 13-01	Industrial Way Properties	47.85 acres
2014	Resolution 14-10	Morabito Property	5 acres

(Source: Nevada LAFCo, 2003; Nevada LAFCo, 2016)

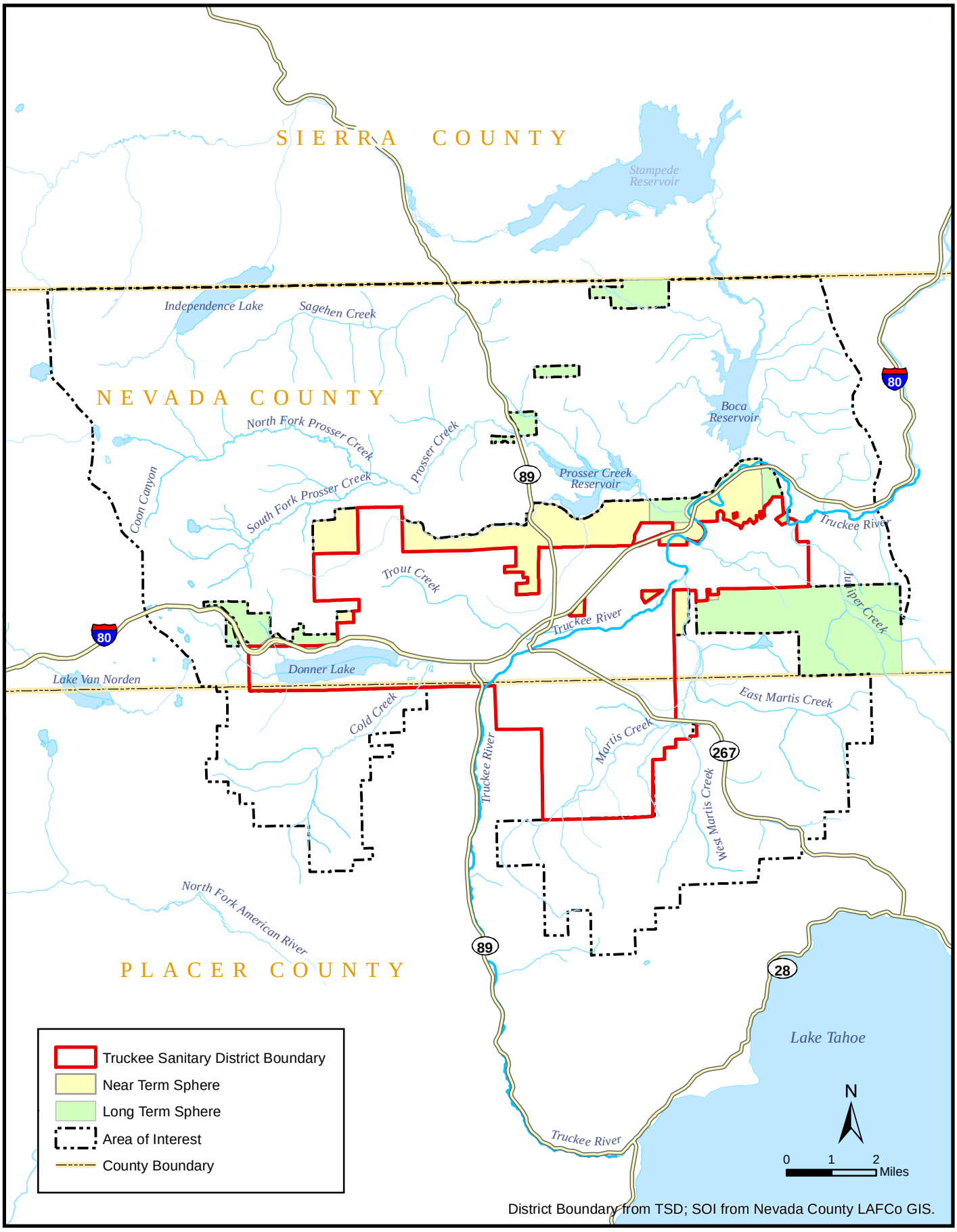


Figure 3-2

TRUCKEE SANITARY DISTRICT

Sphere of Influence

The TSD sphere of influence (SOI) is comprised of a large portion of eastern Nevada County, including and surrounding the Town of Truckee, and parts of northern Placer County (Nevada LAFCo, 2013).

Nevada LAFCo originally adopted a sphere of influence[1] for the TSD in 1983. In 1998, the Commission updated the Nevada County portion of the District's SOI. The Placer County portion of the District's SOI update was deferred while the Martis Valley Community Plan was under consideration at that time.

In 2013 Nevada LAFCo approved an Update to the Sphere of Influence Plan for the Truckee Sanitary District (Resolution No. 13-03) that identified near-term, long-term and areas of Interest for TSD. A map of these designations can be found on Figure 3-2. TSD's near term SOI has a planning horizon of five years, to 2018, and contains a total of 4,912 acres. TSD's long term SOI has a planning horizon of 20 years, to 2033, and contains a total of 6,362 acres. A detailed description of the specific neighborhoods within the near-term and long-term SOI areas are listed below and the Area numbers correspond to the numbers shown on Figure 3-3.

- **Near-Term Sphere**
  - Areas 1 and 2: Two "island" areas that are surrounded by the TSD service area and are within the boundaries of the Town of Truckee.
  - Area 3: A "pocket" area along Alder Drive that is surrounded by TSD on the east, west, and south, and is within the boundaries of the Town of Truckee.
  - Area 4: A 558-acre property within the jurisdictional SOI of the Town of Truckee. This parcel is adjacent to the Tahoe Donner subdivision and designated by the Town of Truckee as Residential and for Resource Conservation/Open Space in the General Plan (2006).

[1] In 1993, Placer and Nevada LAFCo's entered into a Joint Powers Agreement establishing a procedure for transfer of jurisdiction on some annexations and reorganization proposals, and joint decision-making on others where the impacts significantly affected the other county. Placer LAFCo terminated the Agreement in 2002, the same year Nevada LAFCo initiated an update to TSD's SOI. The proposed SOI update for TSD conflicted with the plans for Northstar CSD, located entirely within Placer County. Both LAFCos disagreed about which LAFCo had the authority to update the Placer County portion of TSD's SOI. A superior court decision in 2004 found the LAFCo of the principal county has authority to update the entire SOI of a multi-county district. Placer LAFCo appealed this decision in 2005 and in 2006 the Court of Appeals affirmed the Superior Court's decision (*Placer LAFCo v Nevada LAFCo, (2006) 135 Cal.App.4th 793)*, finding the Legislature's intention with regard to establishing authority of a principal county LAFCo extended to spheres of influence (CALAFCO, 2017). The Nevada LAFCo MSR for Eastern Nevada County (2003) discussed proposed expansion of the District's SOI into Placer County. In 2011, Nevada LAFCO adopted an SOI update for TSD, however following the settlement of new litigation filed against this decision, the Commission rescinded its approval of the TSD SOI update and initiated an Environmental Impact Report (EIR) for the project to include a more specific analysis of TSD's preferred alternative and a new Greenhouse Gas analysis (Truckee Donner PUD, 2011; Nevada LAFCo, 2011).

- Area 5: Three parcels on Teton Way within the Town of Truckee SOI. These properties are south of the Tahoe Donner subdivision and designated Resource Conservation/Open Space by the Town of Truckee General Plan.
- Area 6: A large area north of current TSD boundaries within the Town of Truckee. This area includes a range of properties, including large undeveloped parcels and a small residential neighborhood adjacent to State Route 89.
- Area 7: A large area north of current TSD boundaries within the Town of Truckee. This area includes Prosser Lakeview Estates, a small lot residential neighborhood, as well as larger residential lots and undeveloped parcels.
- Area 8: A residentially developed neighborhood, the Meadows, on larger lots within the Town of Truckee south of Interstate 80.
- Area 9: A moderately-sized parcel north of the airport owned by the Tahoe-Truckee Sanitation Agency, and within the boundaries of the Town of Truckee. The parcel is designated Resource/Open Space by the Town of Truckee General Plan.

- **Long-Term Sphere**
  - Area 10: An undeveloped area in the Town of Truckee's SOI north of the town boundaries and designated by the Town's General Plan as Residential Cluster/ 10 Acres.
  - Area 11: An undeveloped area south of Interstate 80 and east of the Town of Truckee's northeast boundary, within the Town's SOI. The area is designated as Planned Development in the Town of Truckee General Plan.
  - Area 12: The Hirschdale neighborhood within the Town of Truckee's SOI. This area includes small residential developed lots that utilize private septic systems and is designated Residential by the Town's General Plan.
  - Area 13: The Hobart Mills Planned Development area, which is located 6 miles north of the TSD's northern boundaries in the unincorporated area. This area is designated as Planned Development by Nevada County's General Plan and is a currently developed industrial site.
  - Area 14: An undeveloped area in the Town of Truckee's SOI, north of Interstate 80 and Donner Lake, designated Residential Cluster/10 Acres in the Town's General Plan.
  - Area 15: An undeveloped area west of the TSD and within the Town's SOI, designated for Planned Residential Development by the Town's General Plan.
  - Area 16: The Juniper Hills area south of the Town of Truckee. This area includes 163 parcels, 100 of which are in residential use with private septic systems.
  - Area 17: The Klondike Flats area west of Highway 89 North, includes 21 residential parcels, 13 of which are improved with private septic systems.
  - Area 18: The Tahoe Timber Trails private camping community, which involves three parcels with 553 individual campsites and several community septic/leach field systems.

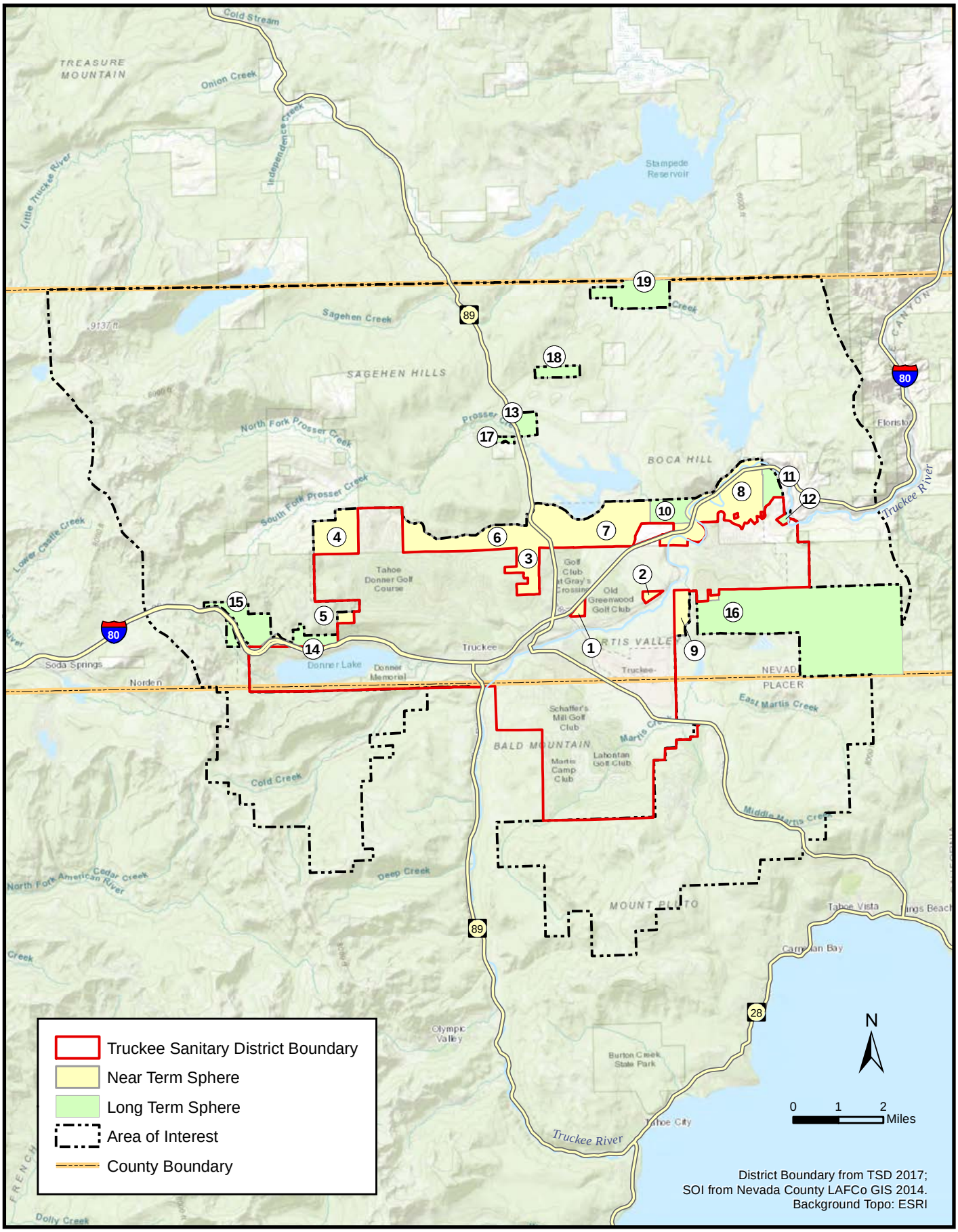


Figure 3 -3 SOI Numbered Areas

TRUCKEE SANITARY DISTRICT

- Area 19: The Russell Valley area, which includes 67 parcels, 47 of which are improved and served by private septic systems.

Since the update to the TSD SOI in 2013, no new sphere of influence changes have occurred. The most recent boundary annexation occurred in 2014 as seen in Table 3-2.

Extra-territorial Services

The Truckee Sanitation District has an agreement with Trimont Developers and Northstar Community Service District (NCSD) to convey Northstar's wastewater through TSD infrastructure to the T-TSA interceptor line for processing by T-TSA. This 1992 agreement and its 2005 amendment are shown in Appendices 9 and 10. The Northstar Community Service District is located adjacent to the TSD boundary in Placer County and is in an area outside the District boundaries that has been identified and requires services from the District.

Areas of Interest

The 2013 Update to the TSD SOI identified a large portion of Nevada County and a section of Placer County as Areas of Interest, located outside of the District boundaries. The area of interest makes up roughly 90,804 acres in both Nevada and Placer Counties with 66,806 acres in Nevada County and 24,032 acres in Placer County as shown in Figure 3-2. The Area of Interest designation acknowledges that development proposals in the Area of Interest may impact TSD and LAFCo should notify TSD if it becomes aware of any such proposals (Source: Nevada LAFCo Resolution #13-03).

3.2 GROWTH AND POPULATION

Existing Population

This section describes the existing population and future growth projections for the Truckee Sanitary District, including factors that must be considered when planning for the provision of services within the District. An overview of the existing population characteristics for the Town of Truckee and for Nevada County is shown in Appendices 2 and 3. An economic forecast for Nevada County is shown in Appendix 7.

TSD covers an area of about 39 square miles, spanning both Nevada and Placer counties. Since the U.S. Census does not designate wastewater districts as a census-designated place, detailed population statistics for the District are not available. The current population in the TSD is estimated based on available data. The vast majority of the District encompasses the Town of Truckee boundaries and it also includes developed areas in eastern Placer County. Table 3-3 below shows the total existing population for each of the two counties and Town that the wastewater district encompassed from 2000 to 2016.

Table 3-3: Historic & Existing Population			
Year	**2000**	**2010**	**2018**
Nevada County	92,033	98,764	99,155
Placer County	248,399	348,432	389,532
Town of Truckee	13,864	16,180	16,681

Data Source: U.S. Census Bureau, Census 2010, Summary File 1, 2015; CA DOF E-4, 2018.

Between 2000 and 2010, the population increased for all three population areas with the largest increase occurring in Placer County at roughly 100,000 additional residents. The Town of Truckee saw an increase of 2,316 residents over the ten-year period between 2000 and 2010. Between 2010 and 2018, the population of Placer County increased by 41,100 people, the population for Nevada County increased by 391 people, while the population for the Town of Truckee increased by 501 people. This equates to an average annual growth rate of 0.05 percent for Nevada County,0.38 percent for the Town of Truckee, and 1.4 percent for the Placer County over that same period. The higher growth rate for Placer County can be attributed many factors including a higher number of population centers, such as Roseville, that have experienced rapid growth, and the ease of development in western parts of the County. As shown in Table 3-4, below, it is estimated that the 2015 population for the Truckee Sanitary District is approximately 17,300 permanent residents. This number includes an estimated 15,779 residents in Truckee and 1,550 persons in the unincorporated areas.

Table 3-4. Existing Population Truckee Sanitary District			
	Total Population	**Land Area (sq. miles)**	**Population per sq. mile**
2015	17,329	39	≈443

Data Source: TSD, 2017

Assuming average growth for the District over the three population areas based on growth occurring from 2010 to 2016, the average population growth for TSD would be 0.296 percent per year. The average population concentration for TSD is roughly 443 persons per square mile.

Another way to think about the existing population within TSD is by considering the number of "equivalent dwelling units" (EDUs). Planners sometimes use an EDU as a metric to understand capacity of a wastewater treatment plant. TSD is unique in that it does not directly operate a wastewater treatment plant, yet it uses EDUs for planning purposes. One Equivalent Dwelling Unit (EDU) is defined as the average wastewater discharge from a single-family dwelling. For purposes of this MSR analysis, we assume that one EDU is equal to a volume of two hundred thirty (230) gallons per day. For example, a commercial business with an EDU of 7 would have an average dry weather flow (ADWF) of 1,610 gallons per day (7 x 230 GPD). The TSD currently serves roughly 16,838 EDU's (Equivalent Dwelling Units) as of 2017 including NCSD (TSD, 2017).

Projected Growth and Development

As a special district, the Truckee Sanitary District does not have land-use authority. To some extent, population growth in the District is dependent upon the General Plan policies and land use designations of the land use agencies within its service area, including the Town of Truckee and the counties of Nevada and Placer. Because the major portion of TSD's service area is located within the boundaries of the Town of Truckee, much of the growth for the TSD area will be defined by the Town's land use policies.

The Town of Truckee General Plan, adopted in 2006, estimates population projection to the year 2025 based on residential and employment growth rates from 2000-2010 (Town of Truckee, 2006). A new Housing Element was adopted in January of 2015, and it also makes this same growth assumption. The Truckee General Plan is based upon four guiding principles:

- The General Plan will reduce sprawl by planning for projected growth, locating new development around existing developed areas, and by encouraging cluster development.
- The environment is fundamental to the economy and quality of life in Truckee and the General Plan will protect important open space lands and natural resources, will work to increase the amount of permanently protected open space, and will strive to enhance public access to open space lands and public resources.
- The General Plan will reduce the dependence on the automobile in Truckee by fostering compact development and providing for alternate modes of transportation.
- The General Plan will facilitate the provision of housing affordable to all sectors of the community.

(Town of Truckee, 2006)

Projecting future population growth for a District is problematic due to a variety of unknown factors associated with the annexation rate and lack of available population data. The Town of Truckee's General Plan anticipates total population at build-out to be 28,263 by 2025; which assumes an average annual growth rate of 7.990 percent per year, or a 77 percent increase from the base year of 2013 (Truckee, 2006). The projected growth associated with the General Plan has not occurred on pace with expectations in recent years due to the economic downturn from 2009 to present (Placer LAFCO, 2016). Due to the large inconsistency with the Town's General Plan growth expectations, this MSR calculates two potential rates of growth. The slow growth rate shown in Table 3-5 relies upon the California Department of Finance (DOF) population projections. The fast rate of growth calculation relies upon data from the Truckee General Plan and makes an assumption about the relationship between growth in Truckee and Nevada County.

The California Department of Finance (DOF) produces population projections for the state and counties using industry standard methods of birth, death, and migration patterns. As of 2018, the Town of Truckee accounted for 17 percent of the total population for Nevada County (Table 3-3). The DOF projected the population for Nevada County out to the year 2060; however, for purposes of this MSR, the population is projected to 2040. Table 3-5 below provides population growth estimates for the Town of Truckee Slow Growth Scenario and Fast Growth Scenario including population projections for Nevada County.

Table 3-5: Projected Population Growth

	Estimates		Projections				
	2010	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**
Nevada County	98,764	98,217	99,548	102,135	105,318	108,496	111,007
Truckee (Slow Growth)*	16,180	16,046	16,923	17,363	17,904	18,444	18,871
Truckee (Fast Growth)**	16,180	16,046	21,987	28,263	36,052	45,989	58,663

*Fast Growth estimate is based on data from the Town of Truckee's 2015 Housing Element to 2025
**Slow Growth estimate is based off data from the CA DOF, assuming that Truckee will be 16% of Nevada County's population through 2040.

Sources: CA DOF, January 2018, Projections Table P-1; Town of Truckee, 2015

The Town of Truckee Slow Growth Scenario is based on the growth rate determined by the DOF, while the Fast Growth Scenario is taken from the Town of Truckee 2015 Housing Element. A majority of the housing and commercial units that TSD serves are located within the Town of Truckee, however, because the TSD boundaries include a portion of Census Tract 220.11 in Placer County, the Slow and Fast Growth Scenarios for the TSD are a combination of the Town of Truckee and Census Tract 220.11 in Placer County. It should be noted that Census Tract 220.11 encompasses a slightly larger area than that included in the TSD boundaries. Projected population growth for the Truckee Sanitary District, broken into the Slow and Fast Growth Scenarios, can be seen in Table 3-6 below.

Table 3-6: Projected Population Growth (2014-2040)

	2015	***2020***	***2025***	***2030***	***2035***	***2040***
TSD (Slow Growth)	17,329	17,642	18,099	18,660	19,221	19,665
TSD (Fast Growth)	17,329	24,253	31,176	39,768	50,728	64,709

*Fast Growth estimate is based on data from Truckee's 2015 Housing Element to 2025 and assumes Truckee will be 27% of Nevada County's projected population through 2040 using the 2025 population for Truckee and Nevada County as a baseline.

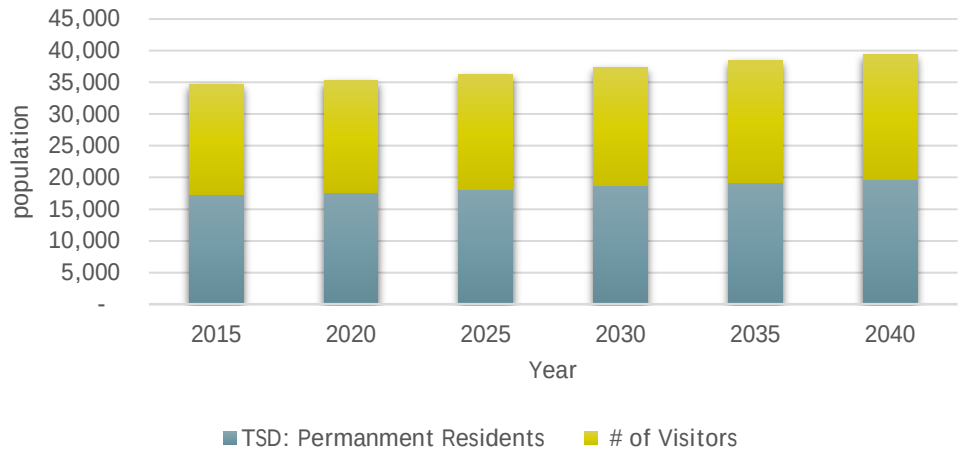
**Slow Growth estimate is based off data from the CA DOF, assuming that Truckee will be 17% of Nevada County's population through 2040.

Sources: CA DOF, 2017; Town of Truckee, 2015; U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates

The Slow Growth scenario estimates an increase of roughly 2,023 residents in TSD over the 20-year period based on the DOF growth rates for Nevada County. In contrast, the Fast Growth scenario is based on the Town of Truckee's General Plan which assumes a population of 28,263 by 2025, and this assumption remained as the population projection estimate in the most recent Housing Element Update in January 2015 (Town of Truckee, 2015).

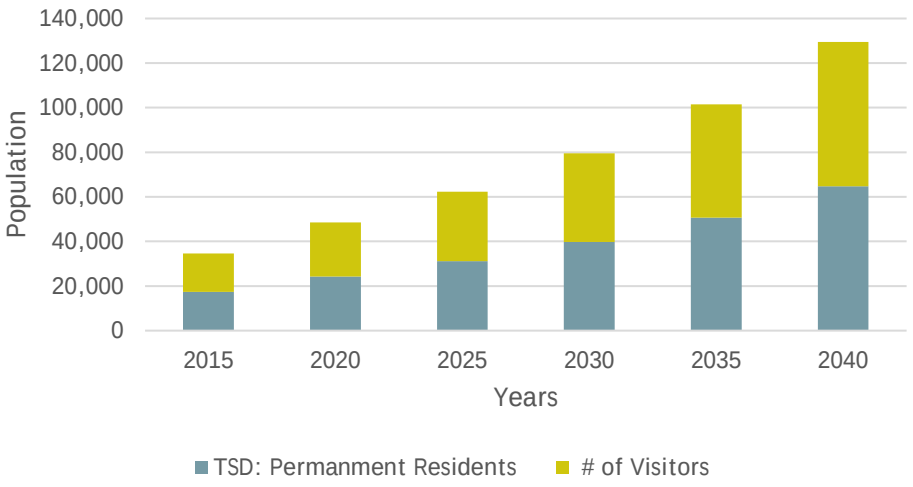
In addition to population growth factors, a little over half of all residential homes within the Town of Truckee are used as second homes or as rentals during the summer and winter seasons. This variability in population is important for the Truckee Sanitary District to consider as the District aims to ensure infrastructure is able to accommodate visitors during peak seasons. According to the Truckee 2016 Annual Report, 55.3 percent of homes in Truckee were classified as 'vacant' in 2016, a 0.7 percent increase from the previous year. With roughly half of the homes vacant, visitor population can be assumed to be roughly proportionate to the permanent population, assuming the vacancy rate remains constant. Projection for visitors is shown in Figures 3-4 & 3-5 below based on the same population growth rates for both scenarios and a consistent vacancy rate of roughly 50 percent in 2016.

Figure 3-4:
TSD Slow Growth + Visitors - Peak Season



The Slow Growth Scenario for the TSD assumes a much slower growth rate than that of the Fast Growth Scenario based on the Town of Truckee projections. The Slow Growth Scenario anticipates the potential population for TSD to be 19,665 full-time residents by 2040 plus an additional 19,665 visitors for a total of 39,329 people. It can be assumed that, even if the population were to increase to this size by the year 2040 with such a high number of visitors, TSD would add and update infrastructure periodically and in conjunction with housing builds, anticipating full-time use.

Figure 3-5:
TSD Fast Growth + Visitors - Peak Season



The Fast Growth Scenario for the TSD includes the Truckee General Plan projected buildout of 19,901 residential units with 10,746 units occupied year-round and 9,155 seasonal or vacation units in 2025. Truckee's total projected buildout population is 28,263 permanent residents by the year 2025. After the year 2025, it is possible that Truckee's rate of growth may slow significantly because it previously reached "build-out". In this post-2025 situation, there could be some infill development and other new development both in Truckee and in the unincorporated areas. However, since Truckee's General Plan and Housing Element do not include population projections past the year 2025, it is difficult to predict where future growth may occur within the Town boundaries. In order to provide a contrast to the "slow growth scenario" showed in Figure 3-4, the MSR Fast Growth Scenario makes a general assumption that Truckee will be 27% of Nevada County's projected population through 2040. Under this assumption, the Fast Growth Scenario anticipates a total of 64,709 permanent residents plus 64,709 peak visitors in TSD during peak seasons by 2040 as shown in Figure 3-5. This totals to 129,418 people requiring wastewater services during peak season in the year 2040. The difference between the Slow and Fast Growth scenarios is 90,089 population by the year 2040, including both full-time residents and peak season visitors. Inclusion of the Fast Growth Scenario in this MSR does not imply that LAFCo agrees with or approves this scenario. Rather, it only means that the authors of this MSR utilized data from the Truckee General Plan and Housing Element for modeling purposes. For planning purposes, this MSR assumes the slow-growth scenario is more in line with the current and future population growth.

Present and Planned Land Uses

Existing Land Use

TSD does not have land-use authority. Land use is described herein because it relates directly to projected population growth. Land use decisions are one of the most important legal authorities available to cities and counties. Because the existing TSD boundary and SOI include the Town of Truckee and portions of Nevada and Placer Counties, existing land uses for all three jurisdictions are discussed in the following paragraphs.

Nevada County

Nevada County's total land area is 958 square miles with 70 percent privately owned and 30 percent public lands. The incorporated areas of Grass Valley, Nevada City, and Truckee make up 33 percent of the County's population, with the remainder living in outlying unincorporated areas. The County is made up of residential, commercial, industrial, agricultural, and public land uses. Incorporated areas are focal points for development (Nevada County, 2014).

The small portions of the Truckee Sanitary District located within the unincorporated area of Nevada County are on the east and north sides of the Town of Truckee with a small area north of Interstate 80 on the west side of the Town (Refer to Figure 3-2). The small portion identified to the west side of the Town of Truckee boundary is zoned general agriculture. The areas to the east and north include large areas of open space, agriculture, and the interim development reserve which is currently undeveloped. Also included to the southeast is the Truckee Airport, designated as public land with adjacent community commercial, neighborhood commercial, light industrial, and interim development reserve as identified in the Eastern County Zoning Districts map (Nevada County, 2015). The interim development reserve district designates the potential for development of the area as a Planned Development and Special Development Area in the General Plan. It functions as a temporary holding zone and reserves the development potential until a Zoning Map and comprehensive Master Plan and/or Specific Plan for the area has been adopted consistent with Nevada County General Plan policies (Nevada County, 2015).

Town of Truckee

The Town of Truckee is an incorporated area located within Nevada County, encompassing roughly 32 square miles spanning from Donner Lake to the southwest, to rural areas ending around Interstate 80 exit 194 to the north (Refer to Figure 3-2). The Town functions as the regional center for transportation, business, commerce, and tourism as it is the major urban area in the Sierra Nevada mountains, north of Lake Tahoe (Truckee, 1997). The Town's established historic downtown at the confluence of the Union Pacific Railroad, the Truckee River, and Donner Pass Road provides for a mix of commercial, industrial, public, residential, and mixed use commercial and residential uses (Truckee, 2006). The remaining portion of the Town's existing land use includes residential, transportation corridors (streets, highway, trail, and train) and open space/resource conservation.

Placer County

Placer County consists of approximately 1,500 square miles of diverse geography between Sacramento and the Nevada border. The western area of the County contains the incorporated cities of Roseville, Rocklin, Lincoln, and Loomis and this area has experienced the County's most significant growth. The eastern portion of the County is in the north Tahoe region including resort communities and ski areas around the lake. Tourism and recreation are dominant industries in the region, providing growth in the unincorporated communities of Tahoe City, Tahoe Vista, Carnelian Bay, Homewood, Kings Beach, Tahoma, Emigrant Gap, Soda Springs, and Squaw Valley (Placer County, 1994).

The portion of Truckee Sanitary District's boundary which is located within Placer County is also within the County's Martis Valley Community Plan (MVCP), adopted in December of 2003. The MVCP consists of approximately 70 square miles located within Placer and Nevada Counties south of the Town of Truckee. Environmental constraints, market and economic conditions, population demographics, and the land interests of property owners define existing land use conditions in the Valley. Existing residential communities within the Placer County portion of the MVP consist of Ponderosa Palisades, Martiswood Estates, Ponderosa Ranchos, Sierra Meadows, Lahontan, and the Northstar-at-Tahoe resort community. Of these communities, only the Northstar-at-Tahoe resort community is not directly serviced by TSD. The Northstar Community Services District has an agreement with TSD, which provides for transport of raw sewage to T-TSA for treatment and disposal.

The Lahontan community consists of 540 residential lots with a large percentage of vacation or secondary homes. Ponderosa Palisades, Martiswood Estates, Ponderosa Ranchos, and Sierra Meadows subdivisions contain roughly 468 parcels of primary homes for full-time residents of the area. The remaining land is vacant, recreation, or forest land (Placer County, 2003).

General Plan, Zoning, and Policies

Nevada County

The Nevada County General Plan was approved by the Board of Supervisors in 1996. The document has been subsequently amended in 2008 (Safety Element), 2010 (Circulation & Housing Elements), and 2014 (Land Use, Safety, Noise, and Housing Elements). The General Plan includes twenty different chapters, with seven of them being those required by California Government Code Section §65302, and four additional elective elements. Four central themes for the development of Nevada County include:

1. Fostering a rural quality of life;
2. Sustaining a quality environment;
3. Development of a strong diversified, sustainable local economy; and
4. Planned land use patterns will determine the level of public services appropriate to the character, economy, and environment of each region.

The General Plan Land Use Element divides the County into Community and Rural Regions. Within Rural Regions, only growth that is amenable to the types and densities of development consistent with open, rural lifestyle, pastoral character, and natural setting are encouraged. In contrast, Community Regions allow for higher residential densities and broader land uses including commercial, industrial, cultural, public, and recreational subject to the availability of public sewer and water as well as other urban services and facilities. It is important to note that 55.54 percent of the existing land use within the County is designated as forest land, owned by the Bureau of Land Management, the Federal Government, and wildlife and recreation areas (Nevada County, 2008).

Town of Truckee

The 2025 General Plan for the Town of Truckee was adopted in November of 2006 and updated in 2009. The Housing Element of the General Plan updated in 2015. The 2006 update to the General Plan was the first since the Town's incorporation in 1993 and subsequent adoption of the first General Plan in 1996. The 2025 General Plan contains eight elements, with six of the elements covering the seven mandatory elements required under California Government Code §65302. The two additional elements cover Community Character and Economic Development to meet local needs and interests. The Town of Truckee currently uses traditional zoning code methods to divide areas of the municipality into primary land use categories, guided by land uses identified in the General Plan (Truckee, 2006).

The General Plan assumes roughly 54 percent of the housing stock for the Town will be occupied by permanent residents while the remaining 46 percent will be second homes or other vacant properties. The projected buildout for the Town includes 19,901 residential units with 10,746 year-round units and 9,155 seasonal or vacation units by 2025 coming to a total projected buildout population of 28,263 persons. Non-residential development is expected to reach 5,000,000 square feet by 2025 including retail, general commercial, office, industrial, warehouse, religious, and lodging. The Land Use Element is generally divided into neighborhood districts with specific goals and policies for each, including developed and undeveloped areas.

Goals for the General Plan as it relates to land uses include managing growth to maintain the small-town character of Truckee, reduce environmental impacts and minimize sprawl by creating efficient land use patterns, and coordinating land development with the provision of services and infrastructure available. Policies for land use include approving zoning and development permits only when adequate services are available. In addition, Policy P4.3 requires that "sewer be provided for all new residential subdivisions creating more than four lots and all new commercial and industrial uses. Existing legal lots and new subdivisions of four or fewer lots in areas currently without sewer may be developed with residential uses using septic systems. Such lots may be required to establish connections to the sewer system if they are located in close proximity to existing or future lines (2-54)" (Truckee, 2006).

Placer County

The Placer County General Plan was updated in May 2013 and is broken into the Countywide General Plan and a set of more detailed community plans covering specific areas of the unincorporated county. The General Plan is made up of ten sections, including those required by California Government Code Section §65302. The Land Use Element of the General Plan uses traditional land use designation methods to divide the County into twelve broad land use categories: 1) Agriculture; 2) Timberland; 3) Greenbelt/Open Space; 4) Rural Residential; 5) City; 6) Commercial/Professional; 7) Industrial; 8) Mixed-Use; 9) Public/Quasi-Public; 10) Specific Plan/Special Study Area; 11) Urban/Suburban Residential; and 12) Basin Plan. In addition, land use intensity and buffer zone designations are utilized to minimize conflicts between incompatible land uses (Placer County, 2003).

The Martis Valley Community Plan was updated in December 2003, superseding the 1975 Martis Valley General Plan, and it plans for the physical, social, and economic development of the Martis Valley area to the year 2020. The Martis Valley geographic area falls within Placer and Nevada Counties as well as within the Town of Truckee's incorporated limits. The Community Plan discusses the areas of Martis Valley located in Placer County which include 57 percent of the total acreage of the geographic region. Goals within the community plan include promoting wise and environmentally-sensitive use of lands to meet present and future needs for residents, visitors, and businesses; limit development to ensure adequate wastewater collection and treatment; and preserve and enhance open space lands. The Community Plan lists a broad range of land uses for the area including timber and forest, public and private recreation areas, residential development, a multi-season resort, an airport, and some commercial and industrial development (Placer County, 2003).

Regional Transportation Plans & Sustainable Community Strategies

California Senate Bill (SB) 215 requires LAFCo agencies to consider regional transportation plans and sustainable community strategies before making boundary decisions. Because the Truckee Sanitary District boundary and SOI is located within the Town of Truckee, Nevada County, Placer County, and the greater Lake Tahoe Region, many different transportation plans and sustainable community strategies need to be considered specifically the Regional Transportation Plan for the Lake Tahoe area and the Regional Transportation Plan for Nevada County.

The Tahoe Regional Planning Agency (TRPA), the federally designated Metropolitan Planning Organization (MPO) for the Lake Tahoe Region, plans and funds transportation and transit improvements to support the attainment of regional environmental thresholds. The Regional Transportation Plan: Linking Tahoe was completed in April of 2017, planning for horizon year 2017-2040. This plan includes Truckee within the Tahoe Region System and focuses on prioritizing bicycling, walking, and transit to service residents and visitors, promoting sustainable community strategies. The region is unique with high levels of visitation causing the average daily population of the area to be four times the permanent resident population

fluctuating by season and day of the week. The main goal is for more people to arrive without a car and, once they are in the region, to have other means of travel readily available. It is envisioned for the Tahoe Region System to be seamless and interconnected with more and better travel options between recreation sites and community centers including Truckee, Tahoe City, South Lake Tahoe, Incline Village, and others. The Truckee area is envisioned to develop bus, rail, biking, auto and electric vehicle infrastructure to support the Tahoe Region System. Policies associated with transportation and sustainable communities in the TSD area include improving existing transit systems through increased frequency, expanded service areas, and extended service hours; constructing, upgrading, and maintaining pedestrian and bicycle facilities consistent with the active transportation plan; and establish the Tahoe-Truckee Region as a plug-in electric vehicle (PEV) destination. Long term goals include visitors and commuters taking trains from San Francisco to Reno with stops in Truckee that connect by bus to lake Tahoe with frequent routes that run every 15 minutes (TRPA, 2017).

The Nevada County Transportation Commission (NCTC) is a Regional Transportation Planning Agency (RTPA) for Nevada County, coordinating transportation planning for Grass Valley, Nevada City, Nevada County, and the Town of Truckee. The NCTC updated and adopted the 2015 to 2035 Nevada County Regional Transportation Plan in January 2018. This 2018 Transportation Plan identifies the following goals for the County: 1) Provide for the safe and efficient movement of all people, goods, and services, on the roadway network; 2) Create and maintain a comprehensive, multi-modal transportation system to serve the needs of the County; 3) Reduce adverse impacts on the natural, social, cultural, and historical environment and quality of life; and 4) Develop an economically sustainable transportation system. Additionally, in January 2017 NCTC approved the Eastern Nevada County Short Range Transit Development Plan which was written by LSC Transportation Consultants which considered public transit including the Tahoe Truckee Area Regional Transit. Other local transportation plans include the Truckee Area TART Long-Range Systems Plan, Placer TART Systems Plan Update, Town of Truckee Mobility Needs Assessment (2012), and the Truckee Trails and Bikeways Master Plan. The Nevada County Regional Transportation Plan does not cover Sustainable Community Strategies as that is required of MPO's and handled by the TRPA for this region (NCTC, 2016).

Future Development Potential

Nevada County

Roughly 314 square miles of the County's 943 square miles are managed by the Tahoe National Forest, the Bureau of Land Management, and the Spenceville Wildlife and Recreation Areas. Although the extent of public land is a constraint in the County's expansion of its development footprint, most new development occurs within local cities, towns, and communities. Land development within the eastern portion of Nevada County, including the Town of Truckee and surrounding areas, tends to be more consolidated than the western portion (Nevada County, 2016). The General Plan Land Use Maps for Nevada County identifies land outside of the Town of Truckee SOI and the Truckee Sanitary District near and long term SOI areas to the north, east, and west to be forest land (Nevada County, 1995). Under the Nevada County Zoning Code,

the FR (Forest) District "provides areas for protection, production and management of timber, timber support uses, including but not limited to equipment storage and temporary offices low intensity recreational uses, and open space" (Nevada County, 2017). This suggests that very limited, if any, growth within unincorporated Nevada County will occur within the Area of Interest identified in the TSD SOI updated in 2013.

The TSD Near-Term and Long-Term SOI includes the unincorporated neighborhoods of Russell Valley, Timber Trails, Hobart Mills, and Klondike Flat. These areas are currently served by private septic systems[2], but have been included in the TSD sphere in the event of septic failures that could be remedied by TSD. These areas, with the exception of Hobart Mills, are designated as Rural-20, Forestry-40, or Forestry-160 in the Nevada County General Plan. Under this land use, development would be limited to 1 or 2 residential units per parcel. Juniper Hills includes 163 parcels, Klondike Flats consist of 21 residential parcels, Tahoe Timber Trails is a private camping community with 553 campsites, and Russell Valley consist of 67 parcels. Hobart Mills is designated as a Planned Development along Highway 89, north of Truckee, and is currently developed as an industrial site. Not including the camping community, a build out of roughly 251 parcels could occur with development of 251-502 residential units.

Unincorporated areas near Truckee (within the Town's SOI and TSD SOI) are designated as Planned Development, rural residential, and open space, with a small concentration of commercial near the Truckee Airport and some high density residential along Hirschdale Road. Two Planned Development areas are identified as follows: 1) Planned Development for 1,800 acres of forest land with the remaining 265 designated as DU; and 2) Planned Development for 182 acres residential, 365 acres of forest land, and 122 acres of open space. To the west, land is designated as forest, recreation, residential, and rural residential with one Planned Development area. The Planned Development designation allows for 190 acres of rural residential and 512 acres of open space (Nevada County, 1995), although no specific plans for development of these areas have been submitted to the County. Due to the extent of development proposed for the Town of Truckee, a majority of the potential future development that may affect the TSD near-term and long-term SOI is described in the Town of Truckee section below.

Town of Truckee

Future development in the Town of Truckee directly impacts the Truckee Sanitary District as the Town of Truckee General Plan Policy P4.3 requires that "sewer be provided for all new residential subdivisions creating more than four lots and all new commercial and industrial uses." The Town's General Plan policy includes provisions to work with adjacent jurisdictions to coordinate the timely annexation of property for development purposes. The provision of water and sewer services are limiting factors for development (Truckee, 2006). The most recent SOI update for the Town occurred in 2010, identifying areas to the east and west of the town

[2] See Appendix 5 for more information on private and community septic systems.

for expansion, generally coinciding with the Truckee Sanitary District's Near-Term and Long-Term Sphere of Influence approved in 2013 (Nevada County, 2010).

The Town of Truckee 2016 Annual Report provides a breakdown of major residential and non-residential projects in Truckee that were completed, under construction, approved or under consideration in 2016. Table 3-7 below provides a breakdown in residential projects by name and type.

Table 3-7: Town of Truckee Residential Projects Built, Under Construction & Approved in 2016

Residential Project	Multi-Family Residential	Single Family Residential
Residential Projects Built		
Wergland House	6	--
Residential Projects Under Construction		
Coyote Run II	2	5
Boulders Condos Phase IV	36	7
Deer Trail Townhomes	24	--
Spring Creek	30	37
Stoneridge	73	--
Winter Creek	20	147
Gamet	--	3
Residential Projects Approved		
Gray's Crossing Attached Units	91	--
Gray's Crossing Cottages	89	--
Old Greenwood - the Villas	8	--
Old Greenwood - Sutter's Trail	--	16
Old Greenwood - Carson Range	24	--
Old Greenwood - Miner's Trail	--	8
Coldstream Specific Plan	48	260
Coburn Crossing Apartments	138	--
Railyard Artist Lofts	77	--
Crestwood Mixed Use Building	4	--
Quality Automotive	2	--
Palisades Multi-Family	4	--
Pioneer East	8	--
Waltman	2	--
Subtotal	**686**	**483**
TOTAL UNITS	**1,169**	

Source: Town of Truckee, 2016

In total, 1,310 residential units are under construction or approved for development within the Town of Truckee (Truckee, 2016). Other major development projects currently in progress in the Town include: 1) Triumph Development Hotel and Residential Project, a 71,090 square foot three-story hotel with 114 rooms and five three-story apartment buildings with a total of 138 residential units; 2) Truckee Springs Master Plan to develop either 40 single-family residential units, 80 multi-family residential units, or 120 hotel/lodging units; and 3) The Joerger Ranch Specific Plan to designate 21 acres of Manufacturing/Industrial and Business Innovation, 4 acres of Multi-family Residential, 21 acres of Open Space, and 20 acres of General Commercial (Town of Truckee, 2017). Another project currently in progress is the Canyon Springs subdivision, which proposes to develop 177 single family parcels and 26 multi-family or low income single family parcels along the northeastern side of the Town of Truckee within the Town boundary and Truckee Sanitary District service area. The TSD entered into a Time Defense Tolling agreement with the property owner in June of 2007. The owner of the subdivision contends that TSD is financially responsible for extending sewer to the subdivision. This contention is based on a 2001 letter from the then TSD District Manager Butterfield, however TSD informed the property owner in 2006 that the cost to extend the sewer to their property was the sole responsibility of the property owner based on additional information. The Time Defense Tolling Agreement stopped the clock on the statute of limitations to avoid immediate litigation at that time. Since then, extensions to this agreement were entered into in 2010, 2012, 2013, and 2014. The most recent extension in November 16, 2017 extends the agreement to December 23, 2019 (Truckee Sanitary District, 2017).

In January 2016, the Truckee Sanitary District accepted an irrevocable offer of dedication of sewer facilities associated with the Schaffer's Mill Phase 3A Subdivision, located off Shaffer Mill Road, north of the Lahontan Subdivision (Resolution No.2016-101). The Schaffer's Mill Phase 3A includes services to 48 single family and townhome residential lots in the Town of Truckee and will be operated and maintained by TSD (Truckee Sanitary District, 2016).

There are several neighborhoods within the Town of Truckee boundaries and in nearby unincorporated areas that utilize septic systems as described in Appendix 5. Periodically, the TSD will receive requests from individual property owners that experience septic problems asking to connect to the District's collection system. For example, one of these areas is the Sierra Meadow neighborhood; and in June of 2017, TSD surveyed local interest in converting from septic systems to the District's collection system in the Sierra Meadows area. The survey was conducted by direct mailing to parcels located within 1500' of the existing sewer system. Responses to the survey were highly variable, indicating that community consensus has not yet been reached.

In addition to residential projects, the Town of Truckee 2016 Annual Report provides a breakdown of major non-residential projects in Truckee that were completed, under construction, approved or under consideration in 2016. Table 3-8, below, provides a breakdown in non-residential projects by name and type:

Table 3-8: Town of Truckee Non-Residential Projects Built, Under Construction & Approved in 2016

Non-Residential Project	Square Footage	Demo
Non-Residential Projects Built		
Gallagher Construction	5,476	--
Glenshire Pool Storage	1,500	--
Non-Residential Projects Under Construction		
Kelly Brothers	3,900	--
Kelly Brothers AMD	825	--
Downtown 76	1,766	(1,200.0)
TDRPD Aquatic Center 25,840	25,840	--
Non-Residential Projects Approved		
Pioneer East	77,329	--
Waltman	18,144	--
Cottonwood Expansion	1,208	--
Coldstream	30,000	--
Quality Automotive	2,932	--
Coburn Crossing Hotel	71,090	--
Crestwood Mixed Use Development	8,778	--
Artist Lofts	3,855	--
Subtotal	**252,643**	**1,200**
TOTAL SQUARE FEET	**251,443 sq. ft.**	

Source: Town of Truckee, 2016

In total, 251,443 square feet of non-residential space is either under construction or approved for development within the Town of Truckee (Truckee, 2016). Other major development projects currently in progress in the Town include: 1) The Rail House Theater, a 95,489-square foot mixed use project with retail space, restaurant space, a movie theater and 220 residential condominiums; 2) Bevmo, a 9,953 square foot general retail building; 3) the Raley's development including 59,000 square feet of grocery, 65,000 square feet of retail, and 80 apartments; and 4) the Tahoe Expeditionary Academy, adding multiple education related buildings (Truckee, 2016; TSD Request for Information, 2017).

Placer County

The Martis Valley Community Plan projects growth for the area located within Placer County. Future growth will be based largely on the availability of land permitted for development. The vast majority of the land in the Plan area is not suitable for development due to sensitive natural resources. In addition, a large percentage of dwelling units are utilized for seasonal or vacation homes and this trend is anticipated to continue. The Plan calls for an estimated holding

capacity of 8,600+/- dwelling units at build out of the Plan with a large percentage of homes used for vacation or seasonal purposes (Placer County, 2003).

In October of 2016, Placer County approved the Martis Valley West Parcel Specific Plan which proposes to develop 760 homes with 6.6 acres developed for commercial uses on the west side of State Route 267 (Resolution No. 2016-196). This specific plan is a reduction to what was anticipated in the Martis Valley Community Plan for this area (Placer County, 2016). The newly approved specific plan shifts a portion of the allowed development, rezoning 775 acres of the West Parcel from Timberland Production to residential and commercial, allowing for 760 residential units and 6.6 acres of commercial uses. The remaining 345 acres is to remain designated Forest. The 660-acres of the East Parcel, originally zoned for development, has been re-designated Forest, and a limited conservation easement placed over the entire 6,376 acres or sold fee simple to conservation groups. As a result, no development can occur on the East Parcel, and the total amount of development it set at 600 residential units fewer than allowed under the Martis Valley Community Plan. The combination of uses on the West Parcel at buildout would be 760 residential units, including single-family homes, townhomes, cabins and condominiums, and 6.6 acres of commercial land for homeowner amenities, small community retail and similar uses (Placer County, 2014). The Specific Plan anticipates that the Northstar Community Services District will provide wastewater services to the project. However, due to the current agreement with the Truckee Sanitary District and Northstar Community Services District, this increase in sewer services for NCSD would directly affect the TSD for the purposes of conveying more wastewater through TSD's system to the T-TSA treatment facility (Placer County, 2016). In August of 2015, the General Manager of the Truckee Sanitary District began to work with legal counsel on a proposed TSD-NCSD contract for service related to the Martis Valley West Parcel Project (TSD, 2015). The Specific Plan proposes that NCSD would convey the wastewater flow to the Truckee Sanitary District main located along Truckee Airport Road. TSD would then convey the wastewater flow to the Tahoe Truckee Sanitation Agency regional wastewater treatment plant in Truckee. The Specific Plan anticipates that the average dry weather flow resulting from the project (assuming 100% occupancy) would be approximately 289,155 gallons per day or 0.29 million gallons per day (mgd). The peak hour average dry weather flow is estimated to be 0.43 mgd and the peak wet weather flow is estimated to be 0.75 mgd. Actual peak production is likely to be lower than this due to vacation homes being unoccupied for a significant portion of the year. Additionally, a small portion of the project wastewater could be utilized for landscape irrigation rather than being sent to T-TSA's wastewater treatment plant and this will also reduce expected demand on TSD's conveyance pipelines (Placer County, 2016). A lawsuit against this project was filed in June 30, 2017 by the League to Save Lake Tahoe, Sierra Watch, and Mountain Area Preservation. The lawsuit alleges the environmental impact report was inadequate and the County violated the Timberland Productivity Act (Rhoades, 2017). Until the lawsuit is resolved, the development of this project and its need for wastewater services is unclear. In March 2018 Superior Court Judge Michael W. Jones ruled that for this project Placer County failed to provide sufficient analysis on emergency evacuation routes in the event of a wildfire. An appeal of this decision was filed in May 2018. Other future development projects currently under review in the Martis Valley Community Plan include a secure four story self-storage building totaling 100,000 square feet (Placer County, 2017).

3.3 DISADVANTAGED UNINCORPORATED COMMUNITIES

Senate Bill (SB) 244, which became effective in January 2012, requires LAFCo to consider the presence of any Disadvantaged Unincorporated Communities (DUCs) when preparing an MSR that addresses agencies that provide water, wastewater or structural fire protection services. A DUC is an unincorporated geographic area with 12 or more registered voters with a median household income of 80 percent or less of the statewide median household income. The statewide annual median household income (MHI) in California[3] (2016) was $63,783 and 80 percent of this equals $51,026. This state legislation is intended to ensure that the needs of these unincorporated communities are met when considering service extensions and/or annexations, in particular, water, wastewater, and structural fire protection services. Since the Truckee Sanitary District is located within the Nevada County, Placer County, and Town of Truckee, all three jurisdictions will be discussed.

Nevada County Disadvantaged Unincorporated Communities

Nevada LAFCo has adopted specific policies regarding DUCs which recognizes any of the DUCs that have been designated by the County of Nevada, the Cities of Grass Valley and Nevada City and the Town of Truckee. The County has identified five DUCs in the unincorporated portion of the County: Penn Valley, Rough and Ready, North San Juan, Washington, and Soda Springs. Additionally, the City of Grass Valley has identified the Alta Hill area as a DUC. Soda Springs DUC is located roughly 3 miles west of TSD's Area of Interest and is within the area served by the Donner Summit PUD as described in Chapter 5. Soda Springs receives fire protection services from the Truckee Fire Protection District and water/sewer service from Donner Summit PUD.

Placer County Unincorporated Communities

SB 244 requires identification of disadvantaged unincorporated communities that lie within a district's SOI or proposed SOI. Portions of the TSD Long-Term SOI lie within Placer County. According to the Placer County General Plan updated in 2013, no disadvantaged communities were identified, thus no policies were included related to DUCs. The TSD Area of Interest includes portions of Placer County identified by the California Department of Water Resources as disadvantaged communities based on the US Census ACS 2010-2014 data. This community is located southwest of the Town of Truckee and is identified by Block Group 20.14,1 as shown in Figure 3-6 (right). The population

Figure 3-6: DUC in Placer County

[3] Median income data from:
https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk

for this block group is 360 with 198 households that had an average median income of $39,583. This disadvantaged community is not located within the existing TSD boundary nor the near-term or long-term sphere of influence.

Town of Truckee Disadvantaged Community Requirements

LAFCo is not required to study the status of disadvantaged neighborhoods that are located within incorporated cities that provide water, wastewater, and structural fire protection services. However, SB 244 required cities to update their land use and housing elements to include an analysis of the water, wastewater, and structural fire protection services in the area along with financing options to help encourage investment in disadvantaged areas, should it be needed. As part of this effort, the bill required cities to identify and describe services within any disadvantaged communities within their jurisdictional boundaries and sphere of influence (SOI). A disadvantaged community is characterized as having a median household income of 80 percent or less of the statewide median household income. As mentioned previously, the MHI threshold for 2016 was $51,026.

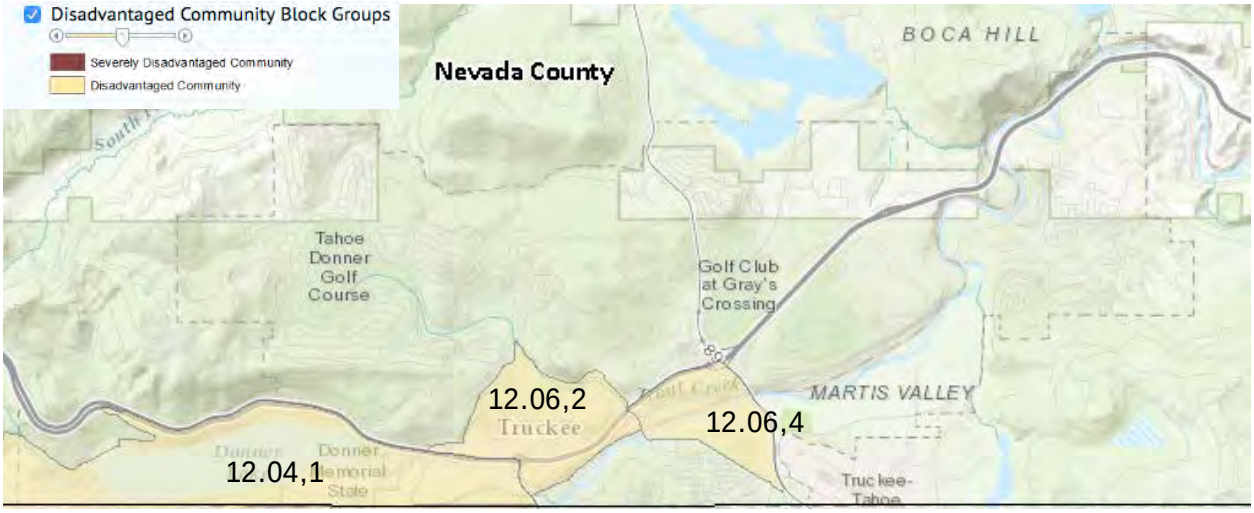
The 2012-2016 American Community Survey (ACS) 5-Year Estimates found that the median household income for the Town of Truckee was $79,971 (US Census, 2018). This is significantly higher than the DUC threshold MHI. According the California Department of Water Resources on-line mapping tool[4], the central and southwest side the Town of Truckee can be considered disadvantaged as shown in Figure 3-7, below. The map depicts Disadvantaged Communities by Block Groups. This layer is derived from data of the US Census ACS 2010-2014 showing census block groups identified as disadvantaged communities (less than 80% of the State's median household income) or severely disadvantaged communities (less than 60% of the State's median household income). The three Block Groups are a subsection of Tracts 12.06 and 12.04.

Block Group 12.06,4 contains 732 individuals, 269 households and has a median household income of $47,031.00. Within this Block Group, 164 of housing units are renter occupied with the remaining 106 homes in the block group vacant for seasonal, recreational, or occasional use. Of the total individuals, 136 have had income in the past 12 months below the MHI threshold as of 2014, a little over 50 percent of the block group (US Census, 2014).

Block Group 12.06,2 has a population of 1,511 individuals, 555 households, and a median income of $46,058.00. Within this Block Group, 185 of housing units are vacant for seasonal, recreational, or occasional use with none renter occupied. The remaining 370 households are owner occupied. Of the total households, 315 have had income in the past 12 months below the MHI threshold as of 2014, a little over 56 percent of the block group (US Census, 2014).

[4] DWR mapping tool is available at: https://gis.water.ca.gov/app/dacs/

Figure 3-7: Disadvantaged Community by Block Groups, Town of Truckee



Block Group 12.04,1 has a population of 786, 381 households, and a median income of $47,684.00. Of those households, 60 percent are renter occupied. Of the total households, 247 have had income in the past 12 months below the MHI threshold as of 2014, a little over 64 percent of the block group (US Census, 2014). Since these areas lie within the Town boundaries and the TSD boundaries, they do receive adequate fire, sewer, and water service. No further analysis by LAFCo is needed.

3.4 WASTEWATER SERVICES

Service Overview

The Truckee Sanitary District (TSD) provides wastewater collection and conveyance services to 16,838 EDUs within its boundaries connecting to the T-TSA system. The T-TSA owns, operates, and maintains the Truckee River Interceptor (TRI) and Water Reclamation Plant (WRP). The TRI collects flows from five-member districts, including TSD, and carries effluent by the interceptor pipeline which generally parallels the Truckee River (California, 2016). The collection system for TSD primarily serves residential customers with some commercial and no industrial customers (TSD, 2015). About 13 percent of those connections are commercial/institutional including the Tahoe Forest Hospital located in the Town of Truckee. The District is located within the Truckee River Hydrologic Unit. A breakdown in sewer connection types for TSD can be seen in Table 3-9 below. Figure 3-8 shows TSD sewer facilities including lift stations, force mains, gravity mains.

Table 3-9: Number of Sewer Connections in TSD	
Type of Sewer Connection	**Number of Connections in 2015 (EDUs)**
Commercial Connections	1,876
Residential Connections	14,435
Total Number of Sewer Connections	16,838 (14,688 TSD, 2150 NCSD)

Source: TSD Request for Information, 2017

The largest institutional/business users of the system include the local schools and the Tahoe Forest Hospital.

To address the potential for sewage leaks in the collection system, which could eventually drain into the Truckee River, the California Regional Water Quality Control Board (CRWQCB) for the Lahontan Region set requirements for the TSD in 1985 allowing for the accidental discharge of effluent relating to: the ongoing maintenance/minor addition program for main line repair and installation; scheduled force main repairs; water line and meter installation; excavation; manhole repair; scheduled metering flume cleaning; standard maintenance; and immediately required repairs (Board Order No. 6-85-130). These discharges are not to exceed specific annual mean concentrations of total filterable residue, chloride, sulfate, boron, nitrogen, phosphorus, and iron based on receiving water limitations only during the months of May 1 through October 15. No removal of vegetation or disturbance of existing ground surface conditions is allowed between October 15 and May 1 except in emergency situations. The Water Quality Control Plan for the North Lahontan Basin was effective in March of 1995 and amended through January 2016. The Plan prohibits the discharge of any waste or deleterious material to surface waters of the Truckee River, Little Truckee River, or any tributaries (CRWQCB, 1985 and CRWQCB, 2016). A summary of wastewater related regulations is provided in Appendix 4.

Collection System Services

The primary service provided by the District is wastewater collection and conveyance to the TTSA treatment plant. Because some of the District sewer lines were built many decades ago, some are located on private property or in easements. In these instances, the District may either own the right-of-way, or have a prescriptive easement or an access easement to access the sewer lines. Private lateral lines connect a house to the District main line. Assigning responsibility to the appropriate private property owner for the privately owned lateral lines can be challenging in those instances where several laterals join together before joining the main line.

There are several measures of integrity for a wastewater collection system, including peaking factors, efforts to address infiltration and inflow (I/I), and inspection practices. TSD's capital improvement plan is described within its annual budget. Water conservation programs such as

low flow toilet rebates, leak detection pills, etc. can often result in lower per capita water use and therefore lower per capita wastewater generation. Even though the District has had an increase in connections, the year on year flows have been relatively consistent as a result of these programs. The mandatory water conservation implemented during the last drought also did not appreciably impact the District operations. To further improve safety and service, the District has reinforced the California Plumbing Code requirements for Backflow Prevention Devices (Ordinance 1-2017 section 7.11) and reviews all new construction to determine if a backflow device is required.

Treatment & Disposal System Services

T-TSA provides both treatment and disposal of wastewater for TSD. Please see Chapter 5 for additional details on these services.

3.5 PRESENT AND PLANNED CAPACITY OF PUBLIC FACILITIES

Existing Wastewater Service Facilities

Administrative Facilities

TSD's existing administrative and other facilities are located on District owned property at 12304 Joerger Drive in Truckee, CA, and include four buildings: a 6,000-square foot Administrative building; a 9,240 square foot Field Operations building; a 7,200-square foot Maintenance Facility; and a 9,800-square foot Vehicle Storage facility. The corporation yard is approximately 380,000 square feet total and houses the majority of TSD's fleet, equipment and office facilities. The TSD installed a ground-mounted 125KW solar array system, completed in 2010, to offset annual electrical usage. Power production for the solar array is highest from June to September, with the highest output occurring in 2016. TSD has also retrofitted light fixtures with energy efficient lamps and ballasts and uses high efficiency nozzles on sewer cleaning equipment to reduce water usage.

The District owns roughly 146 acres of land leased for the beneficial use of TSD customers, including leasing the land to recreational districts for use, such as the Recreational Ball Field leased to the Truckee Donner Recreation & Park District (TSD, 2017).

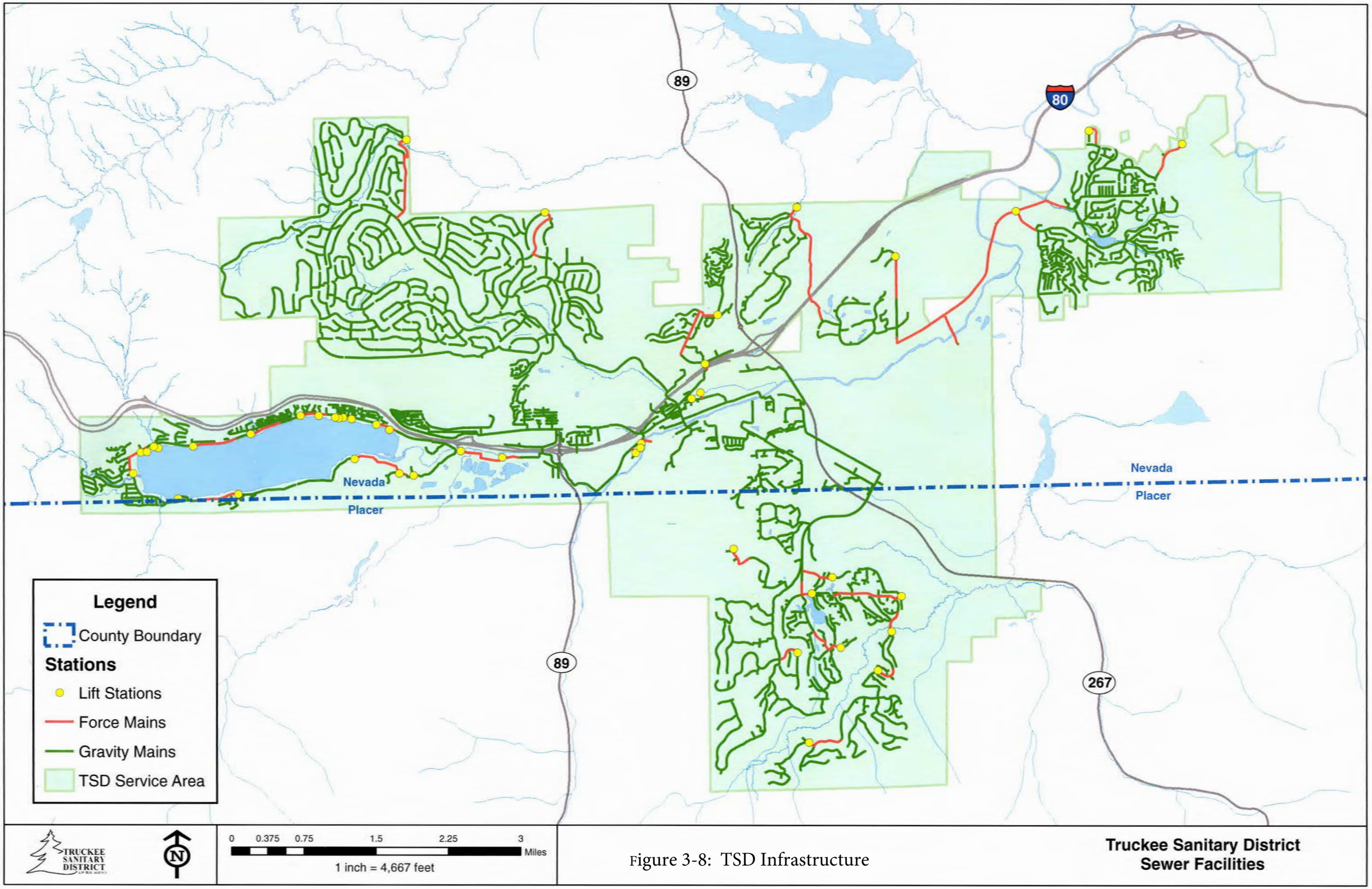


Figure 3-8: TSD Infrastructure

Collection System Infrastructure

The TSD completed an update to the Sewer System Management Plan (SSMP) in May 2015. The SSMP aims to accomplish the following:

- Manage, operate, and maintain all parts of the public wastewater collection system in an efficient, cost effective manner to provide reliable service now and into the future;
- To cost effectively minimize infiltration and inflow (I & I) and provide adequate sewer capacity to accommodate design peak flows;
- To minimize the number and mitigate the impact of SSOs that occur;
- To mitigate the impacts that are associated with any SSO that may occur; and
- To meet all applicable regulatory notification and reporting requirements.

The maintenance plan of the SSMP includes maintaining an up-to-date map of the sanitary sewer system, conducting CCTV inspections of sewer lines, cleaning sewer lines, and prioritizing rehabilitation (TSD, 2015). Apart from current maintenance activities, the District is halfway toward completing improvements to the Donner Lake submersible check valve and isolation valve lift station upgrade as of September 2017, as well as analyzing responses to a questionnaire from homeowners not connected to public sewer in the Sierra Meadows community (TSD, 2017).

TSD operates and maintains 300 miles of gravity pipelines connecting to 10 main lift stations and 33 smaller lift stations to transport sewer effluent to the T-TSA water treatment plant. Other infrastructure includes 3,953 manholes and nine miles of pressure pipeline. The entire system is closely monitored 24 hours a day through computerized telemetry and a flow metering system. The 16,838 EDU connections to the TSD sewer system do not including the Northstar Community Services District (TSD, 2015). In 2015, the TSD conveyed 394 million gallons of waste water to the T-TSA regional water reclamation plant. As of 2015, the T-TSA plant had a peak capacity of 9.6 mgd and treats wastewater from the entire Truckee/North Lake Tahoe area (Truckee Donner Public Utility District, 2016, page 6-5).

As noted above, some of the TSD sewer lines are located on private property. In these instances, the TSD may either own the right-of-way, or have a prescriptive easement or an access easement to access the sewer lines. Private lateral lines connect a house to the District main line. This is particularly relevant in the Tahoe Donner subdivision where several hundred down sloping parcels have "long" laterals that cross through public utility easements to get to the sewer in the road right-of-way. Historically the District delegated responsibility for installation, maintenance, and testing of the sewer within the public utility easement to the property owner. However, a new interpretation in June of 2017 changed the District's stance to require owners of parcels with "long" laterals to only be responsible for the sewer located on their property and that the portion of the sewer adjacent to the parcel with the public utility easement should be the responsibility of the District. Aside from a few exceptions, private sanitary sewer

facilities do not extend beyond the property or premises of the property being served within the District (TSD, 2017).

In addition to the SSMP, TSD updated its Overflow Emergency Response Plan (OERP) in August of 2015. The purpose of the OERP is to minimize the impact of sanitary sewer overflows (SSOs) to the public and the environment. The OERP is the guideline for the standard operating procedures in the event of a sanitary sewer overflow (TSD, 2015). The TSD has a history of adequate handling of spills and repairs. In October of 2012, the TSD received a response from the Lahontan Regional Water Quality Control Board (LRWQCB) in regard to a sewage spill that occurred October 3, 2012 and spilled approximately 13,000 gallons. The LRWQCB letter commended the District's handling of the spill and repairs, noting that the District's required training of staff greatly minimized the amount of sewage spilled and the impact on the environment (LRWQCB, 2012). For the current year 2017, the District has had one Category 1 SSO (discharge of any volume that reaches surface water) in January; three Category 3 SSO's (discharge less than 1,000 gallons that does not reach surface water), one in May and two in September; and three Private SSO's, one in August at the Henness Flats Apartments, and two in September.

There are several measures of integrity for a wastewater collection system, including peaking factors, efforts to address infiltration and inflow (I/I), and inspection practices. TSD attempts to reduce the amount of I/I in the private collection system through private lateral testing programs and comprehensive inspections. The public collection system utilizes comprehensive inspections, flow monitoring, and televising of the sewer mainlines on a routine basis to reduce I/I (TSD Request for Information, 2017). Preventative maintenance activities for the TSD include cleaning 3,061 pipe segments[5] per year and televising 1,182 pipe segments and 776 laterals per year to assign structural and maintenance grades. On a monthly basis, reporting is reviewed by the District Engineer and Superintendent to identify critical pipelines and make decisions regarding needed maintenance or repairs (TSD, 2017). The TSD is adequately funded and through systematic maintenance programs, has progressively addressed infrastructure problems as needed (Nevada LAFCO, 2013; TSD, 2017). The Truckee Sanitary District has been tracking monthly average daily flows through the system since January 2010. Table 3-10 shows monthly average flows from January 2011 to May 2017 in millions of gallons per day (MGD) and Figure 3-9 below shows the monthly average daily flows from January 2010 to May 2017 in MGD.

Table 3-10: TSD Monthly MGD January 2011 to May 2017

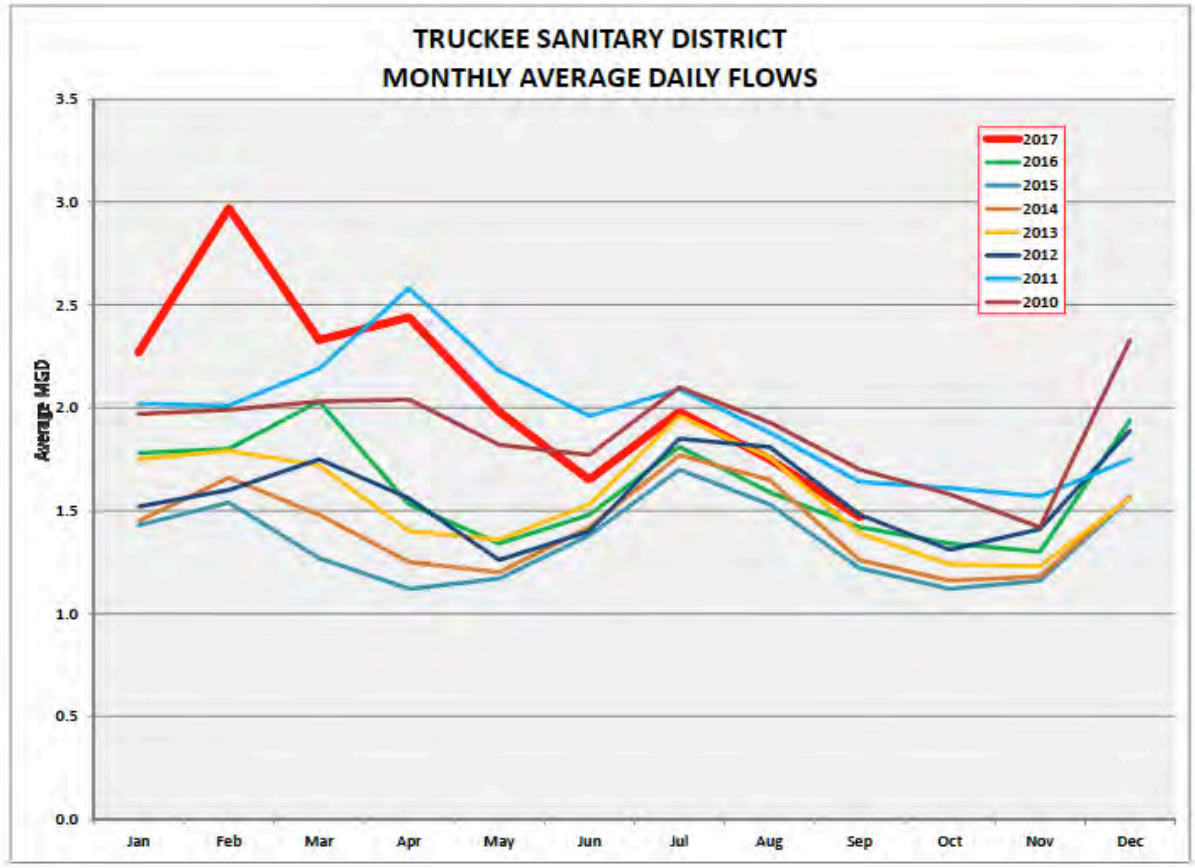
Month	2011	2012	2013	2014	2015	2016	2017
January	2.02	1.52	1.75	1.45	1.43	1.78	2.27
February	2.01	1.60	1.79	1.66	1.54	1.80	2.97
March	2.19	1.75	1.72	1.48	1.27	2.03	2.33
April	2.58	1.56	1.40	1.25	1.12	1.53	2.44
May	2.18	1.26	1.36	1.2	1.17	1.34	1.98

[5] Generally, a pipe segment is approximately 18 feet in length.

Month	2011	2012	2013	2014	2015	2016	2017
June	1.96	1.40	1.53	1.42	1.38	1.48	1.65
July	2.09	1.85	1.96	1.77	1.70	1.81	1.98
August	1.88	1.81	1.76	1.65	1.53	1.59	1.75
September	1.63	1.48	1.39	1.26	1.22	1.42	1.47
October	1.61	1.31	1.24	1.16	1.12	1.34	1.29
November	1.57	1.41	1.23	1.18	1.16	1.30	**1.39**
December	1.75	1.89	1.56	1.57	1.56	1.94	**1.59**
Average	**1.95**	**1.56**	**1.55**	**1.42**	**1.35**	**1.61**	**1.93**

Table 3-10 shows average monthly flows were higher in 2011 than any previous year, with the highest month being April. Though data for the year 2017, is pending, flows for January through March were the highest compared to any other year during those same months, with February being the highest month at 2.97 MGD.

Figure 3-9



(Source: TSD, 2017)

In general, the average MGD's per year have ranged from a low of 1.35 MGD in 2015, to a high of 1.95 MGD in 2011. The 2017 average is roughly 2.40 MGD based on known flows from January to May. It is apparent from Figure 3-9, that January-February flows for 2017 were significantly

higher than any previous year peaking in mid-February, while the remainder of the year has been slightly higher than recent years, but lower than past years. Table 3-11, below, shows average daily flow by sewer shed as of June 2017. A map of the four sewer sheds listed in Table 3-11 is provided in Figure 3-10.

Table 3-11
Average Daily Flow by Sewer Shed

Sewer Sheds	MGD
Tahoe Donner	1.0
Donner Lake	.40
Martis Valley	.26
Glenshire	.21
Other	.11
TSD System	**1.98**

Average daily flows for the Tahoe Donner and Donner Lake areas are much higher than past years. This increase in daily flows could be attributed to an increase in vacation rental use from previous years due to a number of factors including the recovering economy and ease of access to vacation rental homes through trending online hosting websites such as Airbnb and FlipKey. The increase in flows during the January to February months for 2017 could be attributed to the record levels of snowpack that occurred over the 2016-2017 winter, in some places exceeding records set during the massive winter of 1982-83, which may have contributed to a higher number of visitors than previous years during the drought (Rice, 2017).

Treatment System Infrastructure & Disposal System Infrastructure

As mentioned previously, no wastewater is treated or disposed of by the TSD, but is conveyed to the T-TSA for treatment at the Water Reclamation Plant (WRP) located within the TSD district boundaries. The T-TSA is a separate agency formed for the purpose of planning, administering, and coordinating wastewater treatment and disposal services throughout the north and west shores of Lake Tahoe, the Truckee River corridor, and the Town of Truckee. The facility began treating water in 1978 and received an infrastructure upgrade in 1982 and again in 1997 in order to increase capacity. The recent expansion increased overall plant capacity to 9.6 MGD, formally commissioned in 2008. The expansion introduced a biological nitrogen removal (BNR) system to replace an existing physical-chemical process. Also, a new method of dewatering biosolids was implemented. Wastewater is treated through a series of biological, chemical, and physical processes to a degree where surface and ground water integrity is protected.

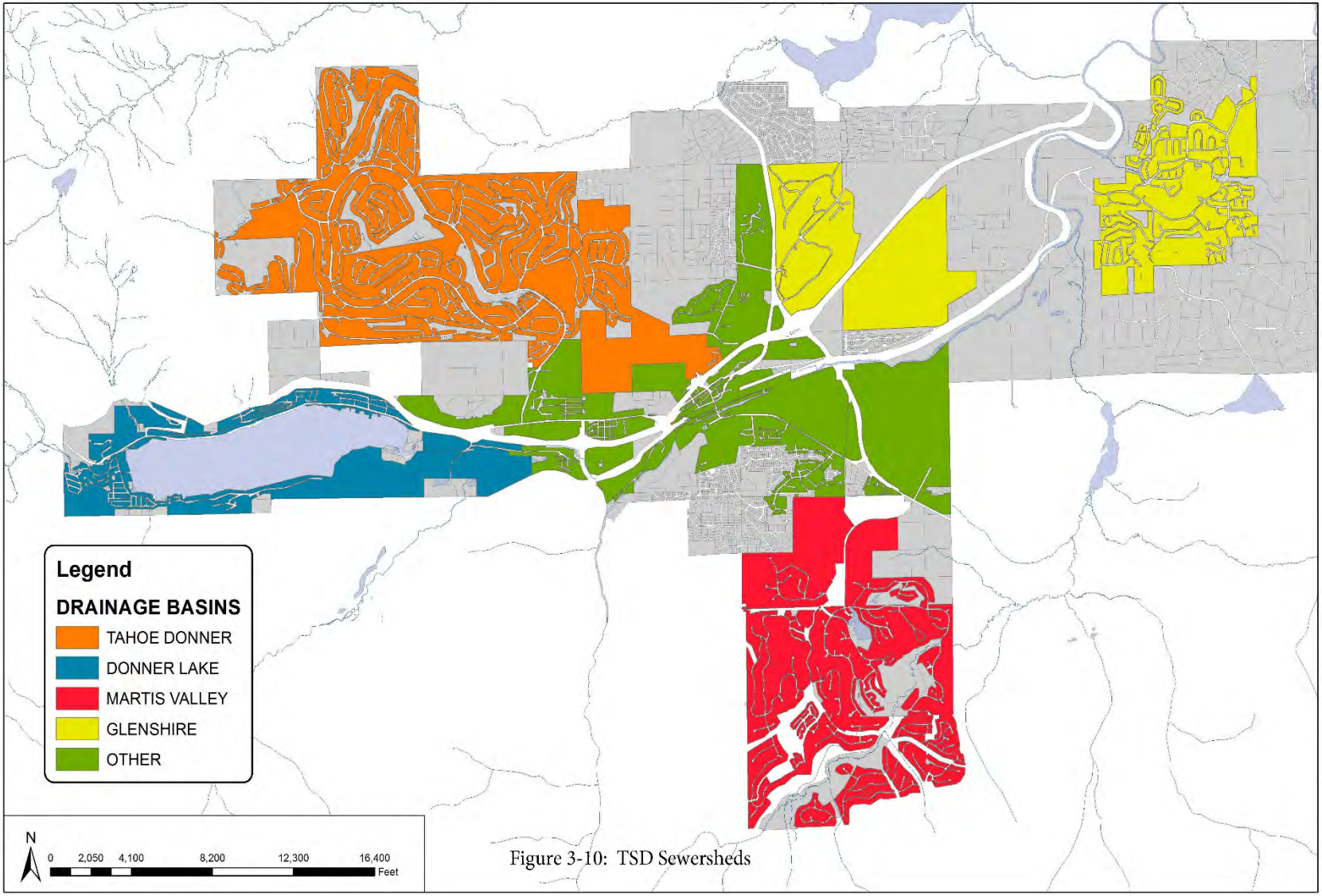


Figure 3-10: TSD Sewersheds

At T-TSA, solids are disposed of to landfills and land application sites while treated water is sent to disposal fields for percolation into the soil and eventually the Truckee River (T-TSA, 2017). Detailed information regarding the reclamation plant can be found in Chapter 5.

Water Quality Database Reports

Overview

This section provides the results of database searches on water quality for the TSD. Compliance of wastewater agencies with water quality regulations promulgated by the State Water Resources Control Board (State Water Board) and the Central Valley Regional Water Quality Control Board (Regional Water Board) is important to LAFCO. This type of information is especially important since during a drought, a community can't rely upon "dilution" as a solution to pollution. When local water supplies are scarce, keeping that supply at a high level of water quality is desirable.

California Integrated Water Quality System Project

The California Integrated Water Quality System (CIWQS) is a relational database used by the State and Regional Water Boards to track information about permit violations and enforcement activities. TSD has permits from the Lahontan Regional Water Quality Control Board and is therefore classified as a "Permittee." Permittees are allowed to self-report their own permit violations to the CIWQS. A four-year term from January 1, 2013 to December 31, 2017, was queried in the CIWQS database. The results of the database query show that TSD had no recorded regular water quality violations/enforcement actions during this timeframe.

Sanitary Sewer Overflow Database

The State Water Board maintains a database of Sanitary Sewer Overflows (SSO) from public/permitted systems and private lateral sewage discharges. This database is a specific module in the CIWQS. The State Water Board formalized the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003 (SSS WDRs), on May 2, 2006. All public agencies that own or operate a sanitary sewer system that is comprised of more than one mile of sewer pipes which convey wastewater to a publicly owned treatment facility must be covered under the SSS Waste Discharge Requirements. The SSS Waste Discharge Requirements requires enrollees, among other things, to maintain compliance with the Monitoring and Reporting Program. A four-year term from January 1, 2013 to December 31, 2017, was queried in the CIWQS-SSO database. The results of the database queries regarding TSD are listed below in Table 3-12.

Table 3-12: TSD Results Sanitary Sewer Overflow Database

EVENT ID	Region	Responsible Agency	Collection System	SSO Category	Start Date	SSO Address	SSO City	SSO Vol	Vol of SSO Recovered	Vol of SSO Reached Surface Water	SSO Failure Point	WDID
790328	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2013-01-11 16:00:00.0	13406 Donner Pass Road	Truckee	15	10	0	Lower Lateral	6SSO11120
798688	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2013-08-29 16:30:00.0			10	0	0	Upper Lateral (Public)	6SSO11120
803645	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2013-12-18 12:00:00.0			402	15	0	Lower Lateral (Public)	6SSO11120
805934	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2014-04-13 08:00:00.0			50	5	0	Transition connection between private lateral and service lateral.	6SSO11120
807554	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2014-06-17 07:00:00.0			35	0	0	Lower Lateral (Public)	6SSO11120
811994	6A	Truckee SD	Truckee Sanitation District CS	Category 2	2014-11-27 12:00:00.0			2,500	0	0	Lower Lateral (Public)	6SSO11120
816248	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2015-06-26 08:00:00.0			5	0	0	Lower Lateral (Public)	6SSO11120
817193	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2015-07-23 10:30:00.0			10	0	0	Lower Lateral (Public)	6SSO11120
819531	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2015-10-11 13:00:00.0			10	4	0	Lower Lateral (Public)	6SSO11120
822650	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2016-02-06 15:00:00.0			15	0	0	Lower Lateral (Public)	6SSO11120
823837	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2016-04-01 12:00:00.0			75	30	0	Lower Lateral (Public)	6SSO11120
826905	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2016-07-06 11:00:00.0			5	2	0	Lower Lateral (Public)	6SSO11120
830327	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2016-11-28 17:30:00.0			790	585	0	Gravity Mainline	6SSO11120
830817	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2016-12-05 12:00:00.0			250	5	0	Lower Lateral (Public)	6SSO11120
835214	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2017-05-04 08:00:00.0			550	0	0	Lower Lateral (Public)	6SSO11120
840326	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2017-09-06 09:30:00.0			250	100	0	Manhole	6SSO11120
840327	6A	Truckee SD	Truckee Sanitation District CS	Category 3	2017-09-13 10:00:00.0			374	75	0	Manhole	6SSO11120

Data Source: State Water Control Board SSO Database at: https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportId=sso_overview_region&reportAction=generate&region=6A&agency=Truckee%20SD&collSys=Truckee%20Sanitation%20District%20CS&count=17&sortcol=1&sortfirst=y&curpage=0&pagesize=50

During the four-year study period, TSD had a total of seventeen reported sanitary sewer overflow events. The years 2013, 2014, 2015, and 2017 each had three reported spills. 2016 had the highest number (five) of spill events. The largest event occurred on November 27, 2014 with a total volume of 2,500 gallons spilled and was classified as a "category 2" event. This spill occurred at a cleanout on a double service, and ran down a slope to a v-gutter along Northwoods Blvd. The spill did not reach a drainage channel and/or surface water. It was confined to a land area. The cause of this spill was damage to TSD's lower lateral created by a construction entity. The spill was cleaned up and the correct reporting process was followed.

The second largest sanitary sewer overflow event listed in the state database and Table 3-12 was 790 gallons spilled on November 28, 2016. Most (585 gallons) of the spill was recovered and returned to TSD's sewer line. This spill occurred on E Keiser Ave. in Truckee. This spill was caused by debris that clogged a line. The spill was cleaned up and the correct reporting process was followed (WRCB, 2017).

The remaining fifteen spill events listed in the state SSO database were small sized and classified by the State Board as a "category 3" event meaning that any discharge of sewage was less than 1000 gallons and did not reach surface water or a drainage channel. Of the total number of spills, 67 percent were categorized as "operational" which includes debris from construction, debris from lateral, debris-general, debris-rags, grease deposition, root intrusion, non - dispersible wipes (WRCB, 2017).

Demand for Services

TSD has sufficient infrastructure and administrative capacity to accommodate the existing demand for wastewater collection services. Future demand for services may be impacted by the existing population plus the potential for new development to occur within the Town of Truckee and other parts of the District. Future population growth and associated increased demand for services could create the need for additional infrastructure. Other factors that impact supply and demand in the District are the anticipated increase in visitors associated with a growing economy. There is also a potential demand for sewer service in the Prosser Lakeview Estates, which is outside the current service area and would require annexation to TSD (TSD Request for Information, 2017).

Historically, TSD has added approximately 100 to 200 EDU's per year to its service. The TSD uses a Hydraulic Model to predict future demand by 2025 to be 6.6 MGD (TSD, 2017). TSD's facilities are geared toward a projected buildout of 28,933 equivalent dwelling units (EDU's) (TSD 2018 Budget) and this represents a 72 percent increase in EDU's from 2017.

Assuming 10% of these EDUs are allocated to commercial and institutional uses, the population at projected buildout can be calculated as 64,840 (28,933-10%*2.49 persons per household). The 28,933 EDU capacity is sufficient to meet the projected growth described in this MSR's Slow Growth Scenario as shown in Table 3-6 through the year 2040 (TSD, 2017). TSD's EDU capacity is also estimated to be sufficient to meet the projected growth described in this MSR's Fast Growth Scenario as shown in Figure 3-5, but only through the year 2025, when capacity would be maxed out, if no other improvements were made.

The District's wastewater is treated at T-TSA. Please see Chapter 5 for additional details. Factors that can influence the District's ability to supply and/or deliver wastewater service to customers include treatment plant capacity and Regional Water Quality Control Board (RWQCB) regulations.

Adequacy and Challenges in Provision of Service and Infrastructure

Like most sanitary districts in California, TSD faces several potential challenges in relation to the provision of public services. One potential challenge is the future expansion of infrastructure and service capacity to serve the "Fast Growth Scenario" described in Table 3.6. Since the Town of Truckee has land-use authority for most of the land within the District, Truckee's plans, policies, and projects do influence service projections for TSD. Population forecasts for the Town of Truckee 2025 General Plan, adopted in 2006, did not foresee the economic downturn that started in 2008. As a result, actual population trends are much lower than that originally projected by the Truckee General Plan. This makes it challenging to predict future population growth rates within TSD boundaries and therefore it is difficult to determine cumulative infrastructure needs as most projects are built out on a project-by-project basis. Nevertheless, TSD is anticipated to have the highest growth rate of the T-TSA member agencies. The 2013 Sphere of Influence Update for the TSD describes services provided by TSD and T-TSA agencies and updates assumptions from the Eastern Nevada County Wastewater MSR completed in November of 2003. Wastewater treatment is identified as one of the essential services required for new development, and treatment capacity for the T-TSA is provided on a first-come, first-serve basis. The TSD is adequately funded and has planned for infrastructure to meet demands in many portions of its service areas. TSD policy requires design systems to assume full-time occupancy, regardless of the status of homes as vacation rentals, second homes, or primary residences (Nevada LAFCo, 2013). TSD's robust planning efforts as evidenced by monthly board agendas with up-to-date infrastructure information, maintenance, and flow information, updated SSMP and Capital Improvement Plan (CIP) indicates that the District performs necessary repair and maintenance and constructs all capacity-related projects in a timely manner.

Future challenges to the provision of services and infrastructure may include:

- Capacity of the T-TSA Water Reclamation Plant reached on first come, first serve basis;
- Integration of neighborhoods into the TSD system currently serviced by septic systems; and
- Future development projects in the near-term and long-term SOI.

3.5: FINANCIAL ABILITY TO PROVIDE SERVICES

LAFCo is required to make a determination regarding the financial ability of the Truckee Sanitary District to provide public services. This Chapter provides an overview of financial health and provides a context for the financial determination. The audited Comprehensive Annual Financial Reports (CAFR) from the District for the fiscal years 13/14, 14/15, and 15/16

are the primary source of information for this Chapter. This Chapter was written on December 1, 2017 and the CAFR for the fiscal year 16/17 was not yet available and therefore it is not included in this chapter. However, the financial trends for FY 16/17 were similar to that of 15/16. Based on recent recommendations from the Little Hoover Commission, this determination on the financial ability to provide services is based upon several key financial performance indicators that are shown in tables in the following pages.

In California, special districts are classified as enterprise or non-enterprise districts, based on their source of revenue:

- Enterprise districts: Finance of district operations is via fees for public service. Under this model, the customers that consume goods or services such as drinking or sewer water, waste disposal, or electricity, pay a fee. Rates are set by a governing board and there is a nexus between the costs of providing services and the rates customers pay. Sometimes enterprise district may also receive property taxes which comprise a portion of their budget.
- Non-enterprise districts: Districts which receive property taxes are typically classified as non-enterprise districts. Services that indirectly benefit the entire community, such as flood or fire protection, community centers, and cemetery districts are often funded through property taxes.

TSD is predominantly a non-enterprise district, since most (63 percent) of the revenue is derived from the property taxes. However, TSD also charges fees for wastewater collection and transport services. Budgets are adopted in public meetings on an annual basis.

Financial Policies & Transparency

The District prepares and approves an annual budget, along with a five-year capital improvement plan and a five-year fleet and equipment replacement schedule. Budget status updates are presented to the Board of Directors on a regular basis. The fiscal year begins on July 1 and ends on June 30. Budgets and CAFRs for recent years are available to the public via the District's website[6]. TSD has several policies regarding finances as listed below:

- Reserve Fund Policy
- Emergency Contingency Reserve Fund Policy: indicates this fund should have a $3 million balance
- Unrestricted Assets policy.
- Purchasing Policy
- investment policy: allows the District's treasurer to invest in U.S. Treasury Securities and the LAIF
- CalPERS coverage

These policies are available from District staff upon request.

[6] TSD budget is available at:
http://www.truckeesan.org/home/index.php?site_config_id=109&page_selection=4317&s_page=

TSD's Reserve Fund policy was adopted by Resolution No. 2015-115 which notes that the District currently maintains its reserves in six funds including the Capital Reserve Fund, Martis Valley Interceptor Fund, SAD 5 Trust Fund, Major Capital Improvements Reserve Fund, Emergency Contingency Reserve Fund, and undesignated funds within the General Fund. For each of these six reserve funds, District policy provides specific targeted fund balances and details about their purpose. These contributions help the District accumulate sufficient reserves to help it recover from unexpected emergencies and to provide for routine infrastructure maintenance and replacement (TSD 2015-115).

TSD's Annual Financial Statement for FY 16/17 indicates that District accounting policies require the following:

- Budget preparation at the beginning of each year,
- Capital assets are defined as assets with an initial cost of $5,000 or more and with a useful life in excess of one year,
- Capital assets are stated at cost, less depreciation,
- Depreciation on the cost of value of contributed assets is included in operating expenses,
- Repairs and maintenance expenditures are charged to expense.

The District's formal Purchasing Policy was adopted in September 1999 and it has specific procedures for purchases less than $15,000; purchases over $15,000, except sewer facilities; and purchases exceeding $15,000 for sewer facilities. Additionally, the Purchasing Policy outlines procedures for requisitioning of materials, equipment or services and for purchase orders. This 8-page policy document is available upon request to TSD staff.

TSD's financial statements are prepared in accordance with generally accepted accounting principles (GAAP). The Government Accounting Standards Board (GASB) is responsible for establishing GAAP for state and local governments through its statements and interpretations. The District uses the accrual basis of accounting (TSD, CAFR, 2017a). The most recent independent auditor's report was prepared for Fiscal Year (FY) 2015/2016 and dated March 7, 2017 and was attached to the District's Financial Statements. The audit found that the information is fairly stated, in all material respects, in relation to the basic financial statements as a whole (Damore, Hamric & Schneider, Inc., 2017a).

The Board has appointed a Finance Committee which reviews all payables and makes recommendations to the full Board for approval of payables. The General Manager serves as District Treasurer.

Table 3- 13: Summary of TSD Financial Policies & Transparency Indicators		
Indicator	**Score**	**Notes**
Summary financial information presented in a standard format and simple language.	√	The annual CAFR and budgets clearly and transparently present financial information.
District has a published policy for reserve funds, including the size and purpose of reserves and how they are invested	√	TSD reserve policy is posted on the District website.
Other financing policies are clearly articulated	Δ	TSD's Annual Financial Statement contains several accounting policies as listed above. Additionally, the Purchasing Policy, adopted in September 1999 contains specific procedures for purchases and procurement practices.
Compensation reports and financial transaction reports that are required to be submitted to the State Controller's Office are posted to the district website	√	Wage scale for staff positions is posted to TSD's website.
Key to score: √= Above average (compared to similar sewer districts) Δ= Average 0= Below average		

Revenues

TSD has two basic types of revenue:

- Operating revenues consist primarily of charges for services.
- Non-operating revenues and expenses are related to financing and investing type activities.

The District has multiple sources of revenue including: wastewater service user fees; inspection & cancellation fees; maintenance income; tax revenue; interest earned; rents & leases; and miscellaneous income. In 2016, TSD's total revenue was $7,775,863.00 as shown in Table 3-14, below. Property tax revenue is the most significant source of revenue, comprising 63 percent of its total revenue as shown in Figure 3-11, below. Charges for wastewater service is the 2nd largest source of revenue at 34 percent of total revenue. The amount of other service, rents, and gain on the sale of assets is so small that they are listed as zero percent Figure 3-11.

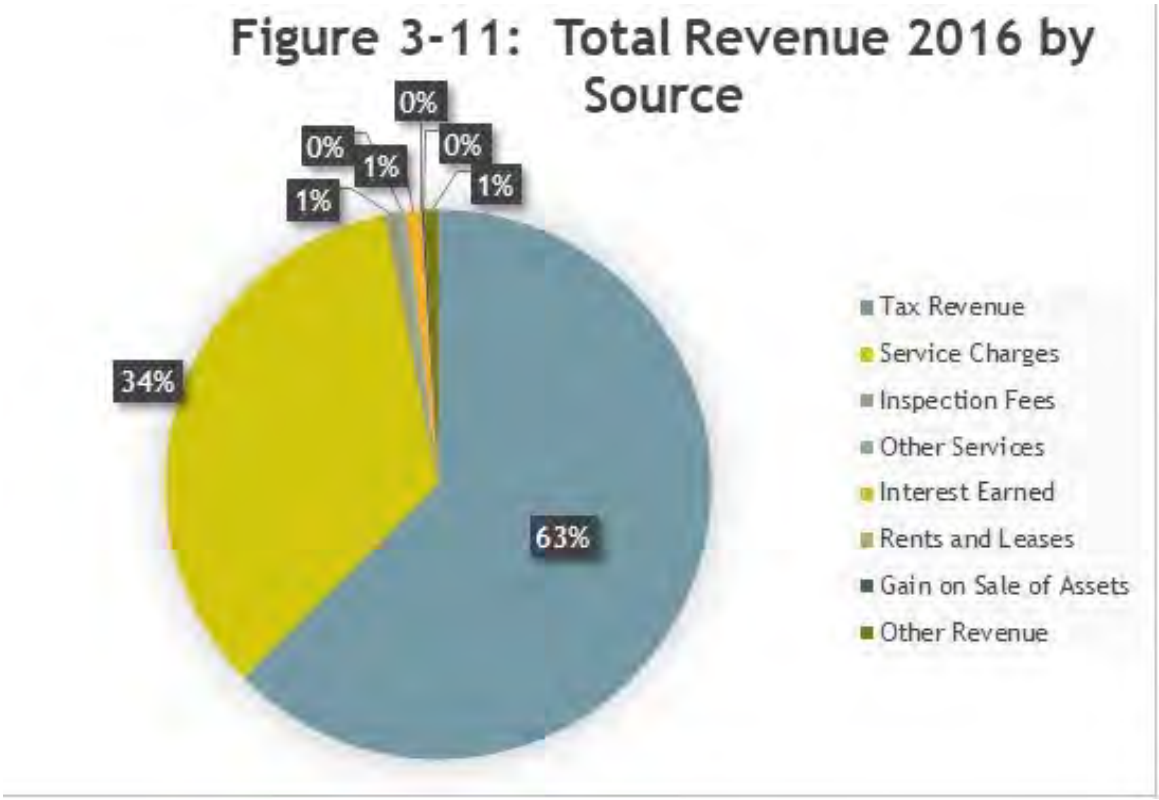


Figure 3-11: Total Revenue 2016 by Source
0%
0%
1%
0%
1%
1%
34%
63%
Tax Revenue
Service Charges
Inspection Fees
Other Services
Interest Earned
Rents and Leases
Gain on Sale of Assets
Other Revenue

Table 3-14: Statement of Revenues, Expenses and Changes in Net Position

Truckee Sanitary District
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
For the Fiscal Years Ended June 30, 2016, 2015, and 2014, (Combined)

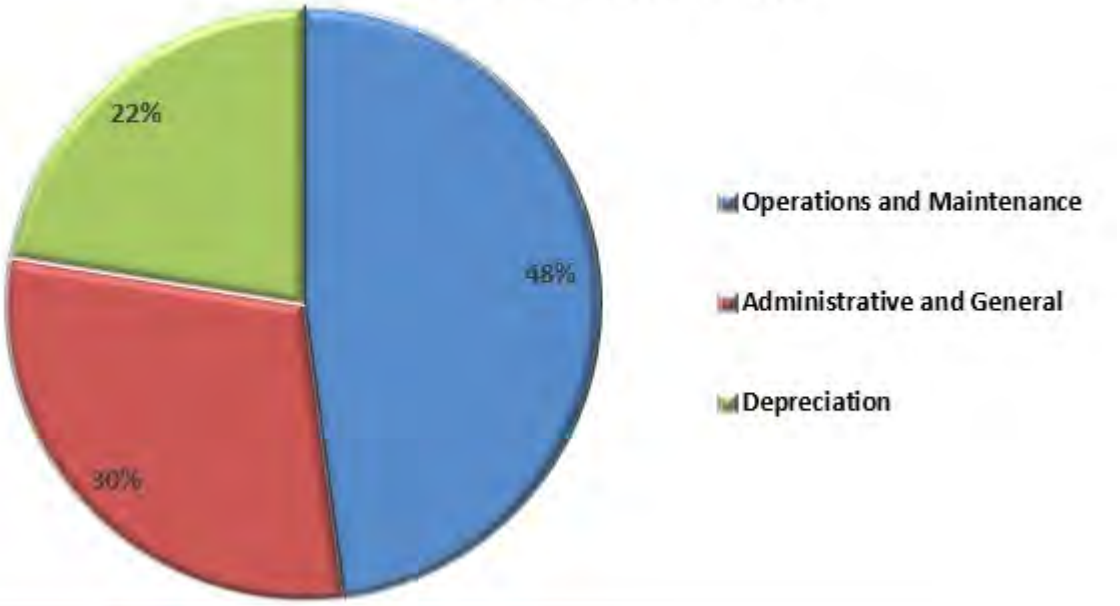
Operating Revenues:	**2016**	**2015**	**2014**
Service Charges	$2,663,787	$2,617,993	$ 2,571,552
Inspection and Cancellation Fees	$57,105	$57,603	62,923
Other Services	$45,482	$20,140	32,856
Total Operating Revenue	$2,766,374	$2,695,736	$ 2,667,331
Operating Expenses:			
Operations and Maintenance	$4,319,876	$3,998,157	$4,209,800
Administrative and General	$2,676,019	$2,162,283	$2,120,421
Depreciation	$2,027,566	$2,160,932	$2,043,286
Total Operating Expenses	$9,023,461	$8,321,372	$8,373,507
Operating Loss	-$6,257,087	-$5,625,636	-$5,706,176
Non-Operating Revenues:			
Tax Revenue	$4,866,948	$4,550,079	$4,344,098
Interest Earned	$60,897	$34,030	$29,740
Rents and Leases	$5,222	$10,594	$12,870
Gain on Sale of Assets	$15,500		
Other Revenue	$60,922	$33,681	$72,362
Total Non-Operating Revenue	$5,009,489	$4,628,384	$4,459,070
Net Loss before Contributions	-$1,247,598	-$997,252	-$1,247,106
Capital Contributions:			
Dedicated Land and Improvements	$1,430,147	$784,492	$722,781
Connection Fees	$172,367	$172,556	$161,371
	$1,602,514	$957,048	$884,152
Change in Net Position	$354,916	-$40,204	$362,954
Net Position, Beginning of Year, before Restatement	$60,496,749	$64,848,949	$65,211,903
Prior Period Adjustment per Implementation of GASB 68		$4,311,996	
Net Position, Beginning of Year, after Restate	$60,496,749	$60,536,953	$65,211,903
Net Position, End of Year	$60,851,665	$60,496,749	$64,848,949

Source: TSD CAFR, FY 2016, 2015, and 2014.

Expenses

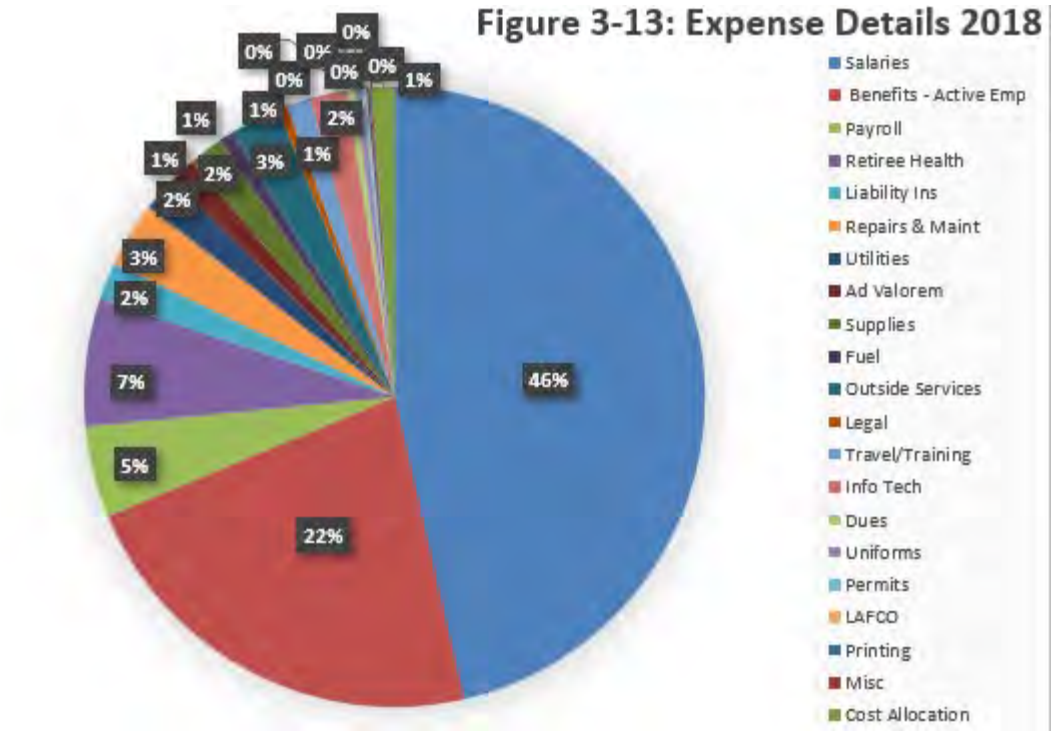
In FY 15/16, total expenses (including depreciation, interest expense, and net of pension expense adjustment) were almost $9 million which represents an 8.4 percent increase from the previous as shown in Table 3-14, above. Expenses associated with business operations and maintenance were the largest category, representing 48 percent of total expenses as shown in Figure 3-12. However, depreciation expenses did decline from the previous year.

Figure 3-12: Expenditures 2016 by Type



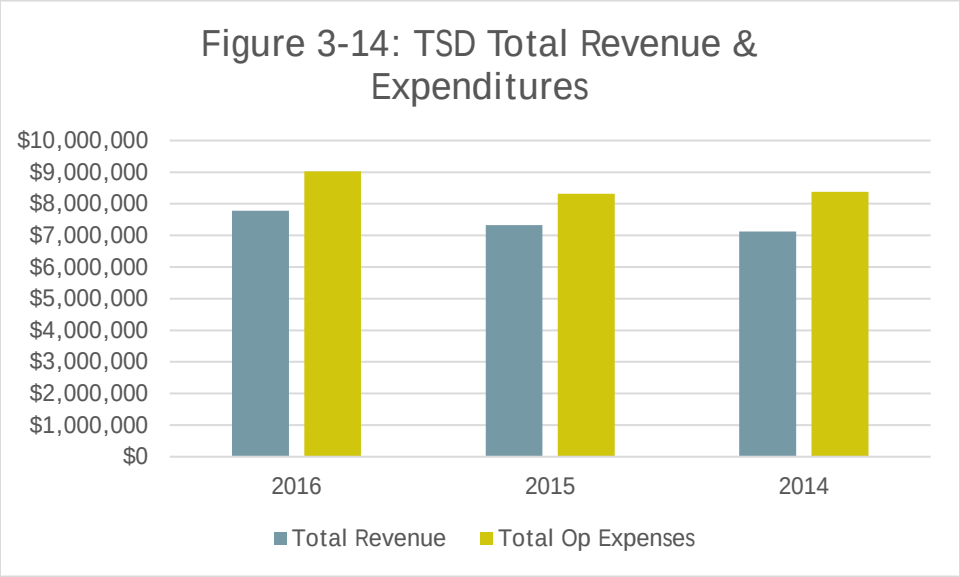
Source: TSD CAFR, 2017a

The District's annual budget provides a more detailed description of annual expenditures and for FY 2017/2018 the budget projects that 51 percent of expenditures are dedicated to salaries and encumbered payroll as shown in Figure 3-13 (next page). The budget notes that expenditures are projected to increase due to increased staffing and associated benefit costs, as well as higher retiree health costs (TSD, 2017a).



Data Source: TSD 2017c- Budget FY 17/18

A comparison of annual total revenue to total expenses, as provided in Figure 3-14 below, shows that annual expenses exceeded revenues in each of the three years studied (i.e. 2016, 2015, and 2014). Expenses associated with capital improvement projects contributed to the expenditure totals during these years and contributions from the capital fund, dedicated land and improvement fund, and connection fees were used to offset the difference. Capital improvements during this timeframe included projects such as vehicle replacements, pipeline rehabilitation, lift stations site improvements, and SCADA system upgrades. (Please see the section entitled "Capital Improvement Plan" on page 3-48 of this MSR for more information on capital improvements.) This indicates that having sufficient reserve funds is important to TSD to help it fund capital improvement projects and to help it weather the economically lean years. Please also see the discussion of rates presented on page 3-49 in this chapter. Per capita expenditures amounted to $521 per permanent resident in 2016. Average per acre expenditures amounted to $357 per acre in 2016.



Summary Scores Revenues, Expenditures, and Net Position

Table 3-15: Summary of Indicators Revenues, Expenditures, and Net Position		
Indicator	**Score**	**Notes**
Revenues exceed expenditures in 50% of studied fiscal years	⚠	Total revenue was less than the operating expenditures in each of the three study years as a direct result of system depreciation. Capital contributions were made and it is recognized that capital improvement projects are expensive and necessary.

		Many wastewater districts in California are in a similar situation.
Increases or decreases in net position	Δ	Changes to the Net Position are shown in Table 3-14 above, to be highly variable. However, the decline in Net Position of -$40,204 in FY2015 was predominately due to Period Adjustment per Implementation of GASB 68 as described in Note 14 of TSD's CAFR 2016. This situation is typical of many wastewater districts in California.
Key to score: √= Above average (compared to similar sewer districts) Δ= Average 0= Below average		

Capital Improvement Plan

The District lists upcoming capital improvement projects in a detailed 5-year timeframe within its annual budget. TSD's capital improvement plan (CIP) is shown in Table 3-16, below, and it includes approximately $0.9 million in capital expenditures for FY18. Notable capital expenditures projected for FY18 include $0.2 million in sewer improvements associated with the Railyard Project; $0.33 million in vehicle replacements; $80,000 in computer server and network upgrades' $80,000 in pump upgrades; and $75,000 in manhole repairs. A brief description of each capital project is also provided in TSD's budget, along with a detailed schedule of proposed vehicle and equipment replacements. Anticipated capital improvement projects are expected to be completed within the next five years (through year 2022) and include the following:

- Pipeline Rehabilitation
- Donner Creek Bypass System
- Town Paving Manhole Adjustment
- Railyard Improvements
- Easement Acquisitions
- Foxmead/River Park LS Upgrade
- (Data Source: TSD Budget, 2017c)

The capital expenditures in FY18 are estimated to cost approximately $0.9 million. Most capital expenditures are funded through TSD's Capital Budget in Fund 4 and Fund 5. Fund 4 is the "Capital Reserve Fund" and it is restricted for use only on projects that increase the capacity

of the sewer system. Revenue sources for this fund come from connection fees and interest earnings. Expenditures include capital sewer projects that increase capacity or improve existing pipelines with unconnected services. A memorandum outlining the transfer of funds from Fund 4 for capital projects is provided in the FY 2018 Budget. Fund 5 is the "Major Capital Improvements Reserve Fund" and it is a board designated fund for use on capital improvements. Money for Fund 5 is derived only from interest earnings and the transfer of any net revenues from the General Fund (TSD Budget, 2017c).

Significant vehicle and equipment replacement costs in FY18 include replacement of a 20-year-old dump truck; (two) ½ ton pickup trucks, (two) one-ton pickup trucks, and an off-road ATV suitable for use during peak snow conditions. Approximately 37% of the capital expenditures are for vehicle replacements (TSD Budget, 2017c).

Funds to support capital expenditures are received from several sources, including connection fees, interest earnings, and transfers from Fund 1 net operating revenues. As previously noted, TSD's operating revenues typically exceed expenditures and this exceedance can be attributed to capital expenditures. For example, in the FY 2018 budget, the District plans to transfer $0.45 million to Fund 5 (Major Capital Improvements Reserve Fund) to help cover capital expenditures. Additionally, $0.16 million will remain in Fund 1 (General) to ensure seven months of cash reserves are available at the beginning of the following fiscal year as defined in the District's Reserve Fund Policy (TSD, Budget, 2017c).

Table 3-16: TSD Capital Improvement Project List

TRUCKEE SANITARY DISTRICT						
CAPITAL BUDGET FOR FY 2018 & 5-YEAR IMPROVEMENT PLAN						
CAPITAL PROJECT	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**5 YEAR TOTAL**
Collection System Infrastructure Projects						
Town Paving Manhole Adjustment	$75,000	$75,000	$20,000	$20,000	$20,000	**$ 210,000**
Emergency Measures for Sub Glen/Hunt (Backup tanks or generators)	$50,000					**$ 50,000**
Lahontan Pump Upgrades	$80,000					**$ 80,000**
Railyard Related Improvements	$200,000					**$ 200,000**
Easement Acquisitions		$75,000		$75,000		**$ 150,000**
Donner Lake Sub Station Plumbing Replacement		$10,000		$10,000		**$ 20,000**
Emergency Measure Alder Creek		$80,000				**$ 80,000**
Foxmead/River Park LS Upgrade		$10,000	$250,000			**$ 260,000**
Manhole Rehabilitation		$50,000		$50,000		**$ 100,000**
Pipeline Rehabiliation		$150,000	$150,000	$150,000	$150,000	**$ 600,000**
Drywell Cathodic Protection Upgrade		$10,000				**$ 10,000**
Donner Lake Sub Station Electrical Upgrade		$30,000		$30,000		**$ 60,000**
Trout Creek Lift Station Upgrade		$60,000				**$ 60,000**
Donner Creek Bypass System			$100,000	$250,000	$250,000	**$ 600,000**
Flow Meter Upgrades (TDL, TC, A)			$15,000			**$ 15,000**
Telemetry Hardware Upgrade @ sites			$50,000	$50,000		**$ 100,000**
Converion of Telemetry phone lines to Radio				$60,000		**$ 60,000**
Extending Laterals to Committed Donner Lake Lots	$50,000				$50,000	**$ 100,000**
Collection System Infrastructure Projects Subtotal	$405,000	$550,000	$585,000	$745,000	$470,000	**$ 2,755,000**
Other Capital Projects						
Engineering						
Corporation Yard Overhead Door Replacement	$12,000	$12,000				**$ 24,000**
Admin Building Network Upgrade	$10,000					**$ 10,000**
Admin Campus Fiber Upgrade	$10,000					**$ 10,000**
Server Room Upgrade	$20,000					**$ 20,000**
Bypass Hose Replacement (6 inch)	$50,000					**$ 50,000**
Virtual Server Upgrade-Admin Building	$40,000					**$ 40,000**
TRWC Wetland Project	$7,000					**$ 7,000**
3rd Fuel Storage Tank Admin Complex		$80,000				**$ 80,000**
Joerger Drive Paving		$50,000				**$ 50,000**
Vehicle Storage Expansion		$50,000	$350,000			**$ 400,000**
Corporation Yard Slurry Seal			$50,000			**$ 50,000**
Administration Building Boiler Replacement			$30,000			**$ 30,000**
Administration Building Expansion			$100,000			**$ 100,000**
Hand Held/Truck Radio Upgrade				$100,000		**$ 100,000**
SCADA Software Upgrade				$40,000		**$ 40,000**
Phone System Replacement					$100,000	**$ 100,000**
Aerial Photography					$25,000	**$ 25,000**
Vehicle and Equipment						**$ -**
Vehicle & Equipment Replacement (see schedule)	$336,000	$143,000	$199,439	$592,432	$329,712	**$ 1,600,583**
Administration						**$ -**
Future Equipment Replacement - Administration	$15,000	$15,000	$15,000	$15,000	$15,000	**$ 75,000**
Electronic Document Management System		$42,000				**$ 42,000**
Customer Information/Accounting System Project			$21,000			**$ 21,000**
Other Capital Projects Subtotal	$500,000	$392,000	$765,439	$747,432	$469,712	**$ 2,874,583**
TOTAL CAPITAL EXPENDITURES	**$905,000**	**$942,000**	**$1,350,439**	**$1,492,432**	**$939,712**	**$ 5,629,583**
EXPENDITURES BY FUNDING SOURCE						
Fund 4 - Capital Reserves (42% of Collection System Infrastructure Projects to Future Service)	$170,100	$199,500	$245,700	$310,400	$226,400	**$ 1,152,100**
Fund 5 - Capital Improvements (58% of Collection System Infrastructure Projects to Current Service)	$734,900	$742,500	$1,104,700	$1,182,000	$713,300	**$ 4,477,400**
FUND SOURCE ANNUAL TOTALS	**$905,000**	**$942,000**	**$1,350,400**	**$1,492,400**	**$939,700**	**$ 5,629,500**

Reserves

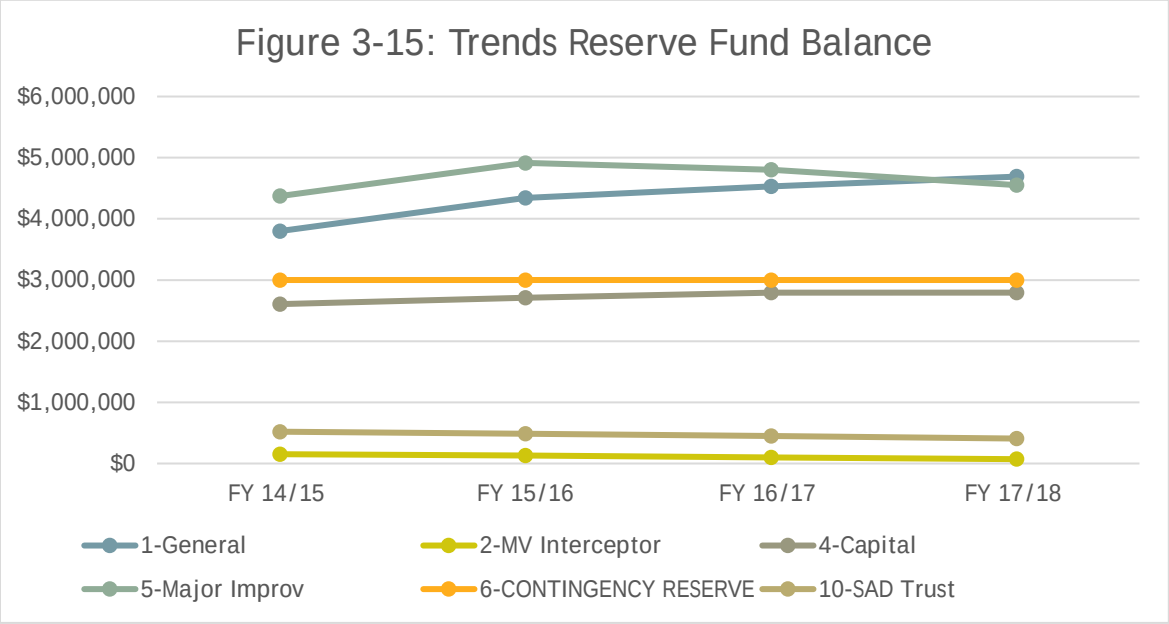
In California, many independent special districts have accumulated reserves. There are no standards guiding the size and use of reserve funds. Reserve funds are useful for TSD because their contribution towards major expansion projects reduces the potential need to accumulate a high debt load. TSD's Reserve and investment policies are posted on their website. The District estimates it will start FY18 with approximately $15.5 million in reserves. These reserves are held in six funds as shown in Table 3-17, below.

Table 3-17: TSD Reserve Funds

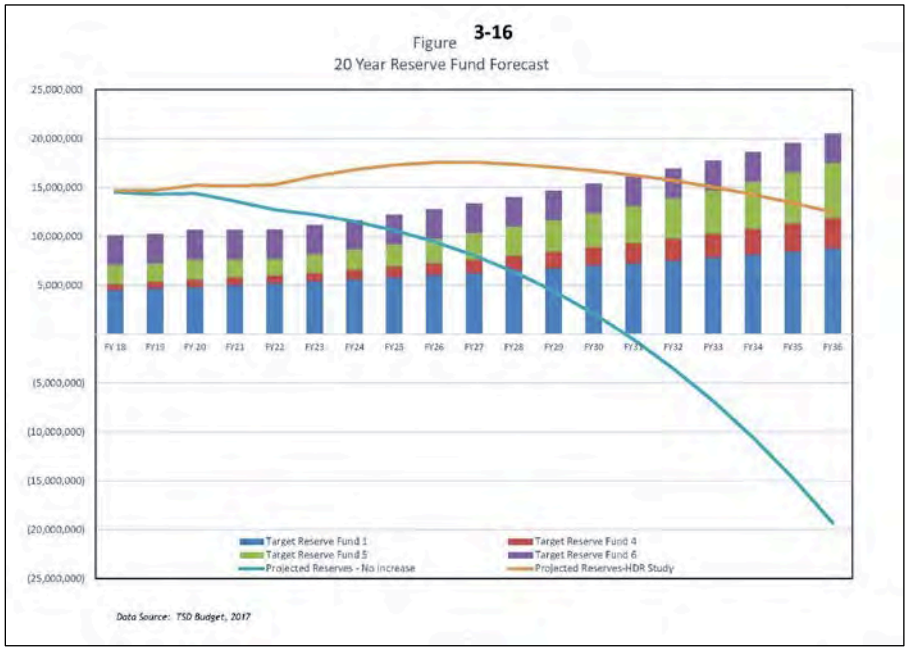
Name of Reserve Fund	Description of Reserve Fund	$ Amount in Fund in 17/18 per Budget
1-General	UNRESTRICTED FUND: Monies in this fund are used This fund shall be maintained so that the cash equivalent for the day-to-day operations of the District. Source of funds include Operating revenue, property taxes, and interest earnings	$4,690,333
2-Martis Valley Interceptor	RESTRICTED FUND: This reserve ensures that Martis Valley Interceptor fees collected are used to provide adequate maintenance and reconstruction of the section of pipeline called Martis Valley Interceptor.	$71,000
4-Capital Reserve	RESTRICTED FUNDS: Monies in this fund are restricted for use on projects that increase the capacity of the sewer system. Connection Fees and interest earnings support this fund.	$2,791,290
5-Major Improvements Reserve	BOARD DESIGNATED FUND: This reserve was established to segregate excess administrative, maintenance, and operation funds to be used for the construction and acquisition of capital assets.	$4,551,225
6-Contingency Reserve	BOARD DESIGNATED FUND: This fund is to maintain a minimum emergency reserve balance to support unforeseen or emergency events.	$3,000,000
10-Sad 5 Trust	RESTRICTED FUND: This fund is required to segregate the assessments collected for retirement of Sewer Assessment District 5 bonds. These funds were transferred from Nevada County to the District in 1990.	$408,000
Summary: ALL FUNDS		***$15,511,848***
		Data Source: TSD, Budget, 2017c

Since FY 14/15 reserve fund "1-General" had a 23 percent increase and as shown in Figure 3-15, below. Both fund "4-Capital" and fund "5-Major Improvement" saw slight increases since

FY 14/15. Fund "5-Major Improvement" exhibited the highest variability. Fund "6-Contingency Reserve" remained steady at $3 million. Two funds declined in value over the past few years with reserve fund "2-Martis Valley Interceptor" at a 50 percent decrease and Fund "10-SAD Trust" at a 21 percent decrease.



TSD prepared a 20-year forecast indicating that reserve funds will grow over time, as shown in Figure 3-16 below.



Investments are managed consistent with the Board's investment policy which is more conservative than that set by state statute. The investment policy allows the District's treasurer to invest in U.S. Treasury Securities and the Local Agency Investment Fund (LAIF). The District keeps a significant portion of its cash on deposit with LAIF, which is managed by the California State Treasurer's Office. These investments are included in cash as cash equivalents and are stated at fair value. Comparing the size of a district's reserve/investment fund to their annual gross revenue is a common financial metric. Figure 3-15 (previous page) indicates that total reserves in FY 15/16 were $15,585,000. Table 3-14 shows that in FY 15/16, gross revenue was $7,775,863. The comparative calculation shows that total investments are equivalent to 2.0 of annual gross revenue.

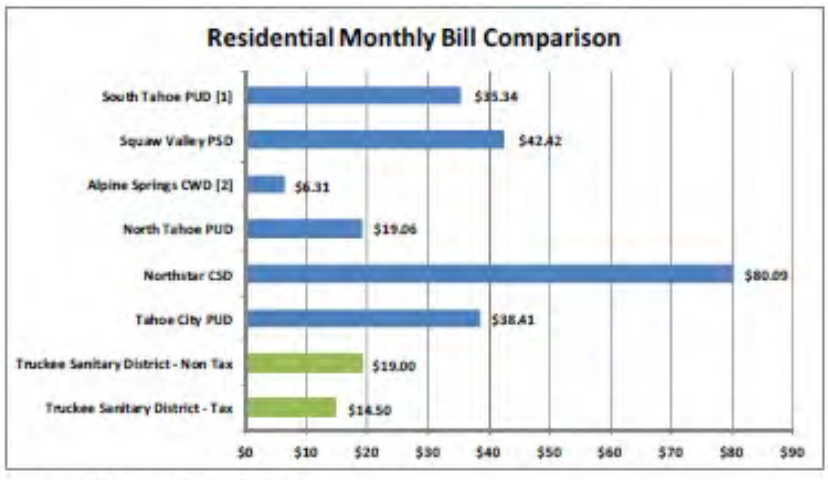
Outstanding Debts and Liabilities

The District is debt-free as reported in its CAFR for FY 15/16 and its budget for FY 17/18. No debt-related activities are reported in its financial statements. The District does not have a current bond rating since it has not needed to secure public financing.

Rates

TSD charges fees for wastewater collection and conveyance service. Rates are enacted through the District Code Book which was established via Ordinance 1-2017 and was effective as of June 19, 2017. The current rates were established at a public meeting on April 20, 2017. Data used to support the new rates were based on a 2014-2016 sewer rate study by HDR Engineering, Inc. This study considered TSD's long-term financial needs and its ability to fund future system replacements while maintaining adequate reserves to support ongoing operations and maintenance of the system. User fees are charged on a fixed rate basis. As part of HDR's study, they compared the typical average monthly fees charged by several sanitation agencies in the Tahoe region as shown in Figure 3-17 (left). HDR found that TSD's rate structure is very comparable to the rate structures of other local (surrounding) utilities. Local sewer rates vary significantly due to a variety of reasons. HDR's study indicates that one important reason "is the level of property tax revenues received by each utility, and how those funds are used by the utility for

Figure 3-17: Data Source, HDR 2016



[1] - System Includes Collection & Treatment
[2] - Rate per unit. Units based on the number of bathrooms, kitchen sinks, and garbage disposals

operating and capital needs. The ability to offset operating costs with property tax revenue can dramatically impact the level of overall rates" (HDR, 2016).

Prior to the April 20, 2017 hearing and in accordance with Proposition 218, TSD sent a notice of public hearing, with information regarding the proposed User Fees, to the owners of every parcel of property subject to the proposed User Fees. Twenty (20) written protests were received in response to the proposed rates considered on April 20, 2017. These twenty protests represent 0.11 percent of the 18,078 total parcels within the District boundaries. The TSD Board of Director's considered the written protests. However, the number of written protests was much less than a majority of the parcels subject to the User Fees. After due consideration, the Board adopted Ordinance 1-2017.

The majority of District customers are billed annually on their property tax roll. Tax exempt customers are billed twice per year, in January and July. Two fee structures exist. A "tax rate" structure for parcels that the District receives a portion of property tax monies from, and a "no-tax" rate structure for parcels that the District receives no property tax monies from. Since the District bills on a flat rate, vacation homeowners are billed the same amount as a full-time resident/owner. Both types of property owners have access to the exact same facilities and services.

The "tax rate" structure shown in Table 3-17, below, applies to the Donner Lake, downtown Truckee, Gateway, Sierra Meadows, Tahoe Donner, Armstrong, Pine Forest, and Gray's Crossing neighborhoods.

Tax Rate Schedule

The tax rate schedule applies to properties in the following subdivisions: Donner Lake, Downtown, Gateway, Sierra Meadows, Tahoe Donner, Armstrong, Pine Forest, Gray's Crossing.

RESIDENTIAL FEE STRUCTURE	OLD RATES	MAXIMUM RATE INCREASES				
Monthly User Fee Charge Per Unit		7/1/2017	7/1/2018	7/1/2019	7/1/2020	7/1/2021
Residential *Per Living Unit*	$14.50	$15.66	$16.91	$18.26	$19.72	$21.30
COMMERCIAL FEE STRUCTURE	OLD RATES	MAXIMUM RATE INCREASES				
Monthly User Fee Charge Per Unit		7/1/2017	7/1/2018	7/1/2019	7/1/2020	7/1/2021
Hotel/Motel w/o kitchen *Per Living Unit*	$3.92	$4.23	$4.57	$4.94	$5.34	$5.77
Hotel/Motel w/kitchen *Per Living Unit*	$5.08	$5.49	$5.93	$6.40	$6.91	$7.46
Campsite w/sewer *# of Sites*	$3.63	$3.92	$4.23	$4.57	$4.94	$5.34
Campsite w/o sewer *# of Sites*	$2.76	$2.98	$3.22	$3.48	$3.76	$4.06
Other Businesses *# of Fixture Units*	$0.87	$0.94	$1.02	$1.10	$1.19	$1.29
Markets *# of Fixture Units*	$0.87	$0.94	$1.02	$1.10	$1.19	$1.29
Laundries *# of 10 lb Machines*	$4.64	$5.01	$5.41	$5.84	$6.31	$6.81
# of 20-50 lb Machines	$9.28	$10.02	$10.82	$11.69	$12.63	$13.64
Restaurants/Bars *# of Inside Seats*	$0.87	$0.94	$1.02	$1.10	$1.19	$1.29
# of Outside Seats	$0.44	$0.48	$0.52	$0.56	$0.60	$0.65
# of Banquet Seats	$0.31	$0.33	$0.36	$0.39	$0.42	$0.45
Theatres *# of Seats*	$0.15	$0.16	$0.17	$0.18	$0.19	$0.21
Churches *# of Seats*	$0.15	$0.16	$0.17	$0.18	$0.19	$0.21
Barber Shops *# of Service Chairs*	$4.06	$4.38	$4.73	$5.11	$5.52	$5.96
Beauty Shops *# of Service Chairs*	$7.25	$7.83	$8.46	$9.14	$9.87	$10.66
Temporary Discharge *Per 1,000 Gallons*	$2.07	$2.24	$2.42	$2.61	$2.82	$3.05
Public Schools *Per 1,000 Gallons*	$2.07	$2.24	$2.42	$2.61	$2.82	$3.05
Other	$0.23	$0.25	$0.27	$0.29	$0.31	$0.33
Unclassified Service *# of Units*	$0.44	$0.48	$0.52	$0.56	$0.60	$0.65

Table 3-17: Tax Rate ***Data Source: (TSD, 2017b)***

The "**no-**tax rate" structure shown in Table 3-18, below, applies to the Cambridge Estates, Donner Crest, Euer Valley Rd., Glenshire/Devonshire, Lahontan, Martis Camp, Old Greenwood, The Meadows, and Schaffer's Mill neighborhoods.

No-Tax Rate Schedule[1]

The no-tax rate schedule applies to properties in the following subdivisions: Cambridge Estates, Donner Crest, Euer Valley Rd, Glenshire/Devonshire, Lahontan, Martis Camp, Old Greenwood, The Meadows, Schaffer's Mill

RESIDENTIAL FEE STRUCTURE		MAXIMUM RATE INCREASES				
Monthly User Fee Charge Per Unit	OLD	7/1/2017	7/1/2018	7/1/2019	7/1/2020	7/1/2021
Residential *Per Living Unit*	$19.00	$20.52	$22.16	$23.93	$25.85	$27.92
COMMERCIAL FEE STRUCTURE		MAXIMUM RATE INCREASES				
Monthly User Fee Charge Per Unit	OLD	7/1/2017	7/1/2018	7/1/2019	7/1/2020	7/1/2021
Hotel/Motel w/o kitchen *Per Living Unit*	$5.14	$5.55	$6.00	$6.47	$6.99	$7.55
Hotel/Motel w/kitchen *Per Living Unit*	$6.65	$7.18	$7.76	$8.38	$9.05	$9.77
Campsite w/sewer *# of Sites*	$4.76	$5.14	$5.55	$6.00	$6.48	$6.99
Campsite w/o sewer *# of Sites*	$3.62	$3.91	$4.22	$4.56	$4.92	$5.32
Other Businesses *# of Fixture Units*	$1.14	$1.23	$1.33	$1.44	$1.55	$1.68
Markets *# of Fixture Units*	$1.14	$1.23	$1.33	$1.44	$1.55	$1.68
Laundries *# of 10 lb Machines*	$6.08	$6.57	$7.09	$7.66	$8.27	$8.93
# of 20-50 lb Machines	$12.16	$13.13	$14.18	$15.32	$16.54	$17.87
Restaurants/Bars *# of Inside Seats*	$1.14	$1.23	$1.33	$1.44	$1.55	$1.68
# of Outside Seats	$0.58	$0.63	$0.68	$0.73	$0.79	$0.85
# of Banquet Seats	$0.41	$0.44	$0.48	$0.52	$0.56	$0.60
Theatres *# of Seats*	$0.20	$0.22	$0.23	$0.25	$0.27	$0.29
Churches *# of Seats*	$0.20	$0.22	$0.23	$0.25	$0.27	$0.29
Barber Shops *# of Service Chairs*	$5.32	$5.75	$6.21	$6.70	$7.24	$7.82
Beauty Shops *# of Service Chairs*	$9.50	$10.26	$11.08	$11.97	$12.92	$13.96
Temporary Discharge *Per 1,000 Gallons*	$2.71	$2.93	$3.16	$3.41	$3.69	$3.98
Public Schools *Per 1,000 Gallons*	$2.71	$2.93	$3.16	$3.41	$3.69	$3.98
Other	$0.30	$0.32	$0.35	$0.38	$0.41	$0.44
Unclassified Service *# of Units*	$0.59	$0.64	$0.69	$0.74	$0.80	$0.87

Table 3-18: No-Tax Rate Schedule ***Data Source: (TSD, 2017b)***

In addition to monthly fees, connection charges may apply and the connection charge is based upon an asset replacement which determines the amount of each user's share of the cost of replacing the District's capital facilities. Connection fee revenue is deposited into the District's Capital Reserve Fund.

Table 3- 19: Summary of Rate Indicators

TSD Rate Indicator	Score	Notes
Rates were adopted by the Board of Directors	√	TSD Board of Directors adopted Ordinance 1-2017
Rates are consistent with requirements of the State Water Resources Control Board and the process for adopting rates are consistent with Proposition 218	√	Ordinance 1-2017 and the minutes from the April 20, 2017 public meeting describes consistency with state laws.
Rates are readily available to constituents	√	Rates are transparently displayed in the District Code Book on the District's website at: http://www.truckeesan.org/pix/31497562790.pdf

Key to score:
√= Above average (compared to similar sewer districts)
△= Average
0= Below average

Joint Power Authorities

Effective January 1, 2017, Government Code §6503.6 and §6503.8 require LAFCo to be a repository for all Joint Powers Authority Agreements (JPA) within a county that relate to the provision of municipal services. TSD participates in one JPA with the California Sanitation Risk Management Authority to participate in a Workers' Compensation Insurance Program. During the years ended June 30, 2016 and 2015, the District paid $57,911 and $41,753, respectively, for insurance coverage under this agreement. Additional information about the California Sanitation Risk Management Authority is available on its website at: *http://www.csrma.org*.

Cost Avoidance

This section highlights cost avoidance practices given necessary service requirements and expectations. Ideally, proposed methods to reduce costs would not adversely affect service levels. In general, wastewater systems have a fixed cost associated with infrastructure, operations and maintenance and has a variable cost related to demand. Given these constraints, TSD pursues an array of cost avoidance techniques that each contributes incrementally towards keeping costs at a reasonable level. Specifically, TSD carefully utilizes its budgeting processes to serves as one means to avoid unnecessary costs. Additionally, TSD's accounting policies provide a consistent treatment of expenditures and review thereof. Also, TSD participates in one joint powers authorities as listed above to reduce costs for worker's compensation insurance.

Regular maintenance of infrastructure is a key component of avoiding unnecessary costs. TSD works to meet all federal, State and local regulations, eliminate public exposure to wastewater, and assess and upgrade preventive maintenance programs. These efforts are notable.

TSD's uses solar panels to meet its electricity needs at their administrative and operations facility on Joerger Drive. Use of renewable energy helps TSD reduce costs associated with utilities and electricity.

Employee salaries and benefits represent a significant portion of TSD's costs. The provision of wastewater services and the associated maintenance and physical improvements are labor intensive activities. Additionally, the cost of living in Truckee is significant. TSD works to reduce costs associated with labor by comparing its salary rates by staff classification with comparable districts, as part of its human resource duties, by participating in CALPERS and the JPA. When employees retire, there are costs associated with re-filling these positions and TSD works to ensure continuity and training.

3.6: OPPORTUNITIES FOR SHARED FACILITIES

Shared Facilities & Regional Cooperation

LAFCos describe shared facilities and regional cooperation in municipal service reviews because it is thought that a local government agency's ability to partner with another entity, public or private, in order to accomplish the same level of public service, while splitting the costs to deliver the service will provide an efficiency of service. Ideally, a sharing or cooperative arrangement would yield the same public service at less cost, and with less resources required from a community to pay for those results. Another aim of LAFCo is to avoid the duplication of service. This issue is relevant in the Truckee area because six local government agencies have overlapping boundaries: Town of Truckee, Truckee-Donner Public Utility District, Truckee Fire Protection District, Truckee Donner Rec and Park District, Tahoe-Truckee Sanitation Agency, and Truckee Sanitary District. Additionally, the Northstar Community Services District is located nearby.

Sanitation districts in the Truckee region are shown in Figure 1-1. The nearest wastewater collection provider is Northstar CSD located directly to the south of and adjacent to TSD's boundaries. The Donner Summit PUD is located to the west and it is separated from TSD by open space. TSD has been operating independently from these two districts since its formation in 1906. However, TSD does have an agreement with the Trimont Developers and Northstar CSD to convey Northstar's wastewater through TSD infrastructure. Other than Northstar CSD, TSD does not currently jointly own or share facilities with other agencies (TSD, 2017; Nevada LAFCo, 2013). The financial, administrative, and technical feasibility of connecting TSD to either the Northstar CSD or the Donner Summit PUD collection systems has not been studied. However, due to topography, the location of wastewater collection agencies, and the manner in which wastewater collection systems are designed, sharing facilities such as lift stations and wastewater collection infrastructure with Donner Summit PUD might face several hurdles. It is possible that additional sharing of facilities (such as office space, corporation yards and specialized equipment) with Northstar CSD may be workable in the future, but this would need further evaluation.

The 2013 Sphere of Influence Update acknowledged that opportunities to share wastewater infrastructure between TSD and T-TSA are limited due to the distinct functions of the District and the Agency. However, the 2013 Update recommended that the T-TSA and its member agencies (such as TSD) explore opportunities to share personnel, facilities, and other cost-sharing arrangements including sharing corporation yards, specialized equipment, and office space. This recommendation from the 2013 SOI Update remains relevant. There may be future opportunities for TSD to share facilities with the Town of Truckee and the Truckee Donner PUD, such as corporation yards and office space. It should be noted that TSD has made significant progress in addressing the recommendation from LAFCo's 2013 SOI Update in that the District

is currently involved with many collaborative activities with its neighboring government agencies as listed below:

- Coordinates with T-TSA for sewage disposal
- Leases property to the Truckee Donner Parks and Recreation Department for soccer and baseball fields.
- Supports the Legacy Trail which is pedestrian and bike trail for the community partially located on District lands.
- Complies with its agreement with the Northstar Community Services District to collect and transport wastewater generated in the NCSD boundaries to the T-TSA Water Reclamation Plant, provided TSD has available capacity within the disposal capacity limits of the T-TSA facility.
- Supports the Truckee River Watershed Council through participation in wetland restoration on District property
- Cost sharing of GIS Aerial Data Acquisition with TDPUD and associated utilities.
- Confined Space training facility sharing with Truckee Fire Protection District and neighboring utilities.
- CWEA training at TSD facility included Electrical Competency training, and Confined Space training.
- Participates in an emergency contingency joint list of local Districts vehicle/equipment that allows access during emergency situations.
- Allows use of the TSD Board room by the local Truckee Fire Protection District for its Board Meetings.
- Participates in a monthly underground coordination meeting of which TSD is a member along with SWGas, ATT, Caltrans, Town Truckee, Suddenlink, TDPUD water and electric. This meeting discussed projects proposed in the area so that dig schedules can be coordinated. Meeting location is TDPUD offices.

TSD staff feels that no jurisdictional reorganizations are needed at this time because the current boundary arrangements work to benefit recipients of TSD's services.

3.7: GOVERNMENT STRUCTURE & ACCOUNTABILITY

The TSD is governed by a 5-member Board of Directors, elected to staggered terms at-large from within the District boundaries in the general elections held in November of even-numbered years. Regularly scheduled meetings are held on the third Thursday of the month at 6:00 PM. Meetings are located at the Administrative Building, at 12304 Joerger Drive, Truckee, California.

The current Board members are as follows:

Name	Role	Term
Dennis Anderson	Board Member	Expires Dec. 2020
Jerry Gilmore	Board President	Expires Dec. 2018
Brian Kent Smart	Board VP & Finance Committee	Expires Dec. 2020
Ron Sweet	Board Member & Finance Committee	Expires Dec. 2018
Nelson Van Gundy	Board Member	Expires Dec. 2018

All meetings are publicly posted at least one month prior to Board meetings. Agendas and board packet information are available to the public at the TSD website www.truckeesan.org, one week before the meeting. All meetings are open to the public and the District operates in accordance with the Brown Act (Government Code §§ 54950-54926). It is rare to find public agencies of any kind providing entire board packet information one week in advance to the public prior to board meetings. This transparency should be commended.

The agenda for each Board meeting includes a public comment period for matters not on the agenda. Agendas are distributed via the District's website and email. The media is notified via e-mail. The local newspaper, Sierra Sun, also publishes meeting notices. The District's website (www.truckeesan.org) is a communication vehicle for District meeting agendas, meeting minutes, and information on the District's services and programs. The District legal counsel is a contracted position with the Law Offices of Meyers Nave. For purposes of this MSR, there are no known noncompliance issues with the District and its representatives in relation to the requirements of the Brown Act, the Political Reform Act, and similar laws.

CONTACT INFORMATION:

Blake Tresan, PE
General Manager
12304 Joerger Drive,
Truckee, CA 96161
BTresan@truckeesan.org

Management Efficiencies

The TSD operates under the direction of the elected Board of Directors. The General Manager reports to the Board of Directors and is responsible for directing District operations. The General Manager's job is to plan, organize, direct and review the overall activities and operations of the District; serve as the District Treasurer, Secretary, and Chief Engineer; provides policy guidance and program evaluation to the Board and management staff; ensure that all regulatory and contractual requirements are met; represent the District locally, regionally and at the state and federal levels; and to ensure the best interests of the District are met.

There are 39 employees of the District performing engineering, maintenance, and administrative functions as shown in the organization chart depicted in Figure 3-18 (page 3-63). The District's most recent employee handbook was adopted in September 2002. Of those 39 employees, eleven work within Administration/Finance, 19 are with Operations & Maintenance,

while the remaining nine work with Engineering and Inspections. TSD also contracts with Wiley, Price & Radulovich for a labor attorney. Refer to Table 3- 20, Staffing Plan, below, for details.

TABLE 3-20

TRUCKEE SANITARY DISTRICT
STAFFING PLAN - FY 2018

	FULL-TIME EQUIVALENT						
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	* Projected FY 2017	Budget FY 2018
DEPARTMENT							
1000 - Operations & Maintenance	15	14.56	15.66	15.48	14.64	17.00	17.36
1300 - Building & Grounds	1	1	1	1	1	1	1
2000 - Lift Stations	3	3	2.67	2.58	3	3	3
4000 - Engineering	7	6.85	6.34	6.09	7.25	6.00	6.92
5000 - Equipment Maintenance	2	1.83	1	1	1	1	1
6000 - Administration	9	9	8.92	9.66	10.25	7	7
6500 - Finance						4	4
TOTAL FTE	37	36.24	35.59	35.81	37.14	39.00	40.29

* During FY 2017 TSD re-organized the reporting structure of positions in Engineering & Administration.
For this table, the new reporting structure is reported as if it had been in effect for the entire 2017 fiscal year.

During FY 2017
2 Admin Tech 2 FTE were transferred from 4000-Engineering to 6000-Administration (eff. 1/25/17)

Budget FY 2018
Engr includes Admin Spec hired Feb 2018, Assoc Engr hired Mar 2018, summer intern (.62 FTE total)
Operations includes 1 Retiree mid July, 2 Temp summer CSMI, and assumes 1 hired full time (1.33 FTE total)

Customers of TSD can call the general number for comments or complaints regarding wastewater services. Any customer calls requiring follow-up by TSD field personnel are tracked in TSD's computer maintenance management system. There were 38 inquiries in 2015 and 34 in 2016, all of which were resolved or acted upon (TSD, 2017).

The TSD has not updated the Wastewater Master Plan since 1995, however the District continues to keep its Capital Improvement Plan, Sewer System Management Plan, and the Over Flow Emergency Response Plan up-to-date. The Sewer System Management Plan provides the information normally found in a Wastewater Master Plan.

Awards

The Truckee Sanitary District is eligible for multiple awards from the California Water Environment Association (CWEA), the California Sanitation Risk Management Authority (CSRMA), and the California Association of Sanitation Agencies (CASA). The CWEA is a California nonprofit public benefit corporation and is dedicated to the educational development of its members, who are wastewater professionals. The CSRMA provides risk management services and coverages to its members, while the CASA is a professional organization to represent all of the

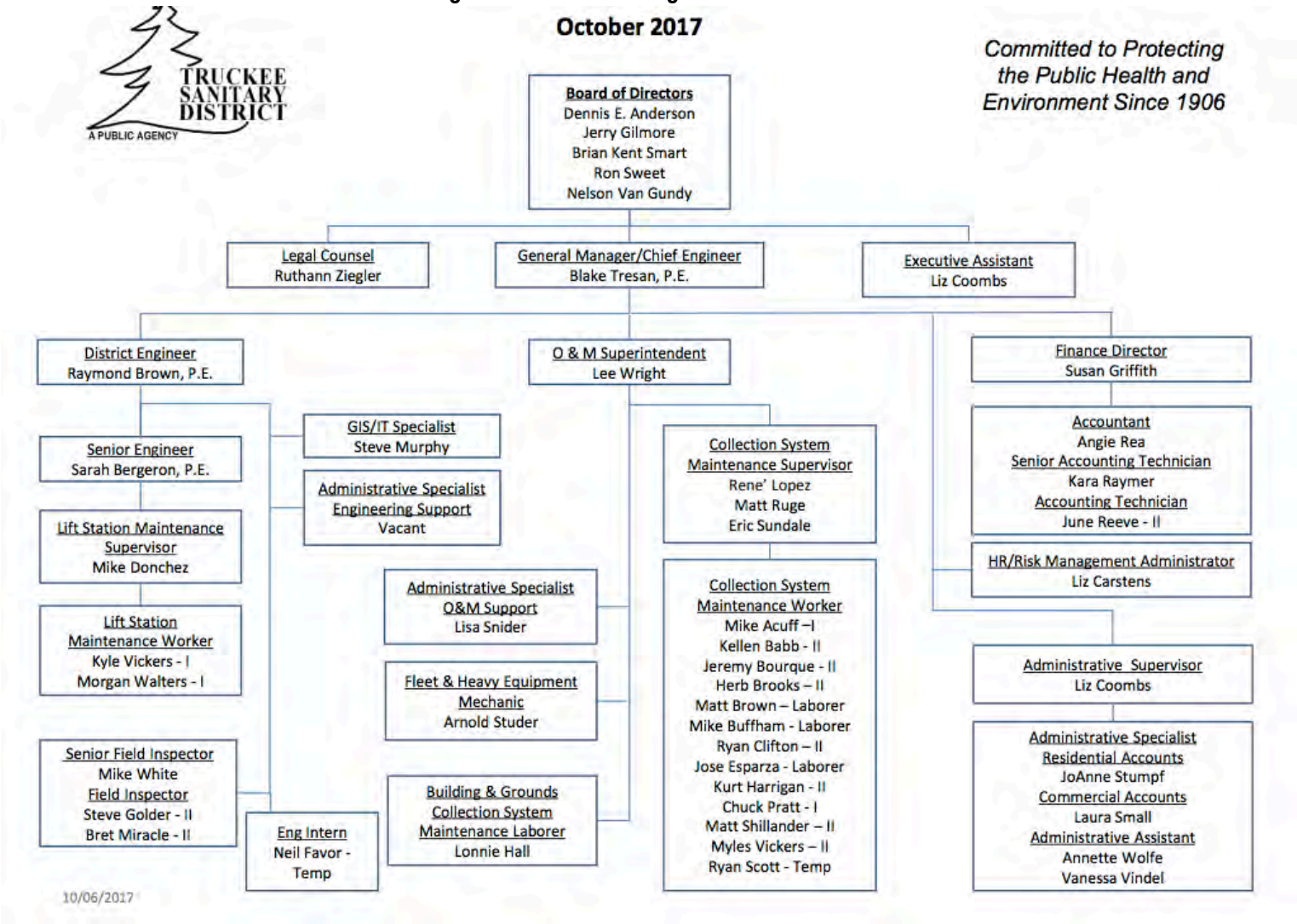
state's sanitary districts (CWEA, 2017; CASA, 2017; CSRMA, 2017). Table 3-21 shows the awards won by the Truckee Sanitary District from the CWEA, CASA, and CSRMA from 2016-2006.

Table 3-21: TSD Awards 2017 to 2006

Year	Awards	Award Recipient
2017	CWEA Sierra Section Collection System of the Year	TSD
2016	CWEA Sierra Section Collection System of the Year	TSD
2016	CWEA Sierra Section Safety Award	TSD
2014	CWEA Sierra Section Best Collection System, Public Education Person	Ryan Clifton
2013	CWEA Collection System of the Year Award (3rd Place)	TSD
2013	CWEA Sierra Section Best Collection System, Best Supervisor	Gordon Dicey
2011	CWEA Sierra Section Collection System Worker of the Year Award	Herb Brooks
2011	California Sanitation Risk Management Authority (CSRMA) Workers Compensation Excellence Award for the Medium Agency Category	TSD
2010	California Association of Sanitation Agencies (CASA) Outstanding Capital Project Award for Donner Lake Lift Station Upgrades	TSD
2008	CWEA "BEST of the BEST" Collection System of the Year Award (Medium Size Category 250-500 miles of pipe)	TSD
2008	CWEA Sierra Section Collection System of the Year Award (Medium Size Category 250-500 miles of pipe)	TSD
2006	CASA Organization Innovation Award for the Regional Safety Training Facility	TSD

Source: TSD, 2017

Figure 3-18: TSD Organizational Chart



3.8: LAFCO POLICIES AFFECTING SERVICE DELIVERY

Local Agency Formation Commissions are charged with applying the policies and provisions of the Cortese-Knox-Hertzberg Act regarding annexations, incorporations, reorganizations, and other changes of government. The Cortese-Knox-Hertzberg (CKH) Act requires LAFCo to exercise its authority to ensure that affected populations receive adequate, efficient and effective governmental services. Nevada LAFCo implements sixteen standards which mirror the requirements of the CKH Act. Under policies related to annexations, Nevada LAFCo must consider factors for evaluating the capability of an annexing agency to provide the required service, such as wastewater conveyance in the case of TSD. These factors may affect the decision to approve a particular annexation but would not affect delivery. There are no aspects of wastewater service required to be addressed in this report by LAFCo policies that would affect delivery of services (Nevada LAFCo, 2015).

3.9: SUMMARY OF MSR DETERMINATIONS

Based on the information included in this report, the following written determinations involve the service factors the Commission must consider as part of a municipal service review. The Commission's final MSR determination will be part of a Resolution which the Commission formally adopts during a public meeting.

Growth and Population Projections

1. The Truckee Sanitary District (TSD) provides wastewater conveyance services to approximately 14,688 equivalent dwelling units (EDUs), including commercial facilities, as well as approximately 2,150 EDU's from the Northstar Community Service District (NCSD).

2. The most recent Sphere of Influence (SOI) update in 2013 identified near-term and long-term annexation areas, generally encompassing the Town of Truckee boundaries and SOI. TSD's 39 square mile service area includes the Town of Truckee and neighborhoods in unincorporated areas of Placer and Nevada Counties.

3. Between the years 2015 and 2040, an additional 2,336 persons are expected to reside within TSD's boundaries as determined by the Slow Growth Rate shown in Table 3-6. This represents an overall 13 percent increase in projected future population.

4. Since the Town of Truckee General Plan did not foresee the economic downturn of 2007-09, its population projections differ from the current reality; with the population decreasing between 2010 and 2015. This suggests that the Town will have enough land and infrastructure to accommodate future population growth past 2025 and that TSD has sufficient capacity to keep up with the Town's growth.

Disadvantaged Unincorporated Communities

5. According to the U.S. Census, the median household income (MHI) for the State was $63,783 in 2016 (US Census, ACS, 2012-2016). This yields a disadvantaged unincorporated community (DUC) threshold MHI of less than $51,026 (80 percent of the State MHI). As of 2016, the median household income (MHI) in the Town of Truckee was estimated to be $79,971 (per Appendix 2). This is significantly higher than the DUC threshold MHI.

6. No unincorporated areas were identified as DUC's within the TSD's boundaries or SOI.

7. Within TSD's Area of Interest, one block group in Placer County was identified with an average median income of $39,583, which meets the financial threshold to be classified as a DUC. No public safety issues have been identified in this area and it is not located within the TSD Near or Long Term SOI or existing boundaries.

Present and Planned Capacity of Public Facilities

8. The Truckee Sanitary District (TSD) provides wastewater conveyance services to approximately 14,688 equivalent dwelling units (EDUs), including commercial facilities, as well as approximately 2,150 EDU's from the Northstar Community Service District (NCSD).

9. The facilities and infrastructure for the TSD are in good condition, due to TSD's preventative maintenance program, with 24-hour monitoring, up-to-date mapping, CCTV inspections of sewer lines, sewer line cleanings, and prioritizing rehabilitation. TSD repairs and replaces infrastructure on a regular basis.

10. TSD conveys wastewater collected through its system to the T-TSA Water Reclamation Plant. Monthly flows to the T-TSA in 2016 averaged 1.61 MGD with a peak monthly average of 2.03 MGD in March. The T-TSA has a capacity of 9.6 MGD as of 2008.

11. TSD Hydraulic Modeling predicts future demand by 2025 to be 6.6 MGD assuming a build-out of 28,993 EDU's by 2025. This is a 72 percent increase in EDU's from 2017. The Slow Growth Scenario estimates a population of 18,099 persons by 2025, indicating TSD should have adequate infrastructure to meet future population growth.

12. The TSD's innovative use of renewable energy to offset the electricity cost associated with the sewer system demonstrates that it has already implemented several management practices which highlights the ongoing work at the local level to save energy and protect the environment by reducing greenhouse gas emissions. It is recommended that TSD continue to implement best management practices that align with sustainability aims.

Financial Ability of District to Provide Services

13. TSD utilizes both property tax and sewer collection fees to finance services. All fees and charges are based on a comprehensive rate study.
14. On an annual basis, the TSD adopts a comprehensive budget and receives an audited financial statement. Summary financial information presented in a standard format and simple language.
15. TSD has several adopted management and budget policies contained in its Annual Financial Statements and its Purchasing Policy which addresses budget preparation, expense authorization, and other accounting items.
16. TSD has published its policy for reserve funds, including the size and purpose of reserves and how they are invested on the District website.
17. Compensation reports and financial transaction reports that are required to be submitted to the State Controller's Office are submitted and are also posted to the District website.
18. In FY 15/16, total annual revenue was $7.8 million and total annual expense was $9 million. Total revenue was less than the operating expenditures in each of the three study years. The difference between revenue and operating expenditures was partially due to the use of capital contributions to fund capital improvement projects such as vehicle replacements, pipeline rehabilitation, lift stations site improvements, and SCADA system upgrades as describe in the "Capital Improvement Plan", page 3-49 of this MSR, but a substantial portion was due to asset depreciation. It is recognized that capital improvement projects are expensive and necessary. This is typical of many wastewater districts in California.
19. Changes to the Net Position are shown in Table 3-14 to be variable. However, the decline in Net Position of $-40,204 was predominately due to Period Adjustment per Implementation of GASB 68 (an accounting measure to improve financial reporting by state and local governments for pensions) as described in Note 14 of TSD's CAFR 2016. This situation is typical of many wastewater districts in California.
20. Reserves are projected to be maintained with positive balances through the year 2036. This data suggests that TSD has the financial ability to continue to provide public services into the future.
21. Rates and fees for services have been established at hearings that include public participation. Rates were adopted by the Board of Directors via Ordinance 1-2017.
22. Rates and the rate-setting process are consistent with requirements of Proposition 218 and other state laws as described within Ordinance 1-2017 and the minutes from the April 20, 2017 public meeting.
23. Rates are transparently displayed in the District Code Book on the District's website at: *http://www.truckeesan.org/pix/31497562790.pdf*.
24. There does not appear to be any institutional or financial obstacles to funding necessary maintenance and operation the TSD wastewater collection system. Overall, the District's financial situation remains stable, with no debt and adequate cash reserves (TSD Budget, 2017c).

Opportunities for Shared Facilities

25. TSD has a solid track record of working cooperatively with its neighboring government agencies including the T-TSA and NCSD, among others. For example, TSD does align its sewage collection infrastructure with the Northstar Community Services District and the Tahoe Truckee Sanitation Agency.
26. TSD cooperates with the local watershed associations and integrated regional water management groups and this demonstrates regional cooperation.
27. Due to the geographic location of the District, it is difficult for it to share wastewater collection infrastructure with its neighboring sanitation district to the west, Donner Summit PUD.
28. Since new development pays the entire cost of new infrastructure that is required to accommodate the new development through payment of connection fees to TSD, there is little additional opportunity to eliminate costs attributable to accommodating additional growth.
29. LAFCo's 2003 MSR and the 2013 SOI Updated recommended that TSD and other T-TSA member agencies should explore potential efficiencies that could be achieved through shared personnel, facilities and other cost-sharing arrangements. TSD has made significant progress in addressing this recommendation from LAFCo's 2003 MSR and 2013 SOI Update in that the District is currently involved with many collaborative activities with its neighboring government agencies including: 1) working with the Town of Truckee's Building Department and Placer County's Building Department in identifying backwater valve requirements; 2) jointly participating with the TDPUD in aerial data exchange of GIS information; and 3) many other collaborative activities as listed in the "Shared Facilities" (pages 3-59 to 3-60) section of this MSR. It is recommended that TSD continue its participation in these collaborative activities and continue to seek potential efficiencies that could be achieved through shared personnel, facilities and other cost-sharing arrangements that could be achieved over the long-term.

Accountability for Community Service Needs

30. The governance structure of TSD is that of an independent special district governed by a five-member board elected at-large from within District boundaries.

31. The TSD Board of Directors holds public meetings on a regular basis, scheduled for the third Thursday of each month at 6:00 PM in the Administrative Building at 12304 Joerger Drive, Truckee, California.

32. TSD Board meetings are noticed according to the Brown Act and the meetings provide an opportunity for public comment.

33. A key performance indicator suggests that archives of meeting minutes and agendas for three years be available on the district's website. Agendas and minutes are available going back to 2006, however full Board packets are only available beginning in 2015.

34. The TSD Board of Directors and staff have demonstrated that they understand the needs of their customers and aim to support and serve customers to the best of their ability.

35. TSD recently updated the Sewer System Master Plan and the Overflow Emergency Response Plan, linking together goals, objectives, actions, and best management practices to provide the best services for customers and quick response to incidences within its boundaries.

Any Other Matters Related to Service Delivery as Required by LAFCo Policy

36. There are no other aspects of the wastewater service required to be addressed in this report by LAFCo policies that would affect delivery of services.

3.10: ISSUES WITH RECOMMENDATIONS

This MSR describes the provision of wastewater services by TSD. No significant areas of concern were found during this analysis. Some areas of continual improvement were noted and listed in the above determinations. They are repeated below in Table 3-22.

Table 3-22: Issues with Recommendations

Determination Number	Issue	Recommendation
12	The TSD's innovative use of renewable energy to offset the electricity cost associated with the sewer system demonstrates that it has already implemented several management practices which highlights the ongoing work at the local level to save energy and protect the environment by reducing greenhouse gas emissions.	It is recommended that TSD continue to implement best management practices that align with sustainability aims.

29	LAFCo aims to avoid the duplication of service. This issue is relevant in the Truckee area because six local government agencies have overlapping boundaries: Town of Truckee, Truckee-Donner Public Utility District, Truckee Fire Protection District, Truckee Donner Rec and Park District, Tahoe-Truckee Sanitation Agency, and Truckee Sanitary District. Additionally, the Northstar Community Services District is located nearby. LAFCo's 2003 MSR and the 2013 SOI Updated recommended that TSD and other T-TSA member agencies should explore potential efficiencies that could be achieved through shared personnel, facilities and other cost-sharing arrangements.	TSD has made significant progress in addressing this recommendation from LAFCo's 2003 MSR and 2013 SOI Update in that the District is currently involved with many collaborative activities with its neighboring government agencies as listed in the "Shared Facilities" (pages 3-59 to 3-60) section of this MSR. It is recommended that TSD continue its participation in these collaborative activities and continue to seek new future efficiencies that could be achieved through shared personnel, facilities and other cost-sharing arrangements with the Town of Truckee and the Truckee-Donner Public Utility District.

CHAPTER 4: TAHOE-TRUCKEE SANITATION AGENCY

This Municipal Service Review (MSR) describes the Tahoe Truckee Sanitation Agency (T-TSA). This Agency was formed in 1971 and currently provides conveyance, treatment, and disposal of sewage and industrial wastewater service within its boundaries.

This MSR on the T-TSA was originally developed under contract with Placer LAFCo as part of the Tahoe and Martis Valley MSR. Subsequently, this chapter was updated with more recent financial information as available. This updated MSR was published by Nevada LAFCo in 2018.

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4.1: SERVICES, FORMATION, AND BOUNDARY

Background Information

The Tahoe-Truckee Sanitation Agency (T-TSA) is a statutorily-created agency and its enabling legislation is the *Tahoe-Truckee Sanitation Agency Act (*California Water Code Appendix, Chapter 114). T-TSA provides public service focused on the conveyance, treatment, and disposal of sewage, and industrial wastewater. The Agency's main office is located at 13720 Butterfield Drive, Truckee, CA 96161. Its phone no. is (530) 587-2525. T-TSA utilizes its website at *www.ttsa.net* to share information such as Board agendas and minutes, contact information and financial information with the public. The General Manager, Mr. LaRue Griffin may be reached directly by email at lgriffin@ttsa.net. The Tahoe-Truckee Sanitation Agency was originally formed on November 17, 1971.

Although T-TSA's Principal County is Placer County, the Agency also reaches constituents in El Dorado and Nevada Counties. Placer LAFCo is specified as the principal LAFCo in the T-TSA Act (California Water Code Appendix, Chapter 114, §114-21). The two LAFCos have a strong interactive relationship and work closely. Nevada LAFCo's Policies provide for inter-LAFCo information sharing, joint planning activities and transfers of jurisdiction on certain proposals.

Summary Description of Existing Services

The Tahoe-Truckee Sanitation Agency (T-TSA or Agency) is the sole operator of the regional wastewater treatment facility serving Eastern Placer County and Eastern Nevada County. The T-TSA is a regional agency, located in Truckee, California, which was established to treat and dispose of wastewater generated in the area located between Truckee and Lake Tahoe. The T-TSA receives wastewater from its member districts at various locations along the Truckee River Interceptor (TRI) sewer line which runs from Tahoe City to the T-TSA Water Reclamation Plan east of the Town of Truckee (see Figure 4-1 – T-TSA Service Area Map). The T-TSA oversees conveyance, treatment and disposal of sewage and industrial waste within the agency's service area. As provided in the formation legislation, the member agencies include the following:

- Truckee Sanitary District (TSD)
- North Tahoe Public Utility District (NTPUD)
- Squaw Valley Public Service District (SVPSD)
- Alpine Springs County Water District (ASCWD)
- Tahoe City Public Utility District (TCPUD)

Northstar Community Services District (NCSD) is also served by T-TSA facilities through a contract with TSD for shared use of TSD's collection system infrastructure in route to the T-TSA.

Location and Size

The T-TSA headquarters and Water Reclamation Plant (WRP) is located in the Martis Valley, east of the Town of Truckee, and its service areas covers portions of Nevada County and Placer County, as well as a small portion of El Dorado County. The Truckee River borders the WRP to

the north and Martis Creek is located east of the facility. The geographic size of each of the five-member agencies is listed in Table 4-1 and the total encompassed by T-TSA is 58,375 acres.

Formation

The Porter Cologne Act (adopted in 1969) expanded the enforcement authority of the State Water Resources Control Board and the nine Regional Water Quality Control Boards (including the Lahontan Regional Water Quality Control Board, which oversees TTSA). The Act placed a moratorium on exports of sewage from the Tahoe Basin and required that all non-compliant treatment facilities be replaced (Placer LAFCO, 2004, pp. 4.2-53). As discussed above, the T-TSA was formed by a special act of the California Legislature known as the Tahoe-Truckee Sanitation Agency Act, which became effective in November 1971. This Act created the T-TSA for the conveyance treatment and disposal of sewage, industrial waste and storm water within the service area of the agency; prescribing its organization, powers, and duties; and repealed the North Lake Tahoe-Truckee River Sanitation Agency Act (Chapter 1503 of the Statues of 1967).

Boundary History

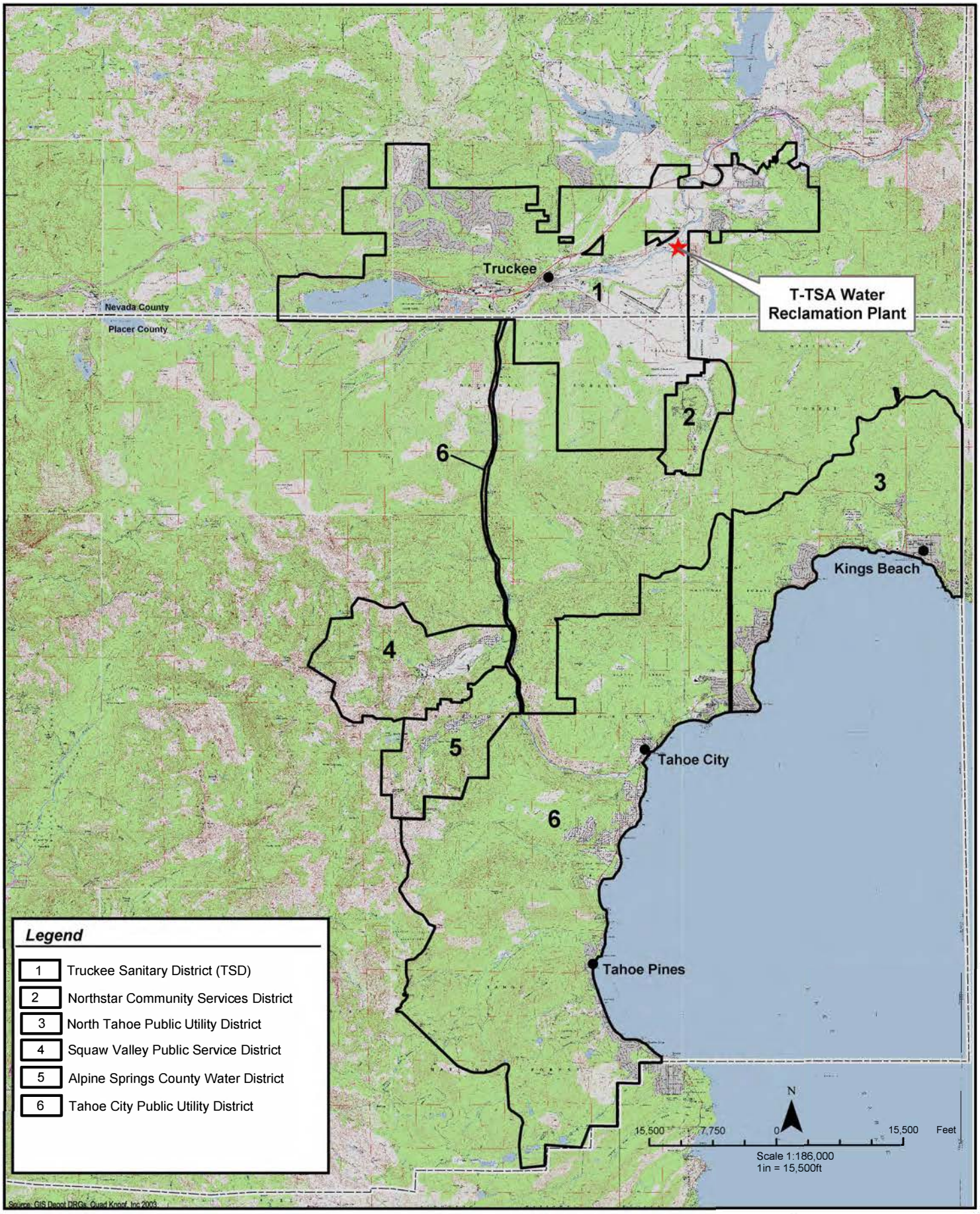
The legislation creating T-TSA recognizes two types of annexations; annexation of territory that has been annexed to a member district and annexation of territory not within a member district.

Jurisdiction for the first type of annexation is retained by the TTSA, although in that case, the annexation to TTSA is automatic, and TTSA is only responsible for making the appropriate filings to complete the action. Annexation of territory not within a member district, such as the territory of the NCSD, would be subject to Placer County LAFCo's review because Placer County is T-TSA's principal county (Quad Knopff, 2003, pp. 2-2).

Although a number of annexations have occurred in conjunction with annexations to member districts in Nevada and Placer Counties, no separate LAFCo actions were required (LAFCo files). LAFCo approved two annexations: in 1975, the T-TSA annexed the territory of the TSD (Bald Mountain Annexation); and in 1974, the T-TSA annexed the Alder Hill Annexation. The boundary for T-TSA is shown in Figure 4-2.

Sphere of Influence

No formal sphere of influence (SOI) for the T-TSA has been formally adopted by Placer LAFCo. However, the Agency noted that Placer LAFCo has deemed its SOI is the combination of the spheres of its member entities (T-TSA, 2013a, p. 4).



Quad Knopf

Tahoe - Truckee Sanitation Agency (T-TSA) Service Area

Figure 4-1
Nevada County LAFCo
Eastern County
Wastewater MSR

Drw. By: M.H. Plot Date: 6/24/2003 Job No.: 02524

Extra-territorial Services

NCSD is served by way of a contract with TSD, one of T-TSA's member entities. NCSD collects wastewater within its boundaries and transmits raw sewage through a section of the TSD collection system in route to the T-TSA WRP for treatment. The NCSD maintains a contract with TSD for use of their transmission lines. Although not directly a member, wastewater from NCSD is accepted into the T-TSA facilities through its contract with TSD. In 2016, the number of connections served by NCSD had increased to 138 commercial accounts and 1,789 residential services (personal communication, T-TSA, 2016).

4.2: ACCOUNTABILITY AND GOVERNANCE

The T-TSA Board includes a representative from each of the five-member agencies listed above. The legislation provides for a membership of five entities with a total of four votes, with the TCPUD, TSD, and NTPUD each having one vote, and the ASCWD and SVPSD each having one-half vote. Of the four votes, two are from within the Tahoe Basin (TCPUD and NTPUD), and the other two votes are outside the Tahoe Basin (TSD, ASCWD and SVPSD). Membership can only be granted by an act of the State Legislature.

The T-TSA Board Members are appointed to the Board by the elected Boards of Directors of its member entities for four-year terms. Board Members receive compensation of $100 per meeting which typically occurs once per month. The current Board of Directors is listed below:

Board of Directors

Dale Cox	Squaw Valley Public Service District	2018-2022
S. Lane Lewis	North Tahoe Public Utility District	2016-2020
Jon Northrop	Alpine Springs County Water District	2016-2020
Dan Wilkins	Tahoe City Public Utility District	2018-2022
Blake Tresan	Truckee Sanitary District	2018-2022

The Board meets on the 2nd Wednesday of the month at 9:00 a.m. The meeting location is the Agency Board Room at 13720 Butterfield Drive, Truckee, CA 96161.

The Agency's operations are led by a General Manager providing daily oversight and management of staff and resources. The Agency holds regularly scheduled meetings on the second Wednesday of each month, at 9:00 a.m. Agency staff indicates that all meetings are held in compliance with the Brown Act and all laws governing public meetings including public posting of notices and agendas.

The Agency and its activities undergo public review procedures, including financial review by independent auditors. There are sufficient mechanisms in place to ensure that actions and operating procedures of the District are open and accessible to the public. The Agency maintains a website at *www.ttsa.net* where residents can obtain Agency news, Board meeting

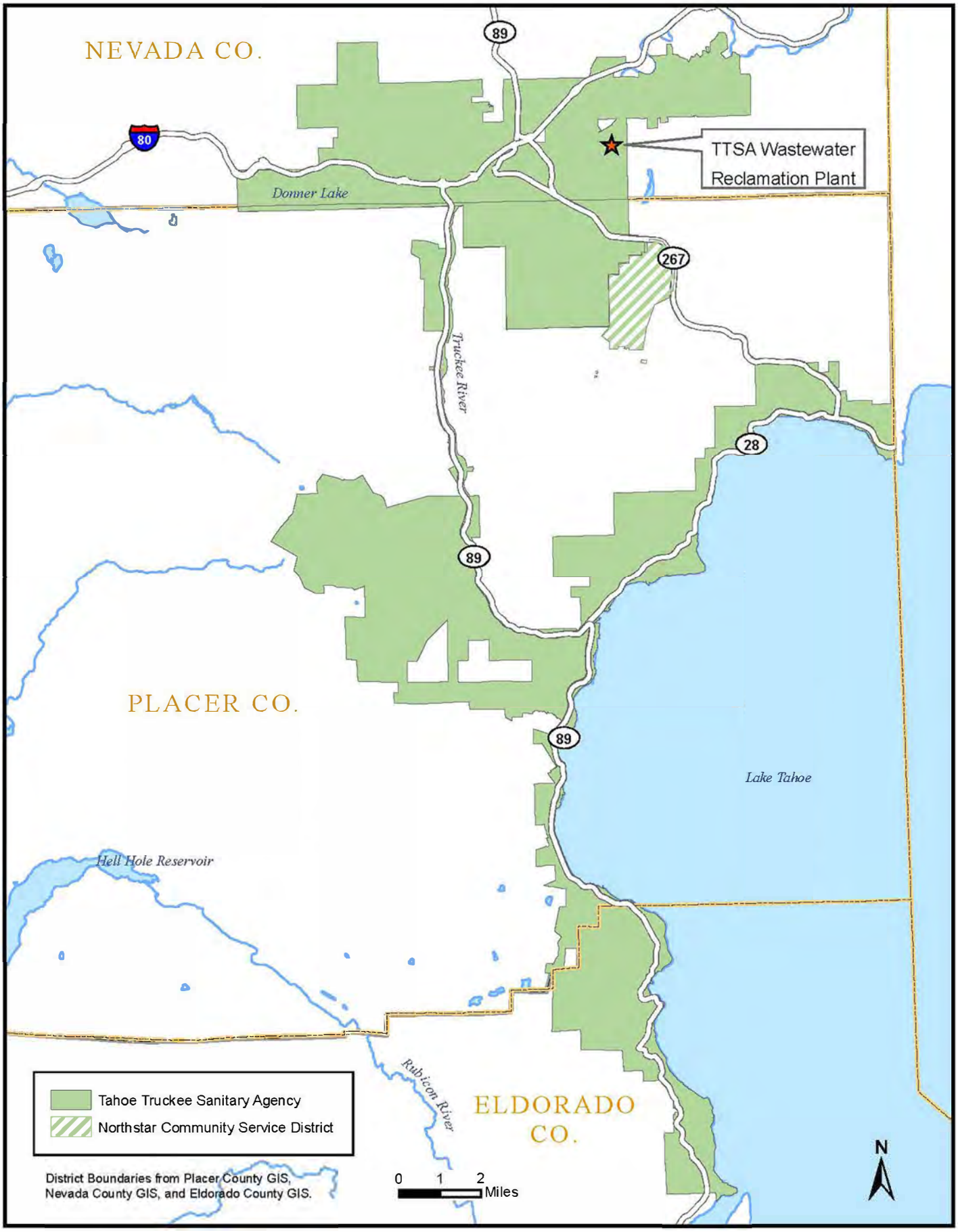


Figure 4-2 **Boundary Map**

TAHOE TRUCKEE SANITATION AGENCY

agendas, and other information. Customers can send their comments or complaints to the Agency office by mail, phone, or email. No complaints have been received in recent years (TTSA, personal communication, 2015).

Member Agencies

Formation and geographic information about each of the 5+1 member agencies are described in Table 4-1, below. Population data for these five districts (plus NCSD) is provided in Table 4-2 on page 4-10 of this MSR.

Table 4-1: Member Agencies Formation and Geographic Information

Name	Year Formed	Enabling Legislation	Size of Boundary Area in Acres	Principal LAFCo	Counties Served
Alpine Springs County Water District	1963	The County Water District Law: Water Code §§ 30000-33901	3,779	Placer	Placer
North Tahoe Public Utility District	1948	Public Utility District Act: Public Utilities Code §§ 15501-18055	4,112	Placer	Placer
Squaw Valley Public Service District	1964	The County Water District Law: Water Code §§ 30000-33901	5,350	Placer	Placer
Tahoe City Public Utility District	1938	The Public Utility District Act: Public Utilities Code §§ 15501--18055	19,840	Placer	Placer & El Dorado
Truckee Sanitary District	1906	Sanitary District Act	25,294	Nevada	Nevada & Placer
Non-member					
Northstar Community Services District	1991	The Community Services District Law: Government Code §§ 61000-61934.	1,900[1]	Placer	Placer

Data Source: 2018 MSR on Lake Tahoe and the Martis Valley published by Placer LAFCo

4.3: MANAGEMENT EFFICIENCIES AND STAFFING

The Agency consists of a five-member Board of Directors who oversees the functions of the General Manager. The General Manager has full charge and control of the maintenance, operation and construction of the wastewater treatment systems of the Agency, with full power and authority to employ and discharge all employees and assistants, other than the Secretary to the Board, Treasurer, Attorney and Auditor, prescribes their duties and fixes their

[1] *In 2014, Placer LAFCo approved Resolution No. 2014-03 regarding the consolidation of water services between the Northstar CSD and the PCWA Zone 4. However, the area served by sewer service remains at 1,900 acres.*

compensation. The General Manager performs such duties as may be imposed on him or her by the Board. For example, the General Manager prepares and submits to the Board plans, programs and budgets required to accomplish the goals and objectives of the Agency; prepares reports and financial statements and makes recommendations to the Board; responsible for solution of all problems related to maintenance, operation and construction of the treatment works; negotiates agreements for service and develops standard ordinances for regulation of the sewer system; acts as agency's representative with respect to all services to be provided; transmits instructions, receives information, interprets and defines Agency policies and decisions (T-TSA, 2013a, p. 2).

The Agency employs a total of 49 full-time employee equivalents (FTE), 36 of which work in wastewater service and 13 who work in administration and management. The District has five departments including maintenance, operations, administration, engineering, and information technology as shown in Figure 4-3.

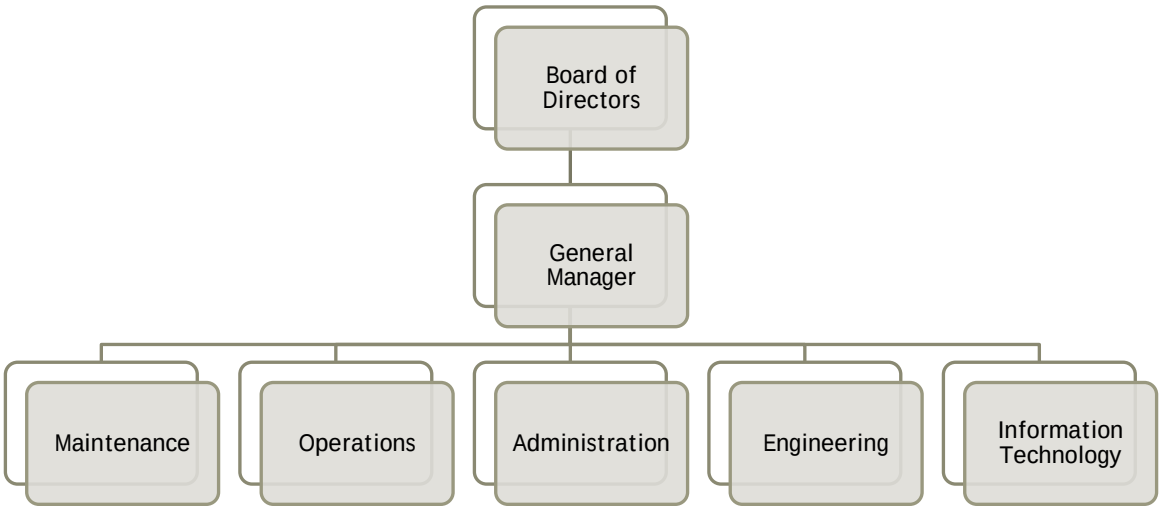


Figure 4-3: T-TSA Organizational Chart

4.4: POPULATION AND GROWTH

Existing Population

Population characteristics throughout the Truckee-Tahoe Sanitation Agency (T-TSA) service area are substantially affected by seasonal variations, distinct user groups and the abundance of second homes. There are seasonal variations in demand for wastewater treatment services, due to the popularity of skiing and winter recreation in the area. The seasonal day user also creates a significant portion of peak demand on urban services, including wastewater collection and treatment. It is beyond the scope of this MSR to project seasonal populations; although we

have provided rough estimates based upon studies that describe and characterize some of the seasonal population dynamics along with the visitor accommodations. The latter are reflective in equivalent dwelling unit connections that serve the tourism and hospitality industry.

The population analysis contained in this wastewater municipal service review for T-TSA reflects the projections for service demand for each of the Agency's member districts. T-TSA serves five-member districts as listed below:

1. Tahoe City Public Utility District (TCPUD)
2. North Tahoe Public Utility District (NTPUD)
3. Squaw Valley Public Service District (SVPSD)
4. Alpine Springs County Water District (ASCWD)
5. Truckee Sanitary District (TSD)

In addition to the five districts listed above, wastewater from NCSD is treated at the T-TSA WRP through an agreement with the TSD. Placer LAFCo analyzed the existing and projected population in five of the districts (TCPUD, NTPUD, SVPSD, ASCWD, and NCSD) in its recently approved MSR for eastern Placer County. The population of TSD is analyzed in detail in Chapter 3 of this MSR document. The population in these 5+1 districts, when added together, yields the population served by T-TSA as of early 2015, as shown in Table 4-2, below. Based on the data shown in the Table 4-2, it is estimated that as of 2015 T-TSA's boundaries encompassed a permanent population of 32,616 persons. The overnight visitor population during peak season is estimated at 62,811 persons as of the year 2015.

Table 4-2: 2015 Population in 5+1 Districts Served by T-TSA			
District Served by T-TSA	***# of Wastewater Connections***	***Existing Permanent Population***	***Estimated Current Peak Visitor Population[2]***
Alpine Springs County Water District	653	191	1,546[3]
North Tahoe Public Utility District	5,524	5,486[4]	11,138
Squaw Valley Public Service District	1,073[5]	950	3,500[6]
Tahoe City Public Utility District	7,540	8,524 [7]	17,307
Truckee Sanitary District [8]	16,838[9]	17,329[10]	17,320[11]
Non-Member			
Northstar Community Services District	1820[12]	136	12,000
Total served by T-TSA	**33,448**	**32,616**	**62,811**
Data Source: Placer LAFCo, 2018 MSR for Lake Tahoe and the Martis Valley			

Projected Growth and Development

Projections for future development and hence increased service demands within the Martis Valley, North Lake, and Highway 89 Corridor areas comprising T-TSA's service area are based on information provided in the 1994 Placer County General Plan and related area plans, 1996 Nevada County General Plan, 2003 Martis Valley Community Plan, 2025 Town of Truckee General Plan, Tahoe Regional Planning Agency documents and other sources. At the time when the Placer County portion of Martis Valley Community Plan was completed in 2003 and the

[2] This column shows the # overnight visitors. (Day-use only visitors are not included.)
[3] Overnight visitor population for ASCWD calculated from 653 units x 2.55 persons per household and 89% absentee owner unit rate. See Placer LAFCo's 2018 MSR for Lake Tahoe and the Martis Valley Chapter 6 for details.
[4] NTPUD has 6,519 housing units with an average of 2.55 persons per household. An estimated 16,623 total peak population resides within NTPUD boundaries.
See Placer LAFCo's 2018 MSR for Lake Tahoe and the Martis Valley Chapter 10 for details.
[5] Data Source: T-TSA, personal communication. This includes 39 commercial connections. In 2016 the number of connections at SVPSD is approximately 1,082.
[6] Please note that several thousand more visitors could be accommodated in hotel rooms located within the District. See Placer LAFCo's 2018 MSR for Lake Tahoe and the Martis Valley Chapter 12 for additional details.
[7] See Placer LAFCo's 2018 MSR for Lake Tahoe and the Martis Valley Chapter 14 for details.
[8] Nevada LAFCo is the primary agency over TSD and analysis of TSD is included in Chapter 3 this MSR.
[9] See also: TSD website at: *http://www.truckeesan.org/home/index.php?site_config_id=109&page_selection=2331&s_page=* . This includes 14,435 residential and 1,876 commercial connections.
[10] Calculated from 16211 persons in Town of Truckee per DOF data on website: <*http://www.townoftruckee.com/departments/planning-division/growth-and-development/truckee-population-and-housing-estimates*> plus 1686 persons in Martis Valley per 2010 census.
[11] Peak visitor population is based on Chapter 3 of this MSR. Also, please note there are approximately 6692 vacation homes in Truckee plus 1729 vacation homes (not permanently occupied) in Martis Valley * 2.55 persons per household.
[12] 2015 data. In 2016, NCSD's number of connections had grown to 1,831, which includes 1,767 residential accounts and 64 commercial accounts, per E. Martin, NCSD, Sept. 2016.

Truckee 2025 General Plan was updated in 2006 (and updated in 2009), the area was in a phase of rapid growth and development, the recent economic downturn was unforeseen and, as a result, both plans have overestimated growth. It is important to note, however, that planned capacity for growth still remains. Population, growth and land-use for the Town of Truckee is described in more detail Chapter 3 of this MSR.

Future population growth within the North Tahoe and Martis Valley region which T-TSA serves is dependent upon zoning and general plan policies and land-use designations in the region. Regional population and zoning/general plans are described in detail in Chapter 3 of this MSR. The Placer County General Plan which is largely applicable to the North Lake Tahoe Basin and Highway 89 corridor area was adopted in 1994. Each of the major communities in the Lake Tahoe area is also covered by area or community plans, which are being incorporated into the Tahoe Basin Area Plan and Implementing Regulations as adopted by the Placer County Board of Supervisors on December 6, 2016. The Placer County General Plan serves as an umbrella plan for the five sub-plans (see Table 4-3) including: 2003 Martis Valley Community Plan; Tahoe Basin Area Plan; 1983 Squaw Valley General Plan and Land Use Ordinance; Final Draft Village at Squaw Valley Specific Plan (2016); and the Alpine Meadows General Plan. For the most part (not including Alpine Meadows and Squaw Valley planning area), the Tahoe Basin is under the oversight planning control of the Tahoe Regional Planning Agency (TRAPA). The following table provides an overview of the various land use planning documents applicable to the T-TSA service area and relevant to projections of future growth in the area.

Table 4-3: Planning Documents			
Planning Document	***Jurisdiction***	***Citation***	***Year Adopted***
2025 Truckee General Plan	Town of Truckee	(Truckee, 2006).[13]	2006
Nevada County General Plan (1996 with 2014 Land Use Element and Housing Element, 5th Revision)	Nevada County	(Nevada County, 1996)[14]	1996 (Updated 2014)
1994 Placer County General Plan (as updated May 21, 2013)	Placer County	(Placer County, 1994)[15]	1994 (Updated 2013)
• 2003 Martis Valley Community Plan[16]	Placer County	(Placer County, 2003)[17]	December 16, 2003
• Tahoe Basin Area Plan and Implementing Regulations	Placer County	(Placer County, 2015)[18]	Adopted by the Placer County Board of Supervisors on December 6, 2016 and by TRPA Governing Board on January 25, 2017
• 1983 Squaw Valley General Plan and Land Use Ordinance	Placer County	(Placer County, 1983)	1983
• Final Draft Village at Squaw Valley Specific Plan (2016)	Placer County	(Squaw Valley Real Estate, LLC, 2014)	Not yet Adopted. Draft on April 2016
• Alpine Meadows General Plan	Placer County	(Placer County, 1968)[19]	1968
2012 Lake Tahoe Regional Plan	TRPA	(TRPA, 2012)[20]	2012

T-TSA Projected EDUs

T-TSA reported the total equivalent dwelling unit connections (EDUS) to the regional waste water treatment plant from 2003 through 2012 as shown in Table 4-4 (next page). The projected EDU's for the years 2017 to 2032 are based upon anticipated future population growth from the total growth in the 6-member agencies. The economic downturn from 2009 to 2011 may have resulted in pent up demand for development. For example, projected planned growth associated with the 2025 Town of Truckee General Plan has not occurred on pace with expectations, as described in Chapter 3 of this MSR document. The same can be said for Northstar-at-Tahoe, whose growth is expected approach buildout by 2034 (See Northstar CSD

[13] Truckee General Plan: *http://laserfiche.townoftruckee.com/Weblink/PDF/uloj2y45db1nasz14f00di45/19/Town%20of%20Truckee%202025%20General%20Plan.pdf*

[14] Nevada County General Plan at: *https://www.mynevadacounty.com/nc/cda/planning/Pages/Nevada-County-General-Plan.aspx*

[15] General Plan on County website at: *http://www.placer.ca.gov/~/media/cdr/Planning/CommPlans/PCGP/PCGP2013.pdf*

[16] The urban core of Martis Valley is the Town of Truckee. Outlying areas will continue to support and be supported by the services found within the Town. The Nevada County portion of the 1975 plan area has not been updated, although the 2025 Town of Truckee General Plan covers their portion of the Martis Valley.

[17] Martis Valley Comm Plan at: <*http://www.placer.ca.gov/~/media/cdr/Planning/CommPlans/MartisValley/ MartisValleyCommPlanDec2003.pdf*>

[18] *http://www.placer.ca.gov/departments/communitydevelopment/planning/tahoebasinareaplan*

[19] Alpine Meadows GP at: <*http://www.placer.ca.gov/~/media/cdr/Planning/CommPlans/NTahoeCPs/AlpineMeadowsGeneralPlan.pdf*>

[20] LT Regional Plan, 2012 at: <*http://www.trpa.org/regional-plan/*>

MSR). Other resort communities (Tahoe City, Kings Beach, etc.) in the Lake Tahoe Basin are not expected to achieve a high level of growth. The projections in Table 4-4 reflect a more modest and conservative increasing growth curve through 2032.

Table 4-4: T-TSA EDU Projections

				Projections			
	2003	2008	2012	2017	2022	2027	2032
EDUs	33,720	37,496	38,918	40,903	43,203	46,541	50,138
Percent change	--	11.1	3.8	5.1	5.6	6.9	7.7
Percent change per year	--	2.2	.76	1.0	1.1	1.4	1.5

Disadvantaged Unincorporated Communities

Senate Bill (SB) 244, which became effective in January 2012, requires LAFCo to consider the presence of any Disadvantaged Unincorporated Communities (DUCs) when preparing an MSR that addresses agencies that provide water, wastewater or structural fire protection services. A DUC is an unincorporated geographic area with 12 or more registered voters with a median household income of 80 percent or less of the statewide median household income. According to the U.S. Census Bureau's 2012-2016 American Community Survey 5-Year Estimates, California's MHI is $63,783 for the year 2016, which qualifies any community with a MHI less than $51,026 as a DUC. Within the Agency's service area in Placer County, the communities of Kings Beach, Carnelian Bay, and some neighborhoods within Tahoe City meet the states standard for DUCs of 80 percent of the state median family income. For additional information on DUCs in Placer County, please refer to the 2018 Placer LAFCo MSR for Lake Tahoe and the Martis Valley, Chapter 3. No public health and safety issues have been identified.

4.5: FINANCING

This section evaluates the factors affecting the financing of operations and improvements for T-TSA. Information on Agency financing is derived from audited financial statements for the Fiscal Year 2011/2012, 2010/2011, 2013/2014, 2014/2015, and 2015/2016 as well as information provided by Agency staff. These statements represent the financial statements of the Agency and follow Government Accounting Standards Board (GASB) method of Accrual accounting which aims to improve financial reporting by state and local governments. GASB 68 specifically requires all public agencies to identify their unfunded pension liabilities. Based on recent recommendations from the Little Hoover Commission, this determination on the financial ability to provide services is based upon several key financial performance indicators that are shown in tables in the following pages.

In California, special districts are classified as enterprise or non-enterprise districts, based on their source of revenue:

- Enterprise districts: Finance of district operations is via fees for public service. Under this model, the customers that consume goods or services such as drinking or sewer

water, waste disposal, or electricity, pay a fee. Rates are set by a governing board and there is a nexus between the costs of providing services and the rates customers pay. Sometimes enterprise district may also receive property taxes which comprise a portion of their budget.

- Non-enterprise districts: Districts which receive property taxes are typically classified as non-enterprise districts. Services that indirectly benefit the entire community, such as flood or fire protection, community centers, and cemetery districts are often funded through property taxes.

T-TSA is predominantly an enterprise district, since only 17 percent of the revenue is derived from the property taxes. T-TSA's multiple sources of revenue are detailed in Figure 4- 4 (next page). Budgets are adopted in public meetings on an annual basis.

Financial Policies & Transparency

The Agency prepares and approves an annual budget, along with a five-year capital improvement plan. Budget status updates are presented to the Board of Directors on a regular basis. The fiscal year begins on July 1 and ends on June 30. The Agency's budgets and annual Financial Statements Supplementary Information and Independent Auditor's Report for the two most recent years are available to the public via the District's website. Older budgets and annual Financial Statements (AFS') are available upon request to District staff. A summary of the 21 significant accounting policies is provided in the Agency's annual AFS.

One notable policy is the Board-Designated Net Position policy whereby the Agency has designated a portion of the unrestricted net position for major plan Replacement Reserve in order to provide funds for future replacement of the treatment plant and equipment. Excess resources from operations are transferred into the reserve each year. The designated balances as of June 30,2016 and 2015 were $11,676,353 and $10,618,319, respectively.

Table 4- 5: Summary of T-TSA Financial Policies & Transparency Indicators

Indicator	Score	Notes
Summary financial information presented in a standard format and simple language.	√	The annual AFS and budget clearly and transparently present financial information
District has a published policy for reserve funds, including the size and purpose of reserves and how they are invested	√	T-TSA's policy on Board-Designated Net Position describes reserve policy.
Other financing policies are clearly articulated	√	21 accounting policies are listed in the 2016 AFS –
Compensation reports and financial transaction reports that are required to be submitted to the State Controller's Office are posted to the district website	0	Insufficient data. Consultants did not find compensation reports on T-TSA's website.

Key to score:
√= Above average (compared to similar sewer districts)
△= Average
0= Below average

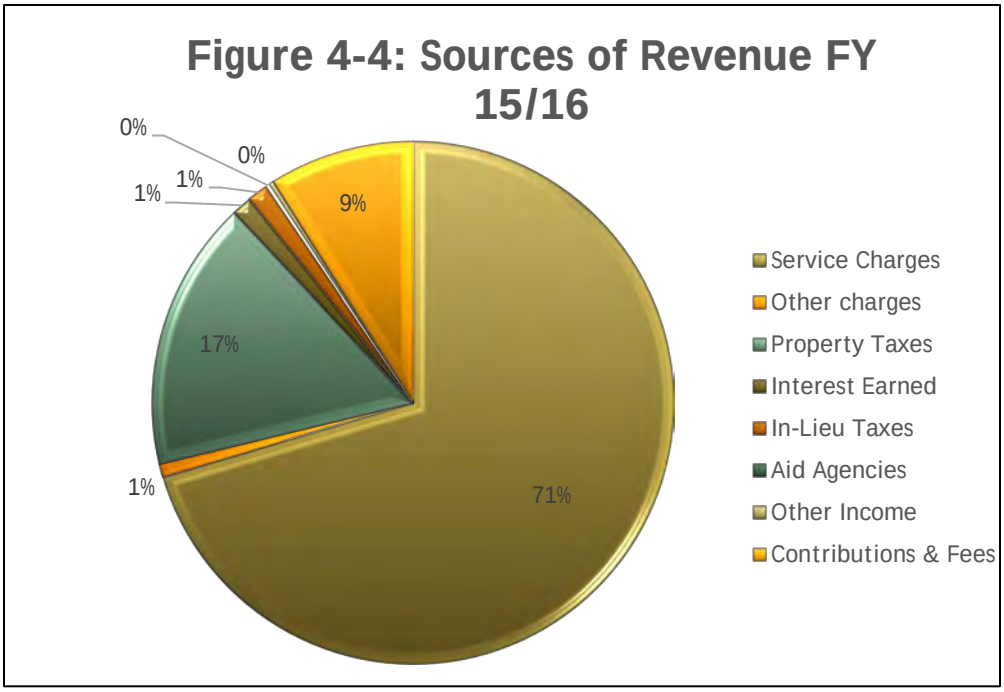
Revenues and Expenses

T-TSA has two basic types of revenue:

- Operating revenues consist primarily of charges for services.
- Non-operating revenues and expenses are related to financing and investing type activities.

Specific sources of revenue for T-TSA include service charges, other charges, property taxes, interest earned, in-lieu taxes, aid agencies, other income, and contributions & fees. The largest source of revenue is service charges paid by T-TSA customers directly for wastewater treatment and disposal service. Businesses and homeowners pay a sewer fee to their local collection District and pay a fee directly to T-TSA (bi-annually) for sewage treatment. When a new building is constructed, connection fees are paid to both the local collection district and to T-TSA to support the collection, conveyance, and treatment infrastructure. In a sense, customers pay a portion of the sewer costs to two agencies, rather than paying one agency a larger amount for all sewer service. The Agency also relies on property tax revenue, classified as non-operating revenue, to fund 17 percent of its general and administrative operating expenses. T-TSA also relies on connection fee income for funding capital improvements and expansion projects. Service charges cover the cost of maintenance and operations.

The annual Financial Statement and Independent Auditor's Report for fiscal years ending June 30, 2012 and 2011 determined that the Agency demonstrated a favorable variance in service charge revenue and property tax revenue meaning that these revenues were higher than expected. The favorable variance in property tax revenue is due to a conservative approach to budget estimates in the uncertain climate of California property tax allocation. Specifically, in FY 11/12, the actual Operations and Maintenance and Administrative and General Expenses were less than the budgeted amount because of a combination of vacant employee positions; experiencing some long unpaid employee absences due to injury or illness; obtaining competitive bids for maintenance and operations projects that were less than anticipated; postponing some capital projects that were budgeted into the following budget year; and



receiving more favorable utility rates than were projected by the utility company at the time the budget was prepared as shown in Table 4-6, below (Damore, Hamric & Schneider, Inc., 2012, p. 8). For both of these fiscal years, operating expenditures exceeded revenues.

Table 4-6: Statement of Revenues, Expenses and Changes in Net Assets, fiscal years 2011/2012 and 2010/2011 (Actual Audited)

	Fiscal Year	
	2010/2011	**2011/2012**
Revenues		
Property Taxes	$2,212,915	$2,177,609
Service Charges	11,934,529	12,067,555
Other Services	331,936	300,661
Connection Fees	906,450	1,403,875
Interest Earned	241,866	185,732
In-Lieu Taxes	386,689	395,110
Aid from other Governmental Agencies	23,754	24,001
Other Income	300	375
Total Revenues	$16,038,439	$16,554,918
Expenditures		
Operations & Maintenance	$11,842,309	$11,649,682
Administrative & General	1,188,341	1,271,706
Interest Expense	1,166,078	1,111,961
Depreciation	3,001,788	3,022,715
Total Expenditures	$17,198,516	$17,056,064
Change in Net Position	$(1,160,077)	$(501,146)
Beginning Net Position	98,964,330	97,804,253
Ending Net Position	$97,804,253	$97,303,107

Source: T-TSA Independent Auditor's Report, June 30, 2012 and 2011; pg. 11.

Revenue for FY 15/16 was over $17 million. Data on the sources of revenue for FY 13/14, 14/15 and 15/16 is shown in Table 4-7 (next page).

Table 4-7: Statements of Revenues, Expenses and Changes in Net Position for Fiscal Years Ended June 30, 2014, 2015, and 2016 (Actual Audited)			
	Fiscal Years		
Revenues	**2013/2014**	**FY 2014/2015**	**FY 2015/2016**
Property Taxes	$2,324,977	$2,497,457	$2,935,461
Service Charges	$12,189,791	$12,247,486	$12,328,555
Other services	$237,046	$67,177	$147,705
Connection Fees	$1,639,117	$1,791,569	$1,567,620
Interest Earned	$120,047	$128,960	$217,742
In-Lieu Taxes	$418,489	$229,168	$228,271
Aid from other Governmental Agencies	$26,120	$24,083	$25,851
Other Income	$48,193	$46,135	$60,150
Total Revenue	**$17,003,780**	**$17,032,035**	**$17,511,355**
Expenditures			
Operations & Maitenance	$10,042,129	$9,795,687	$11,849,464
Administrative & General	$1,455,547	$1,470,909	$1,639,732
Interest Expense	$999,470	$941,021	$881,052
Depreciation	$3,002,702	$3,004,800	$2,965,086
Total Operating Expenses	**$14,500,378**	**$15,212,417**	**$17,335,334**
Change in Net Position	$1,503,932	-$1,819,618	$176,021
Prior Period Adjustment per Implementation of GASB 68		$10,455,626	
Beginning of Year after Restatement - Net Position	$98,222,286	$89,270,592	$91,090,210
End of Year Net Position	$99,726,218	$91,090,210	$91,266,231

Expenses

In 2016, T-TSA expended $17 million to run the wastewater operation and this was the highest level of expenditure obtained within the five-year study period as shown In Tables 4-6 and 4-7, above. This increase was due to the increases in expense categories called Operations & Maintenance and Administrative & General. Overall, District funds are expended to support the Agency's service operations & maintenance, administrative & general expenses, interest expense, and depreciation costs.

A comparison of annual total revenue to total expenses, as provided in Figure 4-5 (right), shows that annual expenses exceeded revenues in only of the two of the five years studied (i.e. 10/11 and 11/12). Expenses associated with capital improvement projects contributed to the expenditure totals during these years and contributions from the capital fund, dedicated connection fees and other funds were used to offset the difference. Capital improvement projects are described on page 4-23. Having sufficient reserve funds is important to T-TSA to help it fund capital improvement projects and to help it weather the economically lean years. Per connection expenditures amounted to $611 per sewer connection, on average, in 2016. Per acre expenditures averaged to $297 per acre in 2016. Table 4-8 below shows the summary scores revenues, expenditures, and net position.

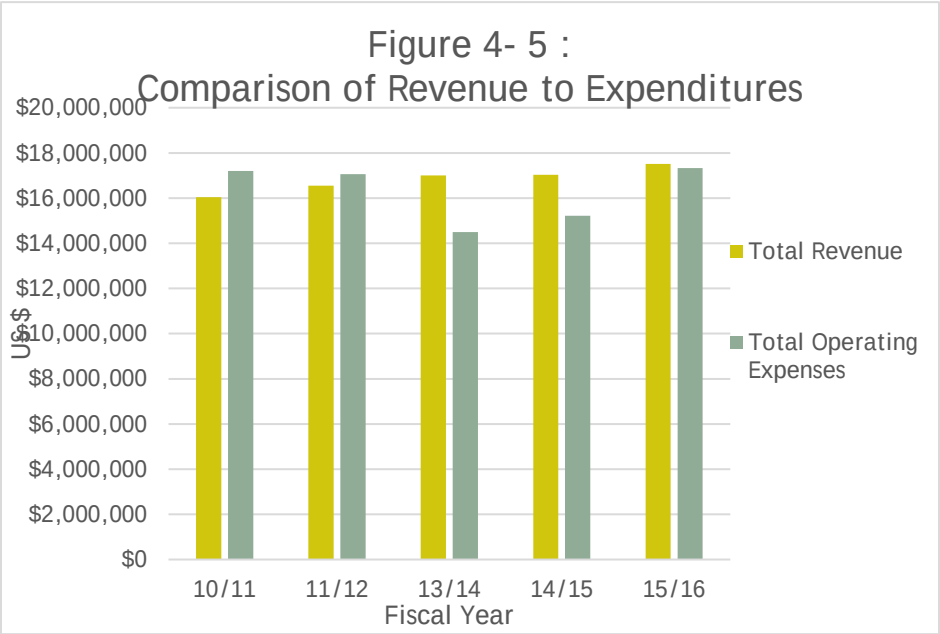


Table 4-8: Summary of Indicators Revenues, Expenditures, and Net Position		
Indicator	**Score**	**Notes**
Revenues exceed expenditures in 50% of studied fiscal years	Δ	Total revenue was more than the operating expenditures in three of the five study years. Capital contributions were used to offset the difference. It is recognized that capital improvement projects are expensive and necessary. Many wastewater districts in California are in a similar situation.
Increases or decreases in net position	Δ	Changes to the Net Position are shown in Tables 4-6 and 4-7 above, to be highly variable. However, the decline in Net Position of -$1.8 million in FY2015 was predominately due to Period Adjustment per Implementation of GASB 68 as described[21] in the Notes of T-TSA's AFS 2016. This situation is typical of many wastewater districts in California.
Key to score: √= Above average (compared to similar sewer districts) Δ= Average 0= Below average		

[21] GASB 68 requires all public agencies to identify their unfunded pension liabilities. See also page 4-16 for additional information on GASB.

Agency/District Assets and Liabilities

Table 4-9 summarizes activities leading to a decrease of net assets by one percent. The 12 percent increase for the category "Restricted for State Loan" in FY 11/12 was the result of compliance with the State Water Resources Control Board loan agreement, which required T-TSA to increase the balance in the State Revolving Fund Wastewater Capital Reserve account annually by 0.5 percent of the original $53,154,954 loan amount (Damore, Hamric & Schneider, Inc., 2012, p. 6).

Table 4-9: Statement of Net Assets, FY 11/12 and 10/11

Assets and Liabilities	Fiscal Year Ending June 30, 2012	Fiscal Year Ending June 30, 2011	Percent change
Assets			
Current Assets	$ 17,820,382	$17,140,997	4%
Restricted Assets	28,164,354	29,378,973	-4%
Capital Assets	95,608,761	97,774,417	-2%
Total Assets	$141,593,497	$144,294,387	-2%
Liabilities			
Current Liabilities Unrestricted	$1,488,215	$1,557,403	-4%
Current Liabilities Restricted	2,887,888	2,864,715	1%
Long Term Liabilities	39,914,287	42,068,016	-5%
Total Liabilities	$44,290,390	$46,490,134	-5%
Net Assets			
Investment in Capital Assets	$53,540,745	$53,607,250	0%
Restricted for Wastewater Capital Reserve	$24,830,372	$26,288,557	-6%
Restricted for State Loan	2,599,823	2,324,852	12%
Unrestricted	16,332,167	15,583,594	5%
Total Net Assets	**$97,303,107**	**$97,804,253**	**-1%**

Source: T-TSA Independent Auditor's Report, June 30, 2012 and 2011; pg. 6.

T-TSA ended the 2016 fiscal year with $91 million in total net assets as shown in Table 5-10, below. This is a decrease of approximately $6 million in net assets from fiscal year 2012.

Table 4-10: Statement of Net Assets, FY 15/16 and 14/15

Assets and Liabilities	Fiscal Year Ending		Percent
	6/30/2016	6/30/2015	Change
Assets			
Current Assets	$25,196,248	$22,479,430	12%
Restricted Assets	$24,827,832	$25,780,294	-4%
Net Capital Assets	$88,472,281	$90,744,098	-3%
Deferred Pension Outflows (Note 7)	$587,605	$599,448	-2%
Total Assets	$139,083,966	$139,603,270	0%
Liabilities			
Current Liabilities Unrestricted	$1,464,477	$1,542,693	-5%
Current Liabilities Restricted	$2,985,583	$2,941,244	2%
Long Term Liabilities	$41,402,669	$41,283,029	0%
Deferred Pension Inflows (Note 7)	$1,965,006	$2,746,094	-28%
Total Liabilities	$47,817,735	$48,513,060	-1%
Net Assets			
Net Investment in Capital Assets	$55,361,024	$55,306,716	0%
Restricted for Wastewater Capital Reserve	$21,330,508	$21,746,415	-2%
Restricted for State Loan	$2,898,346	$3,418,760	-15%
Unrestricted	$11,676,353	$10,618,319	10%
Total Net Assets	**$91,266,231**	**$91,090,210**	**0%**

Long Term Debt and Investments

The T-TSA entered into a State Revolving Fund (SRF) loan with the California State Water Resources Control Board on February 24, 2004 to provide financing for the plant capacity expansion. Over the course of the project, the Agency borrowed $50.1 million, which it will repay over 20 years at an annual payment of approximately $3.2 million (Damore, Hamric & Schneider, Inc., 2012, p. 5). The SRF loan the Agency received has a fixed 2.6 percent rate, which consists of 1.6 percent in interest and a 1 percent service charge (Damore, Hamric & Schneider, Inc., 2012, p. 8). The Agency had debt of $33,111,257 and $35,437,382 as of June 30, 2016 and 2015 respectively. The current (2016) portion of this long-term debt ($3 million) is listed correctly as a liability (T-TSA, 2017).

Capital Improvement Plan, Asset Maintenance and Replacement

The T-TSA reviews capital improvement needs annually and it projects improvements needed over a 5-year time frame. In 2012, the Agency's Upgrade and Rehab Fund identified a total of $9,210,917 in maintenance and update projects. For FY 2013/2014, the Agency proposed improvements and repairs in the amount of $1,822,755 for rehabilitation projects and $2,915,257 in capital outlay projects (T-TSA, 2013b). As of 2016, the Agency had $21 million in its restricted waste water capital reserve fund with which to make capital improvements (T-TSA, 2017a).

Rate Restructuring

The Independent Auditors Report determined that the T-TSA sets adequate levels of rates and charges which have resulted in the Agency's ability to operate and maintain the plant and to service the debt requirements of the State of California State Revolving Fund Loan for the portions of the Expansion Project, which benefit current users (Damore, Hamric & Schneider, Inc., 2012, p. 8) and (T-TSA, 2017a). At their January 2018 meeting, the T-TSA Board agree to fund a connection fee study to assess current fees and connection classifications. The study will be prepared by HDR Engineering Consultants at a cost of $19,975.

Table 4-11: Summary of Rate Indicators

TSD Rate Indicator	Score	Notes
Rates were adopted by the Board of Directors	*0*	Insufficient Data
Rates are consistent with requirements of the State Water Resources Control Board and the process for adopting rates are consistent with Proposition 218	*0*	Insufficient Data
Rates are readily available to constituents	*0*	Insufficient Data

Key to score:
√= Above average (compared to similar sewer districts)
Δ= Average
0= Below average

Cost Avoidance

The T-TSA routinely seeks ways in which to reduce overhead and operational costs. T-TSA has reduced staffing through reorganization of duties as employees have retired and some vacancies have not been filled. Plant operations have been automated through use of Programmable Logic Controllers (PLCs) and SCADA programming. Additionally, some plant processes have been changed to lower the demand for purchase of chemicals. T-TSA also takes advantage of pooled insurance as a cost savings measure and is a member of the California Sanitation Risk Management Authority for insurance and workers' compensation coverage (T-TSA, 2013a, pp. 4, 12).

Contract Services

The T-TSA utilizes a competitive bid process for projects.

Technology/Management

T-TSA utilizes industry standard technologies and constantly evaluates technological advancements and operation improvements available in the industry (T-TSA, 2013a, p. 11).

4.6: OPPORTUNITIES FOR SHARED FACILITIES

Shared Facilities & Regional Cooperation

LAFCos describe shared facilities and regional cooperation in municipal service reviews because it is thought that a local government agency's ability to partner with another entity, public or private, in order to accomplish the same level of public service, while splitting the costs to deliver the service will provide an efficiency of service. Ideally, a sharing or cooperative arrangement would yield the same public service at less cost, and with less resources required from a community to pay for those results. Another aim of LAFCo is to avoid the duplication of service. T-TSA's activities related to shared facilities and regional cooperation are described in the following paragraphs.

The relationship between T-TSA and its five-member agencies (plus Northstar CSD) represents a high level of *regional cooperation*. This functioning relationship demonstrates T-TSA's ability to partner with its member agencies in order to accomplish a high level of public service, while splitting the costs to deliver the wastewater treatment and disposal service. The partnership yields efficiency of service, providing public service on a regional basis at less cost, compared to what would be needed if each of the five-member agencies operated their own separate treatment plant. The existing agreements avoid a duplication of service.

The 2013 Sphere of Influence Update for the Truckee Sanitary District acknowledged that opportunities to share wastewater infrastructure between TSD and T-TSA are limited due to the distinct functions of the District and the Agency. However, it recommended that the T-TSA and its member agencies explore opportunities to share personnel, facilities, and other cost-sharing arrangements including sharing corporation yards, specialized equipment, and office space. This recommendation from the 2013 SOI Update remains relevant.

T-TSA participates in the Tahoe Truckee Area Emergency Contingency Plan, which provides a framework for assistance to all public utility, improvement and county water districts within the Tahoe-Truckee area in times of emergency or natural disasters affecting the services provided (T-TSA, 2013a, p. 4).

T-TSA along with several of its member agencies have formed a Joint Powers Authority through a Joint Exercise of Powers Agreement, which is known as the California Sanitation Risk Management Authority. The Authority is organized under Government Code Section 6500 as a separate and distinct public entity and is governed by a Board comprised of one member appointed by the governing body of each party to the agreement. The governing board appoints its own management and approves its own budget (T-TSA, 2017). This authority helps participants to share the cost of risk management.

Effective January 1, 2017, Government Code §6503.6 and §6503.8 require LAFCo to be a repository for all Joint Powers Authority Agreements (JPA) within a county for the purpose of providing municipal services.

4.7: WASTEWATER SERVICES

Service Overview

T-TSA provides regional wastewater conveyance, treatment and disposal services within its service area. Approximately 20 percent of the Agency's services are to commercial customers; there are currently no industrial customers. Over 2,000 residences located within the service area are believed to not be currently connected to TTSA facilities (DWR, 2016).

T-TSA's WRP is subject to permits issued by the Lahontan Regional Water Quality Control Board (Lahontan RWQCB). A Waste Discharge Requirements (WDR) Order No. R6T-2002-0030, signed April 9, 2002, allows the effluent from the plant to be disposed of in a subsurface effluent disposal field.

The Lahontan RWQCB specifies waste discharge requirements and regulates the waste discharged into the leach field and the Truckee River. The Lahontan RWQCB also has effluent requirements for the plant.

Conveyance

T-TSA provides regional conveyance of wastewater in the Tahoe region and owns and maintains the Truckee River Interceptor (TRI), a main trunk line for raw sewage conveyance (Figure 4-6, TRI Map). The 19-mile long TRI pipeline runs along the Truckee River corridor between Tahoe City and the Water Reclamation Plan (WRP) in Truckee. The interceptor flows exclusively by gravity and varies in size from 24-42 inches in diameter. The TRI conveys all of the untreated, raw sewage collected from the northern and western shores of Lake Tahoe, as well as from the communities at Alpine Meadows and Squaw Valley. Collection within the member districts is handled by the respective districts. Additionally, as previously described, NCSD is also served by the T-TSA via conveyance (?) agreement between the NSCD and TSD (Placer County, 2013, pp. 14-18).

The T-TSA's 2009/2013. Sewer System Management Plan details the Agency's maintenance and inspection protocols for its conveyance infrastructure, including the TRI. Close-circuit television (CCTV) or digital scanning inspection work is performed on each reach of the TRI at a frequency of at least every four years. Findings from CCTV or digital scanning inspection work may indicate that root intrusion, sediment accumulation, corrosion, or other defects have occurred on a particular reach. Additionally, annual field inspections at manhole sites occur in the spring and fall of each year. For the spring inspections, the goal is to determine whether the sites are accessible and whether erosion or landslides are potentially affecting the integrity of the pipeline (T-TSA, 2009/2013, pp. 4-2).

In general, the TRI is considered to be in relatively good condition based on findings from inspections and its age. CCTV or digital scanning inspection activities performed to date have revealed that, overall, the system has had very few problems. In addition, compared to many other systems throughout the country, the TRI is considered a relatively young sewage system, with the bulk of the piping installed in the late 1970s (T-TSA, 2009/2013, pp. 4-3). The most significant project after the initial construction activities was the installation of a parallel TRI pipeline from the emergency storage ponds to the treatment facility (T-TSA, 2009/2013, pp. 5-1).

Treatment System

The WRP provides tertiary level treatment, which consists of influent screening, grit removal, primary sedimentation, pure oxygen activated sludge, biological phosphorus removal, chemical treatment, mixed media filtration, biological nutrient removal, ion exchange ammonia removal, and final chlorination. Organic sludge is digested anaerobically, dewatered and transported to a landfill or used as a solid amendment. The T-TSA completed its wastewater treatment facility expansion in 2008, which increased capacity sufficiently to serve the region through 2025 (Nevada LAFCo, 2013, p. 4). The resultant expansion project was designed to increase overall plant capacity to 9.6 MGD. The primary and secondary treatment processes were expanded and a biological nitrogen removal (BNR) system was constructed to replace an existing physical-chemical process. In addition, a new method of dewatering biosolids was implemented. The facility was formally commissioned in 2008 at a total program cost of nearly $75 million, with a constructed value of $54 million.

Aerial photo of T-TSA Wastewater Reclamation Plant

Waste activated sludge is pumped to an organic sludge thickener for thickening before being fed to the anaerobic digesters. The digesters serve to stabilize the material for dewatering and disposal. Methane gas, a byproduct of the digester process, is drawn off and stored to supply a series of boilers which furnish facility and process heat. Once stabilized, the sludge is put through centrifuges for dewatering. The dewatered solids are then discharged to a conveyor system for transfer to storage hoppers. Both inorganic and organic sludges are generated at the water reclamation plant. Inorganic sludges are hauled to the Lockwood Landfill, east of Reno/Sparks. Organic sludges are hauled to agricultural operations in Nevada for use as a soil amendment (T-TSA, pp. 18-19).

The daily average treatment plant influent flow for October 2017 was 3.18 MG. The maximum instantaneous flow rate was 5.49 MG (T-TSA, 2017b). Although the plant expansion was originally sized to meet demand through 2015, due to the slower than expected rate of population growth, those projections have been extended to 2020 or 2025 depending on actual growth. The Agency indicated that the plant capacity available is expected to meet the needs of its members, including any annexations to the member districts and T-TSA during that timeframe.

Disposal

Effluent is disposed of in a subsurface effluent disposal field; solids are hauled to the Lockwood Facility and Bently Farm in Nevada (T-TSA, 2013a, p. 6). The Agency utilizes a soil aquifer treatment system, with an underground disposal system which allows plant effluent to percolate into the permeable glacial outwash soil in Martis Valley (T-TSA Brochure, p. 6). The discharge field is located about 1/3 mi. southwest of the wastewater treatment facilities. This disposal practice departs from the typical practice of discharging plant effluents directly into receiving water bodies. Instead, the facility discharges to the Martis Valley Groundwater Basin, which eventually migrates toward the Truckee River and Martis Creek, both of which are within a half mile of the disposal site (Lahontan RWQCB, 2002, p. 4). High rate subsurface effluent disposal is possible because of the highly permeable glacial outwash materials that overlay the older, much less permeable materials of the Truckee Formation. The disposal system consists of 78,000 feet of underground perforated piping (T-TSA, p. 3).

Wastewater that is applied to land within the Martis Valley does contribute to groundwater recharge of the Martis Valley basin, up to 9.6 million gallons per day (mgd) 7-day average (Quad Knopf, Inc. 2003). The disposal system includes approximately 78,000 feet of underground perforated piping (T-TSA webpage, 2018).

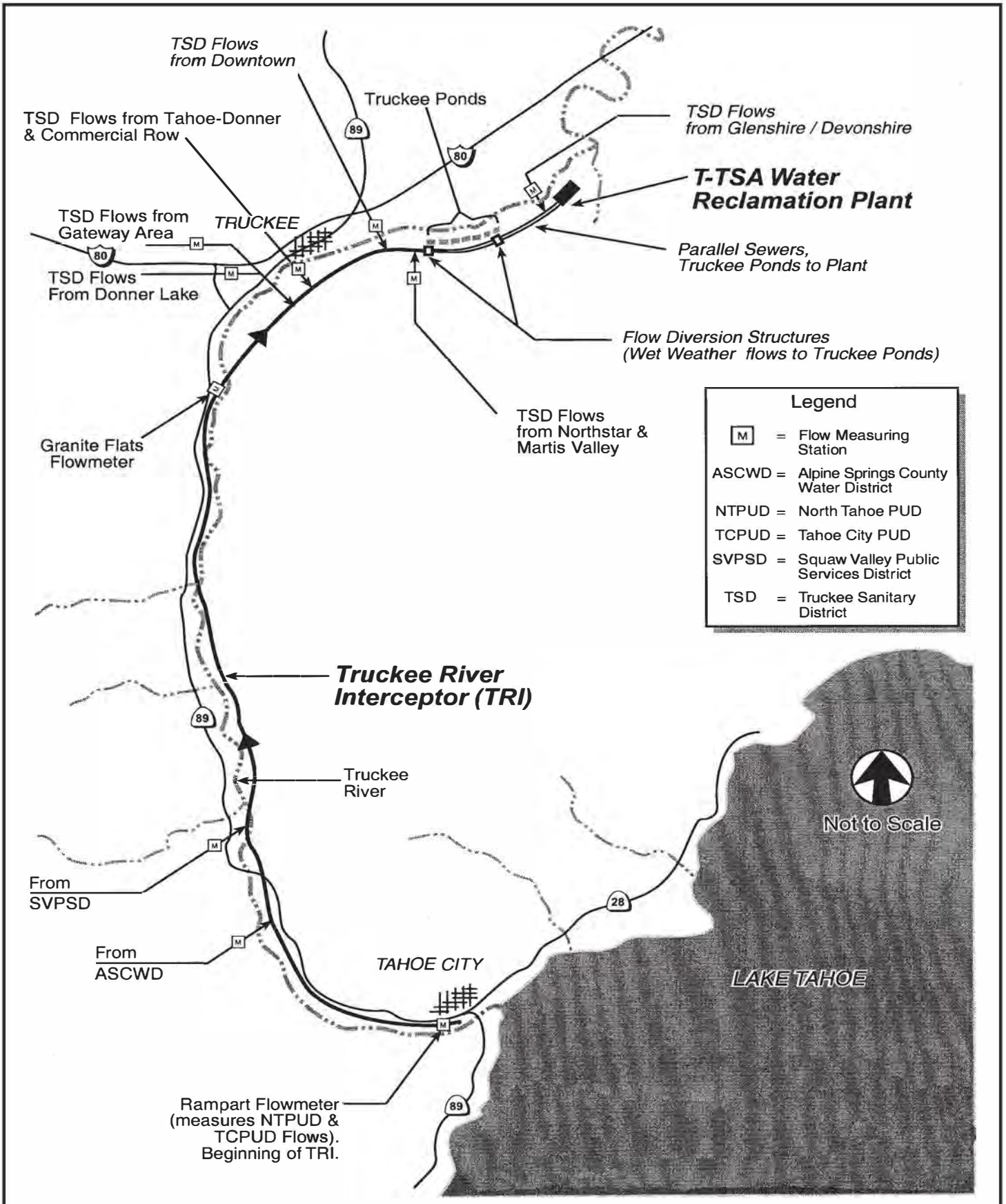
Capacity

T-TSA served approximately 28,361 connections in 2014- 2015. This increased to 28,655 connections in the year 2016. The plant has a treatment capacity of 9.6 million gallons per day (mgd) for a maximum of a week, or 8.3 mgd for a maximum of a month. The average annual flow volume is 4.0 mgd[22]. Peak instantaneous flow capacity is 15.4 mgd (T-TSA 2012 Brochure, p. 7). The Agency anticipates that future demand for services will increase at a rate of approximately one percent per year (T-TSA, 2013a, p. 7).

Infrastructure Needs and Deficiencies

Future improvement needs have been identified to address future capacity deficiencies along the TRI, which runs directly adjacent to the environmentally-sensitive Truckee River. These improvements were identified in the planning and environmental review phases of the most recent plant expansion project, but were characterized as Phase II work to be completed in the future. The proposed improvements would reduce the likelihood of accidental releases of raw sewage into the Truckee River during extreme flow events, floods, environmental catastrophes, and other types of emergencies. Additional information is provided in the Capital Improvement Plan section of this MSR.

[22] Peak flow in 2012 was 8.67 mgd (T-TSA, 2013a).



Source: Nevada County, Quad Knopf, Inc 2003.

Quad Knopf

Wastewater Collection

Figure 4-6

Nevada County LAFCo Eastern County Wastewater MSR

Drw By: M.H. Plot Date: 7/01/2003 Job No.: 02524

Water Quality Database Reports

Overview

This section provides the results of database searches on water quality for the T-TSA. Compliance of wastewater agencies with water quality regulations promulgated by the State Water Resources Control Board (State Water Board) and the Lahontan Regional Water Quality Control Board (Regional Water Board) is important to LAFCo. Although T-TSA applies the treated wastewater to dry land, the watershed is dynamic and there is a remote possibility that constituents could reach underground or above ground aquatic systems; hence the need for a permit.

California Integrated Water Quality System Project

The California Integrated Water Quality System[23] (CIWQS) is a relational database used by the State and Regional Water Boards to track information about permit violations and enforcement activities. T-TSA has permits from the Lahontan Regional Water Quality Control Board and is therefore classified as a "Permittee." Permittees are allowed to self-report their own permit violations to the CIWQS. A four-year term from January 1, 2013 to December 31, 2017, was queried in the CIWQS database. The results of the database query show that T-TSA had one recorded regular water quality violation/enforcement actions during this timeframe. The minor violation occurred in October 2017 when the pH level in groundwater near T-TSA's disposal field had a low pH. Specifically, the groundwater in monitoring well #31 on October 25, 2017 had a pH of 6.4 and the requirement is to have a pH between a range of 6.5-8.5. The discharge from the plant was in the acceptable range. Corrective measures were immediately taken and this situation is now resolved (WRCB, 2017a).

Sanitary Sewer Overflow Database

The State Water Board maintains a database of Sanitary Sewer Overflows (SSO) from public/permitted systems and private lateral sewage discharges. This database is a specific module in the CIWQS. The State Water Board formalized the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003 (SSS WDRs), on May 2, 2006. All public agencies that own or operate a sanitary sewer system that is comprised of more than one mile of sewer pipes which convey wastewater to a publicly owned treatment facility must be covered under the SSS Waste Discharge Requirements. The SSS Waste Discharge Requirements requires enrollees, among other things, to maintain compliance with the Monitoring and Reporting Program. A four-year term from January 1, 2013 to December 31, 2017, was queried in the CIWQS-SSO database. The results of the database queries regarding T-TSA show that no sanitary overflow events were reported. The database also shows that the state conducts annual inspections of T-TSA facilities. T-TSA passed each inspection; however, one inspection did require a follow-up in 2007 (WRCB, 2017b).

[23] CIWQS website is at: https://www.waterboards.ca.gov/ciwqs/

4.8: CHALLENGES

No challenges were identified by the T-TSA during the preparation of the 2018 Placer LAFCo MSR for Lake Tahoe and the Martis Valley. However, in general wastewater dischargers are challenged by continuously restrictive discharge requirements imposed by the State RWQCB to protect water quality. Because the T-TSA WRP was recently upgraded, it is current with its discharge permit requirements.

4.9: SERVICE ADEQUACY

The Agency provides excellent public service to its member districts. The Agency has received two honors in recent years: the California Water Environment Association Sierra Section Plant of the Year Award for 5-20 mgd Plant and the California Sanitation Risk Management Authority Workers' Compensation Excellence Award in the Large Agency Category for 2010-2011 and 2011-2012 (T-TSA, 2013a).

4.10: DETERMINATIONS

Written determinations on the required topics are available in Placer LAFCo's North Lake Tahoe & Martis Valley MSR published in August 2018.

CHAPTER 5: DONNER SUMMIT PUBLIC UTILITY DISTRICT

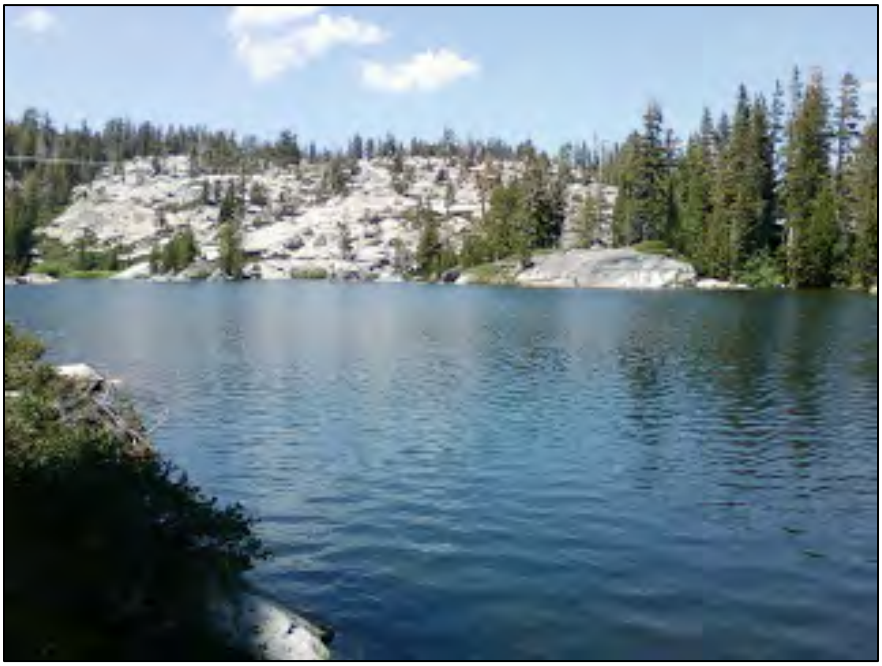


Photo Courtesy of: http://trailstrekker.blogspot.com/2011/08/lake-angela-by-way-of-pacific-crest.html

This chapter of the Municipal Service Review (MSR) describes the provision of wastewater services by the Donner Summit Public Utility District (DSPUD/District). This District was formed in 1948 and currently provides water treatment and distribution, and sewer collection and treatment services within its service area. This MSR chapter on the DSPUD was originally developed under contract with Placer LAFCo as part of the Tahoe and Martis Valley MSR. Subsequently, this chapter was updated with more recent financial information as available and published by Nevada LAFCo in 2018.

Table of Contents

5.1: OVERVIEW OF DISTRICT

The Donner Summit Public Utility District (DSPUD/District) provides sewer collection and treatment, and water treatment and distribution to customers within its service area. This Municipal Service Review (MSR) is the second for the District. The District's first MSR was prepared under the jurisdiction of Nevada LAFCo in 2004 under the Western County Wastewater Services MSR. Placer LAFCo has prepared the second MSR for this District, which is tentatively scheduled for public hearing in August 2018. Placer LAFCo is the principal LAFCo for the DSPUD. The PUD is a multi-county district serving customers in both Nevada County and Placer County. This MSR chapter created for Nevada LAFCo focuses on the provision of wastewater services to customers located in Nevada County.

DSPUD is a Public Utility District operating under the Public Utility District Act: Public Utilities Code §§ 15501-18055. The District provides water treatment and distribution, and sewer collection and treatment. This MSR chapter addresses only the sewer collection and treatment services. The District's main office is located at 53823 Sherritt Lane, Soda Springs, CA 95728. Its mailing address is P.O. Box 610, Soda Springs, CA 95728. The website, *www.dspud.com*, serves as a public information tool for the District. The General Manager is Tom Skjelstad who may be contacted via email at *tskjelstad@dspud.com*. Julie Bartolini at *jbartolini@ dspud.com* is an alternative contact. The Governing Body is an Elected Board of Directors, with 4-year terms. The Board meets regularly the Third Tuesday of each month, 6:00 p.m.at District Offices. The District was initially formed in 1948.

TYPE AND EXTENT OF SERVICES

The District provides sewer collection and treatment, and water treatment and distribution to customers within its service area. The District also provides maintenance of related facilities and equipment. Primary activities for the District's sewage system include sewage collection, repairs and maintenance of infrastructure, and sewage treatment. DSPUD is a public agency formed in 1948. Approximately 331 water and 273 sewer service connections are maintained by the District and supported by its operating budget which was $3.8 million in FY 2015-2016 (DSPUD, CAFR, 2016).

DSPUD provided fire and emergency response services up until 2006, when those service responsibilities were transferred to neighboring Truckee Fire Protection District as part of a reorganization approved by Nevada LAFCo.

LOCATION AND SIZE

The District is located in the unincorporated area of eastern Nevada County and northeastern Placer County. It encompasses approximately 13 square miles (8,320 acres) along the Interstate 80 (I-80) corridor, including the Norden and Soda Springs communities in the Donner Summit area. The utility district is roughly bounded by the I-80/Old Highway 40 exit to the west and by Donner Summit to the east. The northern edge of the District extends to Castle Peak. The

PUD serves the Sugar Bowl Ski Resort located in Placer County. The District also has a service contract with Serene Lakes Community Services District.

The District's customer base is limited to residential users and commercial activity, including Caltrans rest stops along I-80 and three ski resorts that operate on the summit: Boreal, Sugar Bowl, and Donner Ski Ranch. The District has no industrial users. The Town of Truckee is the closest socioeconomic center to the District area. Soda Springs, where the District office is located, has only a few tourist-oriented commercial uses and a population of 81 according to the 2010 US Census, only a portion of which may be full-time residents. There were 93 registered voters in the service area as of 2013. Land uses in the District are predominantly forest and recreational, followed by seasonal, weekend/vacation residential uses. The wastewater treatment plant and district office are located on Sherritt Lane at 6,800-feet elevation, immediately north of I-80 off Donner Summit Road in Soda Springs. See Figure 5-1 for a map of the service boundaries and significant District features.

5.2: FORMATION AND BOUNDARY

The formation of the District was first put to a vote in Placer County on December 19, 1947, and in Nevada County on March 2, 1948. Nevada County's Ordinance No. 163 called for a special election "to determine whether or not said utility district shall be organized under the public utility district act ...". Nevada County Board of Supervisors' Resolution dated March 24, 1948 accepted the outcome of the vote in both Nevada and Placer counties. This Resolution contains the initial legal description for the District (DSPUD, 2018). The California Secretary of State subsequently certified the Board's Resolution on August 27, 1948, under the provisions of Section 9 of the Public Utility District Act. On March 24, 1950, Senate Bill No. 35 was proposed and subsequently amended and approved by the California State Legislature, to create the Donner Summit Public Utility District, merging what had been two separate districts in Nevada and Placer Counties. The District was originally formed in order to provide the service area with sewer and water facilities for military encampments, civilian repair crews, and tourist facilities, and to allow for public financing of the water and sewer facilities given the high cost of such infrastructure in the mountainous terrain of the Donner Summit area.

BOUNDARY HISTORY

The boundaries of the District were originally formed in 1948. The State Board of Equalization tracks district boundaries. Through the years there have been a number of annexations and detachments, which have led to the current DSPUD boundaries. Since the 2004 MSR, the District boundaries have been changed twice: first in 2008 with the annexation of the remaining territory of Sugar Bowl and most recently in 2013 with the annexation of the Big Bend Mutual Water Company, which was within the Sphere of Influence of the District. In July 2006, the Truckee Fire Protection District annexed the DSPUD fire service area and DSPUD disengaged from provision of fire and emergency services. The current boundaries of the District encompass 8,320 acres, as listed in Table 5-1.

SPHERE OF INFLUENCE

The District's Sphere of Influence (SOI) has been established and was last updated in 1998. The SOI is approximately 10,000 acres in size, with most of the SOI lying in Placer County as listed in Table 5-1. The District manager has indicated that the SOI boundary is adequate for projected future needs.

Table 5-1: Size of Donner Summit PUD

Agency	Size (acres) of boundary area	Number of Parcel's (APNs) in boundary area	Size (acres) of SOI only**	Number of Parcel's (APNs) in SOI only
DSPUD in Nevada County	7,823	441*	3,844	706*
DSPUD in Placer County	834	254*	6,249	1358*
Total DSPUD	8,657	695*	10,093	2064*

*Note: Parcel counts are not exact. Sometimes the District boundary crossed part of a parcel. For example, it crossed a third or a half of a large parcel. Also, major highways and some roadways were excluded from the parcel list.

**SOI acreage provided does not include the boundary area.

Data source: GIS data from Placer County and Nevada County

EXTRA-TERRITORIAL SERVICES

The District provides wastewater treatment services for Sierra Lakes County Water District (SLCWD) customers via an Interim Service Agreement. SLCWD services customers in the Serene Lakes area.

AREAS OF INTEREST

No other areas outside the District boundaries have been identified that require services from the District.

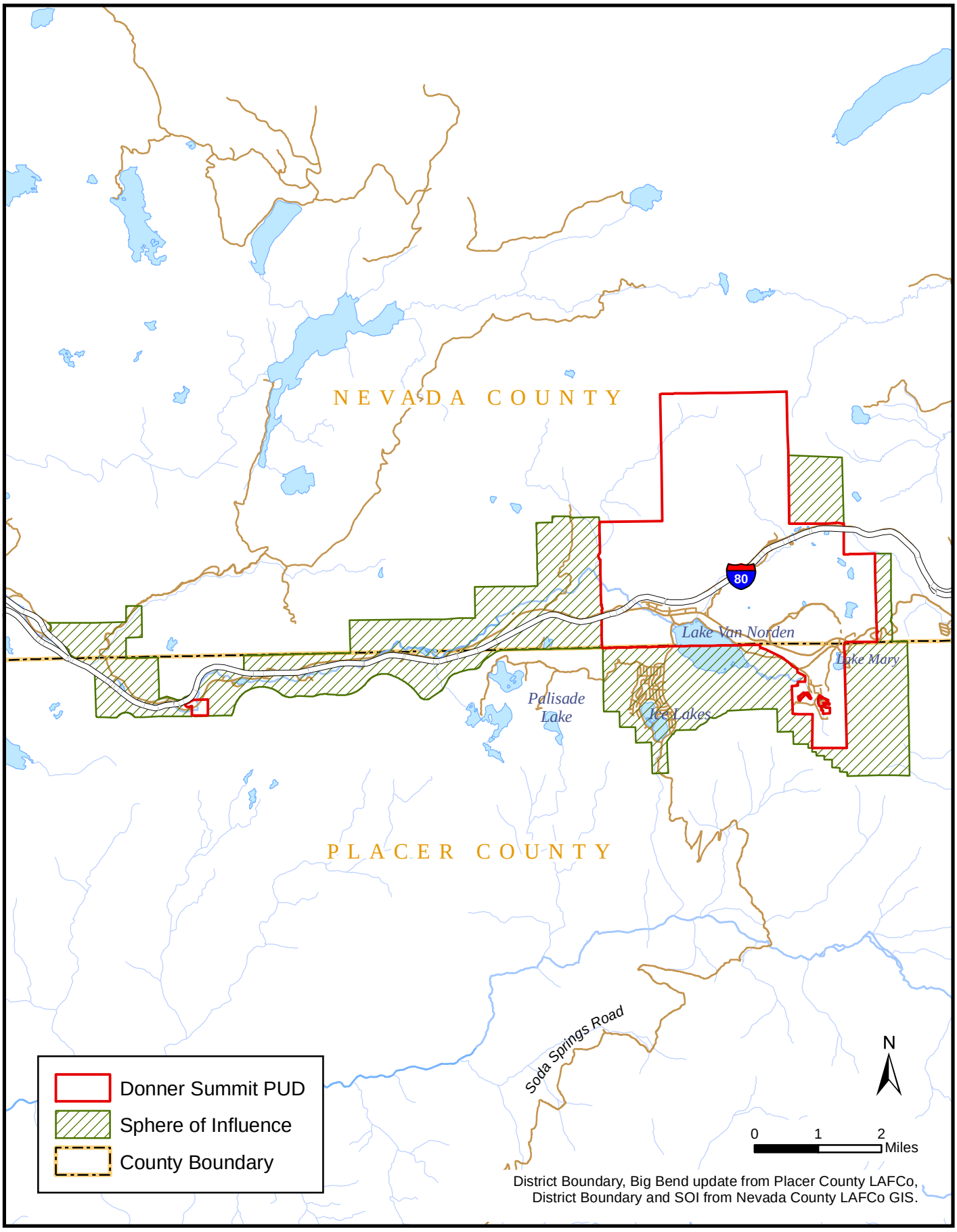


Figure 5-1

DONNER SUMMIT PUBLIC UTILITY DISTRICT

5.3: ACCOUNTABILITY AND GOVERNANCE

The District is governed by a five-member Board of Directors, who are elected by registered voters within the District boundaries. Regularly scheduled meetings are held on the third Tuesday of the month at 6:00 p.m. Meetings are located at the District office, at 53823 Sherritt Lane, Soda Springs, CA 95728. The current Board Members are as follows:

Name	Role	Date Term Ends
Cathy Preis	President	12/31/2020
Sara Schrichte	Vice President	12/31/2020
Robert Sherwood	Secretary	12/31/2020
Alex Medveczky	Director	12/31/2018
Phil Gamick	Director	12/31/2018

Directors Phil Gamick and Alex Medveczky were appointed by the Nevada County Board of Supervisors (Resolution No. 14-427) rather than through a general election. DSPUD Board candidates for election must reside in and be a registered voter within the Donner Summit PUD boundaries. Although Board Members do not receive any benefits, they are compensated at a rate of $300 per meeting for the President, $275 per meeting for the Vice President, $250 per meeting for Directors, and $125 per meeting for any Board Member attending special meetings. No Director may receive more than $4,800 in any calendar year under the provisions of the Public Utility District Code.

In accordance with Government Code § 54954, all meetings are publicly posted on the District's website, at the District office, and at the local post office a minimum of three days prior to regular Board meetings. The District also emails full Board packets to a list of customers who have requested them. Agendas for special meetings are posted in the same locations at least 24 hours prior to the special meeting. Agendas are posted on the District's website prior to regular meetings, and meeting minutes are posted after meetings. For all meetings considered out of the ordinary, including those on proposed projects that may result in rate increases or Proposition 218 issues, an extra notification step is taken: these meetings are posted on the website and sent on post cards and/or letters to all ratepayers.

The attorney for the DSPUD is generally present at Board meetings to ensure compliance with the Brown Act (Government Code §§ 54950-54926), the conflict-of-interest regulations set forth in the Political Reform Act (Government Code § 81000 et seq.), and other applicable laws. DSPUD has adopted a policy manual intended to be a resource for the Board, staff, and public in determining and evaluating the conduct of the District. There is no record of violations of any of the government code sections listed above.

The agenda for each Board meeting includes a public comment period, and the District Board has adopted a policy that establishes a procedure for addressing complaints from the public. Customers with comments or complaints can mail them to the District at P.O. Box 610, Soda Springs, CA 95728. The public can also comment through the District website and attend the meetings of the Board of Directors. The District does not track how many comments or

complaints it receives, but during 2011 and 2012, the District estimates that fewer than 10 comments or complaints were received.

The District has adopted policies addressing budget preparation, fixed asset accounting, investment of funds, and expense authorization. All of these policies are consistent with the California Special District Association's sample policy handbook. Budgets are adopted in public meetings and are available to the public upon request. As required, the District has an independent audit conducted annually. The last report was dated June 30, 2015. The audit found that there were no issues of noncompliance with financial regulations that could have an effect on the financial statement.

Placer County has been the principal county for Donner Summit PUD since 2008 (previous to that, Nevada County had been considered the District's principal county, as Nevada County had the greater portion of the entire assessed value of taxable properties within the District's boundaries). Even though most of the geographic territory of the District's boundaries lie within Nevada County, Placer County contains parcels which together have a greater portion of the entire assessed value as shown on the County's equalized assessment roll of all taxable properties.[1] Therefore, Placer LAFCo adopted an MSR for this District in early 2018 and has authority to update the District's sphere of influence.

5.4: Management Efficiencies and Staffing

Day-to-day operations are managed by the General Manager. The General Manager is a full-time employee with control over District water and sewer construction projects and operations. There are eight full-time employees of the District, a reduced number from the 16 full-time employees in 2003 when the District provided fire protection and emergency services. District staff includes a general manager, an office manager, and an administrative assistant. The sewer and water department staff include a chief plant manager and four licensed operators.

The District has adopted a set of policies that address general management, personnel, operations, Board actions, and facilities development. The policies are generally identical to those recommended in the California Special Districts Association "Sample Policy Handbook" which is used by special districts throughout the state.

5.5: Population and Growth

Population

Soda Springs, where the District office is located and around which the service area is centered, has only a few tourist-oriented commercial uses and a larger number of seasonal residents and second homeowners. The population characteristics for this region were studied in detail in a 2004 Economic Development Study for Donner Summit (Nevada County, 2004). This MSR's

[1] See Section 56066 of the Cortese Knox Hertzberg Act for more details regarding determination of the principal county.

analysis of population relies upon the 2004 Economic Study, results of the Federal 2010 census, and other data as cited. Soda Springs was reported to have 81 inhabitants and a population density of 238.6 people per square mile in the 2010 US Census. Soda Springs is located in Census Tract 9. The average household size was 1.98 and there were 41 households. The Community Fact Finder Report (California State Parks, February 2013) estimated that there are 98 permanent residents in Soda Springs. The US Census Bureau Fact Finder identified 136 housing units of which 41 were occupied in the 2010 Census. This means that 30 percent are presumed occupied by permanent residents. For purposes of this study, population growth is projected based on the higher estimate of permanent residents. Relevant population data for the other lands served by the District are not available. The geographic extent of DSPUD's service area is different from the area of Soda Springs identified in the 2010 US Census. The District has not estimated the full-time population of its service area, but does note that there are 93 registered voters within their boundaries. Approximately 331 water and 273 sewer service connections are maintained by the District, with a total of 818.5 equivalent dwelling units (EDUs) served within the District and 816 EDUs served in Sierra Lakes. The higher number of EDUs than service connections is a reflection of the numerous EDUs for commercial connections, such as the Caltrans rest areas which account for two connections but 91 EDUs. It is typical for a residential sewer connection to be served by one EDU. Of the sewer connections, 232 are residential and 41 are commercial. The District encompasses approximately 13.5 square miles (8,657acres). For the purposes of this analysis, a conservative assumption of Placer County's higher average household size (as compared to Nevada County's) was used. An existing maximum population (i.e. including seasonal visitors) of 737was calculated (288 water connections[2] X 2.56 average household size in Placer County, according to the 2009 Placer County Housing Element Background Report) within the formal District boundaries as shown in Table 5-2, below. The population density of the service area is estimated at 55 people per square mile during peak seasonal timeframes.

Table 5-2: Existing Population Data (2018)

Agency	Number of Registered Voters	Permanent Population (Estimated)	Visitor Population (Estimated)	Total Peak Population (Estimated)
Donner Summit Public Utility District	93	369	368	737

[2] *There are 331 total water connections. 43 water connections are assumed to be used by commercial enterprises. 288 water connections are assumed to be used for residential connections. One residential connection is assumed to equal one dwelling unit.*

PROJECTED GROWTH AND DEVELOPMENT

The Donner Summit PUD is located in both Nevada and Placer Counties. As a result, lands within the District are subject to two different planning agencies, depending on which County they are located. DSPUD provides sewer service to four primary development centers including Soda Springs, Kingvale/PlaVada Woodlands, Boreal Ski Resort/Caltrans Rest Stop, and Sugar Bowl.

The Placer County General Plan serves as the County's vision for long-term land use development and conservation for the Placer County portion of the District. Placer County's General Plan adopted on August 16, 1994, and updated May 21, 2013, provides a series of goals, policies, standards, and implementation programs to guide the land use, development, and environmental quality of the County. The land use designation in the western portion of the District within the Placer County is Timberland. The Sugar Bowl area is classified as Agriculture-Timberland, Resort Recreation and Medium Density Residential (3,500 to 10,000 sq. ft. lots) by the Placer County General Plan[3]. Some years ago, a development group proposed to develop what was then the Royal Gorge properties around Lake Van Norden and the Ice Lakes (Serene Lakes) area. This development would have required both water and sewer service from Sierra Lakes County Water District and Donner Summit PUD. Wastewater would have been delivered to Donner Summit PUD for treatment and disposal. The project developer lost the property in bankruptcy and in recent years the Truckee Donner Land Trust (TDLT) acquired the holdings. As such, the TDLT relinquished all development rights/expectations on the former Royal Gorge property. The 10 sewer connections previously associated on these lands have been offered back to the Sierra Lakes County Water District.

Parcels located in Nevada County are subject to the Nevada County General Plan, approved by the Board of Supervisors in 1996 and subsequently amended in 2008 (Safety) and 2010 (Circulation/Housing), 2014 (Housing, Noise, Safety) and 2016 (Land Use). The Nevada County General Plan is the long-term policy guide for the physical, economic and environmental future of the County. It is comprised of goals, objectives, policies, and implementation measures, which are based upon assessments of current and future needs and available resources, and which are intended to carry out the four central themes which are critical to the future of Nevada County and its quality of life.

AERIAL PHOTO OF SODA SPRINGS AREA

[3] *These land use designations reflect existing land uses and development potential in line with the master plan for the Sugar Bowl area.*

On October 25, 2016, the Nevada County Board of Supervisors approved the Soda Springs Area Plan through Resolution 16-519. The Area Plan establishes policies and accommodates neighborhood commercial land uses to serve the local population and to encourage recreational uses (primarily a formal snow play area, museum, etc.) and economic development. The primary land use designation within the Nevada County portion of the District includes Urban Single family, Urban Medium Density, Recreation, Highway Commercial and Forest -40. As noted above, Soda Springs is the primary community within the Nevada County portion of the DSPUD. While there is a permanent resident population base, Soda Springs is primarily a tourist area with a large percentage of second homes. The Town of Truckee is the closest socioeconomic center to the District area, but is not part of the District's service area. Although opportunities for new substantial growth or planned residential developments appear to be limited within the DSPUD boundaries, there are future opportunities for infill development and redevelopment as described in Nevada County's Area Plan.

Since the 2004 Western County Wastewater MSR, the only new construction includes a subdivision of 25 homes at Sugar Bowl and a recreation center for skateboarders and acrobat snowboarders at Boreal. In 2010, DSPUD estimated that there were approximately 300 vacant lots within its boundaries that could be developed in the future. This potential future development was estimated to generate future sewer service demand of 332 EDU's (DSPUD, 2010). However, these lots are being developed at a slow pace and the District estimates the current growth rate at less than two percent, within its boundaries (DSPUD, 2013). In Table 4-3, below, an average annual growth rate is calculated for DSPUD, similar to the calculation for compound interest rates. This future population growth model assumes an average annual (compound) growth rate of one-half percent. This leads to a projected 2040 population of 835 persons which is 13 percent higher than the 2015 population of 737 persons. It is important to note that approximately half the population shown in Table 5-3 will likely be overnight visitors.

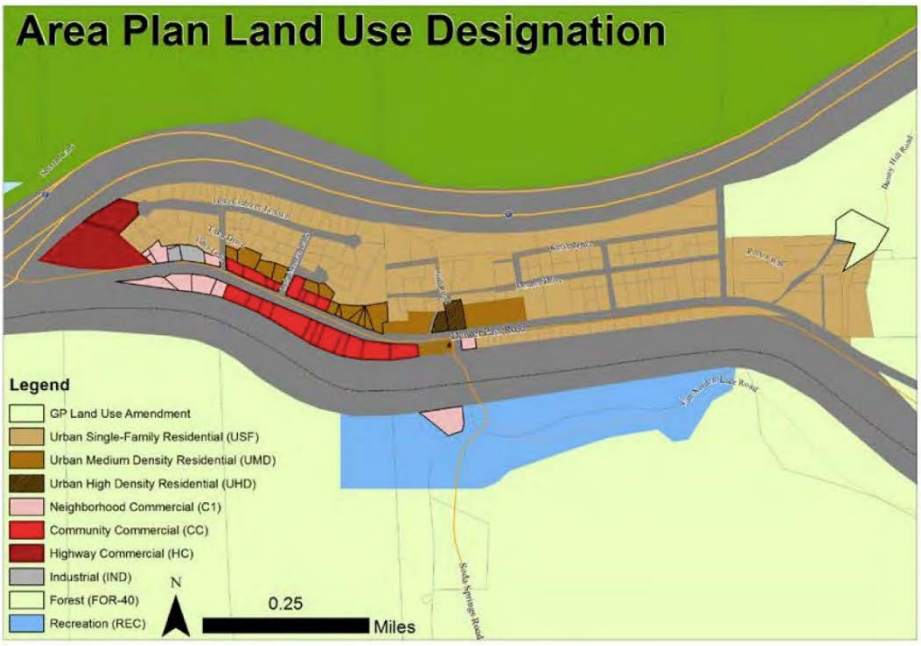


Table 5-3: Projected Population Growth in DSPUD Boundaries						
Year	**2015**	**2020**	**2025**	**2030**	**2035**	**2040**
Projected Population	737	756	775	794	814	835

Additionally, DSPUD's 2010 Wastewater Facilities Plan also estimated that there were vacant lots within Serene Lakes area and the potential future development of those lots could generate sewer service demand for an additional 80 EDUs (DSPUD, 2010). However, the future development potential in Serene Lakes (SOI 2005-2025 area) is substantially decreased with the recent acquisition of lands by the TDLT.

DISADVANTAGED UNINCORPORATED COMMUNITIES

LAFCo is required to consider the provision of public services to disadvantaged unincorporated communities (DUCs). Relevant data were reviewed for the Donner Summit area. The Donner Summit PUD boundaries, its SOI, and adjacent areas all contain DUC's. The U.S. Census has prepared estimates for the year 2013, based upon actual 2010 census data of the median household income (MHI) for the 95728 zip code as $42,574.[4] This is lower than the DUC threshold MHI of less than $48,706 (80 percent of the statewide MHI). Additionally, the Department of Water Resources (DWR) has developed a web-based application to assist local agencies and other interested parties in evaluating disadvantaged community (DAC) status throughout the State. The DAC Mapping Tool is an interactive map application that allows users to overlay the following three US Census geographies as separate data layers: 1) Census Place; 2) Census Tract; and 3) Census Block Group. Only those census geographies with an annual median household income (MHI) that is less than 80 percent of the Statewide annual MHI (PRC Section 75005(g) is shown on the map. The Soda Springs area meets the definition of a DAC (and DUC) for all three types of geographies (DWR, 2015). It should be noted that the portion of the PUD's boundaries that lies within Nevada County seems to contain most of the DUC area. The residences and business that are within the District's boundaries do receive adequate water, wastewater, and fire protection services as detailed in Placer LAFCo's 2018 MSR for this region. No public health and safety issues have been identified in the DUC area.

[4] 2010 census data via American Fact Finder website at: <*http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF*>.

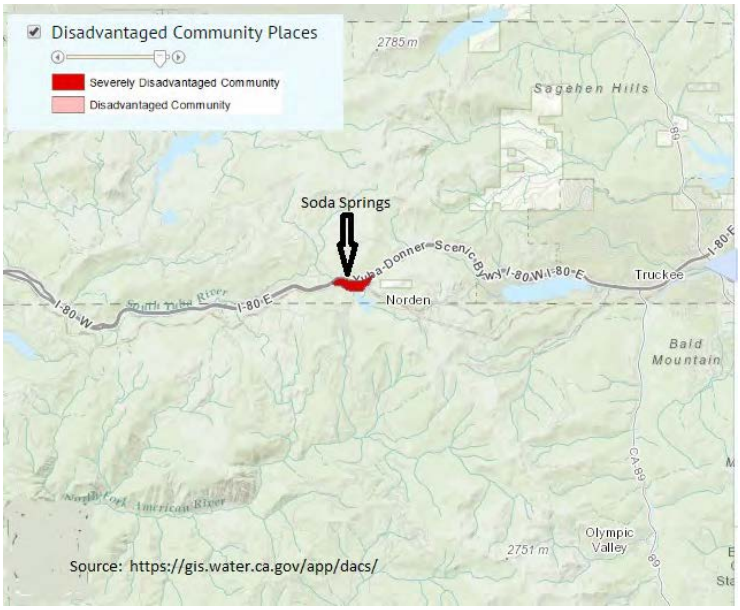
5.6 District Services

Service Overview

The District provides water treatment and distribution, and wastewater collection and treatment services within the service area. Fire protection and emergency services were transferred to the Truckee Fire Protection District in 2006, and those services were deleted from the District's responsibilities on July 1 of that year. This MSR focuses only on the provision of wastewater collection and treatment services by DSPUD.

Wastewater Service

The District provides sewerage service to the Norden and Soda Springs communities and to several ski resorts including Sugar Bowl, Donner Ski Ranch, Boreal, and Soda Springs. Through the SLCWD, the Serene Lakes community is also served by the DSPUD wastewater treatment plant (WWTP). It is estimated that the WWTP serves approximately 2,000 individual residents (i.e. within the combined service area for DSPUD and SLCWD.



The District holds a 30-year Special Use Permit from the US Forest Service for the WWTP site. A discharge permit from the Central Valley Regional Water Quality Control Board (CVRWQCB) is reviewed every five years for the sewage treatment operation, and the District recently received formal approval of its discharge permit in June 2015, Order No. R5-2015-0068 (NPDES Permit No. CA0081621). This permit became effective as of August 1, 2015 and will expire July 31, 2020 (CVRWQCB, 2015).

The most recent inspection of the WWTP occurred on May 1, 2013, and the WWTP was generally in compliance. The District has on occasion violated its nitrate, ammonia, and pH limit, and operates under both Waste Discharge Requirements (WDRs) Order R5-2009-0034 and Cease and Desist Order (CDO) R5-2009-0035. The CDO contains a time schedule to achieve full compliance with effluent ammonia, nitrate, copper, cyanide, dichlorobromomethane, aldrin, alpha BHC, manganese, silver, and zinc WDRs limitations by April 24, 2014. Since the District is considered a small disadvantaged community, all mandatory minimum penalties are allowed to apply to the upgrade and expansion project. According to District staff, the system has not exceeded its peak flow capacity.

Primary services provided by the District for the wastewater system are collection, treatment, disposal, and maintenance. The District services 41 commercial sewer connections and 232 residential sewer connections. Commercial use is based on a number of factors, including use, the number and size of beds in a room, restaurant seats, bar seats, etc. A 1.56-million-gallon storage tank provides three days of emergency storage for treatment effluent and is also used for spray irrigation operational storage during the summer and potential snow making operational storage in the winter. To comply with the CDO, the District constructed a new treatment system consisting of membrane bioreactors (MBR) for biological treatment and filtration, and ultraviolet (UV) for disinfection. Boilers and recirculation pumps are used to heat the influent to facilitate the biological treatment process. A 756,000-gallon equalization storage tank is also utilized.

Bio-solids resulting from the treatment process are directed to a sludge storage tank during the winter months and are dried in sludge beds during the summer months. Sludge is transported for disposal to a landfill in Lockwood, Nevada.

Constructing brick walls at the MBR building

In order to finance the upgrade and expansion of the WWTP, the District held a public election of ratepayers to vote on the formation of a Community Facilities District (CFD No.1). The CFD is a special financing district created for the purpose of financing improvements to the WWTP required by the State to meet water quality standards. The CFD resulted in a special tax levied on customers within CFD No. 1. Following the formation of CFD No. 1, all properties who voted for the CFD were included in the CFD No. 1 and are considered "Inside CFD No.1" (a term used in District documents). Rate payers who voted against the CFD are now considered "Outside CFD No.1" and pay for the wastewater treatment plant improvements through their regular wastewater rates, whereas customers who are "Inside CFD No. 1" pay for the improvements with special taxes.

DEMAND FOR SERVICE

Demand for sewer service is typically impacted by development occurring within the District that could result in an increase in the demand for these services and the need for additional infrastructure. Minimal development is expected to occur within the District because the area is an isolated community with little growth projected.

WASTEWATER

The District upgraded its WWTP and construction was completed in 2015. Factors that can influence the District's ability to supply and/or deliver wastewater service to customers include treatment plant capacity and Regional Water Quality Control Board (RWQCB) regulations. The NPDES permit (R5-2016-0068) indicates the new WWTP design average dry weather flow capacity is 0.52 MGD[5]. As previously mentioned, the District has an interagency agreement with SLCWD to treat their wastewater.

Data from the old WWTP indicates that it had a treatment capacity of 0.619 million gallons per day (mgd) with potential to support 1,809 EDUs. Typical Average Annual Flow during the years 2002 to 2006 was 0.23 mgd (DSPUD, 2010). Peak flows within the year 2013 were 0.533 mgd. Future service demands from within both the DSPUD and the SLCWD boundaries were considered during the design and upgrade for the new WWTP. The District expanded its treatment plant capacity to satisfy needs projected from the development of existing lots that are currently vacant.

SEWER INFRASTRUCTURE AND FACILITIES

This section describes the existing infrastructure associated with the provision of sewer services by the District. The District's sewer facilities at 53283 Sherritt Lane are situated on land leased by the US Forest Service, Tahoe National Forest. The District upgraded its WWTP and construction was completed in 2015. Improvements included a membrane equipment building, a chemical/electrical building, a sludge pump building, an equalization storage tank and pump building, an equalization meter and valve fault, and new headworks. The new WWTP facilities include an upgrade to UV light disinfection processes.

Photo by Edewaa Foster on Unsplash

[5] *http://www.dspud.com/assets/pdf/dspud_wwtp_npdes_to.pdf*

During the high seasons (summer and winter) with peak service demands, wastewater flows into a new 700,000-gallon storage tank, resulting in 950,000 total gallons of storage. This storage allows staff to adjust storage time to even out flows at the WWTP resulting in considerable flow equalization. Additionally, the existing spray field irrigation system which facilitates effluent discharge in the spring and summer was expanded by 10 acres. During the fall and winter seasons, discharge is directed to the Yuba River. The Clean Water Revolving Fund and the USDA contributed funding to the upgrade project due the public benefits of lowering effluent ammonia and nitrate concentrations to meet California quality requirements for recycled water.

Extreme fluctuations in the inflow, with very high flow and extremely cold influent during winter ski season, create wastewater treatment challenges. The bacteria that help degrade the sewage prefer warmer temperatures and do not function well in very cold environments. New boilers in the recirculation tanks will also warm up the effluent from a current low of three degrees (C) in the winter (bacteria stop working at eight degrees) to increase bacteria activity. In addition, the project includes the proposed expansion of the existing effluent irrigation disposal on an adjacent parcel owned by Boreal Ridge Corporation. These improvements will bring DSPUD into compliance with the RWQCB water quality regulations. Other site improvements include new driveways, access roads, and snow storage areas. DSPUD and SLCWD set up a committee with representatives and engineers from both districts to study and design the construction project.

Crew framing the retaining wall around the chemical/electrical building in 2012

The District's maintenance plan includes inspection of all main lines by way of television camera on a rotational schedule. All lines are cleaned before the inspections. When defects in the pipelines are found, they are either grout-sealed, or a stainless-steel insert is placed to correct the defect. The District also inspects manholes within the service area on an annual basis.

WATER QUALITY

Water Quality Permits

The wastewater treatment plant currently operates under Order No. R5-2015-0068, allowing discharge of treated effluent to the South Yuba River not to exceed 0.52 mgd average dry weather flow and only during the months of October through July. During the other months, the permit allows for discharge to land on a 53-acre parcel at an average monthly rate below 0.52 mgd through the use of spray irrigation. The NPDES permit from the RWQCB was renewed and approved during the Board's public hearing on June 4-5, 2015. Table 5-4, below, presents a recent history of the PUD's permits from the RWQCB.

Table 5-4: Permits from the Central Valley RWQCB

Date	Order/Permit Number	Description
April 24, 2009	WDRs Order R5-2009-0034 and Cease and Desist Order (CDO) R5-2009-0035	The Central Valley Water Board regulated discharges from the PUD WWTP. The orders became effective of 13 June 2009 and 24 April 2009, respectively.
March 28, 2014	CDO R5-2014-0044	The Central Valley Water Board adopted CDO R5-2014-0044, which rescinded and replaced R5-2009-0034. CDO R5-2014-0044 updated interim effluent limitations, extended time schedules, and provided Mandatory Minimum Penalty (MMP) protection for aluminum, ammonia, copper, cyanide, dichlorobromomethane, manganese, nitrate, silver, and zinc. This Order considers the exemption from MMPs provided by CDO R5-2014-0044.
June 4, 2015	WDRs Order R5-2015-0068	The Board renewed the WDRs and issued WDRs Order R5-2015-0068, which rescinded WDRs Order R5-2009-0034, except for enforcement purposes.
August 11, 2015		The Central Valley Water Board issued a Minor Modification Letter to correct typographical errors related to the Report of Waste Discharge due date and the WDRs Order expiration date.
August 26, 2015	ACLO R5-2015-0538	Administrative Civil Liability Order (ACLO) R5-2015-0538 for MMPs was issued in the amount of $3,000 for effluent limitation violations that occurred between 1 July 2014 and 30 April 2015. The penalty was satisfied by the completion of a compliance project and the Board considers the effluent violation to be resolved.
August 1, 2016	Notice of Violation	Board staff issued a Notice of Violation and draft Record of Violations for effluent limitation violations (manganese) from 1 May 2015 through 31 May 2016. On 11 August 2016, the Discharger responded and agreed with the violations and the proposed administrative civil liability. Assessment of mandatory penalties ($6,000) was issued.
December 8, 2017	Order R5-2017-0114	Amends Order R5-2015-0068 to remove the final effluent limitations and monthly compliance effluent monitoring requirements for aluminum.

		Acknowledged DSPUD's submittal of *Copper Water-Effect Ratio Study Work Plan* dated 12 April 2016 and *DSPUD Copper Water-Effect Ratio Study* (Study) dated 17 November 2016. Order amends Order R5-2015-0068 to remove the final effluent limitations and monthly compliance effluent monitoring requirements for copper. Rescinded cease and Desist Order R5-2014-0044.

Overview of Database Reports

This section provides the results of database searches on water quality for the DSPUD. Compliance of wastewater agencies with water quality regulations promulgated by the State Water Resources Control Board (State Water Board) and the Central Valley Regional Water Quality Control Board (Regional Water Board) is important to LAFCo. This type of information is especially important since during a drought, a community can't rely upon "dilution" as a solution to pollution. When local water supplies are scarce, keeping that supply at a high level of water quality is desirable.

California Integrated Water Quality System Project

The California Integrated Water Quality System (CIWQS) is a relational database used by the State and Regional Water Boards to track information about permit violations and enforcement activities. DSPUD has permits from the Central Valley Regional Water Quality Control Board and is therefore classified as a "Permittee." Permittees are allowed to self-report their own permit violations to the CIWQS. A four-year term from January 1, 2013 to December 31, 2017, was queried in the CIWQS database. Table 5-5 below shows both formal enforcement actions and informal enforcement actions. Formal actions require compliance with requirements. An informal response may consist of a phone call or staff enforcement letter that are aimed at stopping the violation. The relation between violations to enforcement action is a many-to-one relationship, such that several violations may be combined into one enforcement action. Most of the violations listed in Table 5-5 were minor exceedances of coliform, lead, copper, and ammonia (SWRCB, 2018).

Table 5-5: Violations and Enforcement Report, 2013-2017					
Facility	Organization	Formal Enforcement Actions	Violations Linked to Formal Enforcement Actions	Informal Enforcement Actions	Violations Linked to Informal Enforcement Actions
Wastewater Treatment Plant	Donner Summit PUD	5	10	19	205
Data Source: CA Integrated Water Quality System relational database. State and Regional Water Boards (SWRCB, 2018).					

Of the violations listed in Table 5-5 above, over 165 of these were exempt from the Mandatory Minimum Penalty Report requirements of the State Water Board. Although ten violations were linked to formal enforcement action, only nine violations were considered serious effluent violations (SWRCB, 2018a and 2018b).

The new wastewater treatment plant was completed in 2015. The year 2016 was the treatment plant's first year of operation and during that year, technicians and engineers learned how to optimize the system. As a result of this learning curve, water quality violations declined in 2017. Additional years of data with the new treatment plant will support a more accurate trend analysis of the water quality situation.

Sanitary Sewer Overflow Database

The State Water Board maintains a database of Sanitary Sewer Overflows (SSO) from public/permitted systems and private lateral sewage discharges. This database is a specific module in the CIWQS. The State Water Board formalized the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (SSS), Water Quality Order No. 2006-0003 (SSS WDRs), on May 2, 2006. All public agencies that own or operate a sanitary sewer system that is comprised of more than one mile of sewer pipes which convey wastewater to a publicly owned treatment facility must be covered under the SSS Waste Discharge Requirements. The SSS Waste Discharge Requirements requires enrollees, among other things, to maintain compliance with the Monitoring and Reporting Program. A four-year term from January 1, 2013 to December 31, 2017, was queried in the CIWQS-SSO database. The results of the database SSO queries regarding DSPUD are listed below in Figure 5-2.

During the four-year study period, DSPUD had a total of two reported sanitary sewer overflow events as shown in Figure 5-2, below. The years 2016 and 2014 each had one reported spill. The 2014 SSO event had a total volume of 5,000 gallons spilled; however, 4,000 gallons was recovered and returned to a sewer line before reaching a drainage channel. This event was

classified "Category 2" event caused by a treatment plant shut down for influent line tie-in which took longer than expected, causing flow to backup and over flow out of a nearby manhole. The 2016 SSO event was very small with only 100 gallons of total volume spilled. The spill did not reach a drainage channel and/or surface water. It was confined to a land area and classified as a Category 3 event. The spill was cleaned up and the correct reporting process was followed.

Figure 5-2: DSPUD Results Sanitary Sewer Overflow Database

DRILLDOWN HISTORY: [GO BACK TO SUMMARY PAGE]
REGION: 5S

[VIEW PRINTER FRIENDLY VERSION]

EVENT ID	Region	Responsible Agency	Collection System	SSO Category	Start Date	SSO Address	SSO City	SSO Vol	Vol of SSO Recovered	Vol of SSO Reached Surface Water	SSO Failure Point	WDID
807974	5S	Donner Summit Public Utilities District	Donner Summit CS	Category 2	2014-07-29 09:00:00.0			5,000	4,000	0	Gravity Mainline	5SSO10933
821719	5S	Donner Summit Public Utilities District	Donner Summit CS	Category 3	2016-02-03 12:30:00.0			100	0	0	Solids Holding Tank	5SSO10933

5.7: FINANCING

LAFCo is required to make a determination regarding the financial ability of the Donner Summit Public Utility District to provide public services. This Chapter provides an overview of financial health and provides a context for the financial determination. The audited Comprehensive Annual Financial Reports (CAFR) from the District for the fiscal years 13/14, 14/15, and 15/16 are the primary source of information for this Chapter. This Chapter was written on December 1, 2017 and the CAFR for the fiscal year 16/17 was not yet available and therefore it is not included in this chapter. The most recent financial data for the PUD can be found on the District's website at: <*http://www.dspud.com/fiscal.php*>. Based on recent recommendations from the Little Hoover Commission, this determination on the financial ability to provide services is based upon several key financial performance indicators that are shown in tables in the following pages.

In California, special districts are classified as enterprise or non-enterprise districts, based on their source of revenue:

- Enterprise districts: Finance of district operations is via fees for public service. Under this model, the customers that receive goods or services such as drinking or sewer water, waste disposal, or electricity, pay a fee. Rates are set by a governing board and there is a nexus between the costs of providing services and the rates customers pay. Sometimes enterprise district may also receive property taxes which comprise a portion of their budget.
- Non-enterprise districts: Districts which receive property taxes are typically classified as non-enterprise districts. Services that indirectly benefit the entire community, such as flood or fire protection, community centers, and cemetery districts are often funded through property taxes.

DSPUD receives a portion of the Nevada County and Placer County property taxes assessed on owners within the District boundaries. However, since most of the revenue is derived from fees for service, for purposes of this MSR DSPUD is considered an enterprise district. Details about the fees charged for wastewater collection and transport services are provided on the following pages.

FINANCIAL POLICIES & TRANSPARENCY

DSPUD prepares an annual budget and an annual financial statement, both of which are reviewed in public meetings and made available to the public via the District's website. The financial statement includes an independent auditor's report. The fiscal year begins on July 1 and ends on June 30. Budgets and CAFRs for recent years are available to the public via the District's website.

The audit for FY 15/16 (DSPUD, 2016) found that there were no issues of noncompliance with financial regulations that could have an effect on the financial statement[6]. Funding for upgrades to the wastewater and water treatment plants has come from Federal and State loans. The Board began work on a Capital Improvement Plan (CIP) in 2015. The CIP will mostly focus on smaller CIP projects.

The District's assets exceeded liabilities at the close of fiscal year 14/15 by $13 million. This represents the net position (value) of the District as of June 30, 2015. However, during the year from FY 14/15 to 15/16, the net position declined to a total of $12.7 million as shown in Figure 5-3, below. A summary of financial policy indicators is shown in Table 5-6 below.

Table 5-6: Summary of DSPUD Financial Policies & Transparency Indicators

Indicator	Score	Notes
Summary financial information presented in a standard format and simple language.	√	The annual CAFR and budgets clearly and transparently present financial information
District has a published policy for reserve funds, including the size and purpose of reserves and how they are invested	0	Insufficient data
Other financing policies are clearly articulated	0	Insufficient data –
Compensation reports and financial transaction reports that are required to be submitted to the State Controller's Office are posted to the district website	√	Wage scale for staff positions is listed within the annual DSPUD budget which is posted on the District website.
Key to score:		

[6] Donner Summit PUD and Gibson & Company Inc. CPA of Sacramento. Financial Statement for FY 15/16. November 2016.

√= Above average (compared to similar sewer districts)
Δ= Average
0= Below average

REVENUES AND EXPENSES

This section describes sources of revenues and expenses associated with the District's water and sewer systems.

Revenue

The District receives revenue from several sources including customer fees, property tax, grants and other sources. Most of these revenues are utilized in the District's general fund. Following is a summary of the annual revenues for the PUD. As shown in Table 5-7, below, the primary source of revenue for most fiscal years is the Customer Service Fees for Wastewater Service. However, "Contributed capital" in FY 13/14 was the largest revenue source for that year.

Figure 5-3: Net Position FY 14/15 and 15/16
Source: DSPUD, 2016

Net Position (In Thousands)

	Primary Government Business-Type Activities	
	June 30, 2016	June 30, 2015
Current and other assets	$ 4,391	4,247
Capital assets	26,118	26,686
Total Assets	30,509	30,933
Deferred Outflows of Resources	113	118
Long-term debt outstanding	16,688	15,825
Other liabilities	1,234	2,163
Total Liabilities	17,922	17,988
Net Position		
Net investment in capital assets	8,612	10,828
Restricted for debt payment	857	821
Unrestricted	3,231	1,414
Total Net Position	$ 12,700	13,063

Changes in Net Position (In Thousands)

Program revenue	$ 2,586	2,452
General revenues		
Property tax	425	411
Grants	(37)	76
Gain (loss) on disposal of capital assets	1	-0-
Interest and other	20	36
Contributed capital	-0-	874
Total revenues	2,995	3,849
Expenses	3,358	2,863
Increase (Decrease) in net position	$ (363)	986

Table 5-7: Donner Summit PUD Summary of Revenues

Revenues	FY 2011/2012 Per audited financial statement	FY 2013/2014 Per audited financial statement	FY 2014/2015 Per audited financial statement	FY 2015/2016 Per audited financial statement
Customer Service Fees for Water Service	$387,695	$370,710	$363,828	$377,730
Customer Service Fees for Waste Water Service	$2,335,612	$1,734,339	$2,088,224	$2,208,373
Property tax	$118,208	$417,000	$411,000	$424,813
Interest Income (non-operating)	$491	$17,000	$36,000	$973
Other Income	$32,047	$27,000	$76,000	-17,181
Contributed capital	$885,632	$5,734,000	$874,000	$676
Total	$3,759,685	$8,300,049	$3,849,052	$2,995,000

Expenses

For FY 2015/16, expenses for the PUD included administrative expenses, depreciation of capital assets, and the costs of providing sewer collection, treatment, and disposal services. Total expenses incurred during the past few years is shown in Table 5-8. The four largest expense categories in FY 15/16 were employee salaries/benefits, utilities, depreciation, and interest charges from loans, as shown on Figure 5-4 (next page).

Table 5-8: Total Annual Expense

Fiscal year	Expense Amount
FY15/16	$3,357,989
FY14/15	$2,862,836
FY13/14	$2,214,192
FY 11/12	$2,237,960

Data Source: Audited Financial Statements by DSPUD FY 11/12, 13/14, 14/15 and 15/16

Utility expenses have been trending upward in recent years. The DSPUD budgeted $214,549 for its utility, communications, and telemetry expenses in the FY 2012-2013 budget. This amount accounted for 10.6 percent of the District's expenses. In the FY 17/18 budget, the utility line item increased to $327,594 (DSPUD, 2017). In the long-term future, the District could explore the use of new technology to develop and capture renewable energy to reduce its annual expenditures on utility costs. The District should investigate efficiencies in its electricity use, which will require proper budgeting for energy efficiency consultation. (See also the Sept. 19, 2018 comment letter from DSPUD provided in Chapter 6.)

Comparing revenues to expenses provides an analysis of the overall fiscal health of the enterprise fund and serves to assess the financial ability of the PUD to provide water and wastewater services. In Figure 5-5 (right), the total annual revenue listed in Table 5-7 is compared with the total annual expenses listed in Table 5-8.

Figure 5-5: Comparison of Total Annual Revenue to Total Annual Expenses

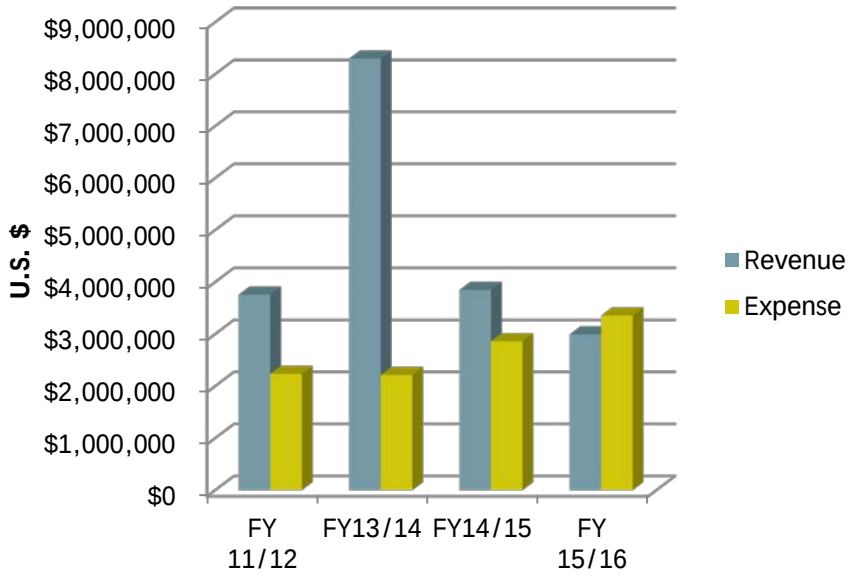


Figure 5-4: Statement of Activities and Changes in Net Position
Source: DSPUD, 2016

Statement of Activities and Changes in Net Position

For the Year Ended June 30, 2016

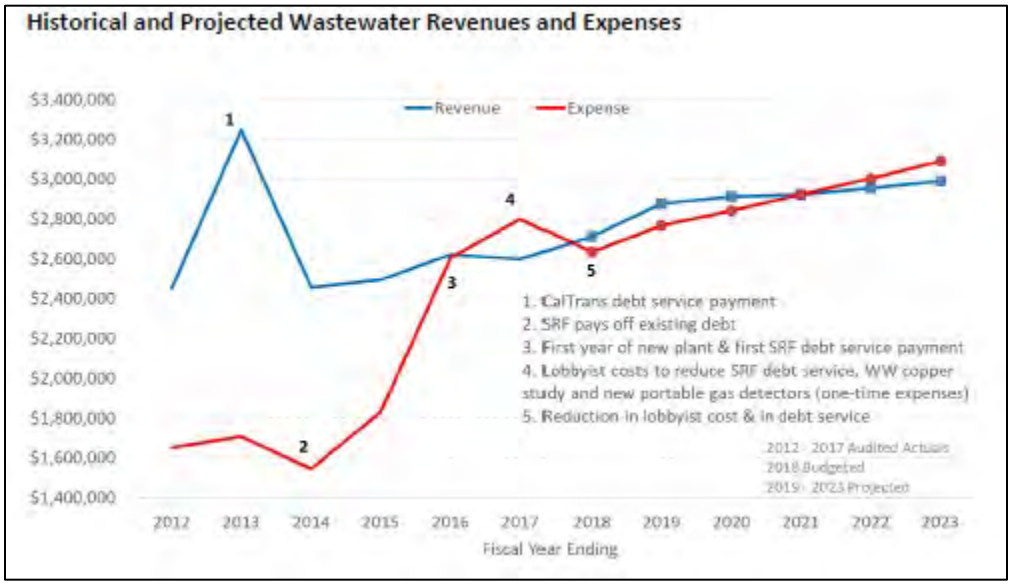
	Water	Sewer	Primary Government Business-Type Activities
Program Revenue			
Service fees	$ 377,730	2,208,373	2,586,103
Total Program Revenue	377,730	2,208,373	2,586,103
Expenses			
Salaries	183,065	617,140	800,205
Employee benefits	59,886	204,725	264,611
Board expense	5,531	17,516	23,047
Professional fees	31,721	172,277	203,998
Equipment maintenance and repair	11,645	79,053	90,698
Operating supplies	11,438	15,315	26,753
Vehicle maintenance and repair	3,397	17,618	21,015
Facility maintenance and repair	102,097	47,617	149,714
Dues and subscriptions	1,758	5,986	7,744
Fees, permits and certifications	12,117	21,223	33,340
Training and education	131	1,407	1,538
Travel	176	608	784
Insurance	11,329	44,009	55,338
Office supplies	2,338	8,392	10,730
Utilities, communications and telemetry	33,535	284,852	318,387
Chemicals and lab supplies	23,628	124,962	148,590
Laboratory testing	1,130	29,667	30,797
Small tools and rental	2,350	10,233	12,583
Sludge removal	-0-	15,483	15,483
Depreciation	65,136	690,153	755,289
Interest	1,518	365,577	367,095
Land lease	-0-	20,250	20,250
Total Expenses	563,926	2,794,063	3,357,989
Net Program Revenue (Expense)	(186,196)	(585,690)	(771,886)

Construction of the new WWTP did require the District to incur loans which will be repaid through a combination of a special tax on customers in two zones and increased rates on customers in a third zone[7]. The interest rate on one loan was recently reduced, resulting in savings for District ratepayers. The transmission/collection pipes for both the water and sewer system are aging and the District will face slightly higher levels of maintenance and capital improvement costs in the future. The District's budget for FY 17/18 predicts that revenues will exceed expenditures for the year (DSPUD, 2017). As part of a recent rate study, the District's

[7] Personal communication with General Manager, Tom Skjelstad, 2015.

consultants (Hansford) prepared projections comparing future anticipated revenues to expenditures as shown in Figure 5-5, below.

Figure 5-5.



Data source for Figure 5-5 is DSPUD, 2018.

A summary of revenue and expenditure indicators is shown in Table 5-9 below.

Summary Scores Revenues, Expenditures, and Net Position

Table 5-9: Summary of Indicators Revenues, Expenditures, and Net Position		
Indicator	**Score**	**Notes**
Revenues exceed expenditures in 50% of studied fiscal years	√	Total revenue was less than the operating expenditures in only one of the four study years. It is recognized that capital improvement projects are expensive and necessary. Many wastewater districts in California are in a similar situation.
Increases or decreases in net position	Δ	Changes to the Net Position are shown in Figure 5-3 to be variable. However, the decline in Net Position of -$300,000 in FY2016 was predominately due to an increase in expenses as compared to FY2015. This situation is typical of many wastewater districts in California.
Key to score: √= Above average (compared to similar sewer districts) Δ= Average 0= Below average		

RATE RESTRUCTURING

WASTEWATER

To provide the necessary revenue to cover current cost of wastewater service, the District Board adopted new wastewater rates and fees with Ordinance 01-2012 on February 14, 2012. The new fee structure is tiered with rates and fees increasing annually. Wastewater rates are calculated on an EDU basis for Inside and Outside CFD No. 1 customers. Existing customers pay the full rate because they currently send wastewater flow to the WWTP. Future customers will pay reduced monthly rates to cover their portion of operations and maintenance expenses and a connection fee to cover their impact to the financing debt. Rates for existing customers increase annually due to the inclusion of rehabilitation costs for the treatment plant once the upgrades and expansion are complete, as well as typical operations and maintenance expenses. The treatment plant project is currently paid for by a loan from the SWRCB's Clean Water State Revolving Fund (CWSRF). This loan will be repaid by Inside CFD No. 1 customers through special taxes and by Outside CFD No. 1 customers through their annual service charges. Table 5-10, below, shows past fees (2012-2016). In Dec. of 2017 the SWRCB agreed to lower the interest rate on TSD's CWSRF loan from 2.2% to 0.75% and this will save the District $3.43 million over 25 years (Personal communication, T. Skjelstad, 2018).

Table 5-10: Calculated Wastewater Rates and Connection Fees through 2016						
Rates by Customer		**Calculated Rates**				
		2012	2013	2014	2015	2016
	Effective Date	1/1/2012	7/1/2012	7/1/2013	7/1/2014	7/1/2015
		Charge per EDU per month				
Existing Customers						
Inside CFD No. 1	$110.32	$110.32	$110.32	$114.83	$116.24	$117.58
Outside CFD No. 1	$110.32	$127.03	$143.06	$164.28	$165.69	$167.02
Future Customers						
Inside CFD No. 1	$45.72	$45.72	$46.12	$47.99	$48.58	$49.13
Outside CFD No. 1	$45.72	$62.43	$78.86	$97.44	$98.02	$98.58
***Connection Fee: Outside CDF No. 1 only**		$1,070 prior to April 1, 2012 $1,772 April 2012-June 2012 $2,362 Jul 2012–Jun 2013 $3,542 Jul2013-Jun 2014 $5,312 Jul 2014-Jun 2015 $7,672 Jul 2015-Jun 2016				

Rates for service remained the same from 2016 thru 2017. On August 15, 2017, the PUD adopted Resolution 06-2017 approving new water rates.

Table 5-11, Fees, 2017

Table 1
DSPUD 2017 Connection Fee Analysis
Costs Due for an Expansion EDU

EXHIBIT A

Expansion EDU Area	Cost per EDU FY 2017/18	FY 2018/19	FY 2019/20	Deposited to Account
OUTSIDE CFD NO. 1				
New Expansion EDU				
Treatment Plant Connection Fee [1]	$6,650	$7,504	$8,357	WW Fund
All other System Facilities Connection Fee [2]	$1,664	$1,714	$1,766	WW Fund
Total New Expansion EDU Cost	**$8,314**	**$9,218**	**$10,123**	
Existing Expansion EDU [3]				
Treatment Plant Connection Fee	$1,042	$1,303	$1,563	WW Fund
All other System Facilities Connection Fee [2]	$1,664	$1,714	$1,766	WW Fund
Total Existing Expansion EDU Cost	**$2,707**	**$3,017**	**$3,329**	
INSIDE CFD NO. 1				
New Expansion EDU				
Catch-Up Special Tax [1]	$4,359	$4,952	$5,545	CFD
One-Time Special Tax	$1,249	$1,249	$1,249	CFD
Treatment Plant Connection Fee [1]	$1,042	$1,303	$1,563	WW Fund
All other System Facilities Connection Fee [2]	$1,664	$1,714	$1,766	WW Fund
Total New Expansion EDU Cost	**$8,314**	**$9,218**	**$10,123**	
Existing Expansion EDU [3]				
Catch-Up Special Tax [1]	$0	$0	$0	CFD
One-Time Special Tax	$0	$0	$0	CFD
Treatment Plant Connection Fee [1]	$1,042	$1,303	$1,563	WW Fund
All other System Facilities Connection Fee [2]	$1,664	$1,714	$1,766	WW Fund
Total Existing Expansion EDU Cost	**$2,707**	**$3,017**	**$3,329**	

Source: DSPUD and HEC. edu sum

[1] Increases $854 per year ($593 special tax, $261 in rates for 2014 WWTP Project debt service).
[2] Increases by 20-year ENR Construction Cost Index annual average increase of 3%.
[3] Transfer or private party sale of an expansion EDU that paid a one-time special tax (if Inside CFD No. 1) or one-time connection fee (if Outside CFD No. 1) before May 2012.

In June 2018 DSPUD will consider new rates for wastewater services during a public meeting. The proposed rates are shown in Table 5-12, below.

Table 5-12.

Proposed Wastewater Rates

Rates by Customer	Current 2018	Calculated Rates 2019	2020	2021	2022	2023
	Effective Date	*7/1/2018*	*7/1/2019*	*7/1/2020*	*7/1/2021*	*7/1/2022*
Existing Customers			***Monthly Charge (Rates) per EDU***			
Inside CFD No. 1	$117.58	$128.55	$130.16	$131.44	$134.33	$137.40
Outside CFD No. 1	$167.02	$177.96	$179.57	$180.86	$183.74	$186.82
CalTrans	$117.58	$117.69	$119.30	$120.59	$123.47	$126.55
Future Customers						
Inside CFD No. 1	$49.13	$67.99	$68.77	$69.39	$70.79	$72.29
Outside CFD No. 1	$98.58	$117.40	$118.18	$118.81	$120.21	$121.70
			Special Taxes per EDU			
Inside CFD No. 1 - All EDUs	$49.42	$49.42	$49.42	$49.42	$49.42	$49.42

Source: HEC.

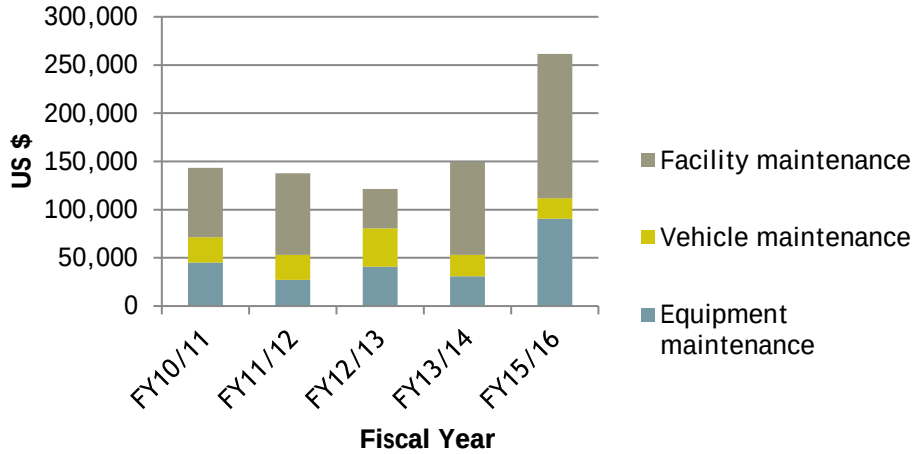
Existing Customers = Properties currently connected to the WWTP.

Future Customers = Properties with an attached (paid for) future connection to the WWTP. The calculated rate covers their share of debt service and a portion of operations and maintenance expenses.

Data Source for Table 5-12: DSPUD, March 2018

Table 5-13: Summary of Rate Indicators		
DSPUD Rate Indicator	**Score**	**Notes**
Rates were adopted by the Board of Directors	√	PUD's Board of Directors adopted sewer rates as part of Ordinance 01-2012 and Resolution #06-2017. The rates are based the 2011 sewer rate study by Hanford Economics and this is available on the DSPUD website.
Rates are consistent with requirements of the State Water Resources Control Board and the process for adopting rates are consistent with Proposition 218	√	Ordinance 01-2012 and the minutes from the February 14, 2012 public meeting describes consistency with state laws. Water rates for 2017 and 2018 were approved via Resolution #06-2017, adopted a regular public meeting of the Board of Directors.
Rates are readily available to constituents	√	Rates are transparently displayed on the District's website.
Key to score: √= Above average (compared to similar sewer districts) Δ= Average 0= Below average		

Figure 5-6: Annual Maintenance Expenditures DSPUD



Data Source: CAFR for DSPUD, 2011 - 2016

Asset Maintenance and Replacement

The Donner Summit PUD owns the wastewater treatment plant and associated sewage collection and disposal infrastructure and also owns the water treatment plant and water delivery pipelines. These capital assets are depreciated over their estimated useful lives. Although the PUD does not have a formal policy regarding depreciation of assets, the audited financial statement analyzes depreciation in a manner consistent with standard accounting practices. Asset maintenance is typically a significant issue for a District; however, the PUD's infrastructure is a mix of newer facilities such as the WWTP and older facilities such as the water delivery pipelines. Historically, the PUD budgeted an average of $134,000 annually for maintenance projects on both the water and sewer system that are implemented on an as-needed basis. However, in FY 15/16 this expense increased to $261,467 as shown in Figure 5-5. For FY 17/18 the PUD's annual budget allocates only $13,000 for facility maintenance and repair (DSPUD, 2017).

Capital Improvements

In the past, the District planned for and implemented capital improvements on an as-needed basis. The District recognizes that it is difficult to determine whether or not existing rates are sufficient to pay for future operational improvements without a formal capital improvement plan. Although a capital improvement plan was not provided to the MSR consultants, the District's General Manager has indicated that the Board is interested in documenting and planning for future capital improvements and will likely develop a capital improvement plan in the near future[8].

[8] Personal Communication with General Manager Tom Skjelstad, Donner Summit PUD, September 11, 2013

LONG-TERM LIABILITIES AND DEBTS

Upgrading the WWTP and associated facilities represents a significant capital improvement. Future improvements to the water system will also be a capital expenditure. To finance the WWTP and other past capital expenditures, the District encumbered loans from a variety of sources. The District is currently paying off these long-term debts. The District has several loans outstanding whose funds were used to upgrade the wastewater treatment plant including the following:

- State of California Water Resources Control Board loan; collateralized by net revenues of the District. The interest rate was recently renegotiated down to 0.75%; interest and principal payable in annual installments of $802,557 based on June 30, 2015 balance (but will be $719,191 if loan is fully funded) beginning 1 year after completion of construction, but not later than December 1, 2015; final payment due December 1, 2041.
- State of California Water Resources Control Board loan; collateralized by District revenue; interest of 0%; principle payable in semi-annual installments of $3,458 on July 1 and January 1; final payment due January 1, 2020.
- Sierra Lakes County Water Districts loan; uncollateralized; interest at 2.75%; interest and principal payable in an initial payment due August 8, 2016 of $327,875 and subsequent annual installments of $70,885 on July 1; final payment due July 1, 2021.
- (DSPUD, 2016)

The District's assets exceeded liabilities at the close of the fiscal year15/16 by $12,700,433 (DSPUD, 2016).

COST AVOIDANCE

The District has sought cost-saving opportunities where feasible. The District avoids the cost of room rental for meetings by holding public meetings at the District office, on property the District leases from the US Forest Service. Often, employing staff directly rather than hiring consultants saves money. The District employs eight full-time personnel, including a general manager, office manager, administrative assistant, a chief plant manager, and four licensed operators. The water and wastewater department share staff, information, and other resources to maintain an efficient work environment and keep rates as low as possible. In another example, the District sought and received low-interest, low-cost financing for the wastewater treatment plan upgrades, and has applied for and received grants to offset some costs. When the District purchased two new service trucks in 2012 through the State purchasing program, it resulted in some cost savings. In the past, the PUD has had limited staff wage freezes as needed and these also produce cost savings. They also outsourced the annual installation and tear-down of a fence surrounding a holding pond, and have implemented a policy to use on-call personnel to resolve most alarms at the water and wastewater treatment plants by utilizing a SCADA system, thus reducing overtime costs.

The District provides wastewater treatment to SLCWD. The District does not share other facilities or equipment with other districts or agencies.

CHALLENGES

The District has identified no regulatory issues, infrastructure issues, or other challenges within the next 12 months. Implementing the requirements of the new discharge permit from the RWQCB for the WWTP will be demanding. New regulations enacted from the CA DPH are expected in the next five years.

5.8: SERVICE ADEQUACY

The District's facilities are currently sized to adequately serve the existing connections within the service area. The recent upgrade and expansion of the wastewater treatment plant gives it adequate service capacity for the next 30 years. Prior to the current upgrade and expansion of the wastewater treatment plant, the District conducted a public outreach campaign to communicate with both resident and vacation home-owners within the District. The public outreach program included asking all property owners of both improved and unimproved parcels if they intended to develop their property to the extent that a sewer and water permit would be needed. Three letters were sent over a two-year time period explaining that the wastewater treatment plant would not be expanded for another 30 years. After the last letter went out, the District gave the responses to its engineers so that they could size the plant accordingly. As per standard engineering practices, the engineers included approximately 10 percent surplus capacity.

5.9: OPPORTUNITIES TO SHARE FACILITIES

The District holds its meetings at the District office at 53823 Sherritt Lane, Soda Springs, CA 95728. The District offices are on the site of the wastewater treatment plant. The District currently treats wastewater from SLCWD through a legal agreement. DSPUD is geographically separated from other agencies in Nevada and Placer Counties, making its participation in expanded sharing opportunities with the other wastewater providers less feasible. However, there are opportunities for expanded sharing within the sub-regional area served by the DSPUD that might result in economies of scale, cost savings, and regional environmental benefits. There are several independently run package plants and community land disposal wastewater treatment plants in the region including:

- The Kingvale Lodge and camp which provides hotel and other overnight facilities for visitors to Sugar Bowl and the Donner Lake area.
- Cisco Grove Campground & RV Park which has a small water/wastewater system[9].
- Pla Vada Homeowner's Association which serves a small number of residential parcels located primarily in Nevada County[10].

[9] *http://www.ciscogrove.com/*
[10] *http://plavada.com/*

While no problems with the operation or management of these facilities were noted, the possibility of these facilities cooperating in sharing resources, personnel, and expertise, should be explored. While closing these facilities and pumping wastewater to an expanded District WWTP treatment plant may not be feasible at this time, in the future the cost for these systems to achieve full compliance with increased regulations may be more than the cost of connecting to the District system. The agencies and entities involved could investigate the cost/benefit of connecting these systems to a public system in the future. Beyond a cost/benefit study, an investigation of a regional wastewater system would also have to carefully examine a wide range of technical and political/jurisdictional issues. For example, DSPUD and SLCWD have had past disagreements regarding the calculation of flow rates and other issues, which seem to have been generally resolved with the adoption of an interim agreement in 2003. The interim service agreement clearly defined some of these issues such as ownership, measurement of system capacity, maintenance and operation costs, plant expansion, and capital improvements in order to reduce current and future disagreements.

Both DSPUD and SLCWD have population bases that fluctuate seasonally and both have relatively few registered voters. This results in a relatively small pool of potential Board Members and occasionally makes it more difficult to reach other economies of scale. There may be opportunities to provide other services beyond just wastewater on a regional basis through a reorganization of existing service providers.

The District has developed a unique way to share resources with its neighbors through utilization of effluent for snow making on the Soda Springs Ski Resort property and possibly Boreal Ski Resort. During the winter of 2015/16 the District, in partnership with Soda Springs Ski Resort, became the first agency in California to offer recycled water for snowmaking. This benefits the District by reducing the amount of effluent that is discharged directly to local surface waters during the winter season.

5.10: DETERMINATIONS

Written determinations on the required topics are available in Placer LAFCo's North Lake Tahoe & Martis Valley MSR published in August 2018.

CHAPTER 6: COMMENTS RECEIVED AND RESPONSES TO COMMENTS

This Chapter describes the public comments received on this document during the public comment period. The Preliminary Draft MSR/SOI Update was distributed to the three service providers described in this MSR and it was posted to LAFCo's website in mid-June 2018. The Commission held a public meeting on the Preliminary Draft MSR/SOI Update on July 19, 2018. A public hearing on the Public Review Draft was held on September 20, 2018. The public was encouraged to provide comments for staff to review and possibly incorporate into the final document. No additional public comments were received. The following public comments have been received:

- Comments from Commissioner Anderson, July 19, 2018
- Comments from TSD's Raymond Brown, August 6, 2018
- Comments from Thomas Skjelstad, DSPUD General Manager, Sept. 19, 2018

The consultant's responses to these comments are shown on the following pages.

Consultant's Response to Comments from Commissioner Anderson
Comments Sent by Commissioner Anderson via email to SR Jones on 7/20/2018

Consultant's responses are shown below in blue italic font.

From Commissioner Anderson: SR, these are just things that caught my eye while reading Swale report. I did not read every paragraph or examine every table or figure, so there may be items I missed.

From Commissioner Anderson: Page 3-11, Table 3-3: Truckee's 2016 population is shown as 15,779. DOF's E-4 series, however, has it at 16,148 for 1/1/16, and also has slightly different numbers for the populations of Nevada and Placer counties.

Consultant Response: The Department of Finance (DOF) provides demographic estimates twice each year. The values provided in the original table 3-3 were accurate based on January 2016 DOF data. However, in May 2018 (after we drafted the TSD chapter), DOF updated Table E-4 as you correctly noted and therefore upon your suggestion, we updated the Table 3-3 to reflect the new May 2018 data.

From Commissioner Anderson: Truckee's 1/1/2018 population is estimated at 16,681. Use of the E-4 estimates would lead to a change the text of the first paragraph on page 3-11, which currently states (incorrectly) that Truckee is losing population, and also have implications for the discussion of projected growth and development on page 3-12. (BTW, the DOF estimates are merely that -- estimates -- and are not as reliable as federal census data for projecting population growth.)

Consultant Response: The original MSR text was accurate based on available data at that time. We have updated the text so it reflects the newer data presented in the updated Table 3-3 and also the updated Table 3-5. Thank you for this suggestion. Yes, we agree with you about the "estimates" that DOF provides and this is the reason why the DOF continually refines (updates) their estimates based on new data. In 6 months the DOF data we have now will be out of date. This is why MSRs are intended to be a "snapshot" in time, because it would be impossible for LAFCO to continually update the data in an MSR to keep up the regular updates in DOF estimates.

From Commissioner Anderson: All things considered, though, I like that the report gives a range for population growth within the TSD service area. My assumption is that we're unlikely to experience the Fast Growth Scenario, but will very likely see growth notably higher than the Slow Growth Scenario. It's going to be interesting to see what the 2020 census data show for our region.

Consultant Response: We agree with you. It will be interesting! Please note that DOF's population projections for Nevada County were updated in January 2018. Therefore, we updated Table 3-5: Projected Population Growth to reflect these new numbers.

From Commissioner Anderson: Page 3-22: The numbers in Table 3-7 don't add up to the totals shown for each column.

Consultant Response: Thank you for catching this mathematical error. We've made the correction in Table 3-7.

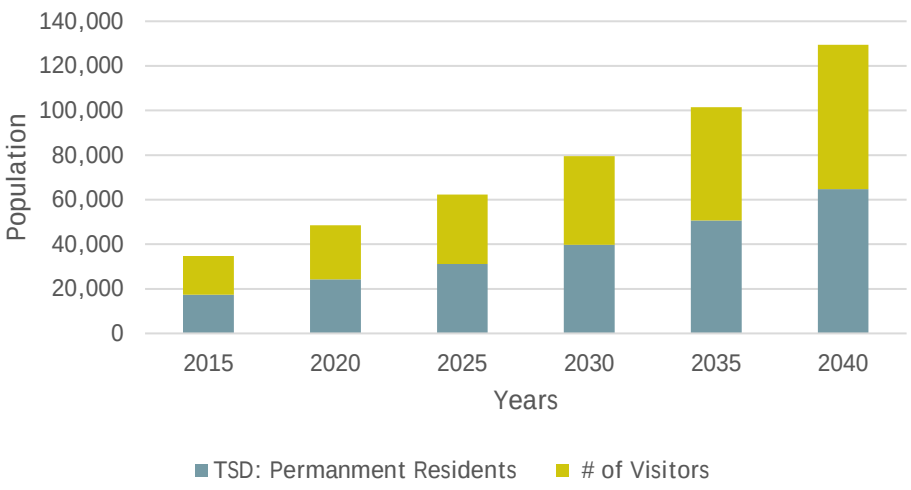
From Commissioner Anderson: Page 3-24, Table 3-8: The bottom line should read total square footage, not total units.

Consultant Response: Thank you for catching this typo. We've made the correction in Table 3-8.

From Commissioner Anderson: Page 3-39, fifth paragraph: The text indicates that population at projected buildout will total 64,840, then compares this number to the growth scenarios in Table 3-6 (page 3-13), concluding that EDU capacity is sufficient to meet the Slow Growth Scenario through 2040, and the Fast Growth Scenario through 2025. But doesn't Table 3-6 instead indicate that population growth under both scenarios can be served through the year 2040?

Consultant Response: When considering infrastructure capacity in the year 2040 under the fast growth scenario, we also factored in visitors as shown in Figure 3-5.

Figure 3-5:
TSD Fast Growth + Visitors - Peak Season



The assumption is that both permanent residents and visitors will utilize the sewer system in the year 2040. Under this scenario, it is possible that TSD will need to upgrade its infrastructure. However, like you said, Truckee is unlikely to experience the Fast Growth Scenario. We provided the fast growth scenario since this is the scenario used in the existing Truckee General Plan and associated 2015 Housing Element and because it is useful for modeling purposes.

From Commissioner Anderson: Page A1-4: the first paragraph states "the current Near-term Sphere was adopted in 2013 and would reach the 5-year threshold in 2018." This sentence should instead state that the 2018 5-year threshold has been reached.

Consultant Response: Good catch. We have made this correction

From Commissioner Anderson: Page A1-5: You already have my comment regarding the Area #10, which was recently downzoned by Nevada County (at the request of the Forest Service) to remove most of its development capacity.

Consultant response: We have rewritten the paragraph in the Appendix about Area #10 as follows: "Area #10 is managed/owned by the Tahoe National Forest and is located outside Town's boundaries but within the Town's SOI. The Nevada County General Plan designates this area as Forest 160. This area was recently downzoned by Nevada County (at the request of the Forest Service) to remove most of its development capacity. Please note that the Town of Truckee's General Plan might provide for a higher level of development potential on this site, if it were to be annexed into the Town boundaries at some future date."

It is noted that the Truckee General Plan designated this site as "Residential Cluster - 10 Acres and the General Plan says this:

- *Residential Cluster – 5-acres [RC-5] and 10 acres [RC-10] The Residential Cluster land use designation applies to areas subject to development constraints including steeper slopes and limited availability of infrastructure and services, where clustered development is appropriate, and to lands already subdivided into lots of 4 to 15 acres. The RC-5 designation is applied to subdivisions that have existing lots in the four to eight-acre size range, and to lands which would be appropriate for clustered low-density development, such as the area east of the Sierra Meadows subdivision. The RC-10 designation applies to subdivisions which have existing lots in the 8 to 15-acre size range, and to areas which would be appropriate for clustered development in this density range, such as the area between Tahoe Donner and Highway 89 North.*

Thank you for bringing this item to our attention.

Consultant's Response to Comments from TSD Engineer Raymond Brown
Comments Sent by Raymond Brown via email to SR Jones on 8/6/2018

Consultant's responses are shown below in blue italic font.

Comment from R. Brown: Thank you for doing a great job on the MSR. Not sure if the following minor corrections and clarifications need to be addressed, but thought I would forward it to you for consideration:

Consultant Response: Thank you for reading the report and submitting comments.

Comment from R. Brown: Page 1-2, Table 1.1 Number of sewer connection for TSD is 14,688 (16,838 includes Northstar). It is identified multiple locations elsewhere in the report, but did not know if it should be noted at this location at the front of the document.

Consultant Response: Thank you for this suggestion. We added the number of sewer connection for TSD = 14,688 (16,838 includes Northstar) to page 1-4, "Truckee Sanitary District Profile".

Comment from R. Brown: The Figure on page 3-36 appears to be formatted for 11x17 so when it is printed it cuts off a portion of the figure.

Consultant Response: This comment refers to Figure 3-10, TSD Sewersheds. TSD's staff kindly provided us with this map and you are correct it was formatted for 11x17. It's possible that other people may experience similar difficulties printing this. We attempted to re-format Figure 3-10 to 11x8.5 size, but we experienced technical difficulties with the .pdf format.

Comment from R. Brown: Figure 3-12, page 3-46, the legend is missing the blue designation for "Operations and Maintenance".

Consultant Response: Thank you for calling this to our attention. We have re-formatted the legend and changed the color scheme for Figure 3-12: Expenditures 2016 by Type.

Comment from R. Brown: Appendix 2, page 2, the green colors that delineate Male/Female, No Diploma/High School, White/Black print out the same color. (May just be my printer).

Consultant Response: Appendix 2 is the Demographic report we purchased from the planning firm Cubit. This report is derived from a database and is delivered to us in an automated .pdf format. We acknowledge that the report contains several shades of green and not every printer can distinguish between shades of green. Please accept our apologies for the printing challenges. However, there is nothing we can do to change the color scheme of this automated report.

Comment from R. Brown: Thanks again for putting this together, and if you have any questions please contact me.

Consultant Response: Thank you Raymond and TSD staff.

Cathy Preis
President
Sara Schrichte
Vice President
Robert Sherwood
Secretary
Phil Gamick
Director
Alex Medveczky
Director

DONNER SUMMIT
PUBLIC UTILITY DISTRICT

September 19, 2018

Mr. Hank Weston, Chairman
Nevada County Local Agency Commission
950 Maidu Avenue
Nevada City, CA 95959
Sent Via Electronic Mail

RE: Draft Eastern County Wastewater MSR

Chair Weston:

On behalf of the Donner Summit Public Utility District (the District), I want to thank you and the Commission for this opportunity to comment on the Draft Eastern County Wastewater Municipal Service Review, also known as Wastewater Services in Eastern Nevada County, dated September 20, 2018.

Out of the 42 items listed in the Summary of MSR Determinations for the District, I believe that Item #33 deserves a comment. This item refers to energy use by the District at its recently upgraded and expanded treatment plant and proper budgeting for the same.

It is accurate that utility costs rose between Fiscal Year 2012/13 and 2017/18, however, it should be noted that the District broke ground for its upgrade and expansion project in 2012. That project resulted in more than doubling the square footage of the existing treatment facility. Additionally, the District changed from chlorine gas to an ultra-violet disinfection system. Ultra-violet systems consume large amounts of electricity. The decision to change disinfection processes was made for employee/public safety reasons and to eliminate any possibility of chlorine spills into the South Yuba River. It should also be noted that the District's treatment facility is the only facility in the State of California that actually heats the Return Activated Sludge. This is due to extremely low influent temperatures during the winter months.

The project was completed in Fiscal Year 2015/16 and since then utility costs have stabilized. During design the District did instruct its consulting engineers to investigate possible renewable energy alternatives, including enclosing the two reactor basins. After cost/benefit ratios were performed it was apparent that alternative energy sources were not worth the capital cost.

In closing, I again want to thank the Commission for allowing the opportunity to comment. Please feel free to contact me if you have any questions or desire additional information.

Sincerely yours,

Thomas G. Skjelstad
General Manager

53823 Sherritt Lane • PO Box 610 • Soda Springs, CA 95728 • P: 530-426-3456 • F: 530-426-3460 • www.dspud.com

Consultant's Response to Comments from DSPUD General Manager, Thomas Skjelstad
Comments Sent by Thomas Skjelstad via email on 9/19/2018

Consultant's responses are shown below in blue italic font.

Comment from T. Skjelstad: On behalf of the Donner Summit Public Utility District (the District), I want to thank you and the Commission for this opportunity to comment on the Draft Eastern County Wastewater Municipal Service Review, also known as Wastewater Services in Eastern Nevada County, dated September 20, 2018.

Consultant Response: Thank you for reading the report and submitting comments.

Comment from T. Skjelstad: Out of the 42 items listed in the Summary of MSR Determinations for the District, I believe that Item #33 deserves a comment. This item refers to energy use by the District at its recently upgraded and expanded treatment plant and proper budgeting for the same.

Consultant Response: Since the August 8, 2018 MSR prepared by Placer LAFCo on the DSPUD contained determinations for DSPUD and since Placer LAFCO is the Principal LAFCo for the DSPUD, it was decided not to provide determinations for DSPUD in this current MSR by Nevada LAFCo. Therefore, the referenced determination #33 has been removed.

Comment from T. Skjelstad: It is accurate that utility costs rose between Fiscal Year 2012/13 and 2017/18, however, it should be noted that the District broke ground for its upgrade and expansion project in 2012. That project resulted in more than doubling the square footage of the existing treatment facility. Additionally, the District changed from chlorine gas to an ultra-violet disinfection system. Ultra-violet systems consume large amounts of electricity. The decision to change disinfection processes was made for employee/public safety reasons and to eliminate any possibility of chlorine spills into the South Yuba River. It should also be noted that the District's treatment facility is the only facility in the State of California that actually heats the Return Activated Sludge. This is due to extremely low influent temperatures during the winter months.

Consultant Response: Thank you for sharing this explanation of the relationship between facility size and utility costs. It does make sense that utility costs have increased as the size of the facilities have increased.

Comment from T. Skjelstad: The project was completed in Fiscal Year 2015/16 and since then utility costs have stabilized. During design the District did instruct its consulting engineers to investigate possible renewable energy alternatives, including enclosing the

two reactor basins. After cost/benefit ratios were performed it was apparent that alternative energy sources were not worth the capital cost.

Consultant Response: Based on this new information provided by DSPUD it is acknowledged that the DSPUD has been conscious of its energy usage and has taken steps to study and monitor energy usage. Based upon the referenced cost/benefit analysis, it seems that DSPUD has made appropriate decisions. The consultants added one sentence to the MSR's discussion of utility cost on page 5- 24 to refer readers to the September 19, 2018 letter from DSPUD which provides a good explanation of the situation.

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CHAPTER 9: GLOSSARY

Annexation: The annexation, inclusion, attachment, or addition of territory to a city or district.

Average base flow (ABF): Flow in the sanitary sewer during dry-weather months, measured when no appreciable rain is falling. Base flow consists of sanitary flow plus groundwater infiltration.

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

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

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

Buildout: The maximum development potential when all lands within an area have been converted to the maximum density allowed under the General Plan.

Board of Directors: The legislative body or governing board of a district.

Board of Supervisors: The elected board of supervisors of a county.

City: Any charter or general law city.

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

Consolidation: The uniting or joining of two or more districts into a single new successor district. In the case of consolidation of special districts, all of those districts shall have been formed pursuant to the same principal act.

Contiguous: In the case of annexation, territory adjacent to an agency to which annexation is proposed. Territory is not contiguous if the only contiguity is based upon a strip of land more than 300 feet long and less than 200 feet wide.

Cost avoidance: Actions to eliminate unnecessary costs derived from, but not limited to, duplication of service efforts, higher than necessary administration/operation cost ratios, use of outdated or deteriorating infrastructure and equipment, underutilized equipment or buildings or facilities, overlapping/inefficient service boundaries, inefficient purchasing or budgeting practices, and lack of economies of scale.

Crown (of the sewer): The upper portion of the sewer pipes.

Design flow: The selected flow condition for wastewater collection system design, determined by adding corresponding peak sanitary flow and peak groundwater infiltration. This is also referred to as peak dry-weather flow.

Design storm: An abstraction based on historical data that determines the amount of stormwater inflow and rainfall-dependent infiltration.

Detachment: The detachment, deannexation, exclusion, deletion, or removal from a city or district of any portion of the territory of that city or district.

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

Dissolution: The dissolution, disincorporation, extinguishment, and termination of the existence of a district and the cessation of all its corporate powers, except for the purpose of winding up the affairs of the district.

District or special District: An agency of the state, formed pursuant to general law or special act, for the local performance of governmental or proprietary functions within limited boundaries. "District" or "special district" includes a county service area.

District of limited Powers: An airport district, community services district, municipal utility district, public utilities district, fire protection district, harbor district, port district, recreational harbor district, small craft harbor district, resort improvement district, library district, local hospital district, local health district, municipal improvement district formed pursuant to any special act, municipal water district, police protection district, recreation and park district, garbage disposal district, garbage and refuse disposal district, sanitary district, or county sanitation district.

Dry-weather flow: Wastewater flow monitored during the dry season, occurring May through October. Consists of sanitary flow and groundwater infiltration.

Formation: The formation, incorporation, organization, or creation of a district.

Function: Any power granted by law to a local agency or a county to provide designated governmental or proprietary services or facilities for the use, benefit, or protection of all persons or property.

Functional revenues: Revenues generated from direct services or associated with specific services, such as a grant or statute, and expenditures.

FY: Fiscal year.

General plan: A document containing a statement of development policies including a diagram and text setting forth the objectives of the plan. The general plan must include certain state mandated elements related to land use, circulation, housing, conservation, open-space, noise, and safety.

General revenues: Revenues not associated with specific services or retained in an enterprise fund.

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

Incorporation: The incorporation, formation, creation, and establishment of a city with corporate powers. Any area proposed for incorporation as a new city must have at least 500 registered voters residing within the affected area at the time commission proceedings are initiated.

Independent Special District: Any special district having a legislative body all of whose members are elected by registered voters or landowners within the district, or whose members are appointed to fixed terms, and excludes any special district having a legislative body consisting, in whole or in part, of ex officio members who are officers of a county or another local agency or who are appointees of those officers other than those who are appointed to fixed terms. "Independent special district" does not include any district excluded from the definition of district contained in §56036.

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

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

Infrastructure: Public services and facilities, such as pipes, canals, levees, water-supply systems, other utility, systems, and roads.

LAFCo: Local Agency Formation Commission.

Local accountability and governance: A style of public agency decision making, operation and management that includes an accessible staff, elected or appointed decision-making body and decision making process, advertisement of, and public participation in, elections, publicly disclosed budgets, programs, and plans, solicited public participation in the consideration of work and infrastructure plans; and regularly evaluated or measured outcomes of plans, programs or operations and disclosure of results to the public.

Local agency: A city, county, or special district or other public entity, which provides public services.

Management Efficiency: The organized provision of the highest quality public services with the lowest necessary expenditure of public funds. An efficiently managed entity (1) promotes and demonstrates implementation of continuous improvement plans and strategies for budgeting, managing costs, training and utilizing personnel, and customer service and involvement, (2) has the ability to provide service over the short and long term, (3) has the resources (fiscal, manpower, equipment, adopted service or work plans) to provide adequate service, (4) meets or exceeds environmental and industry service standards, as feasible considering local conditions or circumstances, (5) and maintains adequate contingency reserves.

Merger: The termination of the existence of a district, and the assumption of the district's responsibilities by a city.

Municipal services: The full range of services that a public agency provides, or is authorized to provide, except general county government functions such as courts, special services and tax collection. As understood under the CKH Act, this includes all services provided by Special Districts under California law.

Municipal Service Review (MSR): A study designed to determine the adequacy of governmental services being provided in the region or sub-region. Performing service reviews for each city and special district within the county may be used by LAFCO, other governmental agencies, and the public to better understand and improve service conditions.

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

Peak flow: Maximum measured daily flow. Commonly measured in cubic feet per second (cfs). Typically occurs during wet-weather events and can also be referred to as peak wet-weather flow.

Peak dry-weather flow (PDWF): Peak daily sanitary flow plus groundwater infiltration.

Peak wet-weather flow (PWWF): Peak daily wet-weather flow plus peak rainfall-dependent infiltration and inflow from rainfall events.

Peaking Factor: The ratio of peak hourly wet-weather flow to base flow.

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

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

Plan of reorganization: A plan or program for effecting reorganization and which contains a description of all changes of organization included in the reorganization and setting forth

all terms, conditions, and matters necessary or incidental to the effectuation of that reorganization.

Potable Water: Water of a quality suitable for drinking.

Principal act: In the case of a district, the law under which the district was formed and, in the case of a city, the general laws or a charter, as the case may be.

Principal LAFCO for municipal service review: The LAFCO with the lead responsibility for a municipal service review. Lead responsibility can be determined pursuant to the CKH Act definition of a Principal LAFCO as it applies to government organization or reorganization actions, by negotiation, or by agreement among two or more LAFCOs.

Proceeding: A course of action. Procedures.

Public agency: The state or any state agency, board, or commission, any city, county, city and county, special district, or other political subdivision, or any agency, board, or commission of the city, county, city and county, special district, or other political subdivision.

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

Rate restructuring: Rate restructuring does not refer to the setting or development of specific rates or rate structures. During a municipal service review, LAFCO may compile and review certain rate related data, and other information that may affect rates, as that data applies to the intent of the CKH Act (§56000, §56001, §56301), factors to be considered (§56668), SOI determinations (§56425) and all required municipal service review determinations (§56430). The objective is to identify opportunities to positively impact rates without adversely affecting service quality or other factors to be considered.

Reorganization: Two or more changes of organization initiated in a single proposal.

Responsible LAFCO: The LAFCO of a county other than the Principal County that may be impacted by recommendations, determinations or subsequent proposals elicited during a municipal service review being initiated or considered by the Lead LAFCO.

Retained earnings: The accumulated earnings of an enterprise or intragovernmental service fund which have been retained in the fund and are not reserved for any specific purpose (debts, planned improvements, and contingency/emergency).

Reserve: (1) For governmental type funds, an account used to earmark a portion of fund balance, which is legally or contractually restricted for a specific use or not appropriable for expenditure. (2) For proprietary type/enterprise funds, the portion of retained earnings set aside for specific purposes. Unnecessary reserves are those set aside for purposes that

are not well defined or adopted or retained earnings that are not reasonably proportional to annual gross revenues.

RWQCB: Regional Water Quality Control Board.

SCADA: Acronym for Supervisory Control and Data Acquisition; a software application program used for process control and to gather real time data from remote locations. The SCADA System consists of hardware and software components. The hardware collects and feeds data into a computer with SCADA software installed. The function of SCADA is recording and logging all events in a file that is stored in a hard disk or sending them to a printer. If conditions become hazardous, SCADA sounds warning alarm.

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

Service review: A study and evaluation of municipal service(s) by specific area, subregion or region culminating in written determinations regarding seven specific evaluation categories.

Sewage: Sewage is the wastewater released by residences, businesses and industries in a community. It is 99.94 percent water, with only 0.06 percent of the wastewater dissolved and suspended solid material. The cloudiness of sewage is caused by suspended particles which in untreated sewage ranges from 100 to 350 mg/l.

Special Reorganization: A reorganization that includes the detachment of territory from a city or city and county and the incorporation of that entire detached territory as a city.

Specific plan: A policy statement and implementation tool that is used to address a single project or planning problem. Specific plans contain concrete standards and development criteria that supplement those of the general plan.

Sphere of influence (SOI): A plan for the probable physical boundaries and service area of a local agency, as determined by the LAFCO.

Sphere of influence determinations: In establishing a sphere of influence, the Commission must consider and prepare written determinations related to present and planned land uses, need and capacity of public facilities, and existence of social and economic communities of interest.

Stormwater runoff: Rainwater which does not infiltrate into the soil and runs off the land.

Subject agency: Each district or city for which a change of organization is proposed or provided in a reorganization or plan of reorganization.

SWRCB: State Water Resources Control Board.

Watershed: An area of land that drains water, sediment and dissolved materials to a common receiving body or outlet. The term is not restricted to surface water runoff and includes interactions with subsurface water. Watersheds vary from the largest river basins to just

acres or less in size. In urban watershed management, a watershed is seen as all the land which contributes runoff to a particular water body.

Zoning: The primary instrument for implementing the general plan. Zoning divides a community into districts or "zones" that specify the permitted/prohibited land uses.

Appendices

1. Sphere of Influence Update Options for Truckee Sanitary District
2. Demographic Report for the Town of Truckee
3. Demographic Report for Nevada County
4. Wastewater Regulations
5. Onsite Wastewater Systems
6. A Better Board Member by The Nevada County Grand Jury
7. Nevada County Economic Forecast by Caltrans
8. 1992 Agreement between TSD, Northstar CSD, and Trimont
9. 2005 Amendment to Agreement between TSD, Northstar CSD, and Trimont

Appendix 1: Sphere of Influence Update Options for Truckee Sanitary District

APPENDIX 1: SPHERE OF INFLUENCE UPDATE OPTIONS - TSD

SPHERE OF INFLUENCE CONSIDERATIONS

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 requires that LAFCo review and update the Sphere of Influence (SOI or Sphere) for each of the special districts and cities within the county. In determining the Sphere of Influence for an agency, LAFCo must consider and prepare written determinations with respect to five factors [Government Code §56425(e)]. These factors relate to the present and planned land uses including agricultural and open-space lands; the present and probable need for public facilities and services; the present capacity of public facilities and adequacy of public services; the existence of any social or economic communities of interest in the area and, for agencies that provide sewer, water or structural fire protection, the present and probable need for those services for any disadvantaged unincorporated communities within the sphere. Further, Nevada LAFCo policies relating to Spheres specify that lands within the sphere should be placed in one of two planning horizons (five-year and later). Commission policies also require the relevant MSR data be utilized to document service and facility capacity.

SPHERE OF INFLUENCE OPTIONS

The intent of an SOI is to identify the most appropriate areas for an agency's service area in the *probable future.* Pursuant to Nevada LAFCo policies relating to SOIs, LAFCo discourages inclusion of land in an agency's Sphere if a need for services provided by that agency cannot be demonstrated. Accordingly, territory included in an agency's Sphere is an indication that the probable need for service has been established, and that the subject agency has been determined by LAFCo to be the most logical service provider for the area.

There are a number of ways to look at Spheres of Influence. One option is to consider growth and development and the need for municipal services over time. Under Nevada LAFCo policies, a *Near Term Sphere Horizon* considers a five-year window (i.e., from the present to five years from now). A *Long-Term Sphere Horizon* considers growth and development and the need for municipal services beyond the five-year window.

A second option is to determine an agency's ability to provide municipal services beyond its current boundary. For a City or District that does not plan to provide municipal services beyond its present boundary, a Sphere boundary that is the same as the agency boundary is called a *Coterminous Sphere of Influence*.

A third option is related to reducing the current Sphere of Influence of an agency by adopting a *Minus Sphere of Influence* (or Reduced Sphere of Influence) by excluding territory currently within an agency's Sphere.

A fourth option relates to Sphere areas for which municipal services are not intended to be provided; that is, areas within a Sphere which will remain undeveloped (such as open space or 'protected lands'). Such an area is a special case and requires the agency to demonstrate why an area should be included within a Sphere for which no municipal services will be provided.

LAFCo also has the ability to determine a *Zero Sphere of Influence* for a City or District, signaling that the City or District does not have the wherewithal, governance capability, financial means, and/or operational capability to provide the municipal services for which it was formed, and should be dissolved or its function(s) reallocated to another agency.

Nevada LAFCo has an additional category related to Spheres called *Areas of Interest.* Areas of Interest are defined as "a geographic area beyond the Sphere of Influence in which land use decisions or other government actions of one local agency impact directly or indirectly upon another local agency."

Presented within this Appendix are Sphere of Influence Options for the Truckee Sanitary District, for which Nevada LAFCO is the principal LAFCO. For the two remaining districts studied in this MSR (Donner Summit PUD and the Tahoe-Truckee Sanitation Agency), Placer LAFCO is the "principal" LAFCO and as such determines their sphere of influence. The options presented within this Appendix for the TSD are suggestions for future study. These options are not mutually exclusive but can be utilized in combination to allow the Commission to adopt the most appropriate Sphere Update for the District. Sphere Options are presented below, followed by a discussion of the options, along with a Sphere matrix of factors LAFCo considers in updating a Sphere of Influence.

SUMMARY OF SPHERE UPDATE PROCESS

This Appendix presents options for updating the SOI in the future for the Truckee Sanitary District (TSD). TSD is described in Chapter 3 of this MSR as it relates to the provision of wastewater services. The presented options are informational and may assist the Commission in considering next steps. When LAFCo moves to the update the SOI at some future date, the Commission may also consider additional information beyond that presented herein. For example, the current status of any nearby Disadvantaged Unincorporated Communities (DUCs) will be recognized. LAFCo's process provides for a meeting/conference with the District prior to updating a district's SOI. Additionally, the Commission will hold a public hearing and adopt written statements of fact regarding the SOI prior to adopting any updates.

TRUCKEE SANITARY DISTRICT

Existing Sphere of Influence for TSD

LAFCO approved TSD's existing Sphere of Influence on May 16, 2013 via Resolution 13-03. The TSD sphere of influence (SOI) is comprised of a large portion of eastern Nevada County,

including and surrounding the Town of Truckee, and parts of northern Placer County (Nevada LAFCo, 2013).

The existing SOI includes near-term, long-term and areas of Interest for TSD. A map of these designations can be found on Figure 3-2. TSD's near term SOI has a planning horizon of five years, to 2018, and contains a total of 4,912 acres. TSD's long term SOI has a planning horizon of 20 years, to 2033, and contains a total of 6,362 acres. A detailed description of the specific neighborhoods within the near-term and long-term SOI areas is provided in Chapter 3 and shown on Figure 3-3.

Sphere of Influence Update – Future Options

Given the considerations addressed in this 2018 Wastewater MSR for eastern Nevada County, five options have been identified for the Truckee Sanitary District Sphere as listed below. This section is provided for informational purposes only and when Nevada LAFCO next updates the SOI for the TSD it may wish to consider these or other options.

1. Retain the Existing Time Horizons for the Near-term Sphere and the Long-term Sphere

2. Re-designate the Time Horizons for the Near-term Sphere and the Long-term Sphere

   Designate the Near-term Sphere time period to extend from 2018 to 2023; and designate the Long-term Sphere time period from 2024 to 2038. The long-term sphere would have a fourteen-year time horizon.

3. Merge the Near-term and Long-term Time Horizons

   Under this option, both existing time horizons would be merged into a single time horizon that would run until 2038.

4. Transfer Publicly Owned Lands (Open Space) out of SOI and into the Area of Interest

   When LAFCO next prepares updates the SOI for TSD it may wish to consider modifications for two distinct areas including portions of Area #6 in the near-term sphere, and area #10 in the long-term sphere which appear to be publicly owned open space lands as shown in Figure A5-3 (in Appendix 5) and Figure 3-3 along with the area descriptions in Chapter 3. Additionally, either the Town or Nevada County gives these parcels an open space type designation. Under the CKH Act, LAFCO aims to prevent the premature conversion of open space lands.

5. Coordinate with the Town of Truckee SOI

   LAFCO adopted the SOI for the Town of Truckee on December 16, 2010 via Resolution 10-05 as shown in Figure A1-1 (next page). LAFCO anticipates updating the SOI for Truckee within the next several years.

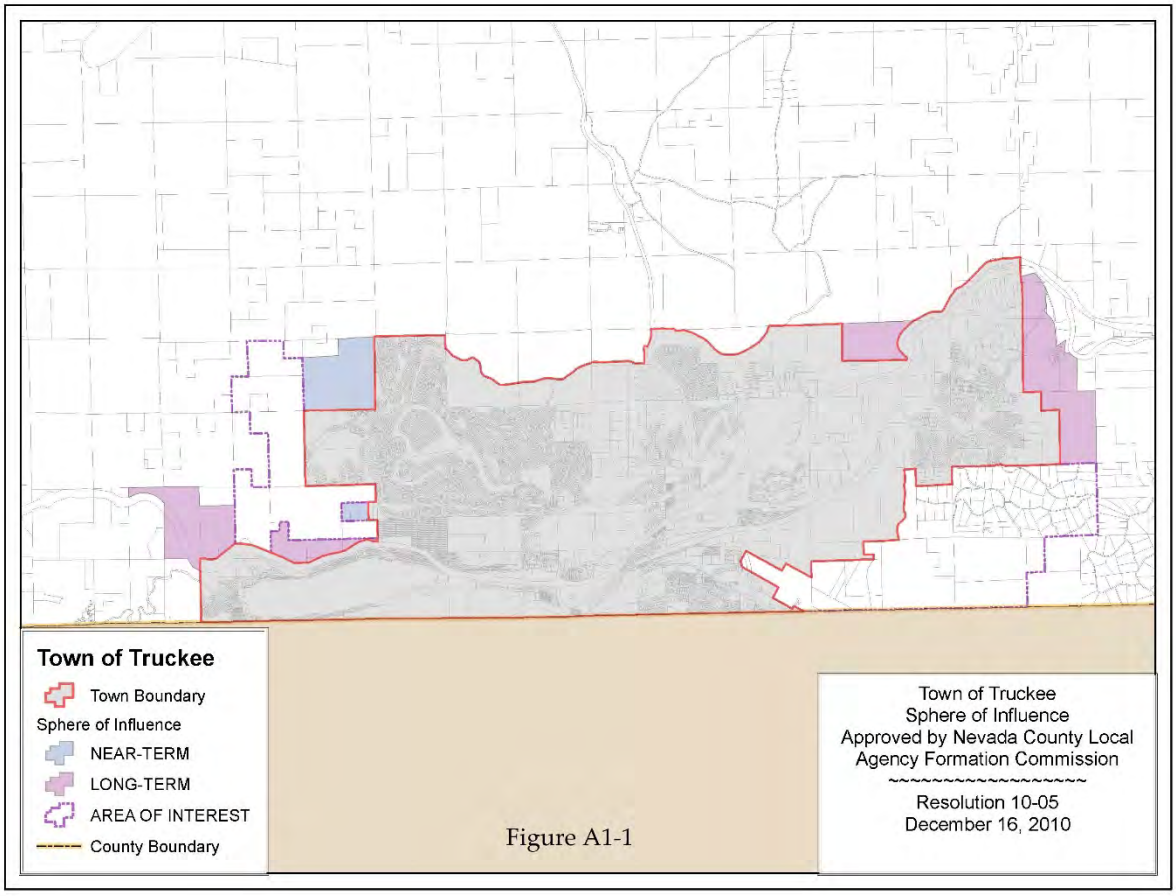

Figure A1-1

Discussion of Options

1. Retain the Existing Time Horizons for the Near-term Sphere and the Long-term Sphere

   If Nevada LAFCo determines that the existing government structure is appropriate to provide wastewater services, then the existing Sphere should be retained. This option would retain the Near-term and Long-term areas within its Sphere as well as retaining the Areas of Interest designation for lands in Nevada and Placer counties. Note, however, the current Near-term Sphere was adopted in 2013 and would reach the 5-year threshold has been reached in 2018.

2. Re-Designate the Time Horizons for the Near-term Sphere and the Long-term Sphere

   The 2013 Truckee Sanitary District Sphere of Influence Plan identified a Near-term Sphere and a Long-term Sphere. The 2013 Near-term Sphere identified ten areas to be placed into the 5-year Near-term Sphere time frame. Since the SOI was approved in 2013 only one annexation has occurred on the five-acre Morabito Property as listed in Table 3-2 in

Chapter 3. There has been a slower rate of development for the Truckee area than originally anticipated. Re-designating the time horizon for the Near-term Sphere through 2023 and the Long-term Sphere from 2024 through 2044 would retain 4,912 acres within the Near-term sphere and 6,362 acres in the Long-term sphere.

3. Merge the Near-term and Long-term Time Horizons

   Under this option, both existing time horizons would be merged into a single time horizon that would run until 2038. This would emphasize one single 20-year time horizon. It would treat all SOI areas equally.

4. Transfer Publicly Owned Lands (Open Space) out of SOI and into the Area of Interest

   After the Commission reviews the SOI and boundary for TSD, staff and their consultants should make note of publicly owned lands as shown in Figure A5-3 in Appendix 5. Additional research is recommended to determine the Town's zoning for the parcels and the specific ownership within Area #6 in the near-term sphere and area #10 in the long-term sphere. If these areas are unlikely to require sewer service they could be transferred into the Area of Interest category.

   Area #6 contains a rural residential neighborhood which should continue to remain in the SOI. Area #6 also contains four parcels which are publicly owned and are designated as public facilities in the Town's zoning map. The next SOI update should consider whether Area #6 should continue to retain the four publicly owned parcels.

   Area #10 is managed/owned by the Tahoe National Forest and is located outside Town's boundaries but within the Town's SOI. The Nevada County General Plan designates this area as Forest 160. This area was recently downzoned by Nevada County (at the request of the Forest Service) to remove most of its development capacity. Please note that the Town of Truckee's General Plan might provide for a higher level of development potential on this site, if it were to be annexed into the Town boundaries at some future date.

5. Coordinate with the Town of Truckee SOI

   The Town of Truckee is now starting a two- to three-year planning process to update the 2025 General Plan[1] into a 2040 General Plan. As the Town moves to update its General Plan, it is possible that a CEQA document will be prepared as a part of these planning processes where impacts to sewer collection and treatment services will be analyzed. This type of analysis could be useful when considering a SOI update for TSD[2]. Truckee also

[1] The Town of Truckee 2025 General Plan was adopted in November of 2006 and updated in 2009. The Housing Element of the General Plan updated in 2015. The 2006 update to the General Plan was the first since the Town's incorporation in 1993 and subsequent adoption of the first General Plan in 1996.

[2] Area 7 includes a large area north of current TSD boundaries but within the Town of Truckee. This area includes Prosser Lakeview Estates, a small lot residential neighborhood, as well as larger residential lots and undeveloped

plans to update its Downtown Specific Plan. LAFCO may wish to consider the Town's sphere and potentially changing land-use designations prior to updating the SOI for TSD. This would allow the Town and TSD to coordinate long-term service and facility capacity. Coordination with the Town of Truckee would help ensure that sewer facilities are correlated with the Town's infill development and newly developing areas.

Next Steps

The Commission may wish to consider the above options and consult with TSD. When LAFCO is ready to consider an update to the TSD SOI, it may wish to analyze the following topics in further detail:

- Services Provided
- Present and planned land uses in the area
- Potential effects on agricultural and open-space lands
- Present and probable need for public facilities and services in the area related to wastewater services
- Opportunity for infill development rather than SOI expansion
- Present capacity of public facilities and adequacy of public services related to wastewater services
- The existence of any social or economic communities of interest in the area
- The present and probable need for water, sewer and structural fire protection of any DUC within the existing SOI
- Effects on other agencies
- Potential for consolidations or other reorganizations when boundaries divide communities
- Location of facilities, infrastructure and natural features
- Willingness to serve
- Potential environmental impacts

parcels. Septic systems in this neighborhood are older and may be nearing the last phase of their useful life. However, as shown in Appendix 5, Figure A5-3, there are also several large areas of publicly owned land which functions as open space and which will not require sewer service. It would be helpful to request a fiscal analysis of the costs associated with the potential future option to provide TSD's sewer service to this area as compared to homeowner costs to replace their aging septic systems. Please see Appendix 5 for more information about on-site wastewater systems (aka septic systems).

Appendix 2: Demographic Report for the Town of Truckee

Truckee

CALIFORNIA

TABLE OF CONTENTS

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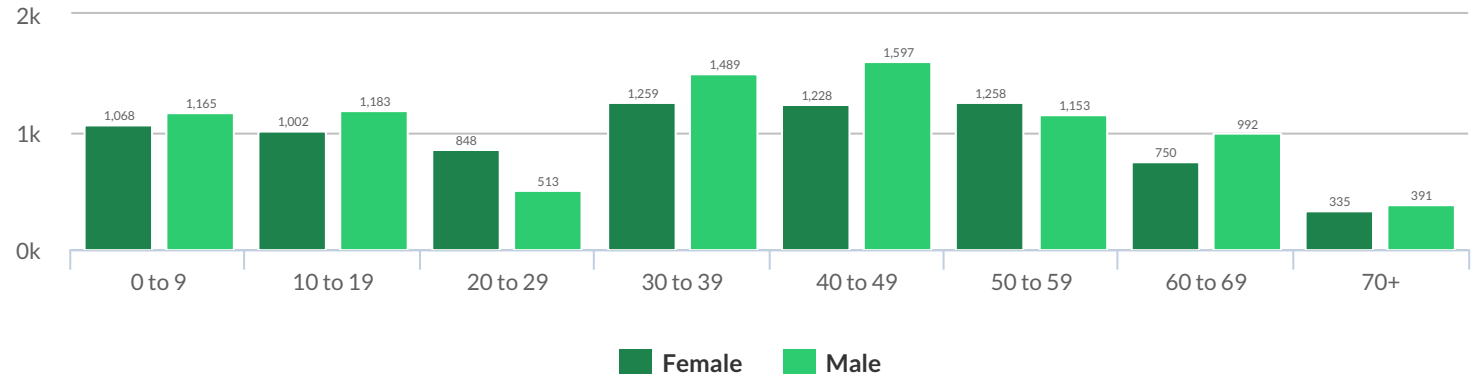
2016 POPULATION

16,231

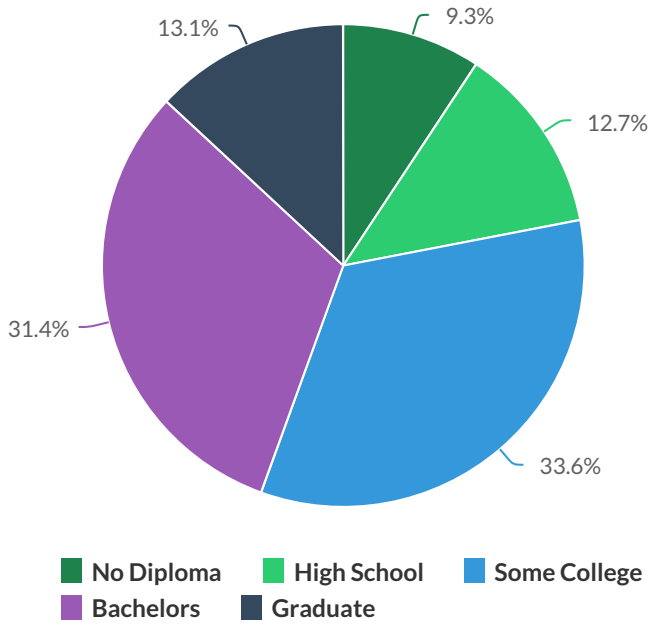
MEDIAN HOUSEHOLD INCOME

$79,971

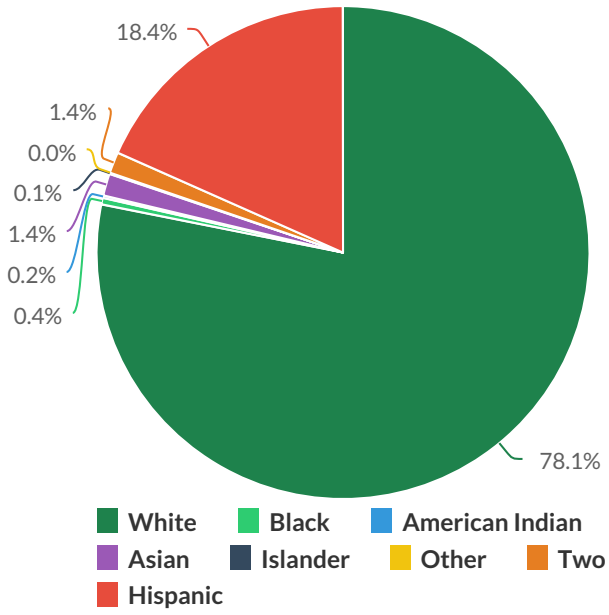
SEX BY AGE



EDUCATIONAL ATTAINMENT



RACE & ORIGIN



POVERTY

3.1%

for all families whose income in the past 12 months is below the poverty level

UNEMPLOYMENT

5.3%

for the population 16 years & over in the labor force

HOUSING UNITS

13,637

houses, apartments, mobile homes, group of rooms or single rooms that serve as separate living quarters

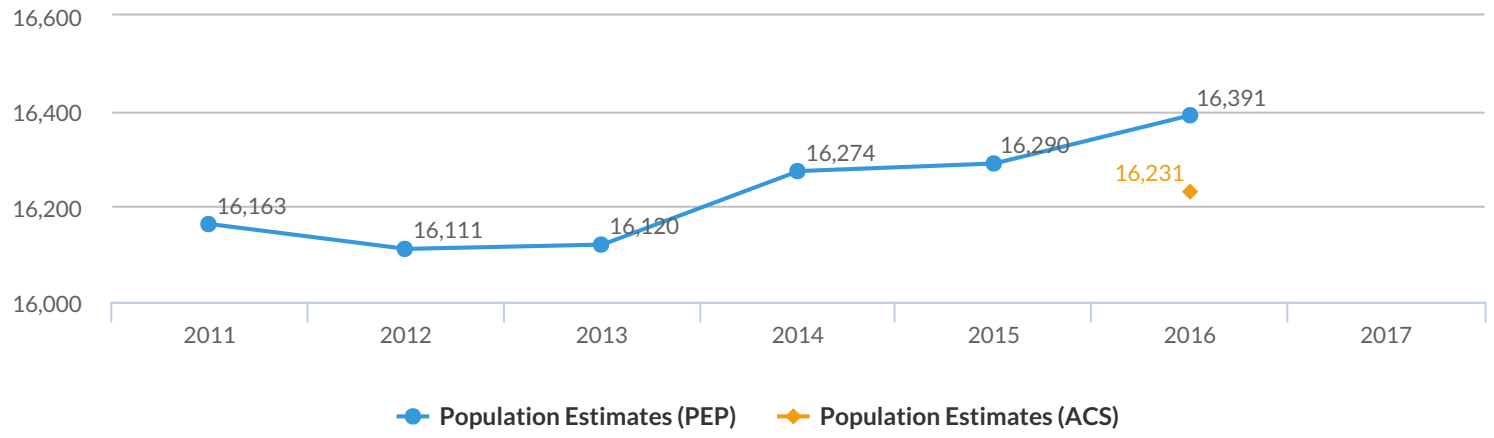
HOUSEHOLDS

6,146

all the people who occupy a housing unit

Source: United States Census Bureau.

POPULATION



Population Estimates (ACS)

	#	% Change
2016 5-yr estimate	16,231	-

Source: American Community Survey 2016

Population Estimates (PEP)

	#	% Change
2011	16,163	-
2012	16,111	-0.3%
2013	16,120	0.1%
2014	16,274	1.0%
2015	16,290	0.1%
2016	16,391	0.6%

Source: Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2016

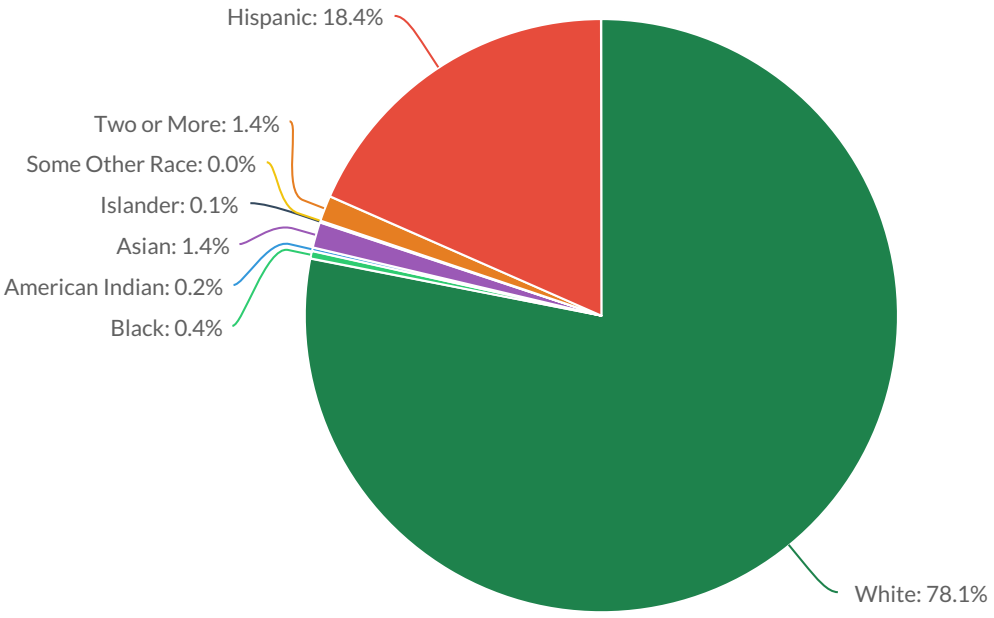
Historical Population Counts

	#	% Change
2000	13,864	-
2010	16,180	16.7%

Source: Decennial Census 2010, 2000

RACE

Race & Origin (Hispanic)



	#	%
Non-Hispanic	13,251	81.6%
White	12,682	78.1%
Black	71	0.4%
American Indian	27	0.2%
Asian	233	1.4%
Islander	15	0.1%
Other	0	0.0%
Two or More	223	1.4%
Hispanic	2,980	18.4%
Total Population	16,231	-

The complete Census race descriptions are as follows: White alone; Black or African American alone; American Indian and Alaska Native alone; Asian alone; Native Hawaiian and Other Pacific Islander alone; Some Other Race alone; and Two or More Races. Hispanics may be of any race. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2016

Detailed Race

	#	%
One race	15,910	98.0%
White	14,935	92.0%
Black or African American	72	0.4%
American Indian and Alaska Native	36	0.2%
Cherokee tribal grouping	0	0.0%
Chippewa tribal grouping	0	0.0%
Navajo tribal grouping	0	0.0%
Sioux tribal grouping	0	0.0%
Asian	258	1.6%
Asian Indian	16	0.1%
Chinese	120	0.7%
Filipino	33	0.2%
Japanese	44	0.3%
Korean	20	0.1%
Vietnamese	0	0.0%
Other Asian	25	0.2%
Native Hawaiian and Other Pacific Islander	15	0.1%
Native Hawaiian	15	0.1%
Guamanian or Chamorro	0	0.0%
Samoan	0	0.0%
Other Pacific Islander	0	0.0%
Some other race	594	3.7%
Two or more races	321	2.0%
White and Black or African American	26	0.2%
White and American Indian and Alaska Native	87	0.5%
White and Asian	64	0.4%
Black or African American and American Indian and Alaska Native	0	0.0%
Total Population	16,231	-

Source: American Community Survey 2016

Hispanic or Latino

	#	%
Non-Hispanic	13,251	81.6%
Hispanic or Latino (of any race)	2,980	18.4%
Mexican	2,806	17.3%
Puerto Rican	21	0.1%
Cuban	0	0.0%
Other	153	0.9%
Total Population	16,231	-

Source: American Community Survey 2016

SEX

	#	%
Male	8,483	52.3%
Female	7,748	47.7%
Total Population	16,231	-

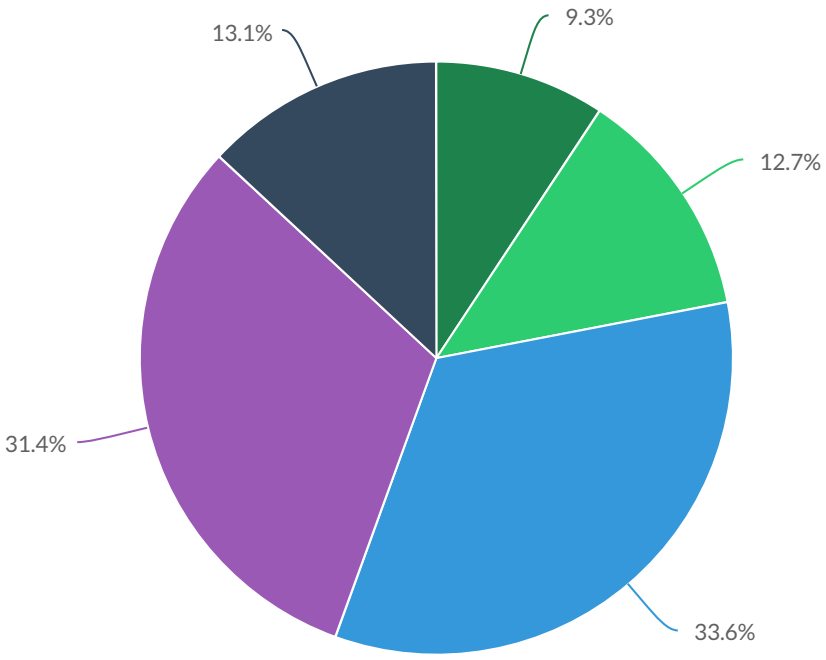
Source: American Community Survey 2016

AGE BREAKDOWN

	#	%
0 to 9 years	2,233	13.8%
10 to 19 years	2,185	13.5%
20 to 29 years	1,361	8.4%
30 to 39 years	2,748	16.9%
40 to 49 years	2,825	17.4%
50 to 59 years	2,411	14.9%
60 to 69 years	1,742	10.7%
70+ years	726	4.5%
Total Population	16,231	-

Source: American Community Survey 2016

EDUCATIONAL ATTAINMENT



	#	%
No diploma	1,036	9.3%
High school graduate & equivalency	1,414	12.7%
Associate degree & some college, no degree	3,750	33.6%
Bachelor's degree	3,497	31.4%
Graduate or Professional degree	1,457	13.1%
Population 25 Years and Over	11,154	-

Source: American Community Survey 2016

HOUSEHOLDS

Average Household Size	2.64 persons
Average Family Size	3.31 persons

A household includes all the people who occupy a housing unit. (People not living in households are classified as living in group quarters.) A family household consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2016

Household Types

	#	%
Family households (families)	3,788	61.6%
With own children under 18 years	1,875	30.5%
Married-couple family	3,318	54.0%
With own children under 18 years	1,563	25.4%
Male householder, no wife present	204	3.3%
With own children under 18 years	127	2.1%
Female householder, no husband present	266	4.3%
With own children under 18 years	185	3.0%
Nonfamily households	2,358	38.4%
Householder living alone	1,631	26.5%
65 years and over	438	7.1%
Total households	6,146	-

A family household consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. A nonfamily household is a householder living alone or with nonrelatives only. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2016

INCOME

Median Household Income

Census 2000 in 1999 dollars	$58,848
American Community Survey (ACS) 2016 in 2016 inflation adjusted dollars	$79,971

Source: Decennial Census 2000, American Community Survey 2016

Household Income Distribution

Income in thousands.	#	%
Less than $10	214	3.5%
$10 to $14.9	184	3.0%
$15 to $24.9	118	1.9%
$25 to $34.9	506	8.2%
$35 to $49.9	755	12.3%
$50 to $74.9	1,060	17.2%
$75 to $99.9	957	15.6%
$100 to $149.9	1,208	19.7%
$150 to $199.9	531	8.6%
$200K+	613	10.0%
Total Households	6,146	-

Source: American Community Survey 2016

POVERTY

	#	%
Families with Income in the past 12 months below poverty level	(X)	3.1%
Population with Income in the past 12 months below poverty level	(X)	6.7%

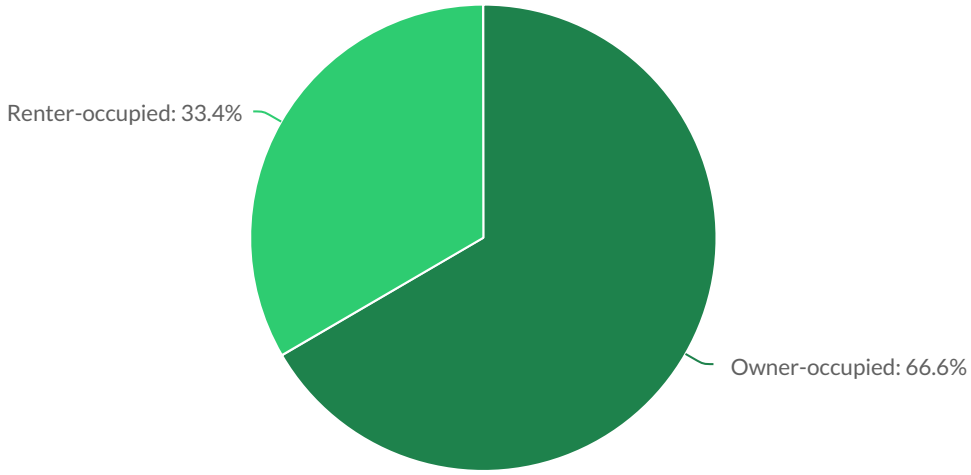
Source: American Community Survey 2016

HOUSING

Occupancy

	#	%
Occupied Housing Units	6,146	45.1%
Owner-occupied Housing Units	4,095	66.6%
Renter-occupied Housing Units	2,051	33.4%
Vacant Housing Units	7,491	54.9%
Total Housing Units	13,637	-

Source: American Community Survey 2016



Value

	#	%
Median Value of Owner-occupied Housing Units	$492,400	-

Source: American Community Survey 2016

CITATIONS & NOTES

Citations

United States Census Bureau / American FactFinder. "Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2016". *2016 Population Estimates Program*. Web. May 2017. http://factfinder2.census.gov

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United States Census Bureau. *2000 Census*. U.S. Census Bureau, 2011.Web. 17 October 2012 ftp://ftp.census.gov/census_2000/.
United States Census Bureau. *2010 Census*. U.S. Census Bureau, 2012.Web. 17 October 2012 ftp://ftp.census.gov/census_2010/.

Notes

American Community Survey data are estimates, not counts.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

The ACS questions on Hispanic origin and race were revised in 2008 to make them consistent with the Census 2010 question wording. Any changes in estimates for 2008 and beyond may be due to demographic changes, as well as factors including questionnaire changes, differences in ACS population controls, and methodological differences in the population estimates, and therefore should be used with caution. For a summary of questionnaire changes see http://www.census.gov/acs/www/methodology/questionnaire_changes/. For more information about changes in the estimates see http://www.census.gov/population/www/socdemo/hispanic/reports.html.

For more information on understanding race and Hispanic origin data, please see the Census 2010 Brief entitled, Overview of Race and Hispanic Origin: 2010, issued March 2011. (pdf format)

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Appendix 3: Demographic Report for Nevada County

Nevada County

CALIFORNIA

TABLE OF CONTENTS

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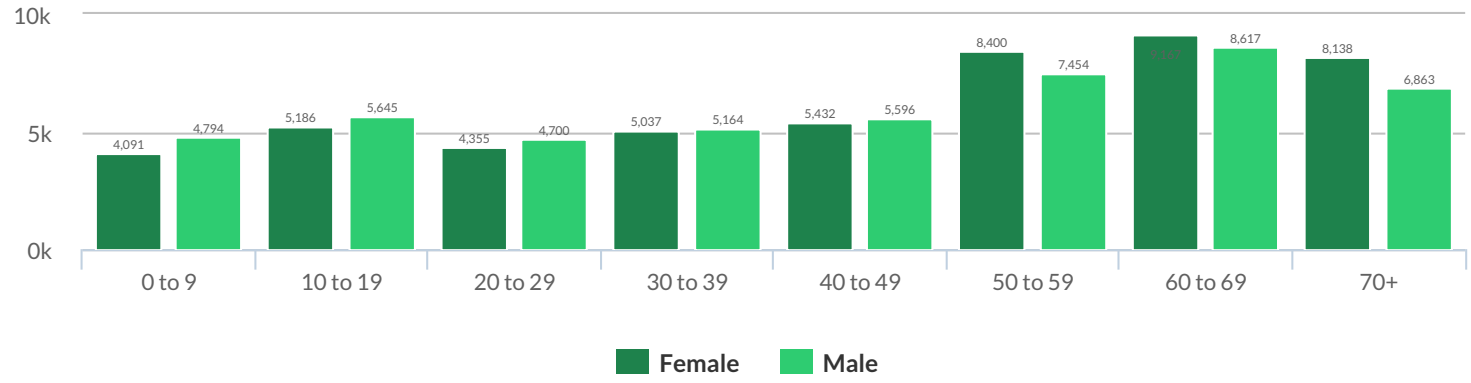
2017 POPULATION

99,814

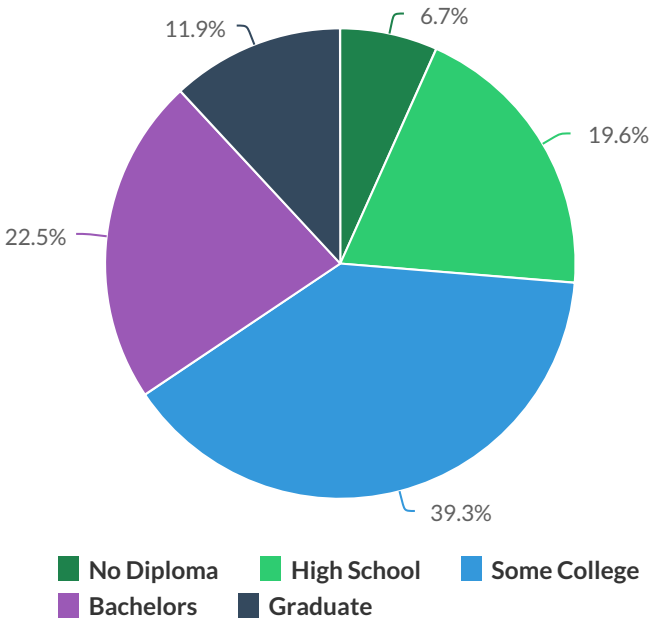
MEDIAN HOUSEHOLD INCOME

$57,429

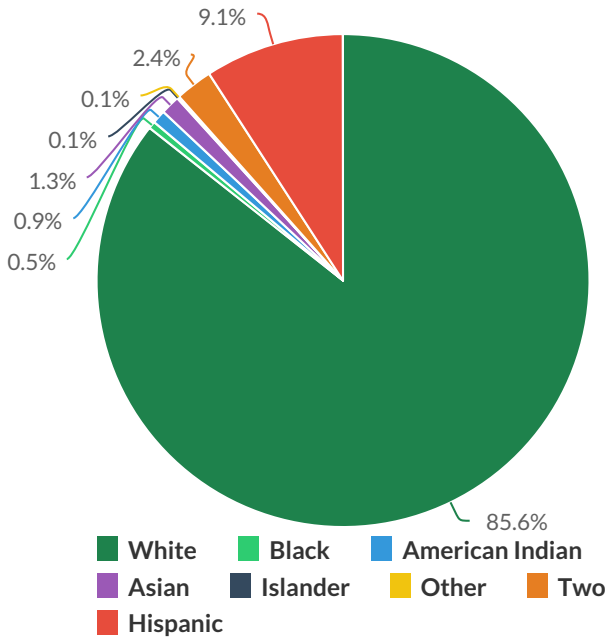
SEX BY AGE



EDUCATIONAL ATTAINMENT



RACE & ORIGIN



POVERTY

7.2%

for all families whose income in the past 12 months is below the poverty level

UNEMPLOYMENT

4.8%

for the population 16 years & over in the labor force

HOUSING UNITS

53,189

houses, apartments, mobile homes, group of rooms or single rooms that serve as separate living quarters

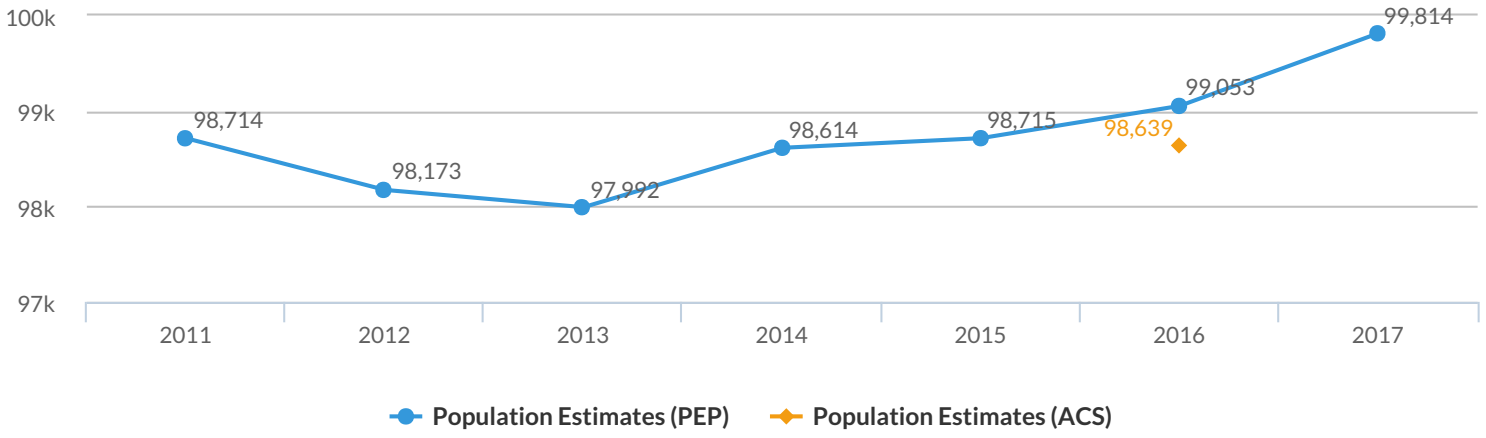
HOUSEHOLDS

40,587

all the people who occupy a housing unit

Source: United States Census Bureau. The US Census Bureau's 2017 Population Estimates dataset has the most current population estimate data. The US Census Bureau's 2016 American Community Survey dataset has the most current demographic data (i.e. race).

POPULATION



Population Estimates (ACS)

	#	% Change
2016 5-yr estimate	98,639	-

Source: American Community Survey 2016

Population Estimates (PEP)

	#	% Change
2011	98,714	-
2012	98,173	-0.5%
2013	97,992	-0.2%
2014	98,614	0.6%
2015	98,715	0.1%
2016	99,053	0.3%
2017	99,814	0.8%

Source: Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017

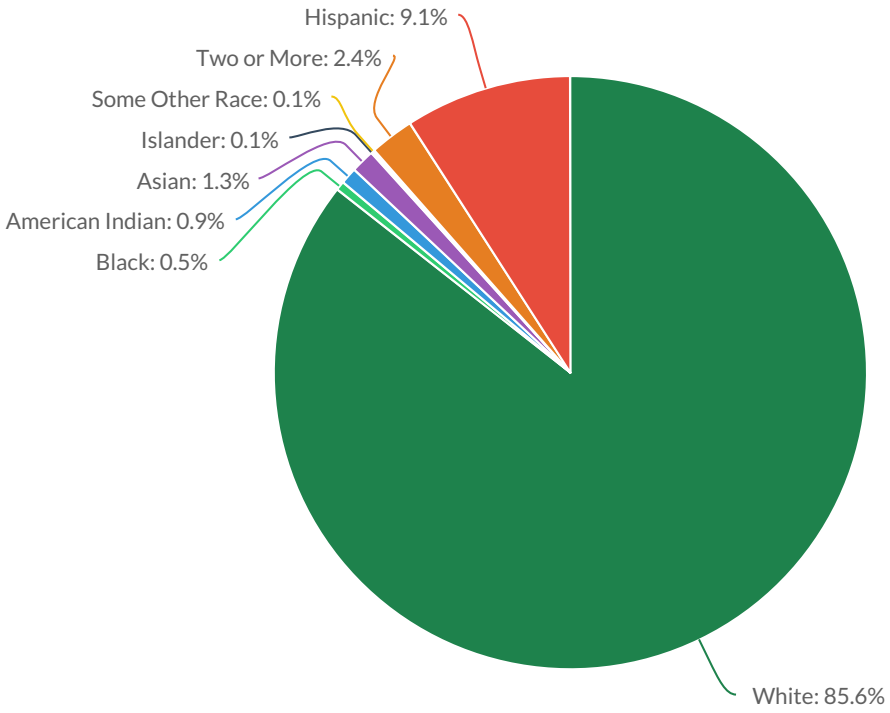
Historical Population Counts

	#	% Change
2000	92,033	-
2010	98,764	7.3%

Source: Decennial Census 2010, 2000

RACE

Race & Origin (Hispanic)



	#	%
Non-Hispanic	89,620	90.9%
White	84,469	85.6%
Black	472	0.5%
American Indian	876	0.9%
Asian	1,246	1.3%
Islander	57	0.1%
Other	100	0.1%
Two or More	2,400	2.4%
Hispanic	9,019	9.1%
Total Population	98,639	-

The complete Census race descriptions are as follows: White alone; Black or African American alone; American Indian and Alaska Native alone; Asian alone; Native Hawaiian and Other Pacific Islander alone; Some Other Race alone; and Two or More Races. Hispanics may be of any race. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2016

Detailed Race

	#	%
One race	95,638	97.0%
White	90,973	92.2%
Black or African American	495	0.5%
American Indian and Alaska Native	1,128	1.1%
Cherokee tribal grouping	354	0.4%
Chippewa tribal grouping	0	0.0%
Navajo tribal grouping	10	0.0%
Sioux tribal grouping	0	0.0%
Asian	1,281	1.3%
Asian Indian	81	0.1%
Chinese	512	0.5%
Filipino	228	0.2%
Japanese	212	0.2%
Korean	86	0.1%
Vietnamese	22	0.0%
Other Asian	140	0.1%
Native Hawaiian and Other Pacific Islander	75	0.1%
Native Hawaiian	26	0.0%
Guamanian or Chamorro	9	0.0%
Samoan	19	0.0%
Other Pacific Islander	21	0.0%
Some other race	1,686	1.7%
Two or more races	3,001	3.0%
White and Black or African American	291	0.3%
White and American Indian and Alaska Native	1,041	1.1%
White and Asian	903	0.9%
Black or African American and American Indian and Alaska Native	5	0.0%
Total Population	98,639	-

Source: American Community Survey 2016

Hispanic or Latino

	#	%
Non-Hispanic	89,620	90.9%
Hispanic or Latino (of any race)	9,019	9.1%
Mexican	6,577	6.7%
Puerto Rican	247	0.3%
Cuban	446	0.5%
Other	1,749	1.8%
Total Population	98,639	-

Source: American Community Survey 2016

SEX

	#	%
Male	48,833	49.5%
Female	49,806	50.5%
Total Population	98,639	-

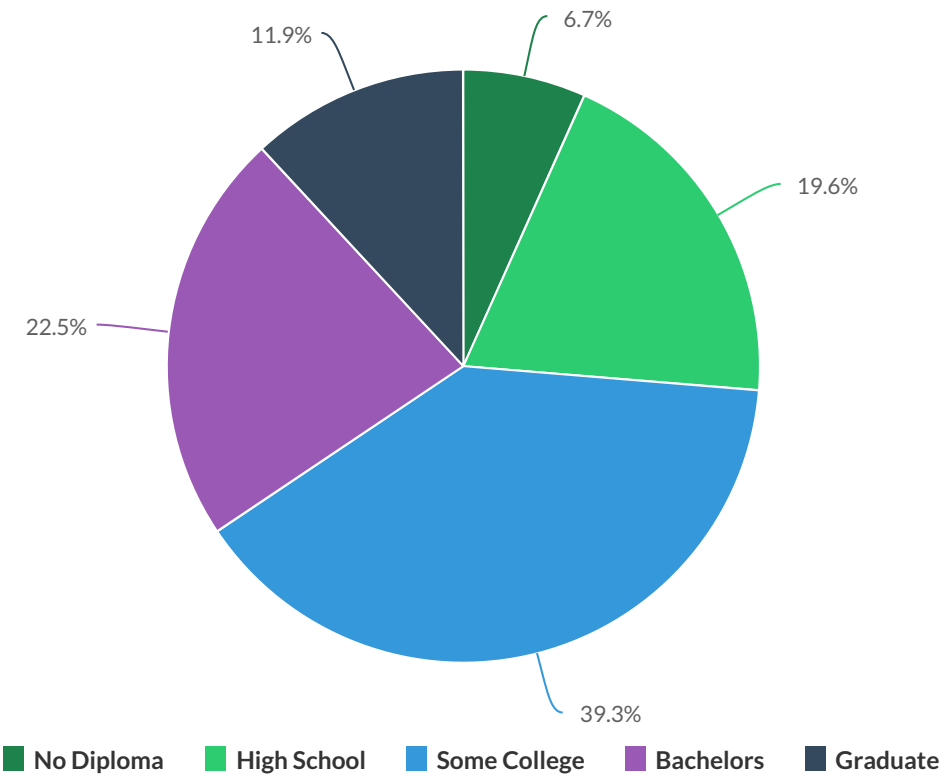
Source: American Community Survey 2016

AGE BREAKDOWN

	#	%
0 to 9 years	8,885	9.0%
10 to 19 years	10,831	11.0%
20 to 29 years	9,055	9.2%
30 to 39 years	10,201	10.3%
40 to 49 years	11,028	11.2%
50 to 59 years	15,854	16.1%
60 to 69 years	17,784	18.0%
70+ years	15,001	15.2%
Total Population	98,639	-

Source: American Community Survey 2016

EDUCATIONAL ATTAINMENT



	#	%
No diploma	4,956	6.7%
High school graduate & equivalency	14,568	19.6%
Associate degree & some college, no degree	29,233	39.3%
Bachelor's degree	16,694	22.5%
Graduate or Professional degree	8,876	11.9%
Population 25 Years and Over	74,327	-

Source: American Community Survey 2016

HOUSEHOLDS

Average Household Size	2.40 persons
Average Family Size	2.91 persons

A household includes all the people who occupy a housing unit. (People not living in households are classified as living in group quarters.) A family household consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2016

Household Types

	#	%
Family households (families)	25,777	63.5%
With own children under 18 years	8,304	20.5%
Married-couple family	20,961	51.6%
With own children under 18 years	5,945	14.6%
Male householder, no wife present	1,517	3.7%
With own children under 18 years	759	1.9%
Female householder, no husband present	3,299	8.1%
With own children under 18 years	1,600	3.9%
Nonfamily households	14,810	36.5%
Householder living alone	11,819	29.1%
65 years and over	5,558	13.7%
Total households	40,587	-

A family household consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. A nonfamily household is a householder living alone or with nonrelatives only. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. For more information, visit the American Community Survey Data & Documentation page: http://www.census.gov/acs/www/data_documentation/documentation_main/.

Source: American Community Survey 2016

INCOME

Median Household Income

Census 2000 in 1999 dollars	$45,864
American Community Survey (ACS) 2016 in 2016 inflation adjusted dollars	$57,429

Source: Decennial Census 2000, American Community Survey 2016

Household Income Distribution

Income in thousands.	#	%
Less than $10	1,870	4.6%
$10 to $14.9	1,912	4.7%
$15 to $24.9	3,649	9.0%
$25 to $34.9	4,678	11.5%
$35 to $49.9	5,849	14.4%
$50 to $74.9	6,944	17.1%
$75 to $99.9	5,122	12.6%
$100 to $149.9	6,243	15.4%
$150 to $199.9	2,329	5.7%
$200K+	1,991	4.9%
Total Households	40,587	-

Source: American Community Survey 2016

POVERTY

	#	%
Families with Income in the past 12 months below poverty level	(X)	7.2%
Population with Income in the past 12 months below poverty level	(X)	12.1%

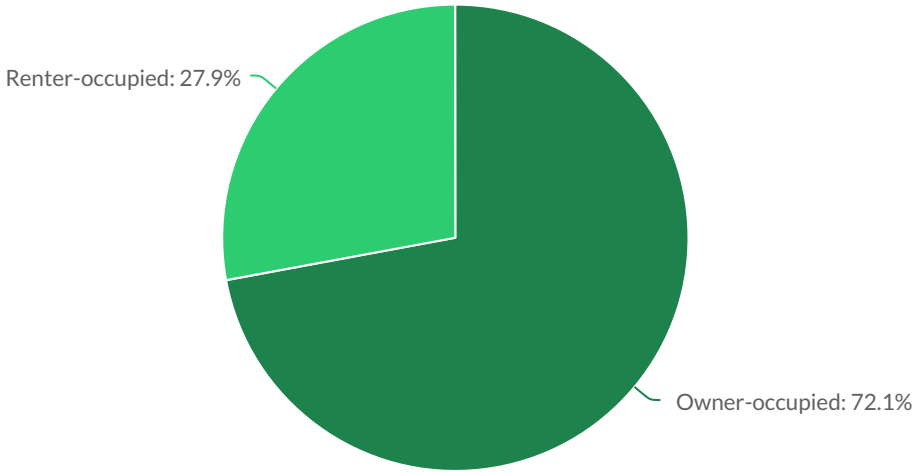
Source: American Community Survey 2016

HOUSING

Occupancy

	#	%
Occupied Housing Units	40,587	76.3%
Owner-occupied Housing Units	29,282	72.1%
Renter-occupied Housing Units	11,305	27.9%
Vacant Housing Units	12,602	23.7%
Total Housing Units	53,189	-

Source: American Community Survey 2016



Value

	#	%
Median Value of Owner-occupied Housing Units	$355,900	-

Source: American Community Survey 2016

CITATIONS & NOTES

Citations

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Notes

American Community Survey data are estimates, not counts.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

The ACS questions on Hispanic origin and race were revised in 2008 to make them consistent with the Census 2010 question wording. Any changes in estimates for 2008 and beyond may be due to demographic changes, as well as factors including questionnaire changes, differences in ACS population controls, and methodological differences in the population estimates, and therefore should be used with caution. For a summary of questionnaire changes see http://www.census.gov/acs/www/methodology/questionnaire_changes/. For more information about changes in the estimates see http://www.census.gov/population/www/socdemo/hispanic/reports.html.

For more information on understanding race and Hispanic origin data, please see the Census 2010 Brief entitled, Overview of Race and Hispanic Origin: 2010, issued March 2011. (pdf format)

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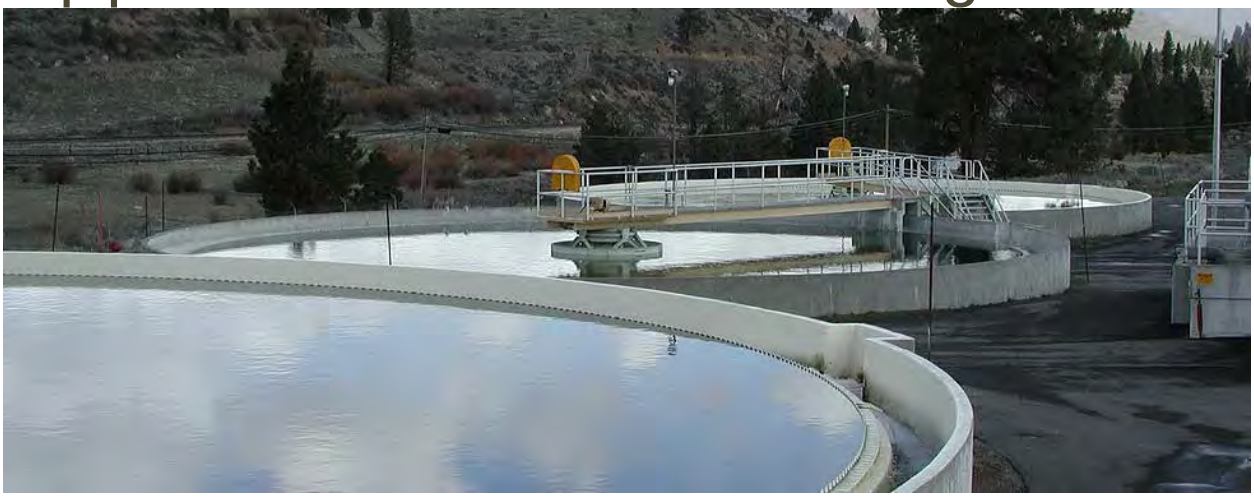
Appendix 4: Wastewater Regulations

Appendix 4: Wastewater Regulations



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REGULATIONS FOR WASTEWATER SYSTEMS

Both state and federal regulatory authority exists for the control of water quality in surface waters of California. Under the Clean Water Act (CWA), the Environmental Protection Agency (EPA) regulates municipal and industrial effluent discharges to navigable waters through the issuance

of National Pollutant Discharge Elimination System (NPDES) permits. The basic approach used in both state and federal processes is 1) to designate beneficial uses to be protected, 2) to set water quality objectives that are protective of the most sensitive uses, and 3) to control municipal, industrial, and other sources to meet these objectives.

Federal Wastewater Treatment Regulations

Clean Water Act

The Clean Water Act (33 U.S.C. § 1251 et seq.) is the federal law that governs and authorizes water quality control activities by the EPA. Pursuant to federal law, the EPA has published water quality regulations under Volume 40 of the Code of Federal Regulations (40 CFR). The CWA regulates water pollution through two different and supplementary approaches:

- Water quality and technology-based standards; and
- Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States.

The two approaches to regulating water pollution are implemented through the use of discharge permits, which contain mass or concentration-based effluent limits for the pollutants in the permittee's wastewater. These approaches are applied to pollutant dischargers through the implementation of the national wastewater discharge permitting program set up under the CWA. The CWA established national goals to eliminate pollutant discharges to navigable waters and to assure that all navigable waters would be fishable and swimmable.

National Pollutant Discharge Elimination System (NPDES)

The NPDES permit system was established under section 402 of the CWA to regulate municipal and industrial discharges to surface waters of the United States. The discharge of wastewater to surface waters is prohibited unless an NPDES permit has been issued which allows that discharge. Each NPDES permit contains limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge. Under the NPDES program, dischargers are required to monitor and provide reports on compliance with their permit limits. These reports, formally titled Discharge Monitoring Reports (DMRs), are submitted to the appropriate regulatory agency, and they describe water quality data and analysis. The regulatory agency or any interested citizen can review this data to determine whether or not the discharger has complied with its NPDES permit requirements, and, if appropriate, pursue action to enforce compliance.

Stormwater: The Town of Truckee is subject to the NPDES stormwater permit regulations, and to the Small Municipal Regional Stormwater NPDES Phase 2 Permit, Order No. 2003-0005-DWQ, NPDES Permit No. CAS000004 WDRs (the "2003 Permit" or "Permit"). The 2003 Permit regulates the discharge of stormwater runoff from small municipal separate storm sewer systems ("MS4s") and other designated stormwater discharges from municipalities and flood management agencies (California, 2017). The Permit requires the County and Town to develop Storm Water Management Plans (SWMPs) that include a comprehensive water quality monitoring plan for the Middle Truckee River Watershed (Truckee, 2014).

Enforcement of NPDES guidelines and permits in Nevada and Placer Counties fall within jurisdiction of the Lahontan Regional Water Quality Control Board (Lahontan RWQCB) and is subject to review by the EPA Regional Administrator (EPA Region 6SLT, South Lake Tahoe Office). In addition, the RWQCB regulates activities involving discharges to land or groundwater from diffused sources. A Report of Waste Discharge must be filed with the Lahontan RWQCB to obtain a Waste Discharge Requirement (WDR) for these types of non-surface water discharge.

Congress amended the CWA in 1987 to include non-point source pollutants. Non-point source pollutants are often chemicals from lawns or gardens, automobile residues, urban runoff, or household cleaning agents or compounds. Non-point source pollution can also include runoff from agricultural uses. Most non-point source pollutants enter the wastewater stream and the water supply in large quantities and sudden surges, largely due to storm events. Although the EPA has established NPDES requirements for storm water, control of this type of pollution has proven to be difficult and could require upgrades to existing wastewater treatment plants. On August 12, 2015, the EPA[1] approved SWRCB's Six-Year Plan (2014-2020) with Regional Water Quality Control Boards. These new regulations may further affect the wastewater agencies in Nevada and Placer Counties, especially those with high storm water infiltration rates.[2]

Section 303(d) Impaired Waters List and TMDLs

Under Section 303(d) of the CWA, states are required to develop lists of water bodies which will not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries) (40 C.F.R. §130.7(b)(4)). For example, the EPA and RWQCB have approved a TMDL to reduce sediment in the Truckee River. See Lahontan RWQCB website at: *https://www.waterboards.ca.gov/lahontan/water_issues/programs/tmdl/l* for additional details.

National Toxics Rule

The EPA established the National Toxics Rules (NTR) to create numeric criteria for priority toxic pollutants for California and 13 other states and territories that were not in complete compliance with the CWA. For California, the NTR established water quality standards for protection of aquatic life and/or human health for 36 pollutants for which water quality criteria exist, but which were not covered under California's statewide water quality regulations.

California Toxics Rule

The Clean Water Act (33 U.S.C. § 1251 et seq.) is the federal law that governs and authorizes water quality control activities by the EPA. Pursuant to federal law, the EPA has the NTR. There are 126 constituents listed in the California Toxics Rule (CTR) criteria, which include the previously issued NTR criteria for California. Some of the key elements of the CTR include:

[1] EPA's approval letter for the Six Year Plan is available on-line at: *http://www.waterboards.ca.gov/water_issues/programs/nps/docs/plans_policies/usepa_approval_2014to202020.pdf*

[2] State Water Resources Control Board. Nonpoint Source Pollution (NPS) Control Program. www.waterboards.ca.gov/water_issues/programs/nps.

- Amended numeric standards for 30 toxic pollutants and added new criteria for 8 toxic pollutants to protect aquatic life and human health uses for water bodies.
- Dissolved-based standards for most trace metals and endorsement of the use of translator mechanisms for determination of local metals objectives.
- Provisions for compliance schedules to provide time for permittees to meet the new toxics standards.
- Provisions for mixing zones when calculating toxic constituent effluent limitations.
- Use of interim effluent limits to provide time for dischargers to take actions to meet final limits.

The EPA promulgated numeric water quality criteria for priority toxic pollutants and other water quality standards for waters in the State of California pursuant to section 303(c)(2)(B) of the CWA if those pollutants could be reasonably expected to interfere with the designated uses of states' waters. Although California had adopted numeric criteria for priority toxic pollutants in 1992, the courts ordered California to rescind these water quality control plans in 1994 and the new water quality criteria rule, known as the California Toxics Rule (CTR), temporarily replaced the standards adopted in 1991. The CTR established:

- Ambient aquatic life criteria for 23 priority toxics;
- Ambient human health criteria for 57 priority toxics; and
- Compliance schedule provision.

Under the CTR various regional water quality control boards will issue schedules of compliance for new or revised NPDES permit limits based on the federal criteria when certain conditions are met. Currently each basin plan, as prepared by the regional water quality control board, contains a water quality criterion that all waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This has been contested by local jurisdictions all over California since it is expected to add significantly to the cost of wastewater treatment.

EPA contends that since California is implementing EPA's current regulations, the CTR will not impose any incremental costs and that the water quality criterion does not directly create economic impacts. EPA staff notes that California has some discretion to develop mechanisms that could result in more flexibility for local areas (e.g., site-specific criteria, phased TMDL program).

For Placer County, the Lahontan RWQCB does not require a separate and specific CTR permit. In 2004, the Lahontan RWQCB found three years of CTR monitoring data did not measure CTR pollutants in concentrations that resulted in receiving water violations, thus Board eliminated the CTR priority pollutant monitoring requirement. The wastewater agencies that discharge to surface waters were required to complete a number (depending on whether discharger is major or minor, municipal or industrial) of rounds of sampling under the CTR.

California Wastewater Treatment Regulations

The California Water Code is the principal state regulation governing the use of water resources within the State of California. This law controls, among other issues, water quality protection and

management, and management of water-oriented agencies. Division 7 of the California Water Code, commonly referred to as the Porter-Cologne Act, is the principal mechanism for regulation of water quality and pollution issues within California. This act established a regulatory program to protect the water quality and beneficial uses of all state waters. The Porter-Cologne Act also established the State Water Resources Control Board and California Regional Water Quality Control Boards (RWQCB) as principal state agencies responsible for water quality control. The SWRCB has divided California into nine regions with Placer and Nevada Counties located in the Lahontan RWQCB, Region 6SLT.

The Porter-Cologne Act grants the SWRCB and regional offices broad powers to protect water quality and is the primary vehicle for implementation of California's responsibilities under the federal CWA. These broad powers include the authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of hazardous materials and other pollutants. The Porter-Cologne Act also includes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil/petroleum product.

The Lahontan RWQCB, as with all other regional boards, must formulate and adopt a water quality plan for its region which must conform to the Porter-Cologne Act. The Porter-Cologne Act also provides that a regional office, such as the Lahontan RWQCB, may include within its regional plan water discharge prohibitions applicable to local conditions, areas, and types of waste. The regional offices are also authorized to enforce discharge limitations, take actions to prevent violations, and conduct investigations about the quality of any of the waters of the state. Civil and criminal penalties are applicable to persons who violate the requirements of the Porter-Cologne Act or SWRCB/RWQCB orders.

The Porter-Cologne Act also requires dischargers of fill and dredged material to all waters of the state be regulated. Additional protections are provided for wetlands, special aquatic sites and headwaters because these waterbodies have high resource value, are vulnerable to filling, and are not protected by other programs. The Lahontan RWQCB CWA Section 401 program is involved with protection of special-status species and regulation of hydromodification impacts. The RWQCB encourages watershed-level analysis and protection, because some functions of wetlands, riparian areas, and headwater streams–including pollutant removal, flood water retention, and habitat connectivity–are expressed at the watershed or landscape level. The 401 program was allotted an addition position beginning in July 2014, so the Program is now operating with 1.8 PYs (Lahontan RWQCB, 2017).

Other state agencies with jurisdiction or involvement in water quality regulation in California include the Department of Public Health (DPH) for drinking water regulations and water reclamation criteria, the Department of Pesticide Regulation, the Department of Fish and Game, and the Office of Environmental Health and Hazard Assessment.

California Storm Drainage & Flood Control Regulations

SB 985 addresses Runoff recapture and requires that state and local agencies regulating stormwater diversion systems to identify opportunities for capturing that runoff -- including summer season runoff -- for some form of reuse.

Local Wastewater Regulations

The Town of Truckee has policies and procedures consistent with the Lahontan RWQCB recommendation for connection to a public wastewater system in urbanized areas. Specifically, the Town requires sewer be provided for all new residential subdivisions creating more than four lots and all new commercial and industrial uses (Truckee, 2006).

Wastewater Solids Regulations

Solids generated at a wastewater treatment facility comprise screenings, grit, primary or raw sludge (PS) and secondary or waste activated sludge (WAS). The screenings and grit are typically dewatered and disposed in a landfill. Sludge generated by a wastewater treatment facility is defined as biosolids once beneficial use criteria, as determined by compliance with EPA regulations, have been achieved through stabilization processes. Stabilization processes are described as those that help reduce pathogens and reduce vector attraction.

Several federal, state, and local regulations are in place that influence whether biosolids from municipal wastewater treatment plants can be reused or disposed of. Increased concerns and debate over biosolids disposal and its associated environmental impacts have led to more stringent revisions and amendments for many of these regulations. Continuing changes in regulations affecting biosolids management make a flexible management program essential.

Federal, state, and local agencies are responsible for regulating biosolids beneficial reuse/disposal. The authority of each agency varies based on the beneficial reuse/disposal methods employed. However, overall guidelines are established by the EPA. These guidelines are in turn implemented by state and local governments. Many state and local agencies in California have developed additional rules, guidelines, and criteria for biosolids management.

In order to implement the long-term biosolids permitting program, required by the Water Quality Act of 1987, the EPA initiated two rule makings. The first rulemaking established requirements and procedures for including biosolids management in NPDES permits, procedures for granting state biosolids management programs primacy over federal programs, or for federal programs to implement biosolids permits if a state so chooses.

The second rulemaking proposed to regulate and control biosolids permitting was 40 CFR Part 503, Standards for the Use and Disposal of Sewage Sludge. This rule addresses three general categories of beneficial reuse/disposal of biosolids including:

- Land application of sewage sludge for beneficial use of organic content;
- Surface disposal of biosolids in a monofill, surface impoundment, or other dedicated site; and
- Incineration of sewage sludge with, or without, auxiliary fuel.

Future Regulatory Considerations

This section provides insight into the future regulatory considerations that may affect County sewer systems' effluent discharges. Identifying future regulatory trends is critical for the following reasons:

- Developing treatment scenarios and alternatives;
- Planning for process and layout requirements for future regulatory compliance; and
- Making budget considerations for major design and construction projects.

Identifying future pollutants of concern (POCs), such as metals, nutrients, and/or pathogens, will help to develop alternatives that are flexible and can be easily expanded or upgraded to treat future POCs. For example, planning may include reserving space in the site layout for nutrient reduction, tertiary filtration, advanced oxidation, or an alternative disinfection method that would provide treatment of future POCs.

Nutrients, including nitrogen and phosphorus, are the leading cause of impairments to the nation's surface waters and as a result are receiving greater regulatory scrutiny regarding their contribution to the overall quality of the nation's receiving waters. Although appropriate amounts of nutrients are vital for the health and proper functioning of water bodies, excessive nutrient concentrations can cause water quality degradation.

Nationwide Nutrient Criteria

In November 2007, the National Resources Defense Council (NRDC) filed a petition with the EPA to require that nutrient removal be included in the definition of secondary treatment. The petition stated that "there are many [biological processes] which can achieve total phosphorus levels of 1.0 milligrams per liter (mg/L) as a monthly average, and a total nitrogen of 6 to 8 mg/L as an annual average" (NRDC et al, 2007).

In response to the petition by NRDC, the National Association of Clean Water Agencies (NACWA) wrote to the EPA in February 2008, September 2009, and June 2010 urging the EPA to deny the petition to modify the secondary treatment regulations for several legal, technical, and political reasons including but not limited to the potentially exorbitant cost to publically owned treatment works and the inappropriateness of establishing national limits for local and regional water quality issues (NACWA, 2008; NACWA, 2009). In October 2009, the EPA stated they were actively analyzing the data and information to prepare a report and preliminary response to the NRDC petition. They stated they would consider NACWA, other stakeholders, and all information carefully before taking action on the NRDC petition (U.S. EPA, 2009a).

Due to the scientific uncertainties associated with the development of numeric nutrient criteria and the magnitude of the expected costs of compliance, nutrient water quality policies are very controversial and have sparked several legal actions across the country. The State of Florida has become the initial focus of environmental groups' efforts to push the EPA to develop federal numeric nutrient criteria to be imposed on the states. The EPA has agreed to a consent decree in the environmental suit, and has made a determination that numeric nutrient standards are necessary in Florida. Proposed criteria for total nitrogen and total phosphorus were released in

January 2010. The EPA withdrew federal water quality standards (WQS) applicable to waters of the State of Florida in 2014 because Florida adopted— and EPA approved— relevant numeric nutrient criteria (NNC).

State of California Nutrient Numeric Endpoints

In addition to the increasingly stringent regulation of nutrients, there is a trend towards increasing regulation of emerging microconstituents and bioaccumulative pollutants in treated effluent discharges.

Microconstituents and Bioaccumulative Constituents

Microconstituent, also referred to as "contaminants of emerging concern" (CECs) by the EPA Office of Water, are substances that have been detected in surface waters and the environment and may potentially cause deleterious effects on aquatic life and the environment at relevant concentrations. Microconstituents include:

- Persistent organic pollutants (POPs) such as polybrominated diphenyl ethers (PBDEs; used in flame retardants, furniture foam, plastics, etc.) and other organic contaminants.
- Pharmaceuticals and personal care products (PPCPs), including a wide suite of human prescribed drugs, over-the-counter medications, bactericides, sunscreens, and synthetic musks.
- Veterinary medicines such as antimicrobials, antibiotics, anti-fungals, growth promoters, and hormones.
- Endocrine-disrupting chemicals (EDCs), including synthetic estrogens and androgens, naturally occurring estrogens, as well as many other compounds capable of modulating normal hormonal functions and steroidal synthesis in aquatic organisms.
- Nanomaterials such as carbon nanotubes or nano-scale particulate titanium dioxide.

Bioaccumulative constituents are substances that are taken up by organisms at faster rates than the organisms can remove them. As a result, these constituents accumulate in the organism and the food chain, and can remain in the environment for long periods of time. Mercury, polychlorinated biphenyls (PCBs), and dioxins are some bioaccumulative constituents that are being increasingly regulated.

Monitoring requirements for these trace pollutants are increasing, including requirements to analyze constituents at lower detection limits. It is likely that water quality criteria followed by new effluent limits will be added to permits. Implementation of CEC standards is not expected to be imminent as the EPA is currently focused on assessing the potential impact CECs have on the environment and human health.

The State Water Resources Control Board (SWRCB) is in the process of developing statewide policies for nutrients. The SWRCB held a scoping meeting in October 2011 to seek input on content for a proposed Nutrient Numeric Endpoint (NNE) framework and policy for inland surface waters.

Biostimulatory Substances Objective and Implementation of Biological Integrity

The existing statues and regulations are in various forms such as regional narrative or numeric nutrient objectives, an objective in the State Ocean Plan, water quality orders, and TMDLs which were adopted or are under development by various Regional Water Boards. Currently, there are approximately 32 TMDLs statewide which list nutrients as toxicants or eutrophication-related effects on beneficial uses, including the TMDL for the Truckee River.

The State Water Resources Control Board (State Water Board) is proposing to adopt a statewide water quality objective for biostimulatory substances along with a program of implementation as an amendment (Biostimulatory Substances Amendment or project) to the Water Quality Control Plan for Inland Surface Water, Enclosed Bays and Estuaries of California (ISWEBE Plan). The Biostimulatory Substances Amendment could include: a statewide numeric objective or a statewide narrative objective (with a numeric translator), and various regulatory control options for point and non-point sources.

It is anticipated that a comprehensive program to implement the water quality objective for biostimulatory substances will be established in three phases as three amendments to the ISWEBE Plan. Each phase would reflect implementation unique to three different water body types. If the Biostimulatory Substances Amendment establishes a numeric water quality objective, rather than a narrative water quality objective, then potentially each subsequent phase would also establish a new numeric water quality objective. The latter depends on whether the numeric water quality objective is developed from factors unique to the different types of waterbodies. The Biostimulatory Amendment would be the first phase, applicable to wadeable streams. The second phase will focus on lakes and the third phase will focus on estuaries, enclosed bays, and non-wadeable rivers.

This project will also now include a water quality control policy to establish and implement biological condition assessment methods, scoring tools, and targets aimed at protecting the biological integrity in wadeable streams (SWRCB, 2017).

California State Recycled Water Policy

The SWRCB adopted a Recycled Water Policy (RW Policy) in 2009 and updated in 2013 to establish more uniform requirements for water recycling throughout the State and to streamline

the permit application process in most instances[3]. The RW Policy includes a mandate that the State increase the use of recycled water over 2002 levels by at least 200,000 acre-feet per year (AFY) by 2020 and by at least 300,000 AFY by 2030. It also includes goals for stormwater reuse and conservation and potable water offsets by recycled water. The onus for achieving these mandates and goals is placed on both recycled water purveyors and potential users. Since the recycled water project permit process is streamlined, projects will not be required to include a monitoring component. If any regulations arise from new knowledge of risks associated with CECs, then projects will be given compliance schedules. Regulations are not expected to arise in the imminent future.

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[3] Details are at the State Water Board website at www.swrcb.ca.gov/water_issues/programs/water_recycling_policy/.

Appendix 5: Onsite Wastewater Systems

APPENDIX 5
ONSITE WASTEWATER SYSTEMS

Figure A5-1: Example Septic System

Table of Contents

Introduction

For the purposes of this service review, an onsite wastewater system is defined as both an individual septic system for one connection, such as a single-family residence, and a community septic system which might serve multiple connections such as an apartment or a neighborhood.

Onsite wastewater systems are regulated by Nevada County Environmental Health as detailed on its website at: *https://www.mynevadacounty.com/2138/Sewage-Disposal* .

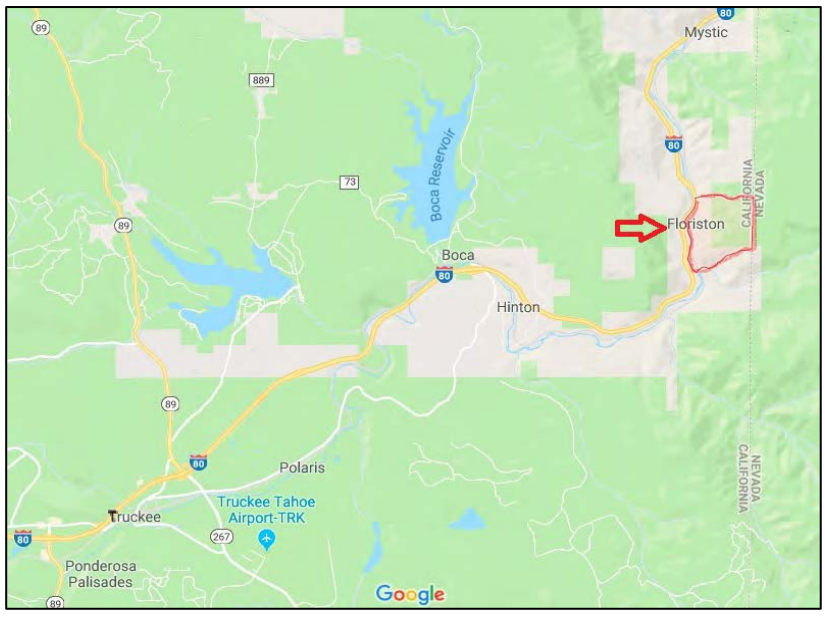
Individual onsite systems and any community system not operated by one of the two public wastewater collection districts in eastern Nevada County are not subject to LAFCo requirements for service reviews or spheres of influence. However, since approximately 65 percent of the total population in Nevada County uses onsite systems (mostly in western Nevada County), a discussion of the issues associated with onsite systems is critical to comprehensively address wastewater provision in Nevada County. Suggestions for change have been included; however, implementation of many of the suggestions is beyond the purview of LAFCO.

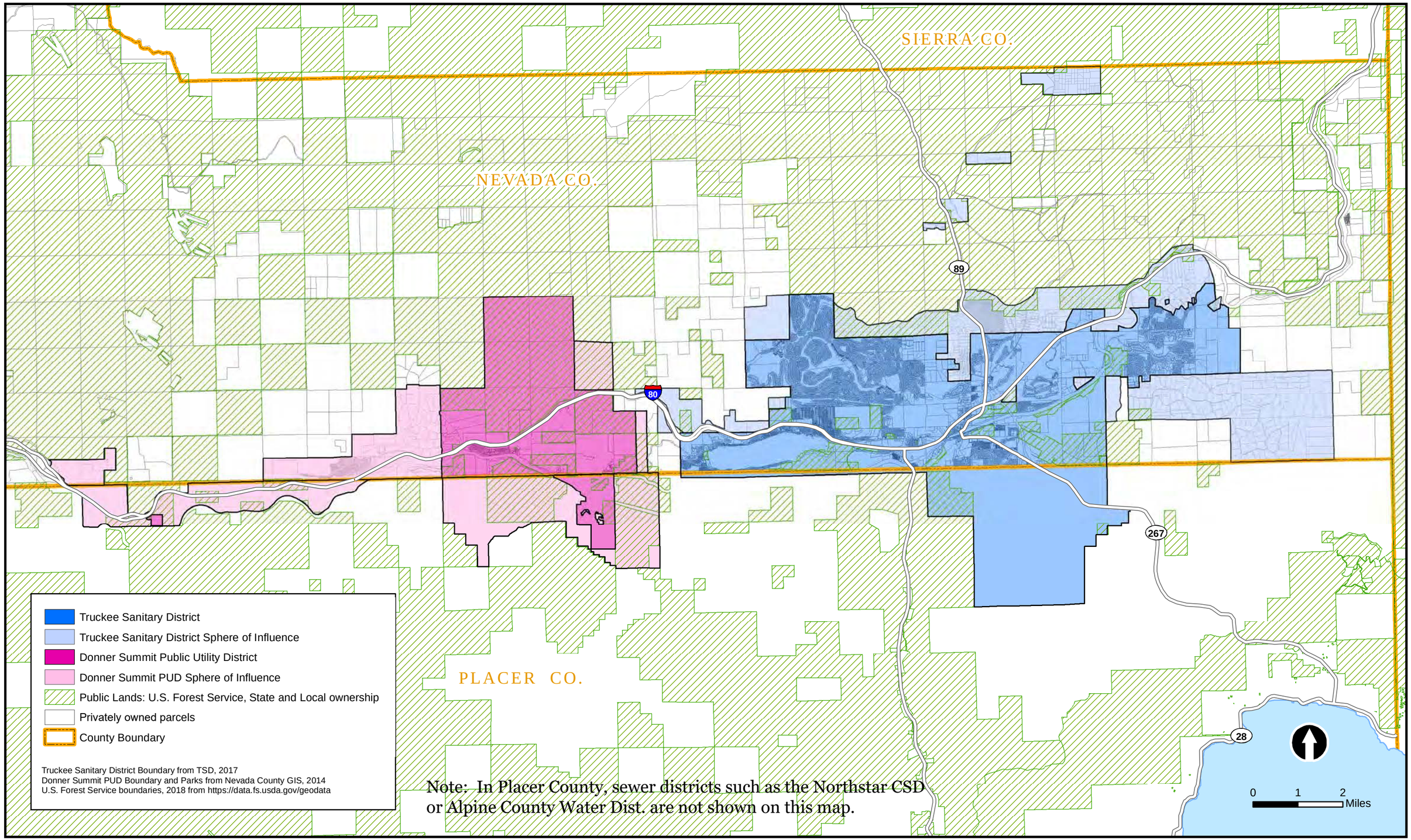
Geographical Context

In the eastern part of Nevada County there are currently three wastewater services providers: the Truckee Sanitary District (Chapter 3); the Tahoe-Truckee Sanitation Agency (Chapter 4); and the Donner Summit Public Utility District (Chapter 5). Within the formal boundaries of these agencies, public sewer systems provide wastewater collection or treatment to residences and institutions. However, both within and outside the sphere of influence area of these districts, septic systems (i.e. onsite wastewater system) may currently be utilized.

Figure A5-3, entitled "Eastern Nevada County Wastewater Service Providers" (next page) provides an overview of eastern Nevada County and shows the boundary area of the Truckee Sanitary District and the Donner Summit Public Utility District. Areas within the sphere of influence (SOI) for these two districts may rely upon onsite wastewater systems and are described in Chapters 3 and 5 of this MSR. The areas shown in green are publicly managed areas, such as the Tahoe National Forest, which are in a natural condition and do not utilize or require wastewater services. The areas shown in white and located within Nevada County are privately owned parcels located outside a district SOI and which may or may not be vacant. If these privately-owned parcels are developed, they might contain an existing onsite wastewater system. For example, the unincorporated community of Floriston, shown in Figure A5-2 to the right and located in the eastern most part of the County, relies upon an onsite wastewater system.

FIGURE A5-2: FLORISTON





Appendix 5: Figure A5-3

Note: Private parcel boundaries are shown only for Nevada County.

EASTERN NEVADA COUNTY WASTEWATER SERVICE PROVIDERS

This community is a census designated place containing approximately 73 residents occupying 43 housing units. A local homeowner's association works to share information with local residents via its website at: *http://floristonca.com/* .

Another example is the PlaVada neighborhood located on Pla Vada Drive in Soda Springs, CA. Te PlaVada Homeowner's Association owns, operates, and maintains its own roads, sewer and water system. The Homeowner's Association also provides high speed Internet access. The Association has a wastewater treatment and disposal facility located on Assessor's Parcel Number 47-010-29-000 which is located at Sewer Plant Rd at Conifer Soda Springs, CA, 95728. Sewage is conveyed from approximately 190 single family homes via sewers and conveyed to pumps at the package wastewater treatment plant. The Central Valley Regional Water Quality Control Board (CVRWQCB) maintains a file on this facility and has given it a Place Identification Number 248573. The CVRWQCB regulates this system through a Waste Discharge Permit (Order No. 95-016) which was approved in January 1995 and expired January 2004. A notice of violation was issued in 2006. The Kingvale Caltrans maintenance station also discharges wastewater to this system (SWRCB – CIWQS, 2018).

Figure A5-3, entitled "Eastern Nevada County Wastewater Service Providers" (next page) depicts a portion of Placer County for geographical context. However, it should be noted that much of the white area shown in Placer County does receive public sewer service from the Northstar Community Services District and the Alpine Springs County Water District, among others.

Overview of Regulations for Onsite Wastewater Systems

Federal Onsite Wastewater Regulations

The federal government assumes no direct role in regulation of onsite sewage treatment systems, although it is indirectly involved through the requirements of the Safe Drinking Water and the Clean Water Act. The actual regulation of onsite systems is delegated to state and local government.

State Onsite Wastewater Regulations

The California State Water Resources Control Board (SWRCB) has the statewide responsibility for protecting water quality. The state is divided into nine water quality regions, corresponding to one of nine major drainage basins. Each basin is governed by a Regional Water Quality Control Board (RWQCB) that sets policies unique to the issues in that basin. While the regional boards also issue waste discharge requirements for wastewater systems, they generally delegate direct regulatory authority for individual and some community onsite systems to local agencies. Exceptions are made when water quality impairments occur in a basin. Nevada County is located

in Region 5, the Central Valley RWQCB (west of the Donner Summit) and in Region 6, the Lahontan RWQCB (east of the Donner Summit).

In 2000 the California Legislature passed Assembly Bill (AB) 885, requiring the SWRCB to adopt regulations or standards for the permitting and operation of onsite wastewater treatment systems (OWTS). In response, the SWRCB developed the "Water Quality Control Policy for Siting, Design, operation and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy),"[1] which took effect May 13, 2013. The OWTS Policy establishes a statewide, risk-based, tiered approach for the regulation and management of OWTS installations and replacements and sets the level of performance and protection expected from onsite wastewater treatment systems (OWTSs). Implementation of the OWTS Policy is overseen by the SWRCB and implemented through the RWQCBs. Further, Nevada County has implemented local agency management programs (LAMP) as approved by the regional water quality control board on April 7, 2017 via Resolution R5-2017-0047.[2] The Nevada County LAMP is available on-line at: <*https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/nevada/r5-2017-0047_res.pdf* > (Nevada County, 2017).

The OWTS Policy and the Nevada County LAMP also include minimum site evaluation and siting standards. In addition to soil and site evaluations, including percolation tests, the Policy establishes minimum horizontal setbacks for siting OWTSs. Specific setbacks for OWTS treatment components and dispersal systems include 5 feet from property lines and structures; 100 feet from water wells, monitoring wells, springs and flowing surface water bodies; 100 feet from unstable land masses; 200 feet from vernal pools, wetlands, lakes, ponds, and surface water high water marks; 150 feet from public water wells; and 1,200 feet from public water systems' surface water intake point.[3] Additionally, the regulations limit effluent disposal on slopes greater than 25 percent and specifies allowable average densities for subdivisions occurring after the Policy's effective date.[4] Additional qualifications and limitations, such as limitations on depth to groundwater and minimum soil depth, are included in Section 7.0 of the OWTS Policy. The Water Quality Control Plan for the Lahontan Region (Lahontan Basin Plan) contains criteria for individual waste disposal systems. Some of the Lahontan Basin Plan criteria may be more stringent than those provided in this LAMP. The Lahontan Basin Plan also contains discharge prohibitions which include discharges from OWTS in certain areas of the County. One such discharge prohibition is against discharges within the 100-year floodplain of the Truckee and Little Truckee Rivers. The Department will not issue permits for new individual onsite waste

[1] SWRCB, Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment Systems (OWTS Policy) (2012).
[2] SWRCB, Summary of Board Adopted Policy (2014).
[3] SWRCB, *OWTS Policy* (June 2012), 20-21.
[4] Ibid: 22.

treatment systems in conflict with a discharge prohibition in the Lahontan Basin Plan, except as authorized by the Lahontan Water Board.

Local Onsite Wastewater Regulations

Truckee General Plan Policies

The Town of Truckee 2025 General Plan was adopted in November of 2006 and updated in 2009. The Housing Element of the General Plan updated in 2015. The 2006 update to the General Plan was the first since the Town's incorporation in 1993 and subsequent adoption of the first General Plan in 1996. Truckee's General Plan policies for land use include approving zoning and development permits only when adequate services are available. In addition, Policy P4.3 requires that "sewer be provided for all new residential subdivisions creating more than four lots and all new commercial and industrial uses. Existing legal lots and new subdivisions of four or fewer lots in areas currently without sewer may be developed with residential uses using septic systems. Such lots may be required to establish connections to the sewer system if they are located in close proximity to existing or future lines (Truckee, 2006).

Nevada County Policies

The Nevada County Environmental Health Department regulates the design, construction, maintenance, and operation of onsite systems through its ordinances and the LAMP. In 2004, Environmental Health staff estimated they received approximately 1,400 applications annually for new onsite systems and issued roughly 1,700 permits per year. This number has since dropped significantly due to the recession of 2008, of which the effects are still substantial. Since 2009, Environmental Health staff have received a total of 440 applications and have issued an average of 61 permits annually over the past five years.[5]

The Nevada County Environmental Health Department also directly supervises soils testing and site evaluation, and reviews and approves design for new onsite systems. Prior to 1991, applicants prepared a report for the soils testing, evaluation, and design for a new onsite system, which was then submitted to the Nevada County Environmental Health Department. The Environmental Health inspector visited the site, reviewed the report, and determined if potential problems existed. After 1991, Environmental Health began to require that a trained County employee be

[5] David Huff, Interim Environmental Health Director (September 18, 2014).

present during soil testing. This has significantly reduced septic system failures and has provided more certainty for property owners in sizing and locating disposal systems.

The current Nevada County Onsite Sewage Disposal (OSSD) Ordinance and Regulations[6] were adopted in 1998. A Sewage Disposal Technical Advisory Group, which has been meeting regularly since 1998, is tasked with developing recommendations to update the County Ordinance and Regulations for compliance with AB 885.

Nevada County OSSD regulations establish setbacks and replacement areas for onsite systems. Regardless of the zoning, all new parcels created in Nevada County that plan to use an onsite system must be large enough to accommodate the required Minimum Useable Sewage Disposal Area (MUSDA) for the onsite system and the onsite system's reserve/replacement area. The reserve area, which is required to be the same size as the primary septic system, is evaluated and protected to the same extent as the primary septic system area for maximum effectiveness and protection.

Nevada County's zoning regulations for minimum lot size for a new parcel require that if it has a private well or an individual onsite system, the minimum lot size is 1.5 acres; for a parcel with both a private well and an onsite septic system the minimum lot size is 3 acres. Existing, legal and/or non-conforming parcels are not precluded from development of a well and septic if a site evaluation, including soil testing, shows that the minimum well and septic standards can be met.

It should be noted that the requirements for new onsite systems and for the repair/replacement of existing systems are different. While the same site and design standards apply to repairs as well as to new systems, if an existing parcel with a failing system cannot meet minimum standards, Environmental Health has historically permitted a repair that does not meet minimum requirements if any potential hazard to health or water quality is mitigated by the system design.

The current County regulations also include performance parameters for experimental onsite systems. Sites that might have had difficulty constructing a typical onsite system due to lot size, setbacks, soils types, or other reasons could propose an experimental onsite system. Experimental systems must be proven effective before they are designated by Nevada County as "special design" systems.

To ensure the continued successful operation of a special design system, the 1998 regulations require routine inspections and maintenance. The Nevada County Environmental Health staff determines the maintenance requirements and upgrades/replacements for the system as well as inspection schedules. Inspections are performed by professionals certified by Environmental

[6] The current Nevada County Onsite Sewage Disposal (OSSD) Ordinance and Regulations are available on-line at: *https://www.mynevadacounty.com/DocumentCenter/View/16218/About-Sewage-Disposal-PDF*

Health. The property owner and Environmental Health keep copies of the inspection record and maintenance requirements.

Adequate setbacks from building areas and from water sources such as wells are also critical. Nevada County has adopted minimum standards for setbacks from both septic systems and Code. The table shows the categories of wastewater systems, classified by the number of sources and the regulating agency. It should be noted that the Lahontan and Central Valley RWQCB can regulate systems of less than 99 connections where the proposed system design does not appear to the RWQCB staff to protect water quality.

Table A5-1. Categories of Wastewater Systems

Type of System	No. of Sources	Regulating Agency	Subject to LAFCo
Individual septic system	1	Nevada County Environmental Health	No
Cluster wastewater systems	2-5*	Nevada County Environmental Health	Yes, if formation and/or annexation to public entity required
Small, centralized wastewater systems	6-99*	Nevada County Environmental Health	Yes, if formation and/or annexation to public entity required
Large wastewater collection system	99+	RWQCB	Yes, if formation and/or annexation to public entity required
* The Lahontan and the Central Valley RWQCB can and do regulate systems of fewer than 99 connections if water quality appears to be at risk.			

Some of the wastewater systems are monitored by Nevada County's Environmental Health; some are monitored by the Lahonton or Central Valley RWQCB. The RWQCB also has separate staff that monitors publicly-owned wastewater treatment plants that discharging to surface waters and that monitor land disposal systems.

Identified Issues

Some form of onsite system currently serves approximately 65 percent of the County's population and this percentage is expected to increase, in the western part of the County particularly. However, there may be significant issues with the continued use of onsite systems. It is assumed that a proliferation of onsite systems have the potential to contaminate and degrade surface and groundwater supplies. For example, in 1974, the California Department of Water Resources (DWR) published a study noting that groundwater-drinking supplies in western Nevada County were contaminated by bacteria caused primarily by inadequate sewage disposal systems from individual homes. Regular testing of the water supply can determine if groundwater is contaminated. However, Nevada County does not regularly test water supply wells. The 2004

MSR noted that anecdotal information indicated that generally 27 percent of these wells tested show levels of coliform in excess of accepted levels.[7] (Nevada County Environmental Health did not have updated information for the current review.) While it is thought that inadequate and improper wastewater disposal is the primary cause of high coliform levels, the causal relationship between failing septic systems and high coliform levels in wells is not conclusive. Coliform bacteria are ubiquitous in soil. Sampling well water after working on a water pipe, maintaining the well pump, removing and replacing the well-head cover, etc., may result in a water sample showing the presence of coliform bacteria since the tests are extremely sensitive. Coliform bacteria are 'indicators' of potential water contamination and additional analyses for other microorganisms are required to confirm fecal contamination of the water.

Currently, testing of water quality is conducted in eastern Nevada County by the Truckee River Watershed Council, the RWQCB, the state, and other organizations. The multiple testing sometimes results in a lack of coordination, and lack of a regional effort and collection of water quality data can be a concern. In addition, many of the same entities monitoring water quality impacts also compete for the same grants, which further dilute efforts to establish a regional and consistent source of data regarding any water quality impairment.

As more land with steeper slopes and marginal soils are developed in the unincorporated area of Nevada County, the number of failures of onsite wastewater systems might be expected to increase. However, there are two factors, one existing and one potential, which might mitigate the incidence of increased failures. First, as required by Nevada County OSSD, parcels with severe constraints require septic systems designed to mitigate the constraints; if they cannot be mitigated, the lot cannot be developed. In addition, the recently approved LAMP for compliance with the OWTS Policy may require the determination of the number, rate, and location of failures; data which could help to reduce the risk of future failures. The Nevada County Environmental Health Department, as the agency with primary responsibility for onsite systems, could track failing septic systems when a property owner applies for a permit to repair a failing system; however, the permit data about repair and replacement of failing onsite systems are aggregated with other permits and separate data on failing systems is not readily available. Additionally, the County Environment Health Department relies on paper files and its data is not currently available electronically.

Other sources of information regarding the potential number of failing onsite systems were researched. In August of 2003, the California Wastewater Training and Research Center produced a status report addressing onsite wastewater systems in California. That report estimated that 300 onsite systems are installed each year in Nevada County and there are approximately 90 repairs of existing systems.[8] Assuming that all repairs are for failing systems, this is a failure rate

[7] Dudek & Associates, Inc., Municipal Service Review Nevada County Western Region Wastewater Service Agencies, January 2004; 4-7.

[8] California Wastewater Training & Research Center and EPA Region 9 Groundwater Office, *Status Report: Onsite Wastewater Treatment Systems in California*, August 2003: 45.

of approximately 0.005 percent, which is not considered significant. It should be noted, however, that the number of onsite systems installed, as estimated by the California Wastewater Training and Research Center, is not consistent with the estimates provided by the County Environmental Health staff regarding the number of onsite system permits issued annually.

The issue of reliable data regarding the rate and locations of failures of onsite systems, and the link between onsite systems and water quality, will become increasingly important as growth continues in Nevada County and as the State OWTS Policy is implemented. Development of the LAMP for the OWTS Policy does require maintenance of data on system failures.[9]

Nevada County, by ordinance, requires small centralized wastewater systems to be operated by a public agency or to annex to an existing public agency. In the past, the requirement to form a public entity was usually satisfied in one of two ways: formation of a public district or annexation to the Nevada County Sanitation District No. 1. The requirement was apparently adopted to ensure that a taxing agency was established to finance any needed improvements and provide oversight and accountability to lessen the potential for public health impacts.

The result has been an "either/or" situation. Either a very small district is formed that may not have the population, funding, or expertise to reach economies of scale; or annexation to a public agency is required. However, LAFCo is prohibited from forming a district without adequate funding to provide services.

New developments that cannot annex to existing public systems may sometimes be allowed to install expensive and sophisticated wastewater "package plants" to meet strict regulatory requirements. Package plants are pre-manufactured treatment facilities used to treat wastewater in small communities or on individual properties. Package plants can treat flows as low as 0.002 MGD or as high as 0.5 MGD. However, each package plant must also meet the regulatory requirements and are typically more expensive to operate than larger, centralized systems due to reduced economies of scale.

The RWQCB has the regulatory authority to regulate any wastewater system. However, it has been their practice in the past to regulate/monitor only those wastewater systems with more than 99 connections that discharge to surface waters or are land disposal systems. Recently, the RWQCB has decided to regulate some systems in Nevada County with fewer than 99 connections to protect water quality, and has in some cases required annexation to, or formation of, a public agency for those systems. In Nevada County, private corporations operate several systems, including some mobile home parks that are monitored by the RWQCB.

[9] SWRCB, *OWTS Policy,* June 2012: 31 and Nevada County LAMP.

Recommendations

In April 2015, LAFCO approved the Wastewater Services MSR for Western Nevada County (LAFCO, 2015). This 2015 MSR noted that the combination of water quality and public health concerns, stricter water quality and land disposal requirements, escalating rates, and decreasing budgets is a major concern for local jurisdictions. The 2015 MSR suggested that Nevada County—including local jurisdictions and other entities—develop a more regional policy for addressing future onsite wastewater provision and indicated the recommended policy should address the following issues:

Improving the collection of data

It is suggested that Nevada County explore the possibility of changing the project tracking system to develop a historical record of onsite system failures.

Improving regional monitoring of water quality

Water quality data should also be collected according to clear and accepted protocols with complete data shared among entities. To facilitate the process, all entities, private, non-profit, and public, should cooperate on funding and grants on a regional basis.

While it is suggested as part of this service review that all water supply wells be tested regularly, the Nevada County Environmental Health staff has noted that this could be a significant effort with concomitant costs. There are thousands of wells in Nevada County and issues of cost, staffing and the legality of entering private property to sample and test wells were noted as being potentially considerable. However, well sampling would help to establish a causal link, if any, between water quality impairment, wastewater systems, and public health concerns.

Reducing the number and the long-term reliance on onsite systems

It may not be possible for all new development to connect to centralized, public wastewater systems; however, a series of larger sub-regional, centralized facilities may reach economies of scale not available with onsite systems. A method of evaluating the economic and environmental impacts of the various treatment options and providing direction to reduce the long-term reliance on onsite systems should be developed.

Improved guidance for real estate transactions

Sometimes onsite system failures occur following a real estate transfer due to a lack of owner disclosure or a change in the number and types of people living in the home. While some realtors and lenders currently require septic system inspections, there are no federal, state, or local regulations requiring inspections at the time of a real estate transfer to assure that necessary repairs and upgrades are made. Any regional policy for onsite systems should include guidance for onsite system inspection for all systems as part of a real estate transfer.

Improved coordination among agencies

Any regional policy regulating onsite systems should provide a clear understanding of who the regulatory agencies are, what type and size developments are regulated, and standards for when deviations from existing policies are allowed. The policy should address the best governance structure for these wastewater systems including public agencies, private entities, homeowners' associations, community facilities districts (Mello-Roos), or private corporations. It may also be beneficial for Nevada County LAFCo to develop a policy that establishes standards for the formation of new public entities for wastewater provision.

Increased knowledge of alternative technologies

Additional information about special design onsite systems and package plants should be included in a regional policy along with methods to evaluate the cost/benefits, and potential impacts of each system.

Improved inspection and maintenance including upgrade and repair of existing systems

Monitoring all existing septic systems, not just special design systems, should be made a priority to protect water quality and to establish a system that can comply with the State OWTS Policy. Currently, Nevada County does not regularly monitor any septic systems. Nevada County regulations require that certain (pressurized-distribution) systems are annually inspected by a private-industry certified service provider and that a report be submitted to Environmental Health. The County charges a minimal "data-tracking" fee. The existing inspection program could be expanded to all existing and future onsite wastewater systems although the effort to expand the current monitoring system would be significant. The frequency of monitoring and costs could be prorated based on risk factors and health issues. Public education programs, similar to one provided by the Alta Sierra Property Owners Association to educate property owners about the need for regular cleaning of onsite systems, could be included.

Funding

Local jurisdictions and ratepayers are being asked to bear the costs for stricter regulatory requirements and additional funding to offset these costs would be helpful.

The issues and recommendations from the 2015 MSR listed above, remain relevant to this new 2018 MSR.

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Appendix 6: A Better Board Member by The Nevada County Grand Jury

A BETTER BOARD MEMBER

The Nevada County Grand Jury issued a report called "A Better Board Member" 2016 based upon studies it made of various local government entities. Below is an excerpt of this Grand Jury report that is applicable to all members of a Board of Directors in Nevada County.

Members of Boards of Directors for local tax-supported agencies have a duty to ensure that their agencies are efficient, cost-effective, and responsive to the needs of the public they serve. To accomplish that task, they should be thoroughly familiar with the roles and responsibilities that govern their actions.

RECOMMENDATIONS

R1. Board members and prospective Board members of any legislative body should be thoroughly familiar with all aspects of the Brown Act. (F1)

R2. Board members should carefully develop, document, and implement their roles and responsibilities and those of their Director in writing. (F2)

R3. Board members should comply with the tenets learned in the required ethics and conflict-of-interest training. (F3)

R4. Board members should know their financial responsibilities and be familiar with financial statements. (F4)

R5. Board members should seek out education and training so they can provide oversight from a position of understanding instead of relying on their Director. (F5)

R6. Board members should actively seek out and attend training opportunities. (F5)

R7. Boards should add discussion of this report to an agenda of a future meeting. (F1-F5)

REQUEST FOR RESPONSES

The Nevada County Grand Jury only asks that current and potential Board members carefully consider the topics covered in this report. No responses are requested.

BIBLIOGRAPHY

AB1234 Local Ethics Training – Fair Political Practices Commission
A Guide to the Ralph M. Brown Act – League of California Cities, 2010
California Government Code Sections 53234-53235.2 – Ethics Training
California Government Code Sections 54950-54963 – The Ralph M. Brown Act, 1953
California Government Code Section 81000-81016 – Political Reform Act of 1974

Nevada County Civil Grand Jury Reports – as listed below:

1. Truckee Fire Protection District Board of Directors, 2010
2. Grass Valley School District Superintendent and Board of Trustees, 2012
3. Truckee Donner Public Utility District, 2012
4. Mystic Mine Road Community Services District, 2013
5. Nevada County Consolidated Fire District Board of Directors, 2013
6. Truckee Donner Recreation and Park District, 2013
7. Nevada Joint Union High School District Board of Trustees, 2014
8. Washington County Water District, 2015

Open, Ethical Leadership: AB1234 Compliance Training for Special Districts – California Special Districts Association, Special District Risk Management Authority

Citation

Nevada County Civil Grand Jury. 2016. A Better Board Member, Version 5.0, 2015-2016. 15-pages. Nevada City, California. Available on-line at: <*http://nccourt.net/divisions/gj-reports.shtml*>.

Appendix 7: Nevada County Economic Forecast by Caltrans

Nevada County Economic Forecast

Nevada County is located on the California-Nevada state border. Many of the largest employers in the county are related to tourism and recreation, including Soda Springs Ski Area, Sugar Bowl Ski Resort, and Boreal Mountain Resort.

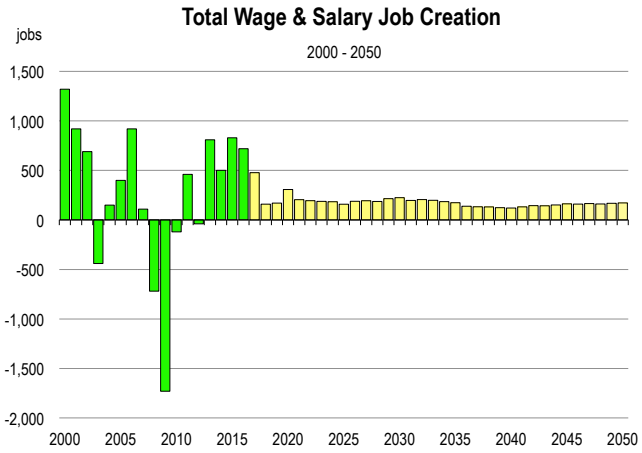
Nevada County has a population of 98,600 people and a total of 31,600 wage and salary jobs. The per capita income is $58,218 and the average salary per worker is $51,226.

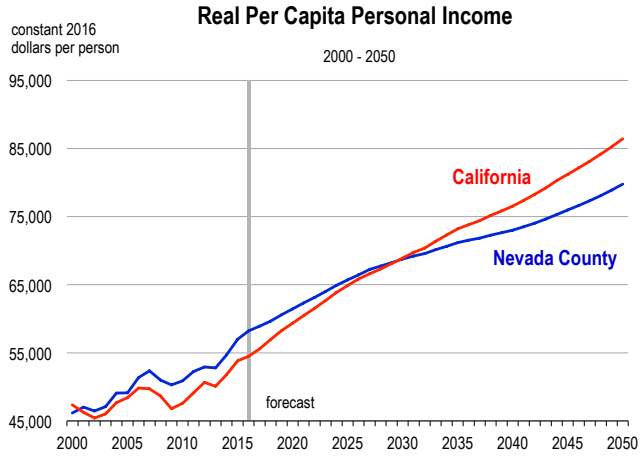
In 2016, a total of 720 wage and salary jobs were gained in Nevada County, representing a growth rate of 2.3 percent. The unemployment rate improved during the year, falling from 5.4 percent in 2015 to 4.8 percent in 2016.

During 2016, the largest employment gains were observed in construction (+130 jobs), education and healthcare (+120 jobs), leisure and hospitality (+110 jobs), and wholesale and retail trade (+110 jobs). The largest losses were in government (-30 jobs).

The population of Nevada County increased slightly over the 2011-2016 period, rising by approximately 30 people per year. The county gained an average of 210 people each year through net migration, but lost 190 residents per year through the natural decrease (deaths outnumbering births).

Nevada County is aging rapidly, and the retirement cohort (people over age 65) will soon account for a third of the total population. Because of this, the county will continue to experience a natural decrease through the year 2050. However, because of substantial in-migration, overall population growth is expected to be positive over the next two decades. If net in-migration does not materialize as expected, Nevada County could be at risk for serious economic stagnation.





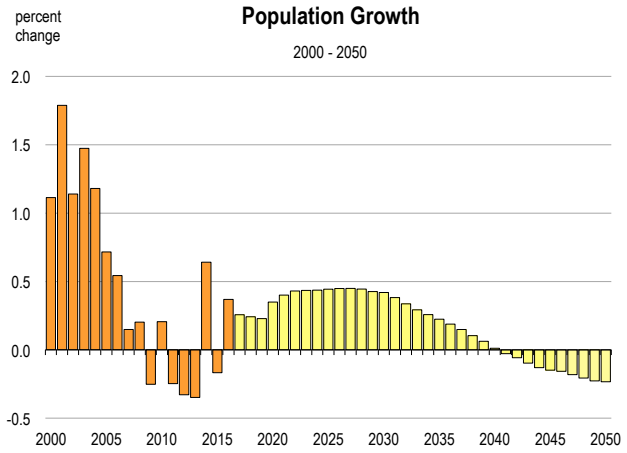
Forecast Highlights

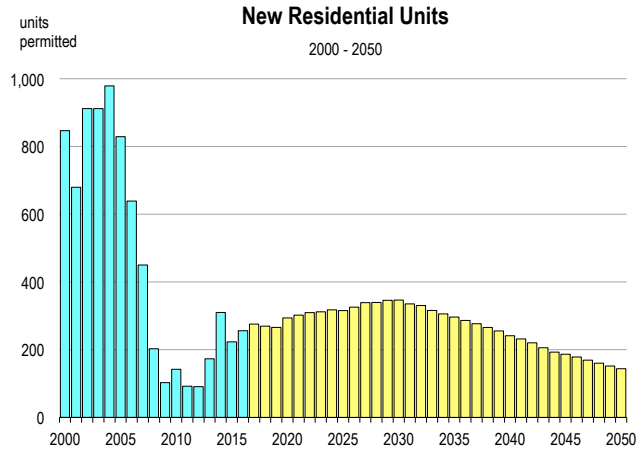
- Total wage and salary employment is expected to increase by 1.5 percent in 2017. From 2017 to 2022, growth will average 0.6 percent per year.
- Average salaries are currently below the California state average, and will remain so over the forecast period. In Nevada County, inflation-adjusted salaries are expected to rise by an average of 1.6 percent per year during the 2017-2022 period.
- Between 2017 and 2022, the momentum for employment growth will be in wholesale and retail trade, leisure and hospitality, education and healthcare, and professional services. Together, these sectors will account for 88 percent of net job creation in the county.
- Population growth in the 2017-2022 period is expected to average 0.3 percent per year. All of this growth will be the result of net migration, as the county will continue to experience a natural decrease.
- Net migration will be positive throughout the forecast period. Between 2017 and 2022, approximately 500 net migrants will enter the county each year.
- Real per capita income is expected to rise by 1.2 percent in 2017. From 2017-2022, real per capita income is expected to increase by an average of 1.4 percent per year.
- Total taxable sales, adjusted for inflation, are expected to increase by an average of 1.3 percent per year between 2017 and 2022.
- Industrial production will increase by 4.4 percent in 2017. From 2017 to 2022, the growth rate of industrial production will average 1.8 percent per year.

Nevada County Economic Forecast

2010-2016 History, 2017-2050 Forecast

	Population (people)	Net Migration (people)	Registered Vehicles (thousands)	Households (thousands)	New Homes Permitted (homes)	Total Taxable Sales (billions)	Personal Income (billions)	Real Per Capita Income (dollars)	Inflation Rate (% change in CPI)	Real Farm Crop Value (millions)	Real Industrial Production (millions)	Unemploy-ment Rate (percent)
2010	98,635	284	128.4	41.5	142	$1.01	$4.46	$50,906	1.3	10.6	476.2	11.7
2011	98,392	-61	126.6	41.5	92	$1.07	$4.69	$52,260	2.7	16.3	452.0	11.1
2012	98,068	-132	124.1	41.0	91	$1.11	$4.84	$52,936	2.7	15.2	447.9	9.7
2013	97,727	-127	126.8	40.3	173	$1.16	$4.88	$52,805	2.3	19.3	415.6	8.1
2014	98,354	791	128.1	40.2	310	$1.22	$5.18	$54,672	2.8	22.2	424.1	6.6
2015	98,190	-3	130.4	40.2	223	$1.29	$5.47	$56,990	2.6	20.1	416.4	5.4
2016	98,552	538	133.5	40.2	256	$1.34	$5.74	$58,218	3.0	20.7	436.3	4.8
2017	98,805	407	136.2	40.4	276	$1.40	$6.00	$58,928	3.1	21.1	455.6	4.4
2018	99,044	400	138.4	40.6	270	$1.46	$6.25	$59,660	3.0	21.4	462.3	4.2
2019	99,270	392	140.1	40.8	266	$1.53	$6.54	$60,569	2.6	21.7	468.6	4.1
2020	99,617	519	141.7	41.0	294	$1.59	$6.85	$61,449	3.1	22.0	479.2	4.2
2021	100,016	574	143.0	41.3	302	$1.65	$7.17	$62,322	3.0	22.3	486.8	4.3
2022	100,447	612	144.2	41.5	310	$1.71	$7.49	$63,157	3.0	22.5	497.1	4.4
2023	100,883	626	145.2	41.8	312	$1.78	$7.83	$64,024	3.0	22.8	508.3	4.6
2024	101,324	639	146.2	42.0	318	$1.86	$8.17	$64,930	2.9	23.0	518.8	4.7
2025	101,773	658	147.0	42.3	316	$1.94	$8.50	$65,710	2.9	23.3	529.1	4.8
2026	102,230	674	147.7	42.5	326	$2.02	$8.84	$66,462	2.8	23.5	538.9	4.8
2027	102,689	688	148.5	42.8	339	$2.09	$9.18	$67,257	2.9	23.7	550.1	4.8
2028	103,145	697	149.2	43.1	340	$2.16	$9.52	$67,759	2.7	24.0	563.2	4.8
2029	103,585	694	149.8	43.3	346	$2.25	$9.85	$68,264	2.5	24.2	577.2	4.8
2030	104,019	702	150.5	43.6	347	$2.35	$10.19	$68,774	2.4	24.4	591.4	4.8
2031	104,417	678	151.2	43.9	335	$2.45	$10.51	$69,218	2.3	24.7	605.7	4.7
2032	104,768	645	151.9	44.2	331	$2.56	$10.84	$69,585	2.5	24.9	620.1	4.7
2033	105,075	613	152.5	44.4	316	$2.66	$11.17	$70,138	2.1	25.1	634.6	4.7
2034	105,346	592	153.1	44.7	306	$2.76	$11.52	$70,662	2.3	25.4	649.3	4.6
2035	105,582	574	153.7	44.9	296	$2.85	$11.88	$71,177	2.4	25.6	664.1	4.6
2036	105,780	554	154.3	45.2	287	$2.95	$12.28	$71,531	2.8	25.8	679.2	4.6
2037	105,938	534	154.8	45.4	277	$3.06	$12.69	$71,860	2.9	26.0	694.4	4.5
2038	106,048	512	155.3	45.6	266	$3.15	$13.09	$72,269	2.7	26.3	709.6	4.5
2039	106,114	491	155.8	45.9	256	$3.25	$13.52	$72,632	2.9	26.5	725.0	4.4
2040	106,126	459	156.3	46.1	241	$3.36	$13.95	$73,025	2.8	26.7	740.4	4.4
2041	106,097	441	156.7	46.3	232	$3.46	$14.37	$73,502	2.6	27.0	755.9	4.3
2042	106,035	416	157.1	46.4	220	$3.57	$14.80	$74,037	2.5	27.2	771.6	4.3
2043	105,932	384	157.6	46.6	206	$3.68	$15.23	$74,628	2.4	27.4	787.4	4.2
2044	105,794	356	158.0	46.8	193	$3.77	$15.66	$75,316	2.2	27.7	803.2	4.2
2045	105,637	346	158.5	46.9	187	$3.88	$16.12	$75,966	2.4	27.9	819.4	4.1
2046	105,471	330	159.0	47.1	179	$3.99	$16.58	$76,638	2.3	28.1	836.0	4.1
2047	105,280	311	159.4	47.2	169	$4.10	$17.05	$77,339	2.3	28.4	852.8	4.0
2048	105,063	293	159.9	47.4	160	$4.21	$17.54	$78,083	2.3	28.6	869.8	4.0
2049	104,824	277	160.4	47.5	152	$4.33	$18.05	$78,908	2.3	28.8	887.0	3.9
2050	104,579	261	160.9	47.6	144	$4.45	$18.59	$79,770	2.3	29.1	904.7	3.9

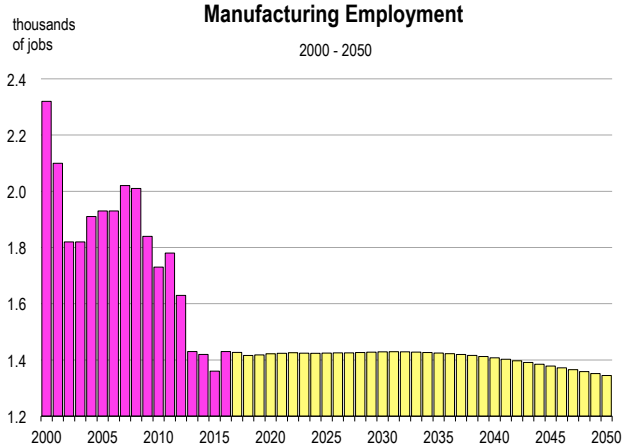


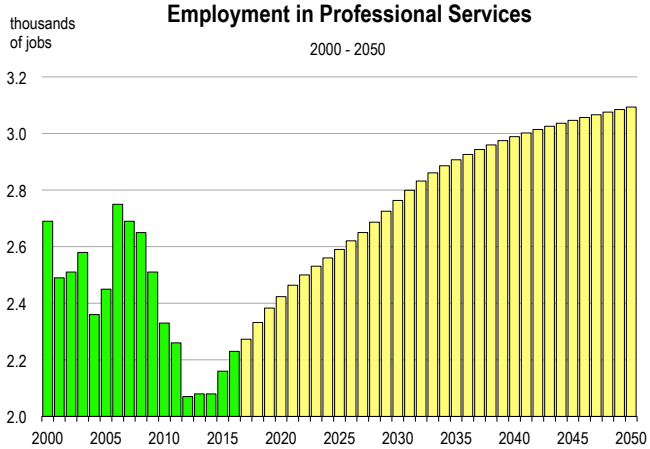


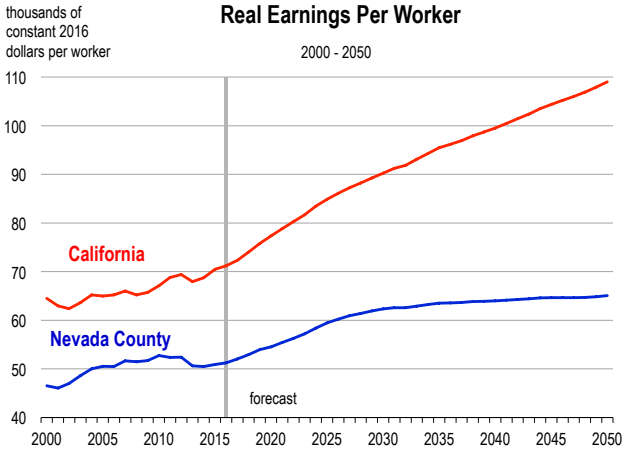
Nevada County Employment Forecast

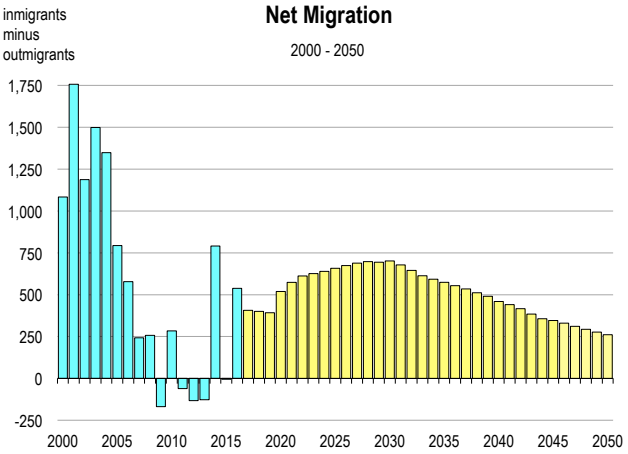
2010-2016 History, 2017-2050 Forecast

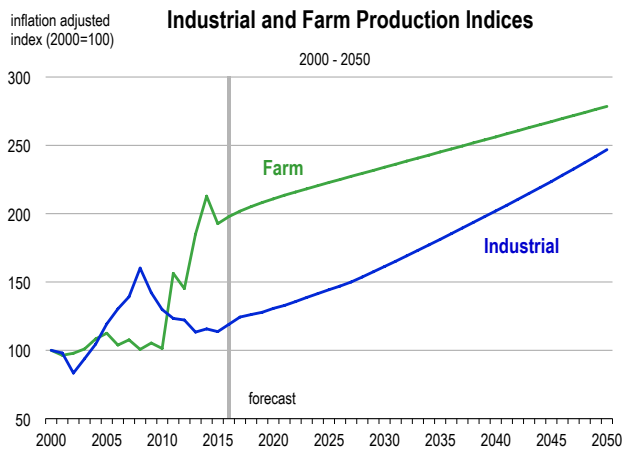
	Total Wage & Salary	Farm	Construction	Manufac-turing	Transportation & Utilities	Wholesale & Retail Trade	Financial Activities	Professional Services	Information	Health & Education	Leisure	Government
	employment (thousands of jobs)											
2010	28.27	0.08	2.08	1.73	0.44	4.04	1.36	2.33	0.33	4.29	4.38	6.16
2011	28.73	0.09	2.20	1.78	0.45	4.09	1.35	2.26	0.30	4.50	4.48	6.13
2012	28.69	0.09	2.34	1.63	0.48	4.13	1.42	2.07	0.30	4.67	4.36	5.95
2013	29.50	0.07	2.49	1.43	0.49	4.18	1.48	2.08	0.30	4.99	4.56	5.97
2014	30.00	0.07	2.70	1.42	0.48	4.20	1.34	2.08	0.30	5.03	4.62	6.09
2015	30.83	0.07	2.73	1.36	0.47	4.33	1.29	2.16	0.29	5.32	4.50	6.52
2016	31.55	0.07	2.86	1.43	0.48	4.44	1.32	2.23	0.29	5.44	4.61	6.49
2017	32.03	0.07	2.89	1.43	0.49	4.48	1.31	2.27	0.29	5.55	4.74	6.60
2018	32.19	0.07	2.89	1.42	0.49	4.51	1.30	2.33	0.29	5.60	4.79	6.57
2019	32.36	0.07	2.89	1.42	0.50	4.54	1.30	2.38	0.29	5.65	4.84	6.55
2020	32.66	0.07	2.94	1.42	0.50	4.56	1.29	2.42	0.29	5.72	4.90	6.60
2021	32.87	0.07	2.96	1.42	0.50	4.58	1.28	2.46	0.29	5.78	4.96	6.59
2022	33.06	0.07	2.98	1.43	0.50	4.60	1.28	2.50	0.28	5.84	5.02	6.58
2023	33.25	0.07	2.98	1.42	0.50	4.62	1.28	2.53	0.28	5.89	5.08	6.57
2024	33.44	0.07	3.00	1.42	0.50	4.64	1.27	2.56	0.28	5.95	5.12	6.57
2025	33.59	0.07	2.99	1.42	0.50	4.67	1.27	2.59	0.28	6.00	5.15	6.59
2026	33.78	0.07	3.02	1.43	0.50	4.70	1.27	2.62	0.28	6.05	5.17	6.61
2027	33.98	0.07	3.04	1.43	0.50	4.72	1.27	2.65	0.28	6.10	5.19	6.64
2028	34.16	0.07	3.04	1.43	0.50	4.74	1.26	2.69	0.28	6.17	5.21	6.65
2029	34.38	0.07	3.06	1.43	0.50	4.76	1.26	2.73	0.28	6.23	5.23	6.67
2030	34.60	0.07	3.06	1.43	0.50	4.79	1.26	2.76	0.28	6.30	5.25	6.70
2031	34.80	0.07	3.04	1.43	0.50	4.82	1.26	2.80	0.28	6.37	5.28	6.72
2032	35.01	0.07	3.04	1.43	0.50	4.86	1.25	2.83	0.28	6.44	5.31	6.74
2033	35.20	0.07	3.01	1.43	0.50	4.89	1.25	2.86	0.28	6.50	5.33	6.78
2034	35.39	0.07	3.00	1.43	0.50	4.91	1.24	2.89	0.28	6.57	5.36	6.81
2035	35.56	0.07	2.98	1.42	0.50	4.93	1.24	2.91	0.28	6.64	5.39	6.83
2036	35.70	0.07	2.97	1.42	0.50	4.95	1.23	2.93	0.28	6.71	5.41	6.84
2037	35.83	0.07	2.95	1.42	0.50	4.96	1.23	2.94	0.28	6.77	5.44	6.84
2038	35.97	0.07	2.93	1.42	0.49	4.97	1.22	2.96	0.28	6.84	5.46	6.85
2039	36.09	0.07	2.91	1.41	0.49	4.98	1.22	2.97	0.28	6.91	5.48	6.86
2040	36.21	0.07	2.89	1.41	0.49	4.99	1.21	2.99	0.28	6.99	5.50	6.86
2041	36.34	0.07	2.87	1.40	0.49	5.01	1.20	3.00	0.27	7.06	5.52	6.88
2042	36.49	0.07	2.85	1.40	0.49	5.02	1.20	3.01	0.27	7.13	5.54	6.90
2043	36.63	0.07	2.83	1.39	0.49	5.03	1.19	3.03	0.27	7.21	5.56	6.92
2044	36.78	0.07	2.80	1.38	0.49	5.04	1.18	3.04	0.27	7.29	5.58	6.96
2045	36.94	0.07	2.79	1.38	0.49	5.05	1.17	3.05	0.27	7.37	5.61	6.98
2046	37.10	0.07	2.78	1.37	0.48	5.06	1.16	3.06	0.27	7.45	5.63	7.01
2047	37.27	0.07	2.76	1.37	0.48	5.07	1.16	3.07	0.27	7.54	5.66	7.04
2048	37.43	0.07	2.75	1.36	0.48	5.08	1.15	3.08	0.27	7.62	5.68	7.07
2049	37.60	0.07	2.73	1.35	0.48	5.10	1.14	3.08	0.27	7.71	5.71	7.09
2050	37.77	0.07	2.72	1.34	0.48	5.11	1.13	3.09	0.26	7.80	5.73	7.12











County Economic and Demographic Indicators

Projected Economic Growth (2017-2022)

Expected retail sales growth:	6.7%
Expected job growth:	3.2%
Fastest growing jobs sector:	Professional Services
Expected personal income growth:	9.0%

Expected population growth:	1.7%
Net migration to account for:	100%
Expected growth in number of vehicles:	5.9%

Demographic (2017)

Unemployment rate (April 2017):	4.0%
County rank* in California (58 counties):	15th
Working age (16-64) population:	60.3%

Population with B.A. or higher:	33.8%
Median home selling price (2016):	$380,000
Median household income:	$61,945

Quality of Life

Violent crime rate (2015):	283 per 100,000 persons
County rank* in California (58 counties):	16th
Average commute time to work (2017):	26 minutes

High School drop out rate (2016):	N/A**
Households at/below poverty line (2017):	8.7%

* The county ranked 1st corresponds to the lowest rate in California

** Reliable data not available for Nevada County

Appendix 8: 1992 Agreement between TSD, Northstar CSD, and Trimont

CURRENT

WORKING COPY

NCSD

WORK COPY

AGREEMENT FOR SERVICE

This agreement is entered into this 23rd. day of March, 1992 by and between TRUCKEE SANITARY DISTRICT, a public entity, (hereafter TSD); TRIMONT LAND COMPANY, a corporation, (hereafter TRIMONT), and the NORTHSTAR COMMUNITY SERVICES DISTRICT (N.C.S.D), a Special District of the State of California, (hereafter N.C.S.D.).

The purpose of this agreement is to set forth the understanding of the parties to resolve and compromise those differences arising out of that certain litigation filed in the Superior Court of California, County of Sacramento, under #277271, (hereafter referred to as the TRIMONT LITIGATION) which litigation is the subject of the appellate decision reported in 145 Cal App 3d 330, entitled TRIMONT LAND COMPANY -V- TRUCKEE SANITARY DISTRICT, et al. Said litigation has subsequently been settled and dismissed.

The parties acknowledge that this agreement is entered into based upon the following facts:

A. TRIMONT is a corporation and is the owner of recreational facilities generally known as NORTHSTAR at TAHOE, located southeast of Truckee, California;

B. N.C.S.D. is a Special District of the State of California, and provides certain public services, including the collection and transportation for disposal of sewage and wastewater to its service area including TRIMONT;

C. TSD is a public entity formed and operating under the Sanitary District Act of 1923, Health and Safety Code of the State of California, Division 6, part 1, section 6400 et seq.. TSD, through its Board, has the sole decision making authority over users of the sewage collection system by adoption of rules and regulations through passage of ordinances, resolutions, or motions. TSD, through its Board, is responsible for enforcement of said rules and regulations;

D. TRIMONT, N.C.S.D., and TSD have heretofore entered into an agreement on June 18, 1985, hereafter referred to as the 1985 agreement, regarding provision of sewer service to TRIMONT AND N.C.S.D. by TSD;

E. TRIMONT, N.C.S.D. have heretofore paid for the construction and installation of certain collection and transmission facilities which tie into the collection system of TSD, and provide for the transportation of wastewater and sewage to the regional treatment and disposal facility generally known as the TAHOE-TRUCKEE

SANITATION AGENCY (hereafter T-TSA);

F. In connection with the execution of the 1985 agreement the parties attempted to provide for sanitary sewer service to the development of NORTHSTAR at TAHOE as contemplated at the time of the 1971 agreement between the COUNTY OF PLACER, TRIMONT, and TSD;

G. As part of the consideration for the original agreement in 1971, certain real property, comprising fifty acres more or less, (hereafter designated THE 50 ACRES), was deeded to TSD;

H. Both N.C.S.D. and TRIMONT are located totally outside of the service area of TSD;

I. The Statutory authority for TSD to contract with TRIMONT and N.C.S.D. for provision of sewer service is found in Health and Safety Code Section 6823;

J. TSD is a member agency of T-TSA, and neither TRIMONT nor N.C.S.D. are members of T-TSA;

k. In the course of the litigation described above, TSD incurred costs, as defined in the Code of Civil Procedure, in the approximate sum of $18,320.49. This sum has been paid to TSD by TRIMONT in connection with the litigation described above;

L. During the TRIMONT litigation, in approximately 1975, TRIMONT tendered a deed to THE FIFTY (50) ACRES to TSD in a form acceptable to TSD, which deed has been delivered to TSD together with a quit-claim deed relinquishing any residual rights of TRIMONT to THE FIFTY (50) ACRES.

IT IS HEREBY AGREED TO BY THE PARTIES AS FOLLOWS:

1. SERVICE PROVISIONS: TSD will provide to TRIMONT and N.C.S.D. through its sanitary sewer system, collection and transportation of sewage and wastewater generated from TRIMONT's development to the T-TSA regional facility, so long as TSD has available to it disposal capacity within the disposal capacity limits of the T-TSA facility.

2. LIMITATIONS ON SERVICE: The collection and transportation of sewage and waste water effluent to be provided by TSD to TRIMONT and N.C.S.D. will be on the basis of "first come - first served" service for all applicants for service, whether such applicants are in the NORTHSTAR at TAHOE Development or within the service boundaries of TSD.

3. SCOPE OF FUTURE SERVICE: The scope of future service to be furnished by TSD to TRIMONT and N.C.S.D. is service to that property and those potential customers contemplated by the parties at the time that 1971 agreement was executed, as defined by the project plans presented to TSD by TRIMONT in connection with the 1971 agreement. A map depicting the contemplated project area is attached to this agreement as Exhibit "C", and is incorporated herein by this reference.

4. OBLIGATIONS REGARDING SERVICE: The parties acknowledge that TSD will, in furnishing continued and future service to TRIMONT and N.C.S.D., requires that TRIMONT and N.C.S.D. carry on a program of infiltration and inflow monitoring and correction, together with ongoing operation and maintenance programs of a quality substantially equal to that performed by TSD within its service area. Further, the parties acknowledge that TRIMONT and N.C.S.D. and TSD will cooperate and provide such assistance, whether monetary, technical or otherwise, as requested by TSD as is reasonably required to encourage that future water quality control or regulatory actions taken by appropriate State or Federal agencies do not unduly restrict, impact or adversely affect the ability to TSD to provide service to existing connections within its service area, to TRIMONT and N.C.S.D. connections, or future connections whether within the service area of TSD or for the benefit of TRIMONT and N.C.S.D.. TSD is granted, as part of this agreement, a right of entry, in a reasonable manner and at reasonable times, for the purpose of observation or inspection of installation of service laterals and/or transmission lines, and/or for the purpose of observation or inspection of existing service laterals and/or transmission lines. N.C.S.D. further agrees to provide to TSD, upon written request, any and all written records or other documentation concerning any and all service connections and N.C.S.D. efforts to regulate and control inflow and infiltration.

5. PARTICIPATION IN WATER QUALITY CONTROL PROGRAMS: The parties acknowledge that future water quality control or regulatory actions which may be taken by various State or Federal agencies may affect the ability of TSD to provide service either to existing connections within its service area or to future applicants for sewer service connection in either area. The parties agree to take all reasonable action toward the end that future activities of higher governmental regulatory agencies shall not unduly restrict the ability of TSD to provide service to its present and future customers; including N.C.S.D and TRIMONT customers. Toward that end, TSD may call upon

N.C.S.D., TRIMONT, or both, from time to time to cooperate in providing studies, technical assistance, and other contributions, as well as to meet their pro rata share of the cost of any such activities undertaken by TSD.

Determination of such pro-rata share of costs shall be based upon the total metered flows for TRIMONT, N.C.S.D. and TSD for the 12 calendar months preceding (and not including) the month in which TSD requests such participation by TRIMONT and N.C.S.D. in writing.

6. COMPLIANCE WITH RULES AND REGULATIONS: TRIMONT and N.C.S.D. agrees to observe and comply with all rules and regulations of TSD in effect within the TSD service area as of the date of this agreement or hereafter adopted or amended. In maintaining such compliance the parties acknowledge that TSD will furnish to TRIMONT and N.C.S.D. copies of all appropriate rules and regulations under which TSD furnishes service to its customers. TRIMONT and N.C.S.D. will review and certify to TSD within one hundred eighty days (180) after execution of this agreement, and annually thereafter that the standards, methods, and procedures utilized by N.C.S.D. in the installation, inspection, and maintenance of service connections within N.C.S.D. meet or exceed the similar requirements of TSD.

7. ALLOCATION OF FLOW CAPACITY RIGHTS:

A. N.C.S.D. and TRIMONT shall have the exclusive right in perpetuity to utilize in connection with its needs or to permit utilization by others of all of the daily sewage flow capacity of the export line described in Exhibit "A" with the exception of a maximum of three hundred and fifty thousand (350,000) gallons of flow capacity per day which TSD may utilize in connection with its needs.

B. TSD and N.C.S.D. further agree that in recognition and protection of each party's rights, above stated, neither party shall permit any connections to said sewer line by users within their respective service Districts which reasonably may result in an infringement upon the flow capacity rights of the other. In the event that either party permits connections to be made to said line which result in a total sewage flow from all such connections in excess of such party's permitted sewage flow capacity and such condition continues uncorrected for a period of ninety (90) days, TSD and N.C.S.D. acknowledge that the party suffering infringement will sustain damage and that such damaged party may file an action for damages, equitable relief, or both in a court

of competent jurisdiction. In the event that such damaged party is successful in such action the other party agrees to pay all court costs and reasonable attorney's fees.

8. ALLOCATION OF COSTS OF MAINTENANCE AND OPERATIONS: N.C.S.D. and TSD agree that the monthly cost of maintenance and operation of the line described in Exhibit "A" and shown on Exhibit "B" shall be allocated seventy-five percent (75%) to N.C.S.D. and twenty-five percent (25%) to TSD. TSD shall bill N.C.S.D. annually for N.C.S.D.'s proportionate share of the maintenance and operation costs as determined in accordance with the allocation formula stated above. N.C.S.D. shall pay said bills within thirty (30) days of receipt. Should said bills not be paid within thirty (30) days of receipt, the amount of said unpaid bills shall bear interest at the then legal interest rate until paid. In addition to the maintenance and operation cost, N.C.S.D.'s share of the administrative cost is presently calculated to be 1% of the administrative expenses of TSD. This amount shall be paid annually based on the annual audit of TSD in connection with payment of the maintenance and operation cost. From time to time, TSD will provide additional services to N.C.S.D. as requested on a direct cost basis.

9. N.C.S.D. shall pay to TSD the cost of transportation, treatment and disposal of its flow charged by T-TSA according to prevailing rates of T-TSA. T-TSA shall bill TSD for the cost of service as reflected in current service charges (user charges), charges in lieu of taxes and for current connection charges. N.C.S.D. shall pay TSD for the cost thereof, not exceeding the cost that would be charged similar customers. TSD will forward these payments to T-TSA upon receipt.

10. TRANSFERABILITY: The rights of the parties pursuant to this agreement are non-transferrable, and shall apply only to NORTHSTAR at TAHOE, developed by TRIMONT, or its successors or assigns, as that project is defined herein. TRIMONT and N.C.S.D. shall not be entitled to transfer any rights under this agreement to other real property or other projects owned by TRIMONT and N.C.S.D. outside of the area as referred to above.

11. BINDING EFFECT: This agreement shall be binding upon and accrue to the benefit of the heirs, successors and assigns of the parties herein.

12. ATTORNEY'S FEES: In the event litigation or judicial arbitration is commenced to enforce or determine the

rights of the parties under this agreement, the prevailing party shall be entitled to actual attorney's fees incurred, together with all costs provided by law.

13. MODIFICATION OF AGREEMENT: This agreement may be modified only by mutual written agreement of the parties.

14. EXCLUSIVE AND ENTIRE AGREEMENT: This agreement shall be the full and complete agreement of the parties with regard to the provision of sewer services. This agreement shall take priority over any other agreements, oral or written, including the 1971 and 1985 agreements referred to above. This agreement shall take precedence over the agreement between the parties hereto dated November 14, 1972.

15. APPROVAL OF AGREEMENT: This agreement shall be effective only upon the approval of such agreement by the respective governing boards of TSD and N.C.S.D., as evidenced by a resolution of acceptance or other form of approval adopted by such governing Board and by TRIMONT.

NORTHSTAR COMMUNITY SERVICES DISTRICT

DAVID F. BETTS, PRESIDENT OF THE BOARD — DATE 4-21-92

TRIMONT LAND COMPANY

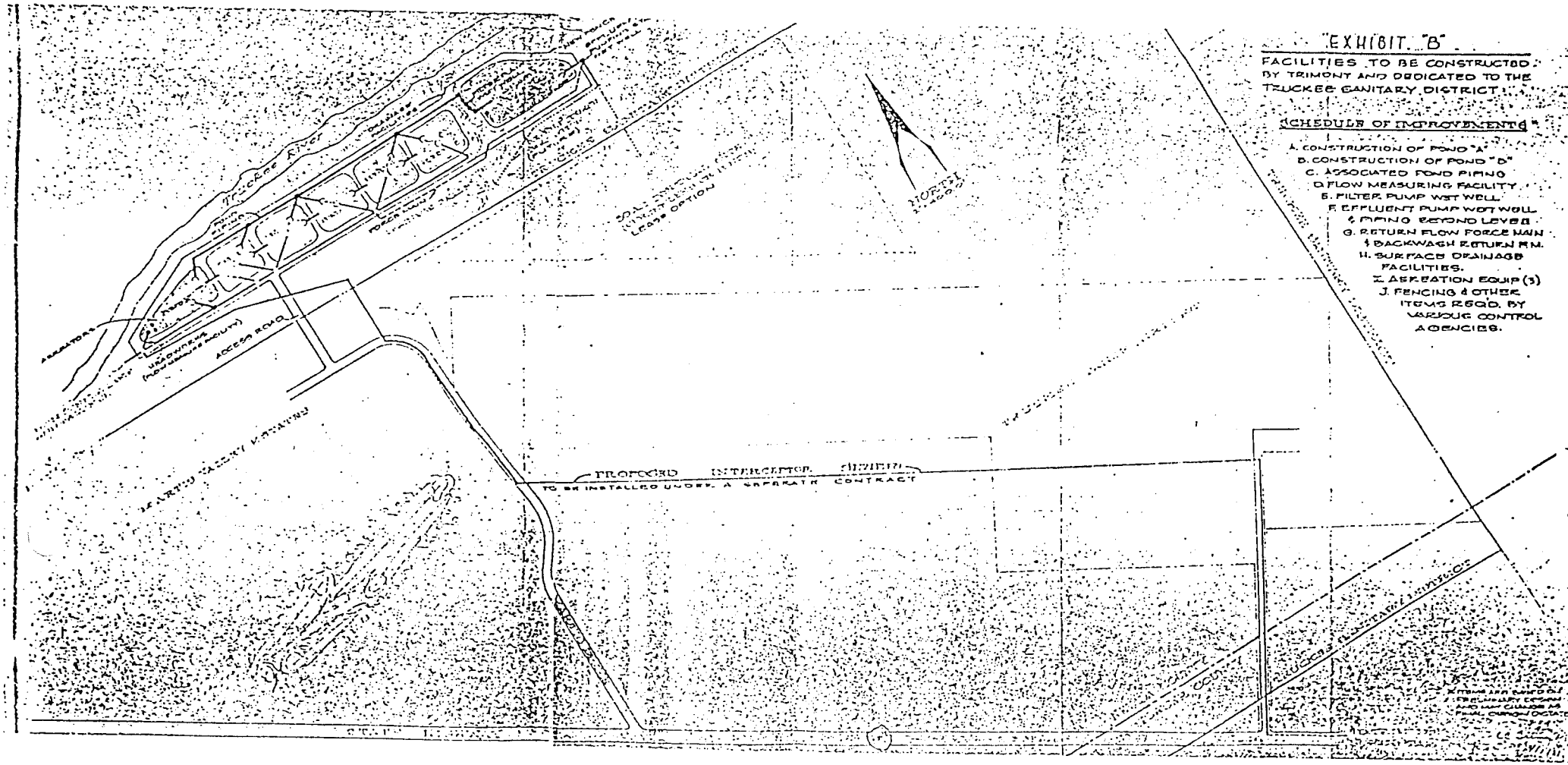
PRES. — DATE 4/16/92

TRUCKEE SANITARY DISTRICT

BRIAN KENT SMART, PRESIDENT OF THE BOARD OF DIRECTORS — DATE 3-23-92

EXHIBIT A-

The constructed improvements include 9,494 lineal feet of 12" to 21" gravity sewer pipe; including all manholes; flow metering station at the gravity sewer outlet (station 400+13); connection to the existing pond structure at the Truckee Sanitary District facilities; relocation of the P.T.&T. telephone line along a portion of the siphon; construction related to the clearing of construction easements in which improvements are placed; and all other appurtenances necessary for a complete scheme of public improvements.


"EXHIBIT "B"
FACILITIES TO BE CONSTRUCTED BY TRIMONT AND DEDICATED TO THE TRUCKEE SANITARY DISTRICT
SCHEDULE OF IMPROVEMENTS
A. CONSTRUCTION OF POND "A"
B. CONSTRUCTION OF POND "B"
C. ASSOCIATED POND PIPING
D FLOW MEASURING FACILITY
E. FILTER PUMP WET WELL
F. EFFLUENT PUMP WET WELL & PIPING BEYOND LEVEE
G. RETURN FLOW FORCE MAIN & BACKWASH RETURN P.M.
H. SURFACE DRAINAGE FACILITIES.
I. AERATION EQUIP (3)
J. FENCING & OTHER ITEMS REQ'D. BY VARIOUS CONTROL AGENCIES.
TRUCKEE RIVER
ACCESS ROAD
PROPOSED INTERCEPTOR SEWER
TO BE INSTALLED UNDER A SEPARATE CONTRACT

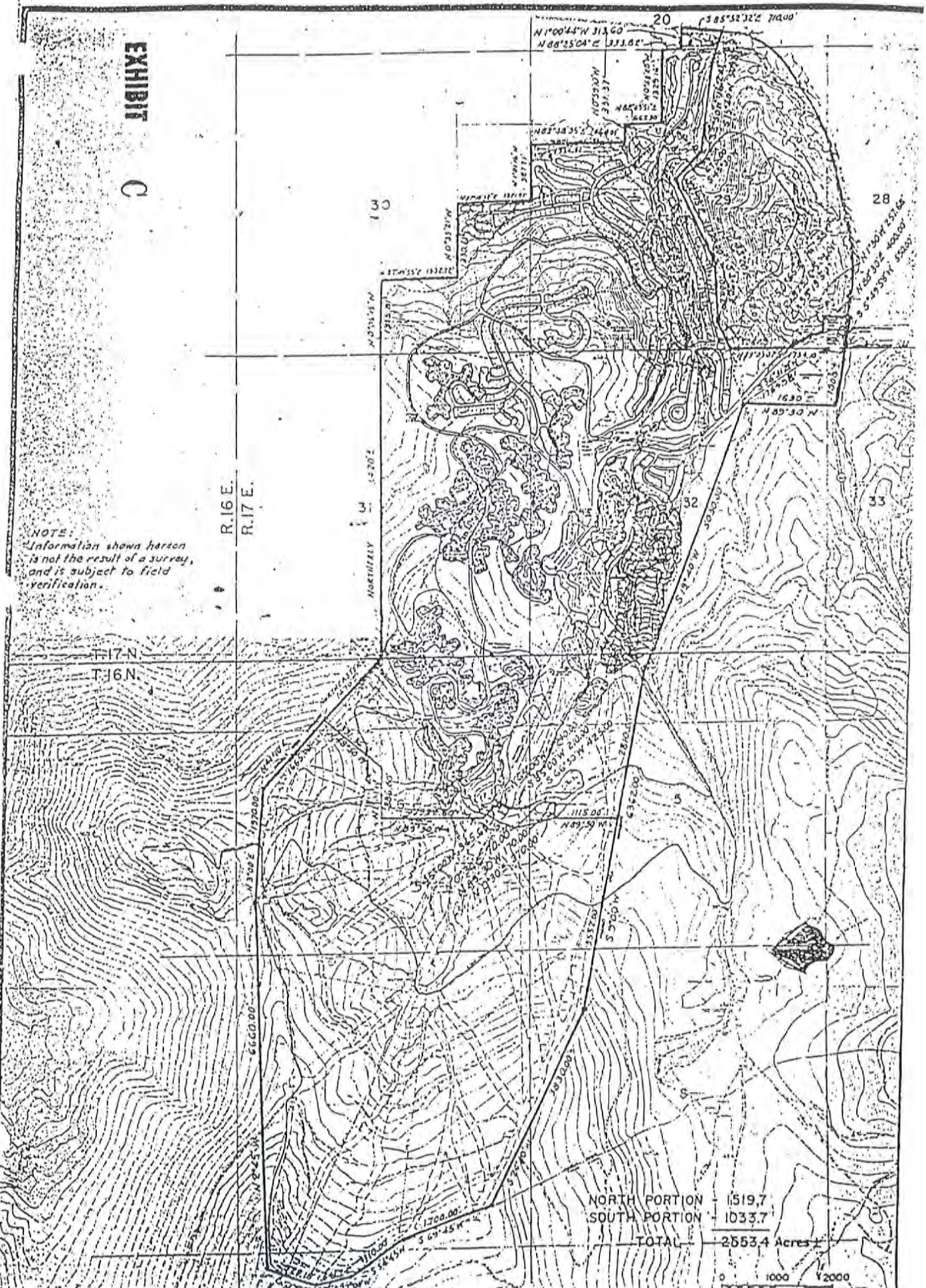


EXHIBIT C
R.16 E.
R.17 E.
T.17 N.
T.16 N.
NOTE:
Information shown hereon is not the result of a survey, and is subject to field verification.
NORTH PORTION - 1519.7
SOUTH PORTION - 1033.7
TOTAL - 2553.4 Acres ±
0
1000
2000

Appendix 9: 2005 Amendment to Agreement between TSD, Northstar CSD, and Trimont

AMENDMENT TO AGREEMENT FOR SERVICE

This AMENDMENT TO AGREEMENT FOR SERVICE (the "Amendment") is entered into this 13th day of September, 2005, by and between TRUCKEE SANITARY DISTRICT, a special district of the State of California ("TSD"), and Trimont Land Company, a California corporation, and its successors and assigns, (hereinafter "TRIMONT"), and the NORTHSTAR COMMUNITY SERVICES DISTRICT, a special district of the State of California ("NCSD"). The Parties agree as follows:

A. **Parties**

1. TRIMONT is the owner or holds certain interest in the real property and improvements thereon, generally known as Northstar-at-Tahoe, located southeast of Truckee, California, and more particularity described in Exhibit "A", attached hereto and incorporated herein.

2. NCSD is a special district of the State of California and provides certain public services, including the collection and transportation for disposal of sewage and waste water to its service area including Trimont or portions thereof.

3. TSD is a public entity formed and operating under the Sanitary District Act of 1923, Health and Safety Code of the State of California, Division 6, part 1, section 6400 et seq.. TSD, through its Board, has the sole decision making authority over users of its sewage collection system by adoption of rules and regulations through passage of ordinances, resolutions, or motions. TSD, through its Board, is responsible for enforcement of said rules and regulations.

B. **Prior Agreements**

TSD, Trimont and NCSD (collectively, the "Parties") have previously entered into four Agreements regarding sewer service executed in the years 1971, 1972, 1985 and 1992. The Agreement executed in 1992 ("the 1992 Agreement") by its terms is the full and complete agreement of the parties thereto as to the provisions of sewer service and takes priority over any other agreements, oral or written, including the 1971, 1972 and 1985 agreements.

C. **Intent**

Trimont desires to amend Section 3 (Scope of Future Service), and Section 9 of the 1992 Agreement.

D. **Incorporation of 1992 Agreement.** The Parties hereby confirm and agree to and shall continue to be bound by all of the provisions in the 1992 Agreement, except as expressly modified herein.

E. **Scope of Service.** Paragraph 3 of the 1992 Agreement (Scope of Future Service) is hereby deleted and replaced with:

3. *SCOPE OF SERVICE: The scope of service to be furnished by **TSD** to **TRIMONT** and **NCSD** is, as set forth in the 1992 Agreement, **solely on a "first-come, first-served" basis,** is service to:*

(a) That property depicted on Exhibit "B", attached hereto and incorporated herein, not to exceed 3,*700 equivalent dwelling units ("EDUs");*

(b) Schaffer's Camp Restaurant, as shown on Exhibit "C," attached hereto and incorporated herein, limited to 125 indoor seats and 125 outdoor seats;

(c) another restaurant located on an as-yet undesignated site in Exhibit "C", limited to 125 indoor seats and 125 outdoor seats;

(d) maintenance facilities not to exceed 66 business fixture units ("BFUs") in an area generally east of the existing Northstar Day Lodge, depicted on Exhibit "C"; and

(e) up to 174 employee housing units, as defined by TSD's rules and regulations, near and generally east and south of the proposed Sawmill Heights employee housing project, within an approximately 12 acre site, depicted on Exhibit "D", attached hereto and incorporated herein.

(f) Notwithstanding any other provision of this Agreement, facilities described in this section 3 b, c, d and e shall not have any increase in number, change in use, change in place of use, transfer of use or other similar modification without TSD's prior written consent which shall be consistent with TSD's rules and regulations.

F. **Charges for Service Area.** Section 9 of the 1992 Agreement is hereby deleted and replaced with:

9. *TRANSPORT CHARGES FOR SERVICE AREA:*

*(a) **NCSD** shall pay the cost of transportation, treatment and disposal of NCSD's flow, originating from facilities described in the **revised Scope of Service** set forth herein, charged by **T-TSA** according to prevailing rates of **T-TSA**. **T-TSA** shall either bill NCSD directly or bill **TSD** for the cost of service as reflected in current service charges (user charges), charges in lieu of taxes, and connection charges. If T-TSA bills TSD for charges to NCSD, **NCSD** shall pay **TSD** for the cost thereof and **TSD** shall forward these payments to **T-TSA** upon receipt. T-TSA shall have the right to modify these charges from time to time, consistent with applicable law.*

*(b) Additionally, as to the units served or to be served in the sewer service area as described in amended Paragraph 3 of the 1992 Agreement (Section 3 (b), (c), (d), and (e), as set forth in Paragraph E herein), **TRIMONT** shall pay **TSD** connection fees, charges in lieu of taxes, and user fees, in the same manner and amount as TSD would charge its customers and in accordance with TSD's rules and regulations. TSD shall have the right to modify these charges from time to time, consistent with applicable law.*

(c) For the restaurants, facilities, and units specified in Section 3 (b), (c), (d), and (e), as set forth in Paragraph E herein , NCSD and Trimont hereby agree that TSD shall have the right to collect fees from Trimont in the same manner as TSD would collect such fees from its customers within its boundaries, including but not limited to, the right to file liens on the properties being served; the right to record any fees and/or delinquent fees, penalties and interest on the tax roll for collection; the right to terminate service under this Agreement; and any other right granted by law. The right to terminate service for nonpayment shall include the right of TSD to enter onto the property of Trimont, Trimont and/or the successors and assigns thereof and the right to recoup any costs or legal fees incurred in exercising this right.

G. **LAFCO Proceedings.** Trimont recognizes that it shall not receive any service to any of those areas described in Section 3 (b)-(e), inclusive, under this Agreement unless and until the annexation of such areas to NCSD is completed. It shall be Trimont's responsibility to pursue annexation at its sole cost. The parties recognize that Trimont, at its discretion, may choose to pursue annexation of some, not all, of the areas described in Section 3 (b)-(e), if Trimont is only seeking service for some, not all, of those areas and that Trimont may seek annexation at different times for these areas.

H. **Incorporation of Recitals.** The Recitals, set forth above, are incorporated in the body of the Agreement as if fully set forth herein.

I. **No Precedent.** The Parties hereto agree that this modification of the 1992 Agreement shall not constitute a precedent for any future service by TSD to any properties, areas or customers of NCSD and/or Northstar and/or Trimont. The Parties agree that neither NCSD nor Trimont shall construe, interpret, nor request a construction or interpretation of this Agreement which requires TSD to provide sanitary sewer service other than as expressly set forth herein.

J. **No Third Party Beneficiaries.** The Parties intend that this Agreement is solely for the benefit of the Parties hereto, and does not confer any rights or privileges on any third party beneficiaries.

K. **Assignability.**

1. This Agreement may be assigned only with the prior written agreement of the Parties, which shall not be unreasonably withheld. The parties agree to the assignment by Trimont to Northstar Mountain Properties of this Agreement.

2. The parties hereto agree to the following assignments:

   (a) If the assignment occurs within three years of executing this Amendment, the assignment of Schaffer's Camp Restaurant; and

   (b) If the assignment occurs within ten years of executing this Amendment, the restaurant referenced in Section 3(c) [Paragraph E hereof] to Tahoe Mountain Club, and

(c) If the assignment occurs within ten years of executing this Amendment, the assignment of the 174 employee housing units ; and

(d) If the assignment occurs within five years of executing this Amendment, the assignment of the maintenance facilities referenced in Section 3(d) [Paragraph E hereof].

L. **Bindingness.** This Agreement shall be binding on the successors and assigns of the Parties hereto.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first written above.

TRIMONT LAND COMPANY
a California corporation

By: _____
Name: Timothy L. Silva
Title: Vice President

NORTHSTAR COMMUNITY SERVICES DISTRICT,
a special district within the State of California

By: _____
Name: _____
Title: Board President

ATTEST:

_____
Board Secretary

TRUCKEE SANITARY DISTRICT,
a special district within the State of California

By: _____
Name: _____
Title: _____

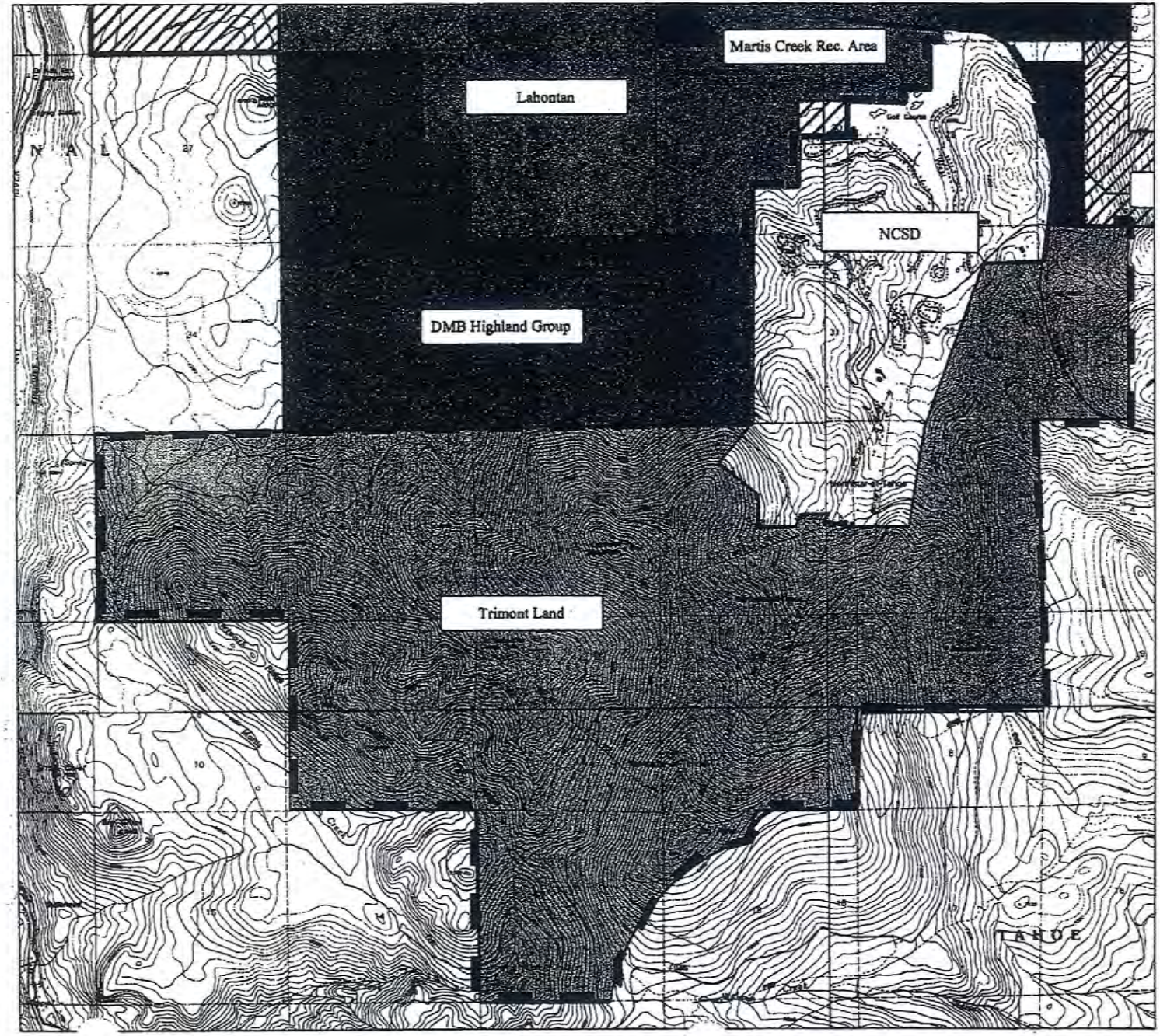


Exhibit A

Northstar Property Boundary

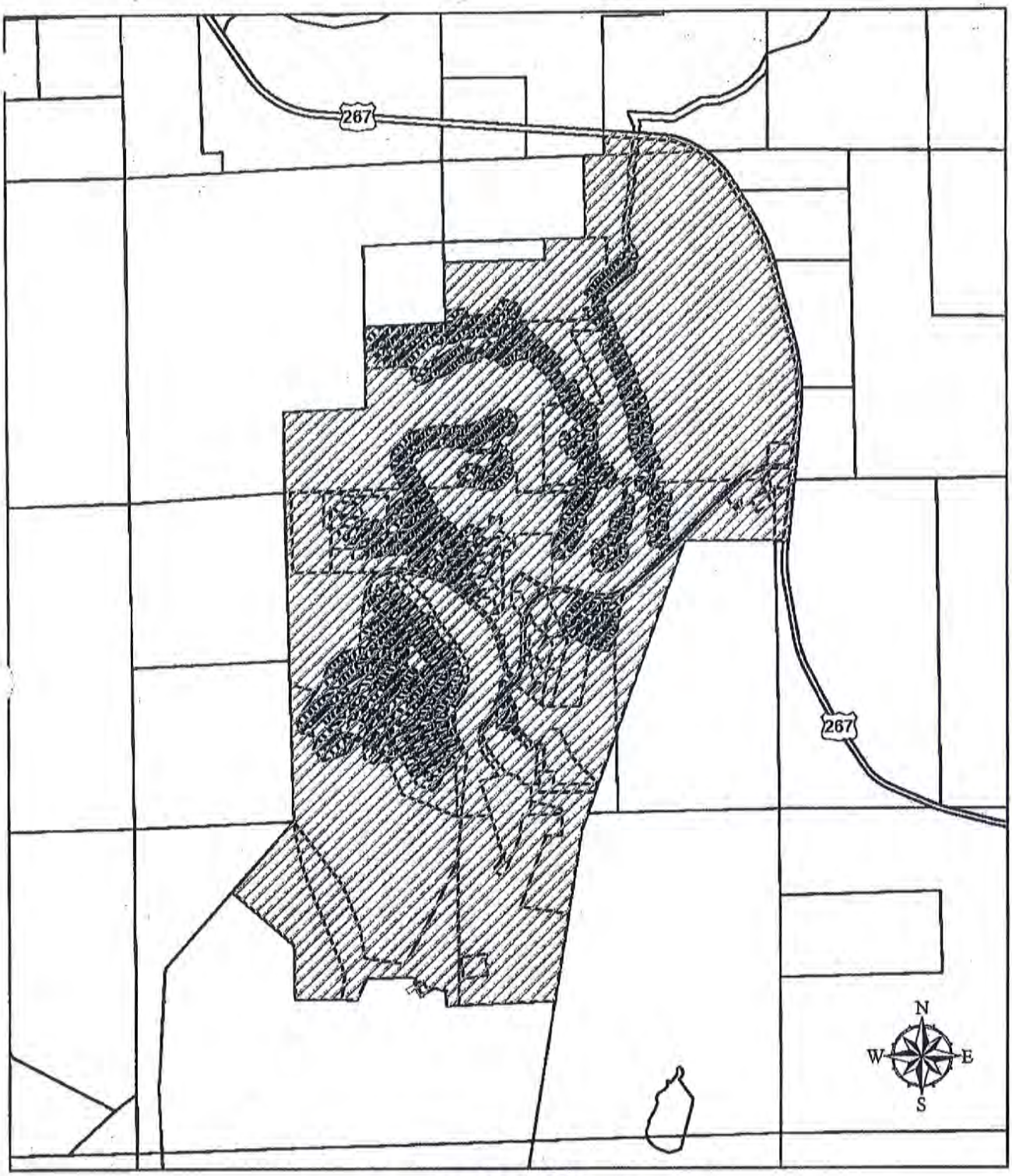


EXHIBIT B
NCSD SERVICE BOUNDARY

0 0.25 0.5 0.75 1
Miles

0 1,500 3,000 4,500 6,000
Feet

Intended to represent the original 1992 sewer service area.

ENGINEERING & MAPPING
www.northstarcsd.com
NORTHSTAR COMMUNITY SERVICES DISTRICT
908 NORTHSTAR DRIVE, TRUCKEE, CA 96161

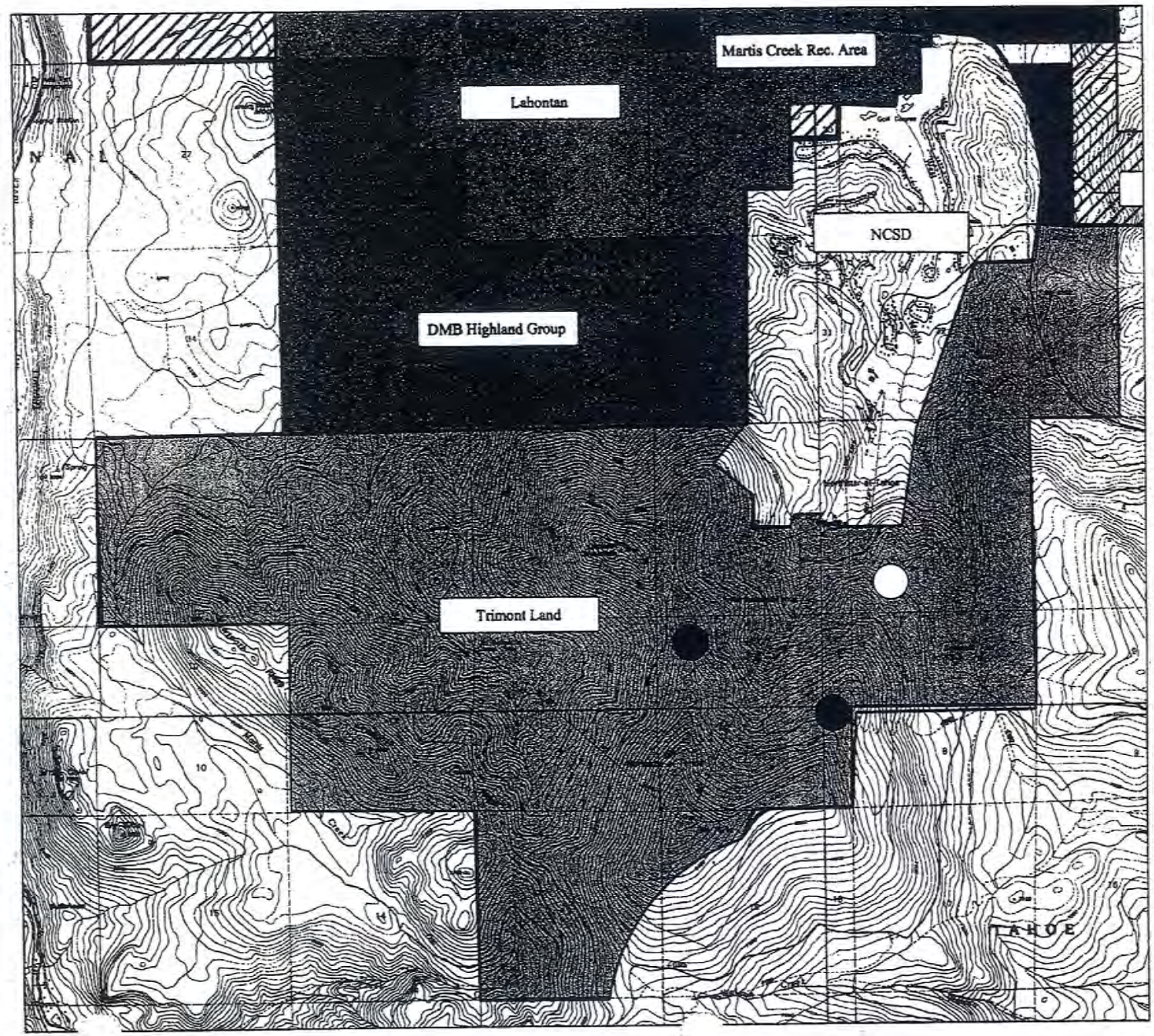


Exhibit C

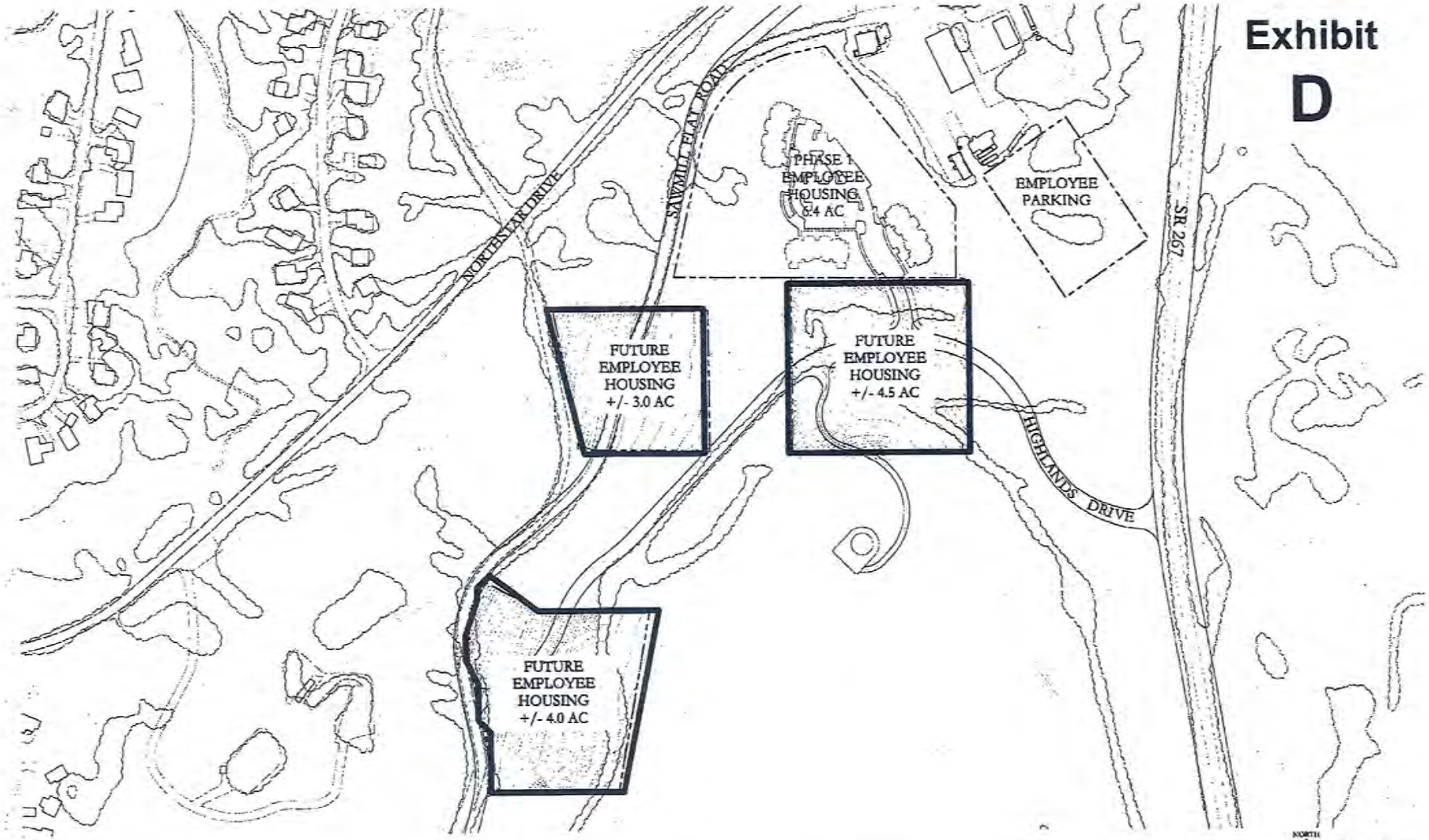
Relocated Mt. Ski Maintenance Facility

Schaffer's Camp

Future Restaurant

(Note: exact location yet to be determined)

Exhibit D



FUTURE EMPLOYEE HOUSING SITES

THE HIGHLANDS

Tahoe, California

East West Partners

northstar at tahoe

HART HOWERTON