MODOC
LOCAL AGENCY FORMATION COMMISSION

TULELAKE IRRIGATION DISTRICT
SERVICE REVIEW
AND
SPHERE OF INFLUENCE

ADOPTED
June 9, 2015

Service Review: Resolution 2015-0004
Sphere of Influence: Resolution 2015-0005

View looking north showing excavation for pumping plant. Rock in drain has not been removed to grade; October 21, 1958; Photo by K. J. Greene
http://digitallib.oit.edu/cdm/ref/collection/kwl/id/3369, August 19, 2014

TABLE OF CONTENTS

1 INTRODUCTION 1

1.1 Role and Responsibility of LAFCO 1
1.2 Purpose of a Municipal Service Review 1

2 TULELAKE AREA 3

2.1 Tulelake Irrigation District (TID) Location, Climate and Soils 3
2.1.1 TID Location 3
2.1.2 TID Climate 3
2.1.3 TID Topography and Soils 3
2.2 Tulelake Irrigation District Communities 4
2.3 Tule Lake 5
2.4 Tule Lake National Wildlife Refuge 5
2.5 Tule Lake Reclamation History 6
2.6 Tule Lake Subbasin Groundwater 7
2.6.1 Background Information on Tule Lake Subbasin Groundwater 7
2.6.2 Tule Lake Subbasin Boundaries and Groundwater Hydrology 8
2.6.3 Hydrogeologic Information for Tule Lake Subbasin Groundwater 9
2.6.4 Restrictive Structures 10
2.6.5 Recharge Areas 10
2.6.6 Groundwater Budget (Type B) 10
2.6.7 Groundwater Quality 11

3 TULELAKE IRRIGATION DISTRICT BACKGROUND 13

3.1 Contact Information 13
3.2 History of Tulelake Irrigation District 13
3.3 Irrigable acreage 13
3.4 Crops 14
3.5 Tulelake Irrigation District Facilities and Equipment 15
3.5.1 Water Facilities 15
3.5.2 Equipment 15
3.6 Tulelake Irrigation District Water 18
3.6.1 TID Water Supply 18
3.6.2 TID Water Operations 18
3.7 Budget 19
3.8 Audit 21
3.8.1 Net Position 22
3.8.2 Revenues and Expenses 23
3.8.3 Cash Flows 24
3.8.4 Cash and Cash Equivalents 25
3.8.5 Retirement Benefits 25
3.8.6 Capital Assets 25
3.8.7 Apportionment of Revenues and Expenses 26
3.8.8 Risk Management 27
3.8.9 Klamath Water Users Association 28

4 TULELAKE IRRIGATION DISTRICT MUNICIPAL SERVICE REVIEW 29

4.1 Growth and Population Projections for the Tulelake Irrigation District Area 29
4.1.1 Tulelake Irrigation District Area Population Projections 29
4.1.2 MSR Determinations on Growth and Population Projections for the Tulelake Irrigation District Area 29
4.2 Location and Characteristics of any Disadvantaged Unincorporated Communities (DUC) within or Contiguous to Tulelake Irrigation District 30
4.2.1 Determination of Tulelake Irrigation District Area Disadvantaged Unincorporated Community Status 30
4.2.2 MSR Determinations on Disadvantaged Unincorporated Communities near Tulelake Irrigation District 31
4.3 Capacity and Infrastructure Tulelake Irrigation District 31
4.3.1 Tulelake Irrigation District Infrastructure 31
4.3.2 MSR Determinations on Infrastructure for Tulelake Irrigation District 31
4.4 Financial Ability to Provide Services 32
4.4.1 Financial Considerations for Tulelake Irrigation District 32
4.4.2 MSR Determinations on Financing for Tulelake Irrigation District . . . 32
4.5 Status of and Opportunities for Shared Facilities 32
4.5.1 Tulelake Irrigation District Facilities 32
4.5.2 MSR Determinations on Shared Facilities for Tulelake Irrigation District 32
4.6 Accountability for Community Service Needs, Government Structure and Operational Efficiencies 33
4.6.1 Tulelake Irrigation District Government Structure. 33
4.6.2 MSR Determinations on Local Accountability and Governance 33

5 TULELAKE IRRIGATION DISTRICT SPHERE OF INFLUENCE UPDATE 34

5.1 SOI Requirements 34
5.1.1 LAFCO's Responsibilities 34
5.1.2 SOI Determinations 34
5.1.3 Possible Approaches to the SOI 34
5.1.4 SOI Update Process 36
5.1.5 SOI Amendments and CEQA 36
5.1.6 Recommendation for Tulelake Irrigation District Sphere of Influence 37
5.2 Present and Planned Land Uses in the Tulelake Irrigation District Area, Including Agricultural and Open Space Lands 37
5.2.1 County General Plan and Zoning for Tulelake Irrigation District SOI Area 37
5.2.2 SOI Determinations on Present and Planned Land Use for Tulelake Irrigation District Area 37
5.3 Present and Probable Need for Public Facilities and Services in the Tulelake Irrigation District Area 37
5.3.1 Municipal Service Background 37
5.3.2 SOI Determinations on Facilities and Services Present and Probable Need for Tulelake Irrigation District 37
5.4 Present Capacity of Public Facilities Present and Adequacy of Public Services 38
5.4.1 Capacity Background 38
5.4.2 SOI Determinations on Public Facilities Present and Future 38

5.5 Social or Economic Communities of Interest for Tulelake Irrigation District 38
5.5.1 Tulelake Irrigation District Community Background 38
5.5.2 SOI Determinations on Social or Economic Communities of Interest for Tulelake Irrigation District 38
5.6 Disadvantaged Unincorporated Community Status 39
5.6.1 Disadvantaged Unincorporated Communities 39
5.6.2 Tulelake Irrigation District Disadvantaged Unincorporated Community Status 39

ABBREVIATIONS 40

DEFINITIONS 41

REFERENCES 42

PREPARERS 42

MAP 43

1 INTRODUCTION

1.1 Role and Responsibility of LAFCO

The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000, as amended ("CKH Act") (California Government Code §§56000 et seq.), is LAFCO's governing law and outlines the requirements for preparing Municipal Service Reviews (MSRs) for periodic Sphere of Influence (SOI) updates. MSRs and SOIs are tools created to empower LAFCO to satisfy its legislative charge of "discouraging urban sprawl, preserving open-space and prime agricultural lands, efficiently providing government services, and encouraging the orderly formation and development of local agencies based upon local conditions and circumstances (§56301).

CKH Act Section 56301 further establishes that

> *"one of the objects of the commission is to make studies and to obtain and furnish information which will contribute to the logical and reasonable development of local agencies in each county and to shape the development of local agencies so as to advantageously provide for the present and future needs of each county and its communities."*

Based on that legislative charge, LAFCO serves as an arm of the State; preparing and reviewing studies and analyzing independent data to make informed, quasi-legislative decisions that guide the physical and economic development of the state (including agricultural uses) and the efficient, cost-effective, and reliable delivery of services to residents, landowners, and businesses.

While SOIs are required to be updated every five years, they are not time-bound as planning tools by the statute, but are meant to address the "probable physical boundaries and service area of a local agency" (§56076). SOIs therefore guide both the near-term and long-term physical and economic development of local agencies their broader county area, and MSRs provide the near-term and long- term time-relevant data to inform LAFCO's SOI determinations.

1.2 Purpose of a Municipal Service Review

As described above, MSRs are designed to equip LAFCO with relevant information and data necessary for the Commission to make informed decisions on SOIs. The CKH Act, however, gives LAFCO broad discretion in deciding how to conduct MSRs, including geographic focus, scope of study, and the identification of alternatives for improving the efficiency, cost-effectiveness, accountability, and reliability of public services.

The purpose of a Municipal Services Review (MSR) in general is to provide a comprehensive inventory and analysis of the services provided by local municipalities, service areas, and special districts. A MSR evaluates the structure and operation of the local municipalities, service areas, and special districts and discusses possible areas for improvement and coordination. The MSR is intended to provide information and analysis to support a sphere of influence update.

A written statement of the study's determinations must be made in the following areas:

1. Growth and population projections for the affected area;

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

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

4. Financial ability of agencies to provide services;

5. Status of, and opportunities for, shared facilities;

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

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

2 TULELAKE AREA

2.1 Tulelake Irrigation District (TID) Location, Climate and Soils

2.1.1 TID Location

The Tulelake Irrigation District (TID) is located within the Upper Klamath Basin. The northern boundary is contiguous to the border between California and Oregon and extends from the Oregon-California state line south about 14 miles to the lava beds. TID includes lands in both Modoc and Siskiyou counties and is bounded on the west by High Rim and Barn Top Mountains and extends east about 12 miles. The exterior boundary includes 96,000 acres. Tule Lake and the Tule Lake National Wildlife Refuge (TLNWR) lie within the boundaries of TID.[1]

2.1.2 TID Climate[2]

The average elevation with TID is 4,030 feet. The climate is cold in winter with mild summer temperatures. Typically, the growing season begins in mid-April and ends in early October. Summer temperatures average about 60 degrees with some highs above 90 degrees.

Below freezing temperatures can and do occur in the summer at night. The average winter temperatures range from the low 30s to occasional lows below -10 degrees. Although there is normally a growing season of 100 days, there is no month that is frost-free.

The average annual precipitation in the California Irrigation Management Information System (CIMIS) Station Tule Lake FS No. 91 located at the University of California Field Station is approximately 12.1 inches. The majority of the precipitation is from October through April.

2.1.3 TID Topography and Soils[3]

The topography of TID is extremely flat with some exception in the northeast portion. Most of the lands within TID are within the original historical bed of Tule Lake, with the lowest portion being near the current Tule Lake sump.

The predominant soil type within TID is Tulebasin mucky silty clay loam. As defined by NRCS, Tulebasin soils are generally 60 inches deep. The first 14 inches is a mucky silty clay loam. The following 18 inches is generally silty clay which is followed by another 28 inches of either silty clay or silty clay loam. Drainage is very poor and the depth to the water table is typically less than one foot if not ponded. Because of the poor drainage characteristics of the soil, landowners must carefully regulate application of irrigation water. The biggest challenge in the majority of TID is maintaining the water table below the root zone.

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[1] Tulelake Irrigation District, "Water Management & Conservation Plan, 2011 Update" September 2011, Pages 1 and 2.
[2] Tulelake Irrigation District, "Water Management & Conservation Plan, 2011 Update" September 2011, Pages 22 and 23.
[3] Tulelake Irrigation District, "Water Management & Conservation Plan, 2011 Update" September 2011, Pages 22.

2.2 Tulelake Irrigation District Communities

The Tulelake Irrigation District area includes the communities of Newell and Tulelake. A brief description of each community is shown below.

Newell (Modoc County)

Newell is a census-designated place located 50 miles west-northwest of Alturas at an elevation of 4,042 feet. The community is located along State Route 139 south of the community of Tulelake and south of the Oregon border. The town was named in honor of Frederick Haynes Newell, director of the United States Reclamation Service.[4]

The 2010 US Census reported that Newell had a population of 449. There were 136 households, out of which 69 (50.7%) had children under the age of 18 living in them, 23 households (16.9%) were made up of individuals and 8 (5.9%) had someone living alone who was 65 years of age or older. The average household size was 3.30. There were 106 families (77.9% of all households); the average family size was 3.68 people.

The Newell population was spread out in age as follows:

NEWELL AGE DISTRIBUTION 2010

Under the age of 18	167 people	37.3%
18 to 24	36 people	8.0%
25 to 44	116 people	25.8%
45 to 64	90 people	20.0%
65 years of age or older	40 people	8.9%
Total	449 people	100.0%

The median age of the Newell population was 29.4 years. For every 100 females there were 110.8 males. For every 100 females age 18 and over, there were 108.9 males.

There were 209 housing units of which 83 (61.0%) were owner-occupied, and 53 (39.0%) were occupied by renters. The homeowner vacancy rate was 1.2%; the rental vacancy rate was 8.6%. There were 259 people (57.7% of the population) living in owner-occupied housing units and 190 people (42.3%) living in rental housing units.

There are many grain and horseradish storage facilities in or near Newell.

Tulelake Municipal Airport features a 3,500-foot paved runway. The site of the World War II U.S. Army facility named the Tule Lake War Relocation Center is near the north end of the community. The center was a prison camp for interned Japanese nationals, and U.S. citizens of Japanese ancestry, during a portion of the war.

The Union Pacific Railroad Modoc Subdivision tracks run along the west side of town and parallel to SR139. Tule Lake National Wildlife Refuge, a unit of Klamath National Wildlife Refuge, is northwest of the town.

[4] Durham, David L. (1998). *California's Geographic Names: A Gazetteer of Historic and Modern Names of the State*. Quill Driver Books. p. 404. ISBN 9781884995149

Tulelake (Siskiyou County)

Tulelake is at an elevation of 4,066 feet above sea level. The town is named after nearby Tule Lake. The population was 1,010 at the 2010 census, down from 1,020 at the 2000 census.

The 2010 US Census reported that 1,010 people lived in 347 households, out of which 158 (45.5%) had children under the age of 18 living in them, 93 households (26.8%) were made up of individuals and 43 (12.4%) had someone living alone who was 65 years of age or older. The average household size was 2.91. There were 240 families (69.2% of all households); the average family size was 3.58.

The population was spread out in age as follows:

TULELAKE AGE DISTRIBUTION 2010

Under the age of 18	340 people	33.6%
18 to 24	102 people	10.1%
25 to 44	244 people	24.2%
45 to 64	222 people	22.0%
65 years of age or older	102 people	10.1%
TOTAL	1010 people	100.0%

The Tulelake median age was 29.4 years. For every 100 females there were 102.4 males. For every 100 females age 18 and over, there were 100.0 males.

There were 437 housing units in Tulelake of which 173 (49.9%) were owner-occupied, and 174 (50.1%) were occupied by renters. The homeowner vacancy rate was 6.0%; the rental vacancy rate was 12.1%. There were 473 people (46.8% of the population) living in owner-occupied housing units and 537 people (53.2%) living in rental housing units.

There are two schools in the Tulelake Basin Joint Unified School District, located in the town of Tulelake.

2.3 Tule Lake

Tule Lake is an intermittent lake covering an area of 13,000 acres, 5.0 miles long and 3.0 miles across, in northeastern Siskiyou County and northwestern Modoc County. Tule Lake is fed by the Lost River. The elevation of the lake is 4,035 feet. Tule Lake is located 1.5 miles southwest of the town of Tulelake.

2.4 Tule Lake National Wildlife Refuge[5]

Tule Lake Refuge is located in the fertile and intensely farmed Tule Lake Basin of northeastern California. It was established in 1928 by President Calvin Coolidge as a "preserve and breeding ground for wild birds and animals." This 39,116-acre refuge is mostly open water and crop land.

[5] US Fish and Wildlife Service, http://www.fws.gov/refuge/Tule_Lake/about.html, October 15, 2014

Approximately 17,000 acres are leased for potato, onion, horse radish, alfalfa, and cereal grains within the Public Lease Lands program administered by the U.S Bureau of Reclamation. Permit holders farm an additional 1,900 acres in cooperation with the U.S. Fish and Wildlife Service (FWS).The endangered Lost River and short-nose suckers live in or use this refuge.

The refuge is a significant staging area for migrating waterfowl during spring and fall migrations. It is used primarily by white-fronted geese, snow geese, Ross geese, and cackling Canada geese, all of which nest in the Arctic tundra. Tule Lake hunting opportunities consist of two large marsh units accessible by boats, a spaced-blind hunt in dry fields, and open free-roam areas offering field hunts over harvested grain and smaller marsh units. A 10-mile auto tour route allows for wildlife observation throughout the year.

2.5 Tule Lake Reclamation History[6]

In 1902, Congress enacted the Reclamation Act. The Secretary of the Interior authorized development of the Klamath Reclamation Project on May 15, 1905, under provisions of the Reclamation Act of 1902 (32 Stat. 388). Construction of the Klamath Reclamation Project began in 1906. Prior to the construction of the Klamath Reclamation Project most of the land within the boundary of the Tulelake Irrigation District was submerged. The submergence of this land created a body of water known as Tule Lake.

To reclaim this area and drain Tule Lake, two outlets were constructed at the southern end of the Lake that would direct the flow into lava beds. The flow to drain Tule Lake began in October 1909 and continued until 1912 when the Lake level dropped below the elevation of the drains.

Construction of the Klamath Reclamation Project continued during the early 1900s and by 1910, Clear Lake Dam[7] was completed. By the spring of 1912, the Lost River Diversion Dam and Channel were complete. These facilities diverted water from the Lost River to the Klamath River and reduced flows into Tule Lake.

By 1916, approximately 5,900 acres within the previously submerged region of Tule Lake had been exposed and work began on the Tule Lake portion of the Klamath Reclamation Project with the construction of distribution and drainage systems for exposed lands along the northern portion of the Lake. In 1917, the first Tule Lake lands opened to homestead entry. By 1921, the exposed lakebed had increased to about 20,000 acres.

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[6] Tulelake Irrigation District Groundwater Management Plan, April 2013, Page 3.

[7] *Clear Lake Dam and Reservoir on the Lost River in California, about 19 miles southeast of Malin, Oregon, provide storage for irrigation and reduce flow into the reclaimed portion of Tule Lake and the restricted Tule Lake Sumps in Tulelake National Wildlife Refuge. The dam is a roller compacted concrete structure with a height of 42 feet and a crest length of 840 feet. The reservoir has a capacity of 527,000 acre-feet.* US Bureau of Reclamation, http://www.usbr.gov/projects/Project.jsp?proj_Name=Klamath%20Project, October 21, 2014.

In 1920, Anderson-Rose Dam[8] was constructed. Work also began on the J-Canal which was completed in 1923. During the 1920s and 1930s, work continued on the distribution, levee and drainage systems within the Tule Lake Unit of the Klamath Reclamation Project. By 1923, the continued diversion of Lost River water to the Klamath River and diversions for irrigation resulted in approximately 85,000 of the 90,000 previously submerged acres within the Tule Lake Unit being available for farming. During the late 1920s approximately 50,000 acres were farmed.

In 1940, work began on the D-Pumping Plant, This pumping plant and the Tule Lake Tunnel were completed in November 1941. During World War II, about 44,000 acres owned by the United States within Tule Lake were leased for farming. The Copic Bay region of Tule Lake was opened to homesteading in 1947 and 1948. By the 1950s, about 44,000 acres had been homesteaded. In 1952, the Tulelake Irrigation District was formed.

2.6 Tule Lake Subbasin Groundwater[9]

2.6.1 Background Information on Tule Lake Subbasin Groundwater

The State of California, Department of Water Resources describes the Upper Klamath Basin, Tule Lake Subbasin as follows:

> Groundwater Basin Number: 1-2.01
> County: Modoc, Siskiyou
> Surface Area: 85,930 acres (135 square miles)
>
> *An important note on the status of the groundwater resources in the Tule Lake Subbasin, is that, historically, groundwater use in the basin has been relatively minor. Since about 1905, when the Bureau of Reclamation began building the Klamath Project to provide surface water to agriculture on reclaimed land in the Klamath Basin, abundant surface water supplies have been available. In the 2001 Klamath Project Operation, water requirements for two sucker fish species in the upper basin and the coho salmon in the lower basin led the USBR to reduce surface water deliveries to the farmers to 26 percent of normal. The already existing drought conditions were further exacerbated by the operational drought.*
>
> *In 2001, drought emergencies were declared for the Klamath Basin by the governors of both California and Oregon. Governor Davis called upon California's legislature to fund an Emergency Well Drilling Program in the Tulelake Irrigation District (TID). The governor also requested funding for a Hydrogeologic Investigation to evaluate new and future groundwater*

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[8] *Anderson-Rose Diversion Dam, on Lost River about 3 miles southeast of Merrill, Oregon, diverts water to serve the lands reclaimed from the bed of Tule Lake. The dam is a reinforced concrete slab and buttress structure with a height of 23 feet and a crest length of 324 feet.* US Bureau of Reclamation, http://www.usbr.gov/projects/Facility.jsp?fac_Name=Anderson-Rose+Diversion+Dam, October 21, 2014

[9] California Department of Water Resources, California's Groundwater Bulletin 118, Upper Klamath Basin, Tule Lake Subbasin,, Last Update 2/27/04.

development. The emergency measures were taken because the TID had no alternate water supply for the nearly 75,000 acres in the district and farmers were faced with economic disaster.

Ten large-capacity irrigation wells were constructed within the irrigation district for the emergency program. Four of the ten wells produce 10,000 gpm and greater. The lowest yielding well produces 6,000 gpm. At the same time the TID wells were being constructed, individual growers were also having their own wells drilled resulting in an additional 25 to 30 private irrigation wells.

It is unknown what effect the new development of groundwater in the Tule Lake Subbasin will have on the aquifer system. The Hydrogeologic Investigation that DWR is currently conducting will address some of the questions regarding the nature and extent of the aquifer system, sustainable annual yields, the amount and nature of annual recharge, and the possibilities for conjunctive use in the subbasin. A significant amount of new data will be available when a progress report is completed. Because the evaluation of the recently collected data is in progress, and not yet available, the following summary of hydrogeologic and well information is based on published reports.

2.6.2 Tule Lake Subbasin Boundaries and Groundwater Hydrology

The Tule Lake Subbasin is a portion of Upper Klamath River Groundwater Basin located in California and Oregon. The subbasin is bounded to the west by the Gillems Bluff Fault which extends beneath and is a major structural feature of the Medicine Lake volcanic highlands. The fault forms the steep eastern escarpment of Sheepy Ridge, which separates the Tule Lake and Lower Klamath subbasins. The subbasin is bounded to the east by the Big Crack fault, a north-trending normal fault which forms the western edge of the block faulted mountains between Tule Lake and Clear Lake Reservoir.

The reservoir is the headwaters of Lost River, which is the primary surface water entering the Tule Lake Subbasin. Lost River flows north into Oregon, and meanders through the Poe and Langell valleys before it flows south into California and ends at the Tule Lake sump. The subbasin is bounded to the south by the low-lying volcanic fields on the north slope of the Medicine Lake Highlands. Medicine Lake occupies the crater at the peak of this large, relatively young shield volcano. To the north, the basin extends into Oregon and is bounded by northwest trending normal faults on the south side of the mountain block dividing Poe Valley from the Tule Lake Subbasin. Approximately two thirds of the subbasin are in California. For the purposes of this update of Bulletin 118, the subbasin is bounded by to the north by the state boundary of Oregon and California.

Average annual precipitation within the basin is estimated to be 11 inches.

2.6.3 Hydrogeologic Information for Tule Lake Subbasin Groundwater

Water-Bearing Formations
The principal water-bearing formations in the subbasin include Tertiary to Quaternary lake deposits and volcanics

Pleistocene Upper Basalt.
This unit is an unweathered, vesicular, olivine basalt that is generally highly permeable due to extensive fracturing. The basalt flows of this unit are generally above the saturated zone in upland areas but serve as recharge areas where fractured. Some areas have exposures of massive, unfractured flows. The fractured flows readily yield water to wells. These flows border the subbasin on the south (to the west of the Peninsula) and outcrop as a subbasin boundary to the southeast of Copic Bay along the north flank of the Medicine Lake Highlands.

Pleistocene Intermediate Basalt.
This unit is a series of reddish brown to black, thin-bedded flows of Pleistocene diabasic olivine basalt. These rocks border the subbasin to the south and east and interfinger with lakebed deposits at the edge of the basin. These rocks are generally highly permeable due to well-developed columnar jointing and the abundance of bedding planes. Wells developed in these rocks will often yield moderate to large quantities of water ranging from 2,000- to 4,000-gpm with specific capacities of 50- to 250-gpm per foot of drawdown if sufficient fractures, fracture interconnections, and saturated depths are encountered. Some well yields are low where extensive cross faulting has created barriers to groundwater recharge and flow.

In the Panhandle region, the thickness of the unit is greater than 400 feet with well yields ranging up to 9,500 gpm with specific capacity up to 395 gpm per foot of drawdown. In the vicinity of Prisoners Rock and the Peninsula, the unit reaches a thickness of at least 400 feet with estimated well yields of 500- to 3,100-gpm.

Pliocene to Holocene Lake Deposits.
The lake deposits consist of sand, silt, clay, ash, lenses of diatomaceous earth, and semi-consolidated shale. Poorly sorted deposits have very low permeability and may act as a confining layer where interfingered with basalts. Wells developed in the sedimentary deposits are usually less than 150 feet deep and yield only small quantities of water in the range of 30 gpm.

Pliocene to Miocene Lower Basalt.
The older basalt ranges from green- black ophitic olivine basalt to a gray-black porphyritic basalt. It often exhibits weak columnar jointing and fracturing in surface exposures. This is typically a highly permeable aquifer that is commonly confined within the subbasin where it underlies

lake sediments. Surface exposure of the unit occurs east and west of the subbasin and forms the northeastern basin boundary. Where exposed in the uplands surrounding the basin, the unit is an important source of recharge.

The depth to the older basalt beneath the lake sediments varies due to the region's extensive block faulting. New deep irrigation wells drilled in 2001 on the California/Oregon border show that the basalt is encountered at depths ranging from 810 feet on the east side of the basin to 1,190 feet several miles to the west, and to 190 feet on the far west side. These differing depths probably represent individual blocks offset by steep, normal faults. The depth to good production zones in these wells varies from 800 feet to 1,200 feet to 245 feet in the same east to west order. On the east side of the subbasin well yields range from 4,000- to 7,000-gpm, whereas, yields mid-basin and on the west side range from 9,000- to 12,000-gpm.

2.6.4 Restrictive Structures

The western boundary of Tule Lake is marked by a prominent north-south trending normal fault, downthrown to the east. The displacement is unknown but is probably is in the range of several hundred feet. The east side of the Tule Lake Subbasin is bounded by a normal fault downthrown to the west. The water-transmitting properties of these faults are not fully understood.

2.6.5 Recharge Areas

Infiltration of surface water from the channels, lakes and sumps of the Lower Klamath and Tule Lake basins along with underflow from the adjacent, rapidly-replenished volcanic rocks are probably the principal sources of recharge in this basin. Because infiltration rates are very slow in the sedimentary deposits, underflow from adjacent volcanics is probably of major significance. The area surrounding this basin and its extension into Oregon primarily consists of Holocene to Miocene volcanic rocks that capture most of the incipient precipitation and intermittent streamflow by infiltration through fractures. These rocks probably function as a single, continuous water-table aquifer that extends across faults and surrounds the basin. Hence, the two principal sources of recharge are: underflow from the rapidly replenished and permeable unconfined system of the adjacent volcanic rocks; and less significantly, the very-slow vertical infiltration of surface water through marginally permeable sedimentary deposits. The general pattern of groundwater movement is from the north to the south.

2.6.6 Groundwater Budget (Type B)

Estimates of groundwater extraction are based on a survey conducted by the California Department of Water Resources during 1997. Surveys included land use and sources of water. Estimates of groundwater extraction for agricultural and municipal/industrial uses are 8,700 and 830 acre-feet respectively. Deep percolation of applied water is estimated to be 9,100 acre-feet.

2.6.7 Groundwater Quality

Characterization.
Hotchkiss reports that the TDS content of groundwater generally increases in proportion to the thickness or proximity of the lake deposits. Waters from wells in volcanic rocks several miles from the lake deposits or from deep wells developed beneath the confining lake deposits typically contain low to moderate TDS.

The water quality of groundwater in the basin ranges widely in response to its source and proximity to sources of surface and subsurface impairment. Water quality for wells constructed in the unconfined volcanic rocks within and adjacent to the subbasin is good with a sodium-bicarbonate character and a total dissolved solids ranging from 150- to 270-mg/L.

A shift in water quality is observed with the unconfined volcanics that are proximate to lake sediments. The character shifts to a sodium/calcium/magnesium- bicarbonate/sulfate water that is much higher in total dissolved solids (600- to 800-mg/L), which generally increases in proportion to the penetrated thickness of interfingering lake deposits.

Well Production characteristics

Well yields (gallons/minute)		
Irrigation	*Range: 15 – 3,380*	*Average: 1,208 (14 Well Completion Reports)*
Well yields from newly constructed wells in the subbasin in 2001 range from 4,000 to 12,000 gallons per minute.		
Total depths (feet)		
Domestic	*Range: 15 – 445*	*Average: 115 (49 Well Completion Reports)*
Irrigation	*Range: 28 – 1,170*	*Average: 239 (15 Well Completion Reports)*

Active Monitoring Data

Agency	***Parameter***	***Number of wells /measurement frequency***

DWR	*Groundwater levels*	*40 wells semi-annually*
USGS	*Groundwater levels*	*3 wells quarterly*
DWR	*Miscellaneous Water Quality*	*8 wells biennial*
Department of Health Services	*Miscellaneous Water Quality*	*5*

Basin Management

Groundwater management: *Siskiyou County adopted a groundwater management ordinance in 1998.*
Modoc County adopted a groundwater management ordinance in 2000.

Water agencies
Public *Tulelake Irrigation District*

Private

3 TULELAKE IRRIGATION DISTRICT BACKGROUND

3.1 Contact Information

The Tulelake Irrigation District (TID) was started in 1952. The District is managed by Earl Danosky (e-mail: tid@cot.net), Gerald D. Pyle, Assistant Manager, Brad C. Kirby, Assistant to the Manager, and Grace E. Phillips, Office Manager.

The contact information for the Tulelake Irrigation District is as follows:

Telephone:	530-667-2249	Fax:	530-667-4228
Physical Address:	2717 Havlina Road, Tulelake, California 96134-0699		
Mailing Address:	PO Box 699, Tulelake CA 96134		

The District has 28 permanent employees and 10 seasonal employees.

The District is governed by a five-member Board of Directors which meets at 8:00 pm on the second Monday of each month at the District Office.[10] The Board of Directors is as follows:[11]

John F. Crawford, President	Term expires 2016
James E. Havlina, V. President	Term expires 2014
William J. Heiney, Director	Term expires 2016
Sidney W. Staunton, Director	Term expires 2016
Gary A. Wright, Director	Term expires 2014

Legal Counsel for the District is Paul Simmons with Somach, Simmons & Dunn, 500 Capital Mall Suite 1000, Sacramento CA 95814.

3.2 History of Tulelake Irrigation District

On September 10, 1956, the Tulelake Irrigation District entered into a contract with the US Bureau of Reclamation for repayment of the construction charges for the Klamath Reclamation Project and the transfer to the District of operation and maintenance of the facilities used to deliver water to the District lands.[12] In 1957, the Board of Directors of the District approved the formation of West Side Improvement District #4, to operated and maintain the pumps, dikes, and drainage facilities already constructed by the landowners and to apportion all charges separately among the several landowners according to the acres of land owned.[13]

3.3 Irrigable acreage

The irrigable acreage reflected on the District's landowner database is approximately 64,000 acres, of which approximately 18,000 acres are owned by the United States, with

[10] Tulelake Irrigation District, Modoc LAFCO Questionnaire, September 24, 2014.
[11] http://www.klamathbasincrisis.org/TID/groundwater/publichearing042513.htm, October 20, 2014.
[12] Tulelake Irrigation District Groundwater Management Plan, April 2013, Page 3.
[13] Tulelake Irrigation District Financial Statements December 31, 2013, Prepared by Aiello, Goodrich & Teuscher, PO Box 158, 205 N. Mt. Shasta Blvd., Suite 300, Mt. Shasta, California 9607, Phone: 530-926-3881, Fax: 530-926-6296, www.agtcpa.com, Page 6.

most of this acreage leased to private growers for crop production. These Federal Lease Lands are located in the lowest (generally below an approximate elevation of 4,035 feet above mean sea level) portion of TID. Homesteading of the current Federal Lease Lands was precluded by the 1964 Kuchel Act. In addition to the Federal Lease Lands, the Public Lands include certain areas used by the US Fish and Wildlife Service in farming and other uses.[14]

3.4 Crops

The following table shows the acreage for the various crops grown within the District and the percentage of the total irrigated land represented by each crop. Since this information has been compiled, strawberries have also become an important crop in the District.

REPRESENTATIVE CROPPING PATTERN (2005) FOR THE TULELAKE IRRIGATION DISTRICT[15]			
Crop Type	**Acres**	**Crop Percentage of Total Acres Irrigated**	**Estimated Net Irrigation Requirements (Acre-Feet)** [16]
Alfalfa	16,928	26.7%	26,210
Cereal Grains (barley, wheat, oats, rye)	22,578	35.6%	38,670
Mint	2,226	3.5%	3,720
Onions	2,668	4.3%	5,040
Potatoes	7,536	11.9%	14,590
Pasture	1,641	2.6%	3,940
Other (peas, horseradish and hay-grasses)	9,777	15.4%	14,440
TOTAL	**63,354***	**100.0%**	**106,610**

*Includes public and private lands.

A more detailed list of crops and acreages is shown below:

Tulelake Irrigation District Crop Production				
Crop	**2013 Acres**	**2012 Acres**	**2011 Acres**	**2010 Acres**
Alfalfa	17,754	17,790	16,072	16,120
Other Hay	3,493	3,024	3,458	3,564
Barley	6,421	7,007	4,246	8,031
Oats	87	203	193	360
Onions	2,899	2,651	1,878	1,874
Pasture	1,042	1,014	979	1,314
Potatoes	7,529	8,362	8,739	5,770
Wheat	18,807	16,931	21,002	9,850
Garlic	18	25	0	0
Mint	2,306	2,656	2,919	3,035

[14] Tulelake Irrigation District, "Water Management & Conservation Plan, 2011 Update" September 2011, Pages 1 and 2.
[15] Tulelake Irrigation District Groundwater Management Plan, April 2013, Page 4.
[16] Tulelake Irrigation District, "Water Management & Conservation Plan, 2011 Update" September 2011, Page 9.

Horseradish	462	408	358	358
Other	2,343	2,998	3,162	12,759
Total Acres	63,161	63,069	63,006	63,035
Production Value	$96,023,918	$87,056,604	$94,909,405	$61,361,751

The production values of the crops shown above indicates a substantial contribution to the local economy due to the Tulelake Irrigation District.

3.5 Tulelake Irrigation District Facilities and Equipment

3.5.1 Water Facilities

The District operates and maintains a diversion dam on the channel of the Lost River, known as the Anderson-Rose Dam, located less than one mile north of the California-Oregon State Line. The Anderson-Rose Dam is operated to deliver surface water into the District's J-Canal, which distributes water to more than one-half of the District's irrigated lands through turnouts and lateral canals.

The J-Canal also conveys water to other canal systems for delivery to additional lands within the District. Water not diverted by the District at Anderson-Rose Dam flows through the Lost River and into the Tule Lake Sumps. Water regulated and stored within the Tule Lake Sumps may be diverted or re-diverted for irrigation within the District or discharged by the District's D-Pumping Plan to the P-Canal, which serves the Lower Klamath National Wildlife Refuge (LKNWR) and the water users on the P-Canal system of the Project.

The operation spills and tailwater resulting from irrigation within the District are conveyed through the District's extensive drainage system, which utilizes gravity and pumped discharge into portions of the canal system or into the Tule Lake Sumps.[17]

The District operates the following facilities:[18]

Canals: 243 Miles
Drains: 334 Miles
Dikes: 26 Miles

Pumps: 36 Pumping Plants, 65 Pump Units to pump 170,000 to 200,000 Acre Feet per year.
Pumping Plant D: 3650 Horsepower (Three 750 HP units and two 700 HP units) pump 75 CFS/unit (33,660 GPM) or 48,470,000 GPD for a total of 323 CFS (145,066 GPM) or 208,800,000 GPD.

Wells: 10 Well Sites, 5100 Horsepower (One 300 HP unit, two400 HP units, two 500 HP units and five 600 HP units)
pump 182 CFS total (82,000 GPM) or 118,080,000 GPD.

[17] Tulelake Irrigation District Groundwater Management Plan, April 2013, Page 5.
[18] Tulelake Irrigation District, Modoc LAFCO Questionnaire, September 24, 2014.

Automation: 53 Automated Gates, 7 Sites with Telemetry and 6 Traveling Screens.

3.5.2 Equipment

The TID equipment list is shown below:

Tulelake Irrigation District Equipment				
Number	**Year**	**Description**	**Use**	**Condition**
		Vehicles 1 -41 and 64-65		
52	1950	Dodge P.W. 4WD	limited	Poor
71	2001	Int. W/Hydralift Crane	maintenance	Good
77	1991	GMC w/14 ton Crane	maintenance	Good
79	2012	International Dump Truck	maintenance	Good
81	1969	Ford Dump Truck	maintenance	Poor
84	1973	Ford Flat Bed/Dump Truck	maintenance	Poor
85	1975	Chev. 2 ton w/lift	maintenance	Fair
86	1989	Ford Dump Truck 10 yard	maintenance	Fair
87	1995	Ford Dump Truck 10 yard	maintenance	Fair
88	1979	Mack Truck Tractor	maintenance	Fair
89	1996	Chev. Spray Truck	Weed Control	Fair
90	1980	Freightliner (Big Earl)		Poor
91	1991	Cat. 943 Traxcavator	maintenance	Poor
92	2003	Cat. Backhoe 430 D IT	maintenance	Good
93	2008	Ford F550 Spray Truck	Weed Control	Good
98	1989	Cat. D4H Dozer	maintenance	Fair
101	2000	Bush Hog Mower		Poor
102	2004	Schulte Mower	maintenance	Fair
111	2009	Gradall	maintenance	Good
112	1974	41 Northwest Dragline	maintenance	Poor
113	1998	Gradall	maintenance	Poor
114	1993	JD 760 Road Grader	maintenance	Good
115	2002	322C Cat Excavator	maintenance	Fair
116	2006	M313 Rubber Tire Excavator	maintenance	Good
119	2007	Long Reach Excavator	maintenance	Good
123	1998	Trailmax Tilt Trailer	maintenance	Good
125	1994	Etnyre Lowboy Trailer	maintenance	Good
126	2000	Trailmax Tilt Trailer	maintenance	Good
129		Ranger Trailer		Good
131	2010	Polaris Ranger 4X4 ATV	Weed Control	Good
136	2000	John Deere Tractor 6410	Weed Control	Good
137	1968?	Massey Ferguson/Loader	D Plant	Poor
138	1993	John Deere Tractor 6400	Weed Control	Fair
139	2005	John Deere Tractor 6715	Weed Control	Good
141		Hutchmaster Disk	maintenance	Good
	2010	Crisafulli (Three)		New
	2013	Cat 953 Traxcavator	maintenance	New
	2013	John Deere Mower	maintenance	Fair

The District works to maintain the equipment and has a replacement budget for the equipment as shown below:

Tulelake Irrigation District Ten-Year Equipment Study September 2013										
	2013	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Vehicles 1-41/ 64-65	10,100	71,000	73,000	75,000	77,000	79,000	81,000	83,000	85,000	87,000
98-1989 Cat D4H Dozer		230,000								
111-2009 Gradall			350,000							
115-2002 Cat Exca-vator				300,000						
2013 Cat 953 Trax-cavator	229,000									
2013 John Deere Mower	17,000									
Pump Replace-ment		67,000	69,000	71,000	73,000	40,000	42,000	44,000	60,000	60,000
Pump Starting Equip.		6,000	4,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Auto-mated Trash-racks			75,000	-	78,000	-	81,000	-	-	-
Auto-mation		15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Misc. Shop Equip.	14,000	4,000	4,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Misc. Office Equip.		4,000	4,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
TOTAL ANNUAL COST	361,000	397,000	594,000	475,000	257,000	148,000	233,000	156,000	174,000	176,000
RE-SERVE	688,000	627,000	530,000	236,000	61,000	104,000	256,000	323,000	467,000	593,000
BUDGET	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000	300,000
CARRY-OVER	627,000	530,000	236,000	61,000	104,000	256,000	323,000	467,000	593,000	717,000

The District is better off with a long-term equipment replacement program even if it may be amended from time to time.

3.6 Tulelake Irrigation District Water

3.6.1 TID Water Supply[19]

Prior to the formation of the District, water was delivered by the US Bureau of Reclamation to the homesteaders and other landowners. Following the formation of the District, and the execution of Contract NO. 34-06-200-59554 with the United States, the District began providing water service to lands within the District. The Klamath River water rights for the Klamath Reclamation Project are currently being adjudicated by the State of Oregon. Contractually the US Bureau of Reclamation recognizes certain lands within the District as having a higher contractual priority to Klamath Reclamation Project supplies than other lands.

Lands within the District also have rights to use water from Lost River. Although some Lost River water rights were adjudicated in 1918, a recent court decision ruled that the 1918 process had not adjudicated water rights in the Klamath Reclamation Project. There is some uncertainty on this issue. Some lands within the District may possess California riparian rights to Lost River or Tule Lake.

The majority of the District's surface water supply is from the Klamath River and is directed to the District through an intertie between the Klamath River and the Lost Rive, known as the Lost River Diversion Channel. The Klamath River water is diverted at locations on the Lost River Diversion Channel known as Station 48 and the No. 1 Drain during the irrigation season. These diversions provide Klamath River flows to the District and other water users. The District also receives tailwater from Klamath River water users located north of the California-Oregon State Line including lands within the Klamath Irrigation District. At times, the Lost River provides some surface water to the District.

3.6.2 TID Water Operations

A summary of TID water operations is shown in the following chart:

TULELAKE IRRIGATION DISTRICT WATER OPERATIONS				
	2013 Acre Feet	**2012 Acre Feet**	**2011 Acre Feet**	**2010 Acre Feet**
Total Irrigation Diversions	228,318	260,556	257,518	140,326
Total J Diversions and Rose Dam	108,516	133,115	134,600	67,908
Pumping Plants A&N	9,628	17,463	21,391	1,230
D Plant Pumped	16,187	21,401	23,066	10,114
All Drain Plants Pumped	156,239	156,997	166,762	82,407
Station #48 Diversions	50,086	60,501	60,936	35,381
Spill at Lost River and Rose Dam	10,029	13,844	14,096	7,728

[19] Tulelake Irrigation District Groundwater Management Plan, April 2013, Page 5.

Drainage and water reuse are an important part of District water operations as shown in the above table.

3.7 Budget

The Tulelake Irrigation District prepares two budgets, one using an accrual basis and one using a cash basis. Both budgets are shown below for 2013 and 2014. The District uses the calendar year as the budget year.

TULELAKE IRRIGATION DISTRICT FINAL BUDGET FOR 2013 ACCRUAL BASIS				
		TOTAL	**PRIVATE $64**	**PUBLIC $100**
Carryover from previous years		9,039,375	8,245,363	794,012
Income				
Water Tolls	4,521,751	4,521,777	2,792,041	1,729,736
Other	520,770	1,102,179	1,093,018	9,161
TOTAL INCOME	5,042,521	5,623,956	3,885,059	1,738,897
Expenses				
Operations/Maintenance	3,595,079	3,701,098	2,513,337	187,761
Administration/Overhead	959,500	1,002,031	721,439	280,592
Reserved Works Expense	257,555	220,971	167,938	53,033
Depreciation	600,000	572,234	474,954	97,280
Insurance Reserve	10,000	-	-	-
TOTAL EXPENSES	5,422,134	5,496,334	3,877,668	1,618,666
NET INCOME (Loss)		127,622	7,391	120,231
Carryover to following year		9,166,997	8,252,754	914,243
Cost per acre			88.75	93.55

TULELAKE IRRIGATION DISTRICT FINAL BUDGET FOR 2013 CASH BASIS					
	Operating Fund	**Equipment Reserve**	**Insurance Reserve**	**Emergency Reserve**	**Total Funds**
Opening Balances	3,940,466	687,739	249,750	100,000	4,977,955
Income	5,923,916				
Expenses	(5,441,861)				
Advance to USBR	(220,971)				
Equipment purchases		(372,385)			
Insurance Claims					
Trans. funds Equip. Replace		300,000			
Trans. funds for Insurance			250		
Closing Balances	4,201,550	615,353	250,000	100,000	5,166,903

The Accrual Budget shown above probably gives a more accurate picture of the District finances by showing the carryover to the following year.

TULELAKE IRRIGATION DISTRICT * FINAL BUDGET FOR 2014 ACCRUAL BASIS				
		TOTAL	**PRIVATE $64**	**PUBLIC $100**
Carryover from previous years		**9,166,997**	**8,252,754**	**914,243**
Income				
Water Tolls		4,521,777	2,792,041	1,729,736
Other		615,851	604,951	10,900
TOTAL INCOME		**5,137,628**	**3,396,992**	**1,740,636**
Expenses				
Operations/Maintenance		3,824,523	2,317,736	1,506,787
Administration/Overhead		995,757	706,577	289,180
Reserved Works Expense		240,000	182,400	57,600
Depreciation		600,000	498,000	102,000
Insurance Reserve		10,000	6,791	3,209
TOTAL EXPENSES		**5,670,280**	**3,711,504**	**1,958,776**
NET INCOME (Loss)		**(532,652)**	**(314,512)**	**(218,140)**
Carryover to following year		**8,634,345**	**7,938,242**	**696,103**
Cost per acre			84.95	113.21

TULELAKE IRRIGATION DISTRICT * FINAL BUDGET FOR 2014 CASH BASIS					
	Operating Fund	**Equipment Reserve**	**Insurance Reserve**	**Emergency Reserve**	**Total Funds**
Opening Balances	**4,201,550**	**615,353**	**250,000**	**100,000**	**5,166,903**
Income	5,137,628				
Expenses	(4,820,280)				
Advance to USBR	(240,000)				
Equipment purchases		(397,000)			
Insurance Claims					
Trans. funds Equip. Replace		300,000			
Trans. funds for Insurance					
Closing Balances	**4,278,898**	**518,353**	**250,000**	**100,000**	**5,147,251**

The carryover for the 2014 budget is slightly less than the carryover for the 2013 budget but the District still has a strong financial position.

The following table shows the details of the 2014 Budget for the Tulelake Irrigation District.

TULELAKE IRRIGATION DISTRICT 2014 BUDGET				
	2013 Final Estimate	**2014 BUDGET**		
		Total	**Private Land (60%)**	**Public Land (40%)**
OPERATIONS /MAINTENANCE				
Wages	1,293,250	1,322,652	899,403	423,249
Payroll Tax, Pension, Insurance	810,848	856,371	582,332	274,039
Materials/Supplies	240,000	260,000	189,800	70,200
Equipment	235,000	250,000	160,000	90,000
Transportation	138,000	145,000	95,700	49,300
Power	992,000	1,000,000	400,000	600,000
Wages included but not O&M	(5,750)	(7,500)	(7,500)	-
Payroll expenses not O&M	(2,250)	(2,000)	(2,000)	-
TOTAL	**3,701,098**	**3,824,523**	**2,317,736**	**1,506,787**
ADMINISTRATION/OVERHEAD				
Salaries	177,063	178,456	121,189	57,267
Payroll Tax, Pension, Insurance	84,122	84,889	57,648	27,241
Outside Services	561,135	543,312	399,322	143,990
Office Supplies	4,000	5,000	3,396	1,605
Utilities	31,000	32,000	21,731	10,269
Other Administration	120,000	127,600	86,653	40,947
Insurance	26,161	27,000	18,336	8,664
Recovery of Admin. Exp.	(1,450)	(2,500)	(1,698)	(802)
TOTAL	**1,002,031**	**995,757**	**706,577**	**289,180**
Reserved Works Expense	220,971	240,000	182,400	57,600
Depreciation	572,234	600,000	498,000	102,000
Insurance Reserve	-	10,000	6,791	3,209
GRAND TOTAL ADMIN.	**1,795,236**	**1,845,757**	**1,393,768**	**451,989**

It is always a concern with budgets that the expenses rise but the income may not go up accordingly.

3.8 Audit

The budget is a plan for spending but the Audit is a record of funds actually spent. The following information is for the Audit for the year ending December 31, 2013. The accounts of the District are organized on the basis of a proprietary fund type, specifically an enterprise fund. The activities of this fund are accounted for with a separate set of self-balancing accounts that comprise the District's assets, liabilities, net position, revenues and expenses.

Enterprise Funds account for activities i) that are financed with debt that is secured solely by a pledge of the net revenues from fees and charges of the activity; or ii) that are required by laws or regulations that the activity's cost of providing services, including capital costs (such as depreciation or debt service) be recovered with fees and charges, rather than the taxes or similar revenues; or iii) that the pricing policies of the activity establish fees and charges designed to recover its costs, including capital costs (such as depreciation or debt service).

3.8.1 Net Position

The table below shows the Net Position for the District for the year ending December 31, 2013.

Tulelake Irrigation District Statement of Net Position December 31, 2013[20]	
ASSETS	
Current assets:	
Cash and cash equivalents*	$5,086,022
Interest receivable	3,342
Due from other governments	480,919
Accounts receivable, water tolls**	2,406
Inventory***	175,155
Prepaid expenses and deposits	63,123
Total current assets	5,810,967
Capital assets:****	
Non-depreciable	10,377,655
Depreciable, net	4,318,482
Total capital assets, net	14,696,137
Total Assets	20,507,104
LIABILITIES AND NET POSITION	
Current liabilities:	
Accounts payable	111,291
Payroll and accrued benefits	293,966
Accrued expenses	1,623
Unearned water tolls*****	114,745
Total current liabilities	521,625
Net position:	
Net investment in capital assets	14,696,137
Unrestricted	5,289,342
Total net position	$19,985,479

*Cash and cash equivalents include all monies in banks, certificates of deposit and all highly liquid investments with maturity dates of less than three months.
**Accounts Receivable consists of amounts due from customers for irrigation water and are recorded as revenue when earned; and reimbursements and legal expenses from the Klamath Water Users Association. No allowance for bad debts has been made as management considers all receivables to be collectable.

[20] Tulelake Irrigation District Financial Statements December 31, 2013, Prepared by Aiello, Goodrich & Teuscher, PO Box 158, 205 N. Mt. Shasta Blvd., Suite 300, Mt. Shasta, California 9607, Phone: 530-926-3881, Fax: 530-926-6296, www.agtcpa.com, Page 3.

***Inventories consist mainly of chemical and irrigation materials used in maintaining District assets. Inventories are valued at the lower of cost or market using the fist-in, first-out method.
****Capital Assets. It is the District's policy to capitalize individual purchases of property and equipment costing in excess of $500. Purchased capital assets are capitalized at cost and donated or contributed capital assets are capitalized at fair market value at the date of donation or contribution.
*****Unearned water tolls represent monies received for future years' services and is not earned until the future year.

3.8.2 Revenues and Expenses

The following table shows the District revenues and expenses and the change in Net Position for the year 2013. The District did well in 2013 to have revenues greater than expenses and thus to increase the Net Position.

TULELAKE IRRIGATION DISTRICT STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION DECEMBER 31, 2013[21]	
OPERATING REVENUES*	
Water Tolls, private	$2,792,043
Water Tolls, public	1,729,736
Water tolls, improvement districts	23,943
Water Tolls, special contract	52,217
Water Tolls, well pumping	482,943
Special water rights	3,584
Surplus water sales	61,107
Total Water Sales	5,145,573
Pump drain water for Klamath Irrigation District	11,500
Penalties on delinquent tolls	673
Miscellaneous income	16,972
US Bureau of Reclamation lease revenue	426,196
Total Operating Revenues	5,600,914
OPERATING EXPENSES	
Pumping	777,965
Transmission and distribution	1,623,298
Well pump power	391,757
Operations and Maintenance (O&M)	220,971
Depreciation	572,610
Office and administration	1,862,747
Total operating Expenses	5,449,348
Operating income	151,566
NONOPERATING REVENUES	
Interest earnings	14,119
Rent of houses	9,150
Gain on sale of capital assets	2,535
Total nonoperating income	25,804
Change in net position	177,370
NET POSITION	
Beginning of year, January 1, 2013	19,808,109
End of year, December 31, 2013	$19,985,479

*Operating revenues and expenses consist of those revenues and expenses that result from the ongoing principal operations of the District. Operating revenues consist primarily of water tolls. Nonoperating revenues and expenses consist of those revenues and expenses that are related to financing and investing type of activities and result from nonexchange transactions or ancillary activities. When an expense is

[21] Tulelake Irrigation District Financial Statements December 31, 2013, Prepared by Aiello, Goodrich & Teuscher, PO Box 158, 205 N. Mt. Shasta Blvd., Suite 300, Mt. Shasta, California 9607, Phone: 530-926-3881, Fax: 530-926-6296, www.agtcpa.com, Page 4.

incurred for purposes in which there are both restricted and unrestricted net position available, it is the District's policy to apply those expenses to restricted net position to the extent such are available and then to unrestricted net position.

3.8.3 Cash Flows

The following table shows the cash flow for the District.

TULELAKE IRRIGATION DISTRICT STATEMENT OF CASH FLOWS YEAR ENDED DECEMBER 31, 2013[22]	
CASH FLOWS FROM OPERATING ACTIVITIES	
Receipts from customers	$5,522,812
Payments to suppliers	(3,412,342)
Payments to employees	(1,418,751)
Net cash provided by operating activities	691,719
CASH FLOWS FROM INVESTING ACTIVITIES	
Interest earnings received	15,013
Rents received	9,150
Net cash provided by investing activities	24,163
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES	
Proceeds from sales of capital assets	5,294
Payments for purchase of capital assets	(613,109)
Net cash (used) by capital and related financing activities	(607,815)
Net increase in cash	108,067
CASH	
Beginning of year	4,977,955
End of year	5,086,022
Reconciliation of operating income to cash provided by operating activities:	
Operating income	151,566
Adjustments to reconcile operating income to cash provided by operating activities:	
Depreciation	572,610
(increase) decrease in:	
Due from other governments	(97,657)
Accounts receivable, water tolls	16,803
Inventory	8,981
Prepaid expenses and deposits	(4,529)
Increase (decrease) in:	
Accounts payable	31,244
Payroll and accrued benefits	11,193
Accrued expenses	(1,244)
Unearned water tolls	2,752
Net cash provided by operating activities	$691,719

The District does not have a problem with cash flow.

[22] Tulelake Irrigation District Financial Statements December 31, 2013, Prepared by Aiello, Goodrich & Teuscher, PO Box 158, 205 N. Mt. Shasta Blvd., Suite 300, Mt. Shasta, California 9607, Phone: 530-926-3881, Fax: 530-926-6296, www.agtcpa.com, Page 5.

3.8.4 Cash and Cash Equivalents[23]

Tulelake Irrigation District cash and cash equivalents consisted of the following at December 31, 2013:

Cash on hand	$500
Cash in banks	412,392
Local Agency Investment Fund (State Pool)	4,673,130
Total cash and cash equivalents	$5,086,022

The District manages is idle cash investments under the guidelines of the State of California Government Code Section 53601 which specifically authorizes investments in the following instruments:

- Treasury bills
- Treasury notes
- Federal agency securities
- Bankers' acceptances
- Nonnegotiable certificates of deposit
- Commercial paper
- Negotiable certificates of deposit repurchase agreements.

All investments activities are conducted with financial institutions approved by the Board of Directors.

3.8.5 Retirement Benefits[24]

The District provides a defined contribution pension plan for each eligible full-time employee. The District contributed 10% of each employee's annual compensation, totaling $134,094 for the year ended December 31, 2013, into the Plan. There are no unpaid contributions outstanding at year-end. Upon retirement, generally at age 65, or upon separation from employment, the employee receives their vested interest in their segregated amount in the Plan.

The District also maintains a deferred compensation plan for its employees in accordance with Internal Revenue Code Section 457. The Plan is available to all eligible employees and permits them to defer a portion of their compensation until future years. Employees may not withdraw from their deferred compensation account until retirement, termination, death, or an unforeseeable emergency.

3.8.6 Capital Assets[25]

[23] Tulelake Irrigation District Financial Statements December 31, 2013, Prepared by Aiello, Goodrich & Teuscher, PO Box 158, 205 N. Mt. Shasta Blvd., Suite 300, Mt. Shasta, California 9607, Phone: 530-926-3881, Fax: 530-926-6296, www.agtcpa.com, Page 8.
[24] Tulelake Irrigation District Financial Statements December 31, 2013, Prepared by Aiello, Goodrich & Teuscher, PO Box 158, 205 N. Mt. Shasta Blvd., Suite 300, Mt. Shasta, California 9607, Phone: 530-926-3881, Fax: 530-926-6296, www.agtcpa.com, Page 11.
[25] Tulelake Irrigation District Financial Statements December 31, 2013, Prepared by Aiello, Goodrich & Teuscher, PO Box 158, 205 N. Mt. Shasta Blvd., Suite 300, Mt. Shasta, California 9607, Phone: 530-926-3881, Fax: 530-926-6296, www.agtcpa.com, Page 10.

Capital Assets activity for the year ended December 31, 2013 is shown on the following table:

Tulelake Irrigation District Capital Asset Activity for the year ended December 31, 2013				
	Balance 12/31/12	**Additions**	**Retirements**	**Balance 12/31/13**
Capital assets not being depreciated				
Irrigation system	10,209,115	-	-	10,209,115
Construction in progress	43,381	125,159	-	168,540
Total Capital assets not being depreciated	10,252,496	125,159	-	10,377,655
Capital assets being depreciated				
Canal control installation	7,844,051	177,430	-	8,021,481
Bridge improvements	136,999	-	-	136,999
Radio equipment	38,828	1,380	-	40,208
Transportation equipment	596,766	42,295	59,762	579,299
Trucks	564,927	-	-	564,927
Heavy equipment	2,004,884	243,383	-	2,248,467
Shop and other equipment	116,800	2,607	-	119,407
Office equipment	39,390	2,821	6,037	36,174
Buildings and improvements	68,567	18,034	9,749	76,852
Total capital assets being depreciated	11,411,212	487,950	75,548	11,823,614
Less accumulated depreciation				
Canal control installation	425,619	377	-	4,634,045
Bridge improvements	136,469	530	-	136,999
Radio equipment	36,277	2,110	-	38,387
Transportation equipment	426,598	62,206	56,763	432,041
Trucks	451,551	13,881	-	465,432
Heavy equipment	1,536,196	95,604	-	1,631,800
Shop and other equipment	77,109	13,796	-	90,905
Office equipment	35,658	1,930	6,277	31,311
Buildings and improvements	48,834	5,127	9,749	44,212
Total accumulated depreciation	7,005,311	572,610	72,789	7,505,132
Net capital assets being depreciated	4,405,901	(84,660)	2,759	4,318,482
Total capital assets, net	14,658,397	40,499	2,759	14,696,137

Even though assets and equipment are depreciated, this is not money that is paid out. The depreciation is a cost to be considered in budgeting for future purchases of improvements and equipment.

3.8.7 Apportionment of Revenues and Expenses[26]

[26] Tulelake Irrigation District Financial Statements December 31, 2013, Prepared by Aiello, Goodrich & Teuscher, PO Box 158, 205 N. Mt. Shasta Blvd., Suite 300, Mt. Shasta, California 9607, Phone: 530-926-3881, Fax: 530-926-6296, www.agtcpa.com, Page 11.

The Tulelake Irrigation District has apportioned revenues and expenses to private lands, public lands, and the improvement district as follows:

Tulelake Irrigation District Apportionment of Revenues and Expenses December 31, 2013[27]				
	Private Lands	**Public Lands**	**Improvement District**	**Total**
Revenues	$3,864,699	$1,738,076	$23,943	$5,626,718
Expenses	$3,852,554	$1,581,653	$15,141	$5,449,348
Excess of revenues over expenses	$12,145	$156,423	$8,802	$177,370

The revenues apportioned to public lands consist of actual operation and maintenance tolls charged on public lands within the District, plus penalties assessed on delinquent payments. Expenses are apportioned on the basis of costs attributable directly to locations as calculated from repair and maintenance work orders issued during the performance of the work.

3.8.8 Risk Management[28]

The Tulelake Irrigation District is exposed to various risks of loss related to damage to and/or destruction of assets. Claim expenses and liabilities are recorded when it is probable that a loss has occurred and the amount of the loss can be reasonable estimated. At December 31, 2013, the District had no known liabilities for such losses.

The District is self-insured for property (fire and extended coverage) and general public liability, with the exception of automotive insurance, including public liability on automobiles. At December 31, 2013, the District had set aside $250,000 in cash and cash equivalents for self-insurance purposes.

The District purchases various commercially available policies, and the following policies were in force at December 31, 2013:

Tulelake Irrigation District Insurance December 31, 2013[29]	
Description	**Coverage**
Worker's Compensation	Statutory
Automobile:	
Liability	$1,000,000
Uninsured/Underinsured Motorist	$100,000
Fire and Theft	Actual Cash Value
Public Officials Bond	$5,000

[27] Tulelake Irrigation District Financial Statements December 31, 2013, Prepared by Aiello, Goodrich & Teuscher, PO Box 158, 205 N. Mt. Shasta Blvd., Suite 300, Mt. Shasta, California 9607, Phone: 530-926-3881, Fax: 530-926-6296, www.agtcpa.com, Page 11.
[28] Tulelake Irrigation District Financial Statements December 31, 2013, Prepared by Aiello, Goodrich & Teuscher, PO Box 158, 205 N. Mt. Shasta Blvd., Suite 300, Mt. Shasta, California 9607, Phone: 530-926-3881, Fax: 530-926-6296, www.agtcpa.com, Pages 11 and 12.
[29] Tulelake Irrigation District Financial Statements December 31, 2013, Prepared by Aiello, Goodrich & Teuscher, PO Box 158, 205 N. Mt. Shasta Blvd., Suite 300, Mt. Shasta, California 9607, Phone: 530-926-3881, Fax: 530-926-6296, www.agtcpa.com, Page 12.

Director, Trustee, Employee, Committee Member or Volunteer Liability	$4,000,000

3.8.9 Klamath Water Users Association[30]

The District participates, with other water delivery districts within the Klamath Basin, in funding the Klamath Water Users Association. The participating districts provide funding through an additional per-acre assessment to the patrons of each district to offset the legal costs associated with environmental and other challenges to the operation of the Klamath Reclamation Project.

The Klamath Water Users Association is located at 735 Commercial Street, Suite 3000, Klamath Falls OR, 97601; Phone: 541-883-6100, Fax: 541-883-8893. The Klamath Water Users Association includes the following districts:

Ady District Improvement Co.
Klamath Basin Improvement District
Klamath Irrigation District
Malin Irrigation District
Pioneer District Improvement Co.
Midland District Improvement Co.
Shasta View Irrigation District
Sunnyside Irrigation District
Tulelake Irrigation District
Van Brimmer Ditch Company
Warren Act Contractors
Westside Improvement District

[30] Tulelake Irrigation District Financial Statements December 31, 2013, Prepared by Aiello, Goodrich & Teuscher, PO Box 158, 205 N. Mt. Shasta Blvd., Suite 300, Mt. Shasta, California 9607, Phone: 530-926-3881, Fax: 530-926-6296, www.agtcpa.com, Page 12.

4 TULELAKE IRRIGATION DISTRICT MUNICIPAL SERVICE REVIEW

4.1 Growth and Population Projections for the Tulelake Irrigation District Area

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

4.1.1 Tulelake Irrigation District Area Population Projections

The Siskiyou County Housing Element adopted in August 2014 showed a decline in the population of the City of Tulelake as follows:

City of Tulelake Population[31]		
Year	**Population**	**Decline**
2000	1020	
2010	1010	0.9%
2013	1000	1.0%

The Siskiyou County Housing Element also predicted a 0.3 percent annual growth rate for the County. At this rate of growth it would take nearly seven years for the City of Tulelake to regain the year 2000 population of 1020.

The General Plan for Modoc County was prepared in 1988 and describes a population decline for Newell from 1325 people in 1970 to 850 in 1980 even though the population in Modoc County increased during this period.[32] The population for Newell has further declined to 449 in 2010.

It is unlikely that the Tulelake Irrigation District will increase in population in the future because employment opportunities are limited.

4.1.2 MSR Determinations on Growth and Population Projections for the Tulelake Irrigation District Area

1-1) The population within the Tulelake Irrigation District is estimated by the TID to be approximately 1500 to 1800 residents. This is unlikely to increase.

1-2) The Tulelake Irrigation District should maintain in contact with the City of Tulelake and the counties of Siskiyou and Modoc Planning Departments to be aware of land use and zoning regulations which could affect the District.

[31] Siskiyou County Community Development Department, 2014 Housing Element for the County of Siskiyou, August 2014, Page A-3.
[32] Modoc County General Plan September 1988 Background Report, Page 156.

4.2 Location and Characteristics of any Disadvantaged Unincorporated Communities (DUC) within or Contiguous to Tulelake Irrigation District

Purpose: To comply with the State Law to examine any unincorporated areas which could be provided with better services by annexing to an adjacent city.

4.2.1 Determination of Tulelake Irrigation District Area Disadvantaged Unincorporated Community Status

On October 7, 2011, Governor Brown signed SB 244, which makes two principal changes to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000. SB 244 requires LAFCOs to:

(1) deny any application to annex to a city territory that is contiguous to a disadvantaged unincorporated community (DUC) unless a second application is submitted to annex the disadvantaged community as well; and

(2) evaluate disadvantaged unincorporated communities in a municipal service review (MSR) upon the next update of a sphere of influence after June 30, 2012.

The intent of the statute is to encourage investment in disadvantaged unincorporated communities that often lack basic infrastructure by mandating cities and LAFCOs to include them in land use planning.

SB 244 defines disadvantaged unincorporated community as any area with 12 or more registered voters, or as determined by commission policy, where the median household income is less than 80 percent of the statewide annual median.

In California Government Code Section 65302.10 (a) “Community” means an inhabited area within a city or county that is comprised of no less than 10 dwellings adjacent or in close proximity to one another.

SB 244 also requires LAFCOs to consider disadvantaged unincorporated communities when developing spheres of influence. Upon the next update of a sphere of influence on or after July 1, 2012, SB 244 requires LAFCO to include in an MSR (in preparation of a sphere of influence update):

1) The location and characteristics of any disadvantaged unincorporated communities within or contiguous to the sphere; and

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

In determining spheres of influence, SB 244 authorizes LAFCO to assess the feasibility of and recommend reorganization and consolidation of local agencies to further orderly

development and improve the efficiency and affordability of infrastructure and service delivery.

4.2.2 MSR Determinations on Disadvantaged Unincorporated Communities near Tulelake Irrigation District

2-1) The median household income for Siskiyou County (2008-2012) was $37,948;[33] well below 80% of the State of California Median Income which was $49,210. Thus, Siskiyou County could be considered disadvantaged. It is not known if there is a specific disadvantaged unincorporated community which could benefit from being annexed to an incorporated city such as the City of Tulelake.

2-2) The median household income for Modoc County (2008-2012) was $37,482;[34] well below 80% of the State of California Median Income which was $49,210. Thus, Modoc County could be considered disadvantaged. There is no incorporated city that could annex a disadvantaged unincorporated area in the TID area in Modoc County.

4.3 Capacity and Infrastructure Tulelake Irrigation District

Purpose: To evaluate the present and planned capacity of public facilities, adequacy of public services, and infrastructure needs or deficiencies including needs or deficiencies related to sewers, municipal and industrial water, and structural fire protection in any disadvantaged, unincorporated communities within or contiguous to the sphere of influence.[35]

4.3.1 Tulelake Irrigation District Infrastructure

The Tulelake Irrigation District infrastructure and facilities are described above in this report.

4.3.2 MSR Determinations on Infrastructure for Tulelake Irrigation District

3-1) The TID irrigation infrastructure was originally built by the US Bureau of Reclamation. The TID has maintained and improved the irrigation infrastructure and plans to upgrade pumping stations, install more traveling screens where needed and increase the number of telemetry sites.[36]

[33] US Census Bureau, http://quickfacts.census.gov/qfd/states/06/06093.html, October 27, 2014
[34] US Census Bureau, http://quickfacts.census.gov/qfd/states/06/06049.html, October 27, 2014
[35] California Government Code Section 56430. (a)(3).
[36] Tulelake Irrigation District, Modoc LAFCO Questionnaire, September 24, 2014.

4.4 Financial Ability to Provide Services[37]

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

4.4.1 Financial Considerations for Tulelake Irrigation District

The Tulelake Irrigation District provided a copy of the budget and audit.

4.4.2 MSR Determinations on Financing for Tulelake Irrigation District

4-1) The Tulelake Irrigation District prepares and adopts an annual budget.

4-2) The Tulelake Irrigation District has an independent auditor prepare an annual audit.

4-3) The Tulelake Irrigation District faces increasing power costs. The cost of power for drain and lift pumps has increased from $0.004 per kwh in 2005 to $0.13 per kwh in 2013. The cost of power per acre-foot of water pumped has increased from $0.36 per acre-foot in 2005 to $10.30 per acre-foot in 2013.[38]

4-4) The TID plans to maintain sufficient reserves so that loans will not be necessary.

4.5 Status of and Opportunities for Shared Facilities[39]

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

4.5.1 Tulelake Irrigation District Facilities

The Tulelake Irrigation District works with federal agencies including the US Bureau of Reclamation and the US Fish and Wildlife Service. The District cannot share facilities or water with other water or irrigation districts.[40]

4.5.2 MSR Determinations on Shared Facilities for Tulelake Irrigation District

5-1) The District cannot share facilities or water with other water or irrigation districts.[41]

[37] California Government Code Section 56430. (a)(4)
[38] Tulelake Irrigation District, Modoc LAFCO Questionnaire, September 24, 2014.
[39] California Government Code Section 56430. (a)(5)
[40] Tulelake Irrigation District, Modoc LAFCO Questionnaire, September 24, 2014.
[41] Tulelake Irrigation District, Modoc LAFCO Questionnaire, September 24, 2014.

5-2) The TID participates in the Klamath Water Users Association.

4.6 Accountability for Community Service Needs, Government Structure and Operational Efficiencies[42]

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

4.6.1 Tulelake Irrigation District Government Structure

The Tulelake Irrigation District is governed by a five member board of directors. The Board meets on a regular basis and meetings are open to the public.

4.6.2 MSR Determinations on Local Accountability and Governance

6-1) The Tulelake Irrigation District Board of Directors complies with the Brown Act.

6-2) The Tulelake Irrigation District should consider developing a website where information could be made available to the public in a convenient way.

[42] California Government Code Section 56430. (a)(6).

5 TULELAKE IRRIGATION DISTRICT SPHERE OF INFLUENCE UPDATE

5.1 SOI Requirements

5.1.1 LAFCO's Responsibilities

A Sphere of Influence is a plan for the probable physical boundaries and service area of a local agency, as determined by the affected Local Agency Formation Commission (Government Code §56076). Government Code §56425(f) requires that each Sphere of Influence be updated not less than every five years as necessary, and §56430 provides that a Municipal Service Review shall be conducted in advance of the Sphere of Influence update.

5.1.2 SOI Determinations

In determining the Sphere of Influence for each local agency, LAFCO must consider and prepare a written statement of determinations with respect to each of the following:

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

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

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

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

5. Present and probable need for public facilities and services of any disadvantaged unincorporated communities within the existing Sphere of Influence

5.1.3 Possible Approaches to the SOI

LAFCO may recommend government reorganizations to particular agencies in the county, using the SOIs as the basis for those recommendations. Various conceptual approaches have been identified from which to choose in designating an SOI. These seven approaches are explained below:

1) Coterminous Sphere:
A Coterminous Sphere means that the Sphere of Influence for a city or special district that is the same as its existing boundaries of the city or district.

2) Annexable Sphere:
A sphere larger than the agency's boundaries identifies areas the agency is expected to annex. The annexable area is outside the district boundaries and inside the sphere of influence.

3) Detachable Sphere:
A sphere that is smaller than the agency's boundaries identifies areas the agency is expected to detach. The detachable area is the area within the agency bounds but not within its sphere of influence.

4) Zero Sphere:
A zero sphere indicates the affected agency's public service functions should be reassigned to another agency and the agency should be dissolved or combined with one or more other agencies.

5) Consolidated Sphere:
A consolidated sphere includes two or more local agencies and indicates the agencies should be consolidated into one agency.

6) Limited Service Sphere:
A limited service sphere is the territory included within the SOI of a multi-service provider agency that is also within the boundary of a limited purpose district which provides the same service (e.g., fire protection), but not all needed services. Territory designated as a limited service SOI may be considered for annexation to the limited purpose agency without detachment from the multi-service provider.

This type of SOI is generally adopted when the following conditions exist:

a) The limited service provider is providing adequate, cost effective and efficient services

b) The multi-service agency is the most logical provider of the other services

c) There is no feasible or logical SOI alternative

d) Inclusion of the territory is in the best interests of local government organization and structure in the area

Government Code §56001 specifically recognizes that in rural areas it may be appropriate to establish limited purpose agencies to serve an area rather than a single service provider, if multiple limited purpose agencies are better able to provide efficient services to an area rather than one service district.

Moreover, Government Code Section §56425(i), governing sphere determinations, also authorizes a sphere for less than all of the services provided by a district by requiring a district affected by a sphere action to "establish the nature, location, and extent of any functions of classes of services provided by existing districts" recognizing that more than one district may serve an area and that a given district may provide less than its full range of services in an area.

7) Sphere Planning Area:
LAFCO may choose to designate a sphere planning area to signal that it anticipates expanding an agency's SOI in the future to include territory not yet within its official SOI.

5.1.4 SOI Update Process

LAFCO is required to establish SOIs for all local agencies and enact policies to promote the logical and orderly development of areas within the SOIs. Furthermore, LAFCO must update those SOIs every five years, as necessary. In updating the SOI, LAFCO is required to conduct a Municipal Service Review (MSR) and adopt related determinations.

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

5.1.5 SOI Amendments and CEQA

LAFCO has the discretion to limit SOI updates to those that it may process without unnecessarily delaying the SOI update process or without requiring its funding agencies to bear the costs of environmental studies associated with SOI expansions. Any local agency or individual may file a request for an SOI amendment. The request must state the nature of and reasons for the proposed amendment, and provide a map depicting the proposal.

LAFCO may require the requester to pay a fee to cover LAFCO costs, including the costs of appropriate environmental review under CEQA. LAFCO may elect to serve as lead agency for such a review, may designate the proposing agency as lead agency, or both the local agency and LAFCO may serve as co-lead agencies for purposes of an SOI amendment.

Local agencies are encouraged to consult with LAFCO staff early in the process regarding the most appropriate approach for the particular SOI amendment under consideration.

Certain types of SOI amendments are likely exempt from CEQA review. Examples are SOI expansions that include territory already within the bounds or service area of an agency, SOI reductions, zero SOIs and coterminous SOI's. SOI expansions for limited purpose agencies that provide services (e.g., fire protection, levee protection, cemetery, and resource conservation) needed by both rural and urban areas are typically not considered growth-inducing and are likely exempt from CEQA. Similarly, SOI expansions for districts serving rural areas (e.g., irrigation water) are typically not considered growth inducing.

Remy et al. write:

> "In *City of Agoura Hills v. Local Agency Formation Commission* (2d Dist.1988) 198 Cal.App.3d480, 493-496 [243 Cal.Rptr.740] (*City of Agoura Hills*), the court held that a LAFCO's decision to approve a city's sphere of influence that in most respects was coterminous with the city's

existing municipal boundaries was not a "project" because such action did not entail any potential effects on the physical environment."[43]

5.1.6 Recommendation for Tulelake Irrigation District Sphere of Influence

The Sphere of Influence for the Tulelake Irrigation District should be the same as the District boundary. The District was formed based on the Bureau of Reclamation project.

5.2 Present and Planned Land Uses in the Tulelake Irrigation District Area, Including Agricultural and Open Space Lands

5.2.1 County General Plans for Tulelake Irrigation District SOI Area

Both Siskiyou County and Modoc County recognize the importance of agriculture in their respective General Plans. The area within the TID is planned for agricultural uses and zoned accordingly.

5.2.2 SOI Determinations on Present and Planned Land Use for Tulelake Irrigation District Area

1-1] The Tulelake Irrigation District does not have land use planning authority so the District should maintain a relationship with the Siskiyou County Planning Department and the Modoc County Planning Department to make sure that General Plan maps and policies continue to support agricultural uses.

5.3 Present and Probable Need for Public Facilities and Services in the Tulelake Irrigation District Area

5.3.1 Municipal Service Background

The Tulelake Irrigation District was formed in 1952 to allow the District to operate the reclamation project which was built by the US Bureau of Reclamation starting in 1906.

5.3.2 SOI Determinations on Facilities and Services Present and Probable Need for Tulelake Irrigation District

2-1] The facilities of the TID are adequate and the need for the District will continue into the future.

[43] Remy, Michael H., Tina A. Thomas, James G. Moose, Whitman F. Manley, Guide to CEQA, Solano Press Books, Point Arena, CA, February 2007, page 111.

2-2] The 924 farm accounts within TID (713 for privately owned lands, 159 for publicly held leased lands, and 52 for surplus water)[44] depend on the TID to provide water now and in the future.

5.4 Present Capacity of Public Facilities and Adequacy of Public Services

5.4.1 Capacity Background

The Tulelake Irrigation District provides adequate irrigation water from surface water and reused water and has constructed ten wells to provide supplemental water in dry years in addition to the groundwater used by individual farmers.[45]

5.4.2 SOI Determinations on Public Facilities Present and Future Capacity for Tulelake Irrigation District

3-1] The Tulelake Irrigation District has adequate facilities to supply irrigation water and drainage to the farmers in the District.

3-2] The water supply can be increased or decreased according to the amount of precipitation or regulatory action.

5.5 Social or Economic Communities of Interest for Tulelake Irrigation District

5.5.1 Tulelake Irrigation District Community Background

The Tulelake Irrigation District serves the economic community of farmers using water from the District. The social community is centered around the City of Tulelake but the District is split by the Modoc-Siskiyou county line. The Lava Beds-Butte Valley Resource Conservation District also serves an area that includes most of TID.

5.5.2 SOI Determinations on Social or Economic Communities of Interest for Tulelake Irrigation District

4-1] The Tulelake Irrigation District serves the economic community of farmers who require water from the District to grow crops.

4-2] A website could be used to increase the sense of community within the District.

[44] Tulelake Irrigation District, "Water Management & Conservation Plan, 2011 Update" September 2011, Page 6.
[45] Tulelake Irrigation District Groundwater Management Plan, April 2013, Page 9.

5.6 Disadvantaged Unincorporated Community Status

5.6.1 Disadvantaged Unincorporated Communities

A Disadvantaged Unincorporated Community is a small community that could benefit from annexing to an incorporated city for increased services.

5.6.2 Tulelake Irrigation District Disadvantaged Unincorporated Community Status

5-1] Although the populations within Modoc and Siskiyou counties meet the income definition of "Disadvantaged" there are no Disadvantaged Unincorporated Communities within the TID that could benefit from annexing to an incorporated city.

ABBREVIATIONS

AB	Assembly Bill
CA	California
CEQA	California Environmental Quality Act
CFS	Cubic Feet per Second
CIMIS	California Irrigation Management Information System
CKH	Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000
District	Tulelake Irrigation District
DUC	Disadvantaged Unincorporated Community
DWR	Department of Water Resources (California)
FS	Field Station
GPD/gpd	Gallons per Day
GPM/gpm	gallons per minute
kwh	kilowatt hour
HP	Horse Power
LAFCO	Local Agency Formation Commission
LAIF	Local Agency Investment Fund
O&M	Operations and Maintenance
mg/L	milligrams per Liter
SB	Senate Bill
SOI	Sphere of Influence (LAFCO)
TDS	Total Dissolved Solids
TID	Tulelake Irrigation District
TLNWR	Tule Lake National Wildlife Refuge
US	United States
USBR	United States Bureau of Reclamation

USGS	United State Geological Survey

DEFINITIONS

Acre-foot (acre-ft): The volume of water required to cover 1 acre of land (43,560 square feet) to a depth of 1 foot. One acre-foot of water is equal to 325,851 gallons or 1,233 cubic meters of water.[46]

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

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

Bureau of Reclamation (USBR, Reclamation, BOR): The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.[47]

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

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

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

Hydrology: The science concerned with the properties, distributions and characteristics of the water in relation to the earth.

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

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

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

Water year: A continuous 12-month period for which hydrologic records are compiled and summarized. In California, it begins on October 1 and ends September 30 of the following year.[49]

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[46] http://ga.water.usgs.gov/edu/dictionary.html
[47] http://www.usbr.gov/library/glossary/#hmr
[48] http://rubicon.water.ca.gov/v1cwp/glssry.html
[49] http://rubicon.water.ca.gov/v1cwp/glssry.html

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

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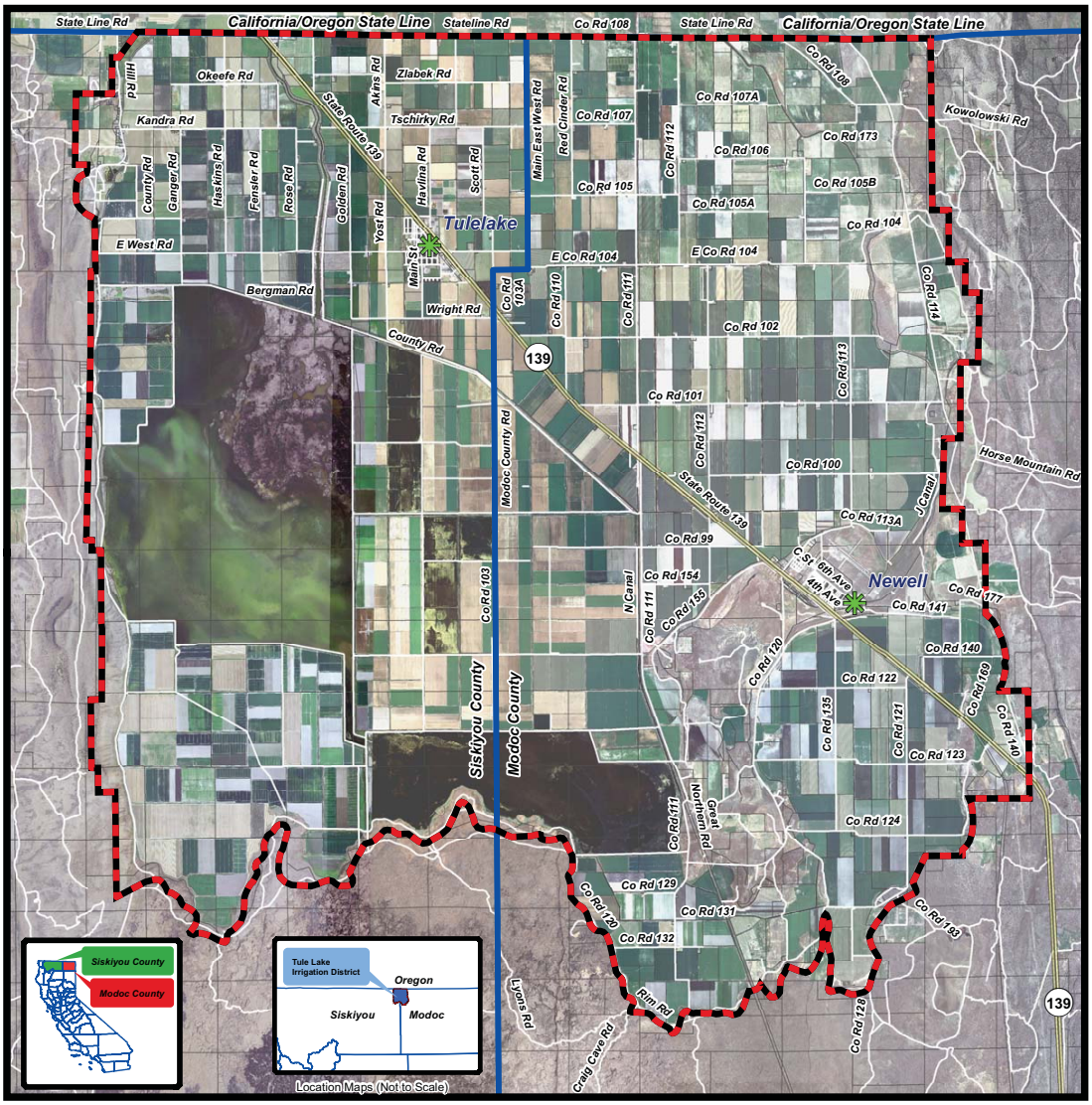
Tulelake Irrigation District



Legend

- Communities
- County Boundaries
- Tule Lake Irrigation District and Sphere of Influence Boundary

0 0.5 1 2 Miles

Tulelake Irrigation District
Sphere of Influence Adopted: June 9, 2015
Modoc LAFCo Resolution: 2015-0005

Source: Modoc LAFCo Map Modified 6/12/2015