

GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT



2015 URBAN WATER MANAGEMENT PLAN

FINAL DRAFT

June 15, 2016

**GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT
6425 Main Street
P.O. Box 4240
Georgetown, California 95634**

2015 URBAN WATER MANAGEMENT PLAN

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P.O. Box 4240
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Georgetown Divide Public Utility District is a water retailer.

Georgetown Divide Public Utility District is not a Bureau of Reclamation Contractor.

Georgetown Divide Public Utility District is not a State Water Project Contractor.

Georgetown Divide Public Utility District provides the following utility services:

- Raw Irrigation Water
- Treated Potable Water
- Management of Onsite Wastewater Management Zone

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1.0 Introduction

This report has been prepared in compliance with the Urban Water Management Planning Act (Act), as amended (California Water Code, Division 6, Part 2.6; §10610, et. seq. established by Assembly Bill 797, 1983). All urban water suppliers as defined in Section 10617, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet annually are required to prepare an Urban Water Management Plan (UWMP). Urban water suppliers are required to prepare and/or update their UWMP and submit a complete plan to Department of Water Resources every five years.

In January 2009, the Act was amended by Assembly Bill AB-1420, which required the implementation of demand management measures to be eligible for water grants or loans. The Act was then amended in November 2009 with the adoption of Senate Bill SBx7-7. The most significant revision in this amendment is the requirement for establishing per capita water use targets for 2015 and 2020. Since the 2010 UWMP, there have been eight new additions to the California Water Code that address new requirements that water suppliers have to address in the 2015 UWMP. A description of these new laws are included in the Appendix A.

1.1. List of Abbreviations

Table 1 presents a list of the abbreviations used in this Urban Water Management Plan.

Table 1-1 List of Abbreviations

| | |
|----------------|---------------------------------------------|
| AF | acre-feet |
| CFS | cubic feet per second |
| CUWCC | California Urban Water Conservation Council |
| District | Georgetown Divide Public Utility District |
| DMM | Demand Management Measure |
| DWR | California Department of Water Resources |
| EDCWA | El Dorado County Water Agency |
| GDPUD/District | Georgetown Divide Public Utility District |
| gpcd | gallons per capita per day |
| mgd | million gallons per day |
| SMUD | Sacramento Metropolitan Utility District |
| UWMP | Urban Water Management Plan |
| WSCP | Water Shortage Contingency Plan |

2.0 Plan Preparation

2.1. Interagency Coordination

The District is a member of EDCWA, the El Dorado County Water Agency. The EDCWA is long-term water planning organization established by the El Dorado County Water Agency Act (California Water Code Appendix Section 96-1, et seq.). EDCWA's Board of Directors is composed of representatives from both the El Dorado County Board of Supervisors and public water purveyors within the County. EDCWA has the power to take actions necessary to ensure sufficient water may be available for present and future beneficial uses within the agency boundaries, including the power to carry on technical and other necessary investigations pertaining to water supply, water rights and use of water within the agency.

All land use planning and development approvals within the District's boundaries are the responsibility of the El Dorado County. **The District's service area does not include any incorporated cities.**

The District issued a 60-day notice to both El Dorado County and the EDCWA stating that the District was preparing its 2015 Urban Water Management Plan (UWMP) and intends to present its findings at a public hearing in June 2016 for adoption (see Appendix B). The coordination with these agencies is summarized in Table 2.

Table 2-1 Agency Coordination

| Coordinating Agencies | Was Sent a Notice of Intention to Adopt | Was Sent a Copy of the Draft Plan | Commented on Draft Plan |
|-------------------------------|-----------------------------------------|-----------------------------------|-------------------------|
| El Dorado County | Yes | Yes | No |
| El Dorado County Water Agency | Yes | Yes | No |

2.2. Public Participation

The Georgetown Divide Public Utility District provided opportunities for community participation in its urban water management planning efforts during plan preparation. A Notice of Public Hearing was published twice in the Georgetown Gazette and copies of the draft UWMP was made available for public inspection at the District's office and on the District's website. A copy of the Notice of Public Hearing is provided in Appendix C.

A public hearing was held on this UWMP by the Board of Directors prior to its adoption on June 14, 2016. The resolution of the District's Board of Directors to adopt the UWMP is presented in Appendix D.

2.3. Plan Implementation & Distribution

The District will implement this 2015 UWMP to meet the SBx7-7 gallons per capita per day (gpcd) targets. The District will continue implementation of their existing water conservation programs. The District substantially implemented their 2010 UWMP in accordance with the requirements included in the plan.

The District will provide the adopted UWMP to El Dorado County within 60 days of its submission to DWR.

The District will also provide the adopted UWMP to the California State Library within 30 days of its adoption.

The adopted UWMP will be made available for public review within 30 days of its submission to DWR on the District's website.

2.4. Plan Checklist

The 2015 UWMP is organized by subject matter per DWR's Urban Water Management Plan checklist. Appendix E presents the completed checklist for the District's 2015 UWMP.

3.0 System Description

3.1. Historical Background

The discovery of gold near the present site of Coloma by James W. Marshall in 1848 resulted in an influx of settlers to the Georgetown area. The general region now occupied by El Dorado County rapidly became one of the most populous areas of the State. The town of Georgetown was founded on August 7, 1849 by George Phillips and soon had the nickname “Growlersburg” from the large nuggets that “growled” in the miners pans. Millions of dollars worth of gold were taken from the area during the early years of the Gold Rush, and it was during this period that the original water system for the Georgetown Divide area was developed.

The initial diversions and ditches were constructed by three companies beginning in 1852. One of the companies, the Pilot Creek Ditch Company, later absorbed the other two, and expanded the system to supply water to nearly the entire area presently supplied by the District. In 1872, a group of San Francisco investors formed the California Water Company and purchased the Pilot Creek Ditch Company. The California Water Company subsequently constructed Loon Lake Dam, made considerable improvements to the distribution system, and established the first policy for furnishing water for agricultural purposes.

The name of this company was changed to the Loon Lake Water and Power Company in 1890, and shortly thereafter it was purchased by the Truckee General Electric Company. This company, in turn, changes its name to the Sierra Pacific Power Company in 1915. In 1931, the Georgetown Water Company, Ltd., was formed and purchased the water system serving the Georgetown area from Sierra Pacific.

In accordance with Ordinance Number 137 of the El Dorado County Board of Supervisors, formation of the Georgetown Divide Public Utility District was submitted to and approved by the electorate of the proposed District on June 4, 1946. The statutory authority enabling the District to construct, finance, maintain, and operate a water system is found in Section 16461 of the Public Utilities Code of California. By 1952, the District had purchased all of the facilities of the Georgetown Water Company. In 1961, these facilities were officially conveyed by deed to the District. The District sold all of its facilities and water rights in the Upper Rubicon Basin to the Sacramento Municipal Utility District (SMUD) in 1957. The proceeds of the sale were to be used by the GDPUD to develop an improved and enlarged source of supply on Pilot Creek. This development became known as the Stumpy Meadows Project and was financed by a loan under Public Law 984, with most of the loan to be repaid using the SMUD payments.

The Georgetown Water Company (Company), the immediate predecessor to the District, as well as its antecedents, held certain rights to the South Fork Rubicon River and Pilot Creek. Pilot Creek is a tributary of the Rubicon River which is in turn a tributary to the Middle Fork American River. Water use from these sources had been established as early as 1852, and the owners of the Georgetown Water Company claimed pre-1914 rights by acquisition and use to waters of those streams and several other minor watersheds. In addition, the Company claimed and held title to facilities and properties related to providing water to the Georgetown Divide, including a storage reservoir at Loon Lake (completed about 1883), and a conveyance system to bring water

from Loon Lake, re-diverting it from the South Fork Rubicon River into the Pilot Creek drainage, and re-diverting it at Stumpy Meadows (a meadow at that time, not a reservoir) to the Georgetown Divide Ditch. The water was primarily used for mining and agriculture along the Georgetown Divide although some was also used for domestic purposes.

After formation of the District in 1946, Application 12421 was filed in 1948. The District requested diversion and storage rights pertinent to the Loon Lake project, which was originally the Company's and then the District's major source of water. In addition, a diversion right of 50 cubic feet per second (CFS) and storage rights for 20,000 acre-feet per year were requested in the Pilot Creek watershed, as well as a number of storage sites in the service area. The District was then in the process of acquiring the Georgetown Water Company rights, facilities, and properties including Loon Lake Reservoir and ditches, to supply the Georgetown Divide service area. The facilities were finally acquired by the District in 1959. Application 12421 had been filed to formalize the rights that the District would eventually acquire from the Georgetown Water Company, and to provide for and protect a future potential water supply for the Georgetown Divide.

In the early 1950's, Sacramento Municipal Utility District (SMUD) expressed a desire to acquire rights and facilities of the District in the Upper Rubicon Basin, including Loon Lake and the potential future water supply from the Rubicon River, for construction of the Upper American River Hydroelectric Project. In turn, SMUD offered to provide financial assistance for planning and construction and to assist in acquiring the necessary water rights for an alternate District water supply in the Pilot Creek Basin, including the 20,000 acre-foot reservoir proposed by the District, as well as a diversion of 50 CFS from Pilot Creek. In return, the District was to withdraw its applications for rights in the Upper Rubicon watersheds under A12421 in favor of SMUD, but the District was to keep that portion of the application related to the reservoir and diversions on Pilot Creek.

During the period of negotiation, the District filed Application 16212 (1955, 1956) requesting additional necessary diversion rights for the alternative replacement water supply. The concepts regarding the various features of the replacement water supply had already been established, but only preliminary design studies and plans had been completed at that time. The project as originally proposed, envisioned the storage reservoir at Stumpy Meadows and direct diversion from Pilot Creek at the dam as described in A12421. In a later project revision, water was to be released from Stumpy Meadows Reservoir for re-diversion from Pilot Creek. The old Georgetown Divide ditch between Stumpy Meadows and Tunnel Hill was to be abandoned, and a new conveyance system, the El Dorado Conduit, constructed.

Application 16212 requested an additional 50 CFS diversion from Pilot Creek and diversion rights totaling 25 CFS from the tributaries to Pilot Creek and Otter Creek that would be intercepted by the proposed conveyance system. The application also requested 3,000 acre-feet of storage at Mutton Canyon and 4,000 acre-feet of storage on an unnamed canyon along the conduit route, but these storage amounts were eventually denied. The District also filed A16688 to divert water from Onion Creek in a similar fashion to that being used by predecessors. However, Onion Creek water would be diverted into Pilot Creek for off-stream storage at Stumpy Meadows Reservoir and re-diverted from Pilot Creek into the El Dorado Conduit at a point near Mutton Canyon.

Decision 893 (3/18/58) allocated the various waters of the American River watershed including the waters of interest to the District and to SMUD. The District and SMUD had apparently reached agreement at this time as to the exchange of water facilities in the Rubicon River and Pilot Creek. Decision 893 resulted in permits 11304, 11305, and 11306 which approved the District's diversion and storage rights.

On June 25, 1958, the District filed for partial assignment of State Filing A5644, specifically to obtain an earlier filing date for at least certain portions of the Stumpy Meadows Project. The application requested:

- 1) 100 CFS direct diversion from Pilot Creek
- 2) 20,000 acre-feet storage on Pilot Creek as had been described in the Stumpy Meadows Project Feasibility Report prepared by consultant Clair A. Hill.

Permit No. 12827 (6/30/61) approved the 100 CFS diversion and 20,000 acre-feet storage. This permit was issued in compliance with the terms of Decision 1013.

3.2. Governance and Service Area

The District is a public utility district and operates under a governing five-member Board of Directors elected at-large for four-year overlapping terms. The District's management is under the direction of the General Manger, Clerk and ex-officio Secretary of the Board, who is appointed by and serves at the pleasure of the Board.

The Georgetown Divide is situated on the west slope of the Sierra Nevada foothills, approximately 45 miles northeast of Sacramento, California. It straddles a ridge which separates the drainage basin of the Middle Fork American River and the Rubicon River (tributary to the American River) on the north from that of the South Fork American River on the south. The District's sphere of influence is bounded on the north, south, and west by these rivers (see Figure 1). The sphere of influence covers about 173,000 acres (270 square miles). The existing service area encompasses approximately 75,000 acres (112 square miles) with approximately 30,000 acres currently having some form of water service available.

GDPUD presently provides domestic water service to the communities of Georgetown, Buckeye, Garden Valley, Kelsey, Spanish Dry Diggins, Greenwood, Cool, and Pilot Hill. The entire service area is located in the unincorporated area of El Dorado County (see

Figure 2). Through separate facilities, portions of these same communities also receive untreated water for irrigation purposes.

Elevations in the District's service area vary from 500 feet at the southwestern boundary to 6100 feet at Silver Hill on the eastern boundary. The relief varies from rolling foothills in the west to steep slopes and deep canyons in the upper elevations. The community of Georgetown is located at the top of the Divide at an elevation of 2,650 feet.

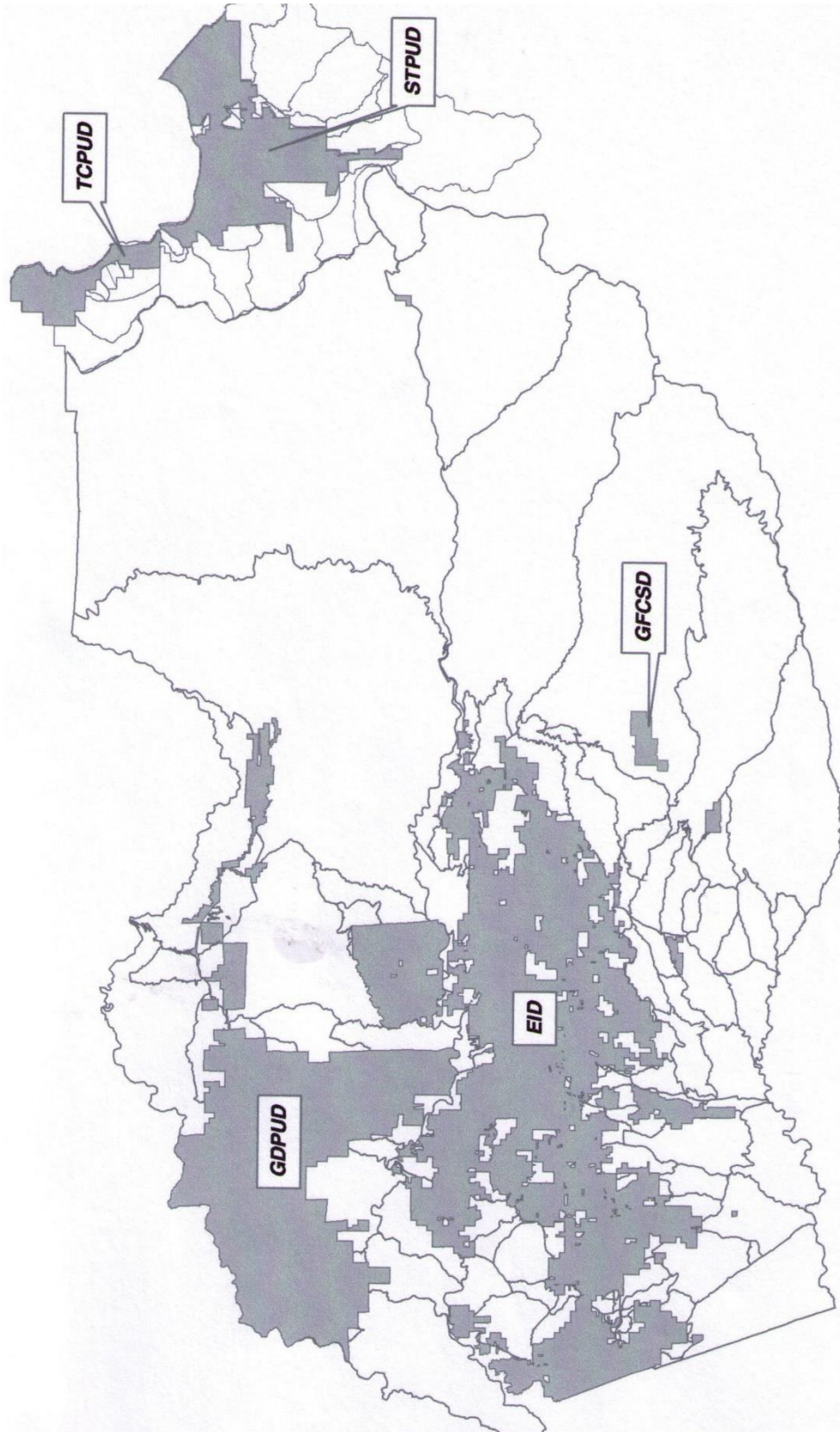


Figure 1 - District Location within El Dorado County

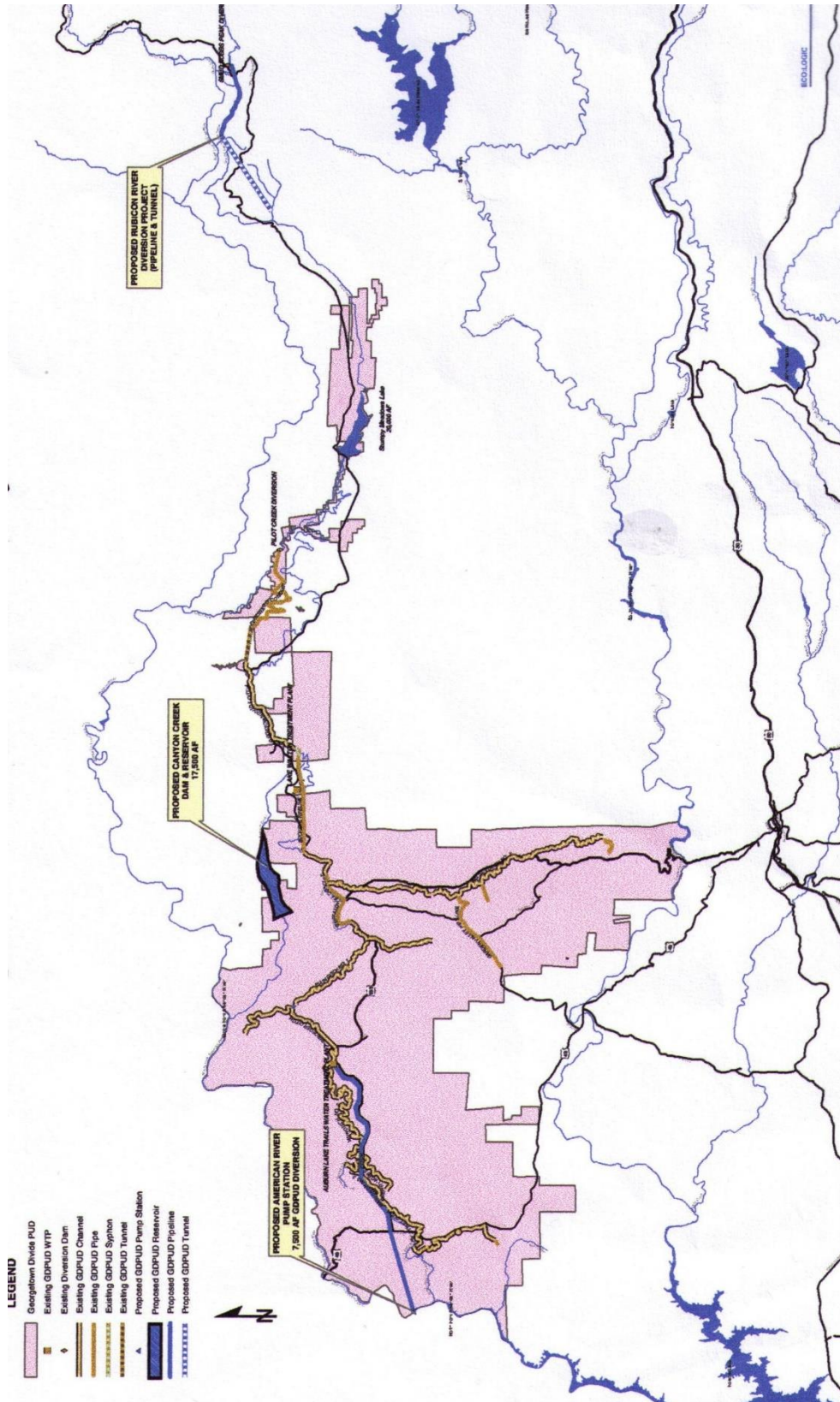


Figure 2 - District Service Area

3.3. Climate

The lower elevations have hot, dry summers and mild winters, whereas the mountainous regions toward the east experience cool summers and fairly severe winters. Near the western portion of the Divide, at Folsom Lake, the mean annual precipitation is 25 inches with a trace of snowfall during the winter. Precipitation increases with elevation, with 40 inches occurring at Garden Valley, 50 inches at Georgetown, and 56 inches at the Silver Hill Ridge. Average annual snowfall in the eastern portion is approximately 16.6 inches. Most of the precipitation falls between late October and mid-April.

The lower foothills have shallow, rocky soils underlain by metamorphic rock. Soil depth is generally less than three feet and, as a result, these lands have very limited agricultural potential. The soils in the higher elevations are weathered to a greater depth and are more suitable for agricultural use, depending upon slope, elevation, and other considerations. The soils in the eastern portion of the District are highly suited for mixed conifer timber stands, and the entire area is heavily forested.

3.3.1. Historical Precipitation Data

The District maintains records of reservoir inflow, storage, and use from which data on the hydrologic regime of Pilot Creek Watershed, including en-route diversions, are developed on a continuing basis. The District continuously updates studies regarding strategies for reservoir operation as demands on the system vary, including deficiency requirements in critically dry years. The District is well aware of the capabilities of the source, and how to handle operating contingencies in a situation such as what was experienced state-wide in the 1991 water year and most recently in 2013-2015. Additionally, The District is evaluating alternative water supply projects to supplement the Stumpy Meadows Project.

Precipitation in the Pilot Creek drainage tributary to Stumpy Meadows Reservoir averages about 66 inches per year. Although much of the precipitation occurs as rain, particularly in the lower elevation, western portion of the watershed, there is snow pack accumulation, and often the time-distribution of the runoff hydrograph is controlled by snow accumulation and snow melt. Table 3-1 presents a summary of the climate information for the District's service area.

Table 3-1 Monthly Climate Summary

| Climate Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual Average |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|
| Average Maximum Temperature (degF) ⁽¹⁾ | 52 | 53 | 57 | 64 | 72 | 80 | 89 | 89 | 84 | 73 | 59 | 51 | 69 |
| Average Minimum Temperature (degF) ⁽¹⁾ | 36 | 36 | 37 | 41 | 47 | 54 | 61 | 61 | 56 | 48 | 40 | 35 | 46 |
| Average Total Precipitation (inches) ⁽¹⁾ | 9.6 | 7.7 | 7.9 | 4.3 | 1.9 | 0.7 | 0.1 | 0.2 | 0.7 | 3.0 | 6.5 | 8.4 | 51.0 |
| Average Total Snow Fall (inches) ⁽¹⁾ | 5.3 | 2.7 | 2.8 | 1.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 2.7 | 15.5 |
| Average Snow Depth (inches) ⁽¹⁾ | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Average Evapotranspiration (inches) ⁽²⁾ | 2.1 | 2.3 | 3.3 | 5.0 | 6.4 | 7.9 | 8.8 | 8.2 | 6.2 | 4.0 | 2.1 | 1.5 | 57.8 |
| <small>(1) Source: Western Regional Climate Center, Georgetown Ranger Station, California (043384), Period of Record: 11/1/1946 to 1/20/2015</small> | | | | | | | | | | | | | |
| <small>(2) Source: California Irrigation Management Information System, Sierra Foothill, Camino Station #13, Period of Record: 1/1/2011 to 12/31/2015</small> | | | | | | | | | | | | | |

3.3.2. Runoff Characteristics

There is no set of observed data that will permit direct calculation of the actual inflow to Stumpy Meadows Reservoir. However, there is a USGS stream gaging station (No. 11431800) on Pilot Creek above Stumpy Meadows, which, with a drainage area of 11.7 square miles, represents approximately 77 percent of the watershed tributary to the Reservoir.

Although considered a relatively low elevation watershed at this latitude in the Sierra, snow accumulation and melt still play an important role in the time-distribution of runoff. On the average, approximately 40 percent of the annual runoff occurs during the April 1 to July 1 snowmelt period. Average annual runoff of Pilot Creek above the dam site for the 53 year period 1961-2014 is estimated at 17,885 acre-feet. Flows of record range from a low of 3507 acre-feet during the 1976-77 water year to a high of 52,706 acre-feet during the 1982-83 water year. A review of the variability in both seasonal and water year runoff amounts emphasizes the necessity for substantial storage for regulation of Pilot Creek flows on a multi-year basis in order to ensure an adequate water supply to the GDPUD service area.

3.4. Demography

The District provides treated water to 3,663 active customers. The District's updated their billing software in 2011 to include five water use categories: residential, multi-family, commercial, governmental/institutional and large landscape service for treated water and agricultural service for untreated water.

Treated water customers are primarily residential, with 96% of the accounts serving single family (3,461 accounts) and a few multi-family units (10 accounts, 94 households) in 2015. The District is 99.8% metered but it currently has 6 un-metered connections (3 commercial accounts and 3 governmental). The District had 142 commercial/governmental accounts in 2015, which represent only 4% of the total treated water accounts in the District. The six large landscape accounts account for 0.2% of the total treated water accounts. The six large landscape accounts include a nine-hole golf course owned by the Auburn Lake Trails Property Owner's Association and two other landscape accounts, two cemeteries and one Georgetown Divide Recreation

District park.

The District also had 232 inactive customers at the end of 2015. These inactive customers have meters however one hundred eighty five (185) of them have never used the District’s water because they either have another source of domestic water (a well) or it is undeveloped land. There are 47 inactive customers that have not used any water in the past few years but they do have a record of water use in the past. The District considers these 47 customers part of their vacancy inventory. These inactive customers are not included in the actual water usage figures but are included in the latent demand and the water demand projections.

Untreated water for agricultural usage represents 63% of water sales in the District in 2015 however the irrigation season was shortened by about 59% due to the declared Stage 3 drought declaration in 2015. In 2015, there were 389 agricultural accounts. In a normal water year, untreated irrigation water represents 74% of water sales. Agricultural water is used in a variety of ways on the Divide. Christmas tree farms, vineyards, pasture, orchards and hay production are common uses of agricultural irrigation water. This untreated water usage is not included in the analysis of the potable water system demands.

3.5. Population

The 2010 U.S. Census persons per household data was used to estimate the current population in the District’s service area. (The State approved methodology is in Appendix F.) The service area includes portions of three census tracts. The District’s residential account locations were visually assigned to three census tracts that cover the District’s entire service area. Table 3-2 presents the 2010 U.S Census and District customer data used to determine the average number of people per household for the District’s service area. Based on the information presented in Table 3-2, the average number of people per household in the District’s service area is 2.47 much lower than 2.71 in 2000. The recession in 2008 significantly reduced the population due to foreclosures and families moving off the Divide. The schools also saw a significant decrease in the number of students during this time period. In recent years, the economy has improved and there has been an increase in the number of connections until 2014 and 2015 when there was a ban on new connections due to the drought. In 2016, the ban was lifted resulting in significant increase in the number of new meter applications. The District’s service area population in 2015, based on 3,565 residential households, was 8,994.

Table 3-2 District’s Number of People per Household

| Census Tract | 2010 Census Tract Data | | | 2010 District Information | |
|-------------------------------------------------------------------|------------------------|----------------------|------------------------|---------------------------|----------------------|
| | Population | Number of Households | Average Household Size | Number of Households | Estimated Population |
| 306.01 | 5,044 | 2,017 | 2.50 | 1,525 | 3,813 |
| 306.02 | 6,545 | 2,669 | 2.45 | 1,819 | 4,457 |
| 306.03 | 3,564 | 1,502 | 2.37 | 163 | 386 |
| District’s Weighted Average Number of People per Household | | | | | 2.47 |

3.5.1. Population Projections

Population projections were based on a number of sources such as the El Dorado County Water Agency’s “Water Resource Development and Management Plan, 2014 West Slope Update

(0.99% growth rate), the Department of Finance population growth rate for El Dorado County (1.1% growth rate from 2010-2020) and the Sacramento Area Council of Governments (1.5% for the Unincorporated El Dorado County). Due to topography, zoning, water supply, and sewage disposal constraints, the District's growth rate is not expected to significantly increase in the coming years. For comparison, the growth rate in the District's residential accounts from 1998 to 2015 was 1.1%. Table 3-3 presents the estimated population growth between 2015 and 2035 based on an occupancy rate of 2.47 persons per household and a 1.0% growth rate.

| Table 3-3 Retail: Population - Current and Projected | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Population Served | 2015 | 2020 | 2025 | 2030 | 2035 |
| | 8,994 | 9,453 | 9,935 | 10,442 | 10,974 |
| NOTES: Population is based on a 1% growth rate. Source is Department of Finance, El Dorado County and the average growth rate in connections for the District. | | | | | |

3.6. Other Demographic Factors

There are no other demographic factors affecting the District's water management planning.

4.0 System Water Use

4.1. Wholesaler Water Demand Projections

The District is a retail water provider that does not rely on a wholesale agency for any sources of water. The District does not serve as a wholesale water provider to any other agency. Therefore, the District is not required to share its water demand projections with any other agency.

The District does not supply any water for saline water intrusion barriers, groundwater recharge, or conjunctive use.

4.2. Historical and Projected Water Use by Customer Type

The District's annual treated water demand represents water sales to residential, multi-family, commercial, governmental/institutional and large landscape customers. Between 2011 and 2015, the distribution of water use by customer type was as follows:

- 84% single family residential water sales
- 1% multi-family residential water sales
- 3% commercial water sales
- 8% governmental/institutional water sales
- 4% large landscape water sales
- 27% of production is non-revenue water

The non-revenue water (NRV) use is the difference between total water sales and total water production or about 404 acre-feet per year in 2015. Due to the age of the meters within the District's service area, the non-revenue water increased dramatically in the last two drought years of 2014 and 2015 when the customers consumed 33% less water than in 2013. The older meters tend to be less accurate at very low flows. From 2006 to 2010, the average NRV was 4.3% with a high of 7.8 %. In the last five years, the average NRV was 16% with a high of 27% in 2015.

This NRV water includes a number of uses. Authorized uses include water for 6 un-metered water connections, fire-fighting and training, hydrant flushing, treatment plant process water, construction water and other miscellaneous uses. Un-authorized uses include pipeline leaks, water meter inaccuracy, tank overflows, and possible stolen water. This component is also known as apparent and real losses and represents 98% of the total NRV. The District will continue its vigilance in reducing water losses with on-going programs to repair pipeline leaks as soon as they are discovered, replace old, less reliable pipelines, and upgrade older inaccurate, water meters.

4.2.1. Past Water Use

Table 4.1 presents the past water use by customer water use sectors for 2010.

Table 4.1 - Past Water Deliveries, 2010

| Past Water Deliveries by Sector | | | | | |
|----------------------------------------|---------------|--------------------------|---------------|-----------------------|-----------------------|
| Water Use Sectors | 2010 | | | | |
| | Metered | | Not metered | | Total |
| | # of Accounts | Volume (acre-feet/yr) | # of Accounts | Volume (acre-feet/yr) | Volume (acre-feet/yr) |
| Single family | 3,411 | 1,379.40 | 2 | 0.8 | 1,380.20 |
| Multi-family | 94 | 16.6 | - | - | 16.6 |
| Commercial | 141 | 237 | 4 | 6.7 | 243.7 |
| Industrial | - | - | - | - | - |
| Institutional/governmental | - | - | 9 | 15.1 | 15.1 |
| Landscape | - | - | - | - | - |
| Agriculture (untreated) | 393 | 4,280.3 ^(1,2) | - | - | 4,280.30 |
| Other | - | - | - | 43.4 | 43.4 |
| Total (treated & untreated) | 4,039 | 5,913.30 | 15 | 66.1 | 5,979.40 |
| Total (treated only) | 3,646 | 1,633.00 | 15 | 66.1 | 1,699.10 |

Notes: (1) Agricultural (untreated) water is metered using a subsurface orifice and is sold by the miner's inch.
(2) Agricultural (untreated) water demand does not include carriage and ditch losses. Losses are included for the

4.2.2. Current Water Use

Table 4.2 presents the current water use by customer categories for 2015.

Table 4.2 - Current Water Deliveries, 2015

| 2015 | | | | | |
|-----------------------------|-------------------|-----------------------|---------------|-----------------------|-----------------------|
| Water Use Sectors | Metered | | Not metered | | Total |
| | # of Accounts | Volume (acre-feet/yr) | # of Accounts | Volume (acre-feet/yr) | Volume (acre-feet/yr) |
| Single family | 3,461 | 946.4 | 0 | 0 | 946.4 |
| Multi-family | 94 ⁽³⁾ | 13.1 | - | - | 13.1 |
| Commercial | 82 | 34.8.0 | 3 | 1.23 | 36 |
| Industrial | - | - | - | - | - |
| Institutional/governmental | 51 | 79.9 | 3 | 4.4 | 84.3 |
| Landscape | 6 | 41.8 | - | - | 41.8 |
| Agriculture (untreated) | 389 | 1895 ^(1,2) | - | - | 1895 |
| Other (inactive customers) | 47 | - | - | 43.4 | |
| Total (treated & untreated) | 4,046 | 3,010.90 | 6 | 5.7 | 3,016.60 |
| Total (treated only) | 3,657 | 1,116 | 6 | 5.7 | 1,128 |

Notes: (1) Agricultural (untreated) water is metered using a subsurface orifice and is sold by the miner's inch.
(2) Agricultural (untreated) water demand does not include carriage and ditch losses. Losses are included for the treated water. Latent demand is included in the future projected demands.
(3) There are 10 multi-family metered accounts but they represent 94 residential connections.

4.2.3. Projected Water Use

Table 4.3 and Table 4.4 present the projected water use by customer categories for both metered and not metered use for every five year period from 2020 to 2035. Projected water demands are based upon the following parameters for Table 4.3:

- Population Projections from Table 3-1
- 2020 Target of 167 gallons per capita per day
- Distribution of water use by category presented in Section 4.2
- Latent Demand from Inactive Metered Customers
- Raw water agricultural usage based on the El Dorado County Water Agency Water Resource and Development Management Plan, West Slope Update 2014

Table 4.4 also presents the projected water use by customer categories for both metered use for every five year period from 2020 to 2035. The projected water demands are based on the same parameters mentioned above except in this table, the projected agricultural demands are based on the existing District ordinance that limits the agricultural usage to the 2003 demand.

Table 4-3 Retail: Demands for Potable and Raw Water - Projected

| Use Type | Additional Description | Projected Water Use | | | |
|----------------------------|------------------------|---------------------|--------------|--------------|---------------|
| | | 2020 | 2025 | 2030 | 2035 |
| Single Family | | 1,485 | 1,561 | 1,641 | 1,724 |
| Multi-Family | | 14 | 18 | 19 | 20 |
| Commercial | | 53 | 56 | 59 | 62 |
| Institutional/Governmental | | 141 | 149 | 156 | 164 |
| Landscape | | 71 | 74 | 78 | 82 |
| Other | | 381 | 280 | 174 | 113 |
| Agricultural irrigation | raw water | 4,995 | 6,288 | 7,621 | 8,954 |
| TOTAL | | 7,140 | 8,426 | 9,748 | 11,119 |

NOTES: Agricultural (raw water) demand does not include carriage and ditch losses. Projected raw agricultural usage is based on the El Dorado County Water Agency Water Resource and Development Management Plan, West Slope Update 2014. The plan's projections does not reflect the District's 2005 Irrigation Ordinance which limits agricultural usage to the 2003 demand which was 4,995 AF. Losses are included in the potable treated water demand. The Other includes known future latend demands from existing inactive customers, existing created parcels and future demands from low income housing (64 AF). It does not include future demands from potential development projects or Favorable Areas from the El Dorado County General Plan that may be annexed to the District in the future.

Table 4-4 Retail: Demands for Potable and Raw Water - Projected Based on 2003 Agricultural Irrigation Demands

| Use Type | Additional Description | Projected Water Use | | | |
|----------------------------|------------------------|---------------------|--------------|--------------|--------------|
| | | 2020 | 2025 | 2030 | 2035 |
| Single Family | | 1,485 | 1,561 | 1,641 | 1,724 |
| Multi-Family | | 14 | 18 | 19 | 20 |
| Commercial | | 53 | 56 | 59 | 62 |
| Institutional/Governmental | | 141 | 149 | 156 | 164 |
| Landscape | | 71 | 74 | 78 | 82 |
| Other | | 381 | 280 | 174 | 113 |
| Agricultural irrigation | raw water | 4,995 | 4,995 | 4,995 | 4,995 |
| TOTAL | | 7,140 | 7,133 | 7,122 | 7,160 |

NOTES: Agricultural (raw water) demand does not include carriage and ditch losses. Projected raw agricultural usage is based on the District's 2005 Irrigation Ordinance which limits agricultural usage to the 2003 demand which was 4,995 AF. Losses are included in the potable treated water demand. The Other includes known future latend demands from existing inactive customers, existing created parcels and future demands from low income housing (64 AF). It does not include future demands from potential development projects or Favorable Areas from the El Dorado County General Plan that may be annexed to the District in the future.

4.3. Low Income Housing Demand

The 2008 Housing Element Update of the El Dorado County General Plan states that 139 low or very low income housing is planned for the communities of Cool and Pilot Hill. The 2008 Housing Element Update does not distinguish between single and multi-family residences. Projections of low income housing water demand are based on 2.47 persons per household and 2010 UWMP water use targets of 167 gpcd in 2015 and 167 gpcd in 2020 and beyond.

Table 4-5 Projected Low Income Housing Water Demand

| Water Use Sector | Low Income Water Demands (acre-feet/yr.) | | | |
|---------------------------|------------------------------------------|------|------|------|
| | 2020 | 2025 | 2030 | 2035 |
| Single-family residential | 64 | 64 | 64 | 64 |
| Multi-family residential | | | | |
| Total | 64 | 64 | 64 | 64 |

5.0 Baselines and Targets

5.1. Base Water Production

Per DWR’s UWMP Guidance Manual, gross water use is defined as the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier excluding the following:

1. Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.
2. The net volume of water that the urban retail water supplier places into long-term storage.
3. The volume of water the urban retail water supplier conveys for use by another urban water supplier.
4. The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24 of the Act.

Water production is the volume of treated water, measured at the outlet of each water treatment plant that is metered to residential, multi-family, commercial, governmental and large landscape customers. Total water production also includes water that was produced, but not accounted for in the District’s water meter system. This non-revenue water includes fire hydrant flushing, fire-fighting, un-metered connections, and water losses. Water production does not include the untreated irrigation water distributed by the District through its canal system.

The Act requires evaluation of the District’s water production over both a continuous 10-year and 5-year period. The 10-year period is required to end between 2004 and 2010. The 5-year period is required to end between 2007 and 2010. Table 5.1 presents a summary of the calculated baselines and 2015 and 2020 targets.

| Table 5-1 Baselines and Targets Summary | | | | | |
|------------------------------------------------------|------------|----------|------------------------|-----------------------|------------------------|
| <i>Retail Agency or Regional Alliance Only</i> | | | | | |
| Baseline Period | Start Year | End Year | Average Baseline GPCD* | 2015 Interim Target * | Confirmed 2020 Target* |
| 10-15 year | 1999 | 2008 | 203 | 185 | 167 |
| 5 Year | 2004 | 2008 | 207 | | |
| *All values are in Gallons per Capita per Day (GPCD) | | | | | |

5.2. GPCD Targets

Per the law as adopted in SBx7-7, the District must establish per capita water use targets using one of four methods:

1. Method 1 - Eighty percent of the urban retail supplier’s baseline per capita daily

water use.

2. Method 2 - The per capita daily water use that is estimated using the sum of several defined performance standards.
3. Method 3 - Ninety-five percent of the Sacramento hydrologic region target of 176 gallons per capita day (gpcd).
4. Method 4 - Calculated water savings based on indoor residential water savings, metering savings, commercial/industrial/institutional savings, and landscape and water loss savings.

Based on Method 3, the District selected the urban water use target of 167 gpcd for 2020 and an interim target of 185 gpcd for 2015. The interim 2015 target is calculated as the average between the District's base usage of 203 gpcd and the 2020 target of 167 gpcd. The District's actual usage was 152 gpcd, much less than the 2015 interim target of 185 gpcd therefore the District is in compliance with the 2015 water use target.

| Table 5-2: 2015 Compliance | | | |
|-------------------------------------------------------------|---------------------------|-----------------------------------------------|-------------------------------------------------------|
| <i>Retail Agency or Regional Alliance Only</i> | | | |
| Actual 2015 GPCD* | 2015 Interim Target GPCD* | 2015 GPCD* <i>(Adjusted if applicable)</i> | Did Supplier Achieve Targeted Reduction for 2015? Y/N |
| 152 | 185 | 152 | Yes |
| <i>*All values are in Gallons per Capita per Day (GPCD)</i> | | | |

6.0 System Supplies

6.1. Source of Supply – Stumpy Meadows Surface Water Diversion

The primary source of water to GDPUD is the Stumpy Meadows Project, which includes storage facilities, diversion structures, and a conveyance system to the service area. The project was completed in 1962 using funds from a Public Law 984 Loan administered by the Mid-Pacific Region of the U.S. Bureau of Reclamation

6.1.1. Description of Watershed

Stumpy Meadows Reservoir is formed by a 162 foot-high rock and earth fill dam (Mark Edson Dam) on Pilot Creek. The normal operating level is at the spillway crest at elevation 4,262', with storage of 20,000 acre-feet and a surface area of 330 acres. The minimum pool elevation is 4,170' with a dead storage of 1,200 acre-feet, and a usable storage of about 18,800 acre-feet.

The outlet structure is a screened, 5' x 5' precast reinforced concrete intake tower with a sill elevation of 4132' (130' below the crest of the spillway). Water released from the reservoir is funneled through a 30" welded steel pipeline which discharges to atmosphere. Flows are controlled by a Howell-Bunger valve at the discharge end of that line, with the water being redirected into Pilot Creek. The catchment area of the watershed supplying the Stumpy Meadows project is approximately 11.7 square miles, ranging in elevation from 4,170 feet to 6,190 feet.

The spillway is an un-gated over pour section constructed in a horseshoe configuration. It discharges into a concrete chute which rejoins Pilot Creek approximately 500 feet below the toe of the dam.

Water is released into Pilot Creek and is re-diverted into the District's water supply system by Pilot Creek Diversion Dam, two miles downstream of Edson Dam, near the mouth of Mutton Canyon Creek. The Pilot Creek Diversion Dam is a 110' x 20' reinforced concrete structure which diverts water into the El Dorado Conduit. A 36" sluice gate controls the flow into an open concrete channel that provides the inlet to a 48" RCP conduit. The inlet structure is screened by a trash rack constructed of No. 8 rebar on 9" centers. The diversion is made into the El Dorado Conduit. The portion of the watershed above the diversion structure which is not included in the Stumpy Meadows Reservoir watershed is about 4.1 square miles.

Diversion structures along the conveyance system, the El Dorado Conduit, divert water from cross drainages between Mutton Canyon and Tunnel Hill. Some of the en-route drainage is also intercepted by the conveyance ditch. These en-route cross diversions provide minimal supplementary supply to the District's system, and drain, in total, approximately three square miles above Tunnel Hill.

The small watersheds tapped by the Stumpy Meadows Project below the reservoir are in a lower elevation region where snow accumulation and melt have a lesser impact on time-distribution of runoff, rendering the available water supply from these diversions less dependable and entirely secondary to the primary supply of the reservoir.

6.1.2. Yield Analysis

In order to determine the adequacy of the Georgetown water supply system, yield analyses were prepared. Sierra Hydrotech analyzed yield of the water supply system, in a report "Stumpy Meadows Project Safe Yield Analysis", June 1985, Revised 1986. This report described project yield delivered to the service area with deficiencies taken in a critically dry year. Analysis was by a computer model using a monthly reservoir operation simulation, including diversion and losses in the conveyance system. The State Department of Water Resources (DWR) re-analyzed project yield data with virtually the same results. Reference to project yield in this report refers to the results of the DWR re-analysis.

Definition of Yield

When used in conjunction with water supply projects, the term "yield" generally refers to an annual quantity of water that can be made available to the potential project service area on a specified delivery schedule. Since this is only a general definition, more specific descriptions are required to distinguish the different types of yield. In this report, two types of yield will be discussed.

- Safe Yield is defined as "the maximum quantity of water that can be made available without deficiency each and every year without any adverse effects and under hydrologic conditions similar to those in the historic record." From the "2009 Options to Increase Water Supply" report the existing safe yield of Stumpy Meadows is 10,541 acre-feet (AF) and represents maximum quantity of water that can be made available without deficiency each and every year of the historic record.
- Firm Yield is defined as "the maximum annual quantity of water that can normally be made available each year under historic hydrologic conditions. Exceptions are allowed in critical and some dry years when a deficiency may be imposed."

Based on available hydrologic data and operation studies performed by the District, Sierra Hydrotech and DWR, 1975 through 1978 continues to be the most critical hydrologic period for the Stumpy Meadows Project as configured, and has been used as the critical period for determining the firm yield of the source.

The calendar year 2013 was the driest year on record in California and January 2014 was the driest January on record in California. The District also experienced drought conditions during this time period and declared a Stage 3 drought in April 2015 because the Stumpy Meadows reservoir dropped to 64% of capacity (12,724 AF), the lowest level since 1977 (11,060 AF).

Stumpy Meadows Project Firm Yield

The objective of the firm yield analysis was to operate the Stumpy Meadows system for the period 1927 through 1983 for various levels of deficiencies in treated and untreated deliveries. The system was operated similarly to the safe yield analysis with the exception that during dry periods such as 1976 and 1977, deficiencies were applied to the water requirements.

"Firm yield" with projected water requirements used in this report represents a deficiency of 10 percent for treated water and 50 percent for untreated water in critically dry years. Firm yield

values reflect the operational losses and water requirements. The firm yield of the 20,000 acre-foot Stumpy Meadows Reservoir is 12,200 acre-feet, which allows for critical dry year deficiencies in raw water and in treated water deliveries. The District Board of Directors adopted this criteria on 5/13/97 and reaffirmed it on 1/10/06.

The firm yield meets both the treated water and untreated water demands in a normal water year through 2035 based on an increase in agricultural demand during that time period (total demand of 11,119 acre-feet). When the agricultural demands are calculated based on District ordinance 2005-01 which restricts the demand to the 2003 water use, the total demand in 2035 is 7,160 acre-feet.

6.1.3. Description of Domestic Water System

Raw water from Stumpy Meadows Reservoir is released down Pilot Creek, where it is diverted and conveyed through approximately 70 miles of supply ditch/conduits throughout the District. The first diversion is to Walton Lake, a raw water surface impoundment. Walton Lake supplies raw water to the Walton Lake Water Treatment Plant. The plant is located four miles east of Georgetown and has a production capacity of 3.0 million gallons per day. After treatment, water is pumped into the distribution system that serves Georgetown, portions of Greenwood, Kelsey and Garden Valley.

A system of pipes and open ditches conveys water to another 10 acre-foot surface water impoundment that serves the Auburn Lake Trails Water Treatment Plant and the western portion of the service area including Cool, Pilot Hill and portions of Greenwood. The plant is located in the Auburn Lake Trails subdivision and has a production capacity of 3.0 million gallons per day (MGD). The District plans to construct a new 3.0 MGD water treatment plant at the site of the existing plant and it is expected to be operational in 2017.

The District's treated water distribution system consists of eight generalized pressure zones, 11 treated water storage tanks, 200 miles of distribution mains and six water pumping stations.

The GDPUD water system is linear in nature, relying on Stumpy Meadows Reservoir to the east and the system of pipes and ditches to convey water down slope to the west to various places of use. The District operates several small regulating reservoirs; however, with a break or outage in the primary transmission system, the potential exists for water supply disruptions if the outage lasts for several days. Future water supply options should consider the ability to improve redundancy and the level of water service reliability, in addition to meeting projected water demands.

6.2. Existing and Planned Water Sources

The Stumpy Meadows Reservoir is the only existing and planned water source for the District. 6-1 presents the capacity of the District's water supply sources from 2020 through 2035.

| Table 6-1 Retail: Water Supplies — Projected | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------|------------|------------|------------|
| Water Supply | Additional Detail on Water Supply | Projected Water Supply <i>Report To the Extent Practicable</i> | | | |
| | | 2020 | 2025 | 2030 | 2035 |
| | | Firm Yield | Firm Yield | Firm Yield | Firm Yield |
| Surface water | Stumpy Meadows Reservoir 20,000 AF | 12,200 | 12,200 | 12,200 | 12,200 |
| Total | | 12,200 | 12,200 | 12,200 | 12,200 |
| Stumpy Meadows Reservoir has a storage capacity of 20,000 AF but its firm reliable yield is 12,200 AF which is the maximum annual quantity of water that can normally be made available each year under historic hydrologic conditions. | | | | | |

6.2.1. Potential Groundwater Sources

The District has no plans to use groundwater as a source of water to supplement the surface water source. For the following reasons, local ground water resources are not of adequate quality or quantity to be a viable augmenting resource.

On the western slope of El Dorado County, groundwater occurs primarily in hard rock. In the county as in other parts of the Sierra Nevada foothills, alluvium consisting of unconsolidated deposits of clay, silt, sand, and gravel laid down by flowing water occurs only in small areas too thin to provide a significant amount of storage. Thus the amount of usable groundwater is limited. A cooperative study entitled *Georgetown Divide Water Management Study* prepared by the Department of Water Resources describes water supply alternatives available to the Georgetown Divide area and includes a discussion of the groundwater situation on the western slope. The following is an excerpt from that study:

“Many wells are drilled in hard crystalline rock that lies at or near the ground surface or under the thin layers of alluvium. In rock formations water moves through, and is stored in, fractures in the rock mass. The width of each fracture usually decreases with depth, causing diminished water flow and storage capacity. The amount of water that can be stored and transmitted in such fractures is generally small compared to the amount that can be held and conveyed in a porous alluvial aquifer. The survey showed that while many residential wells produced 4 to 10 gallons per minute (gpm), many had flow rates less than 1 gpm and some had gone dry. Other reports substantiate the limitation of groundwater as a dependable source of water for supplementing public water supply or augmenting surface water storage during droughts. In fact, the contrary may be true where users of groundwater may look to the Districts for service when their wells go dry during droughts. Surveys also indicate that groundwater quality, though satisfactory in most

areas of the western slope, is often marginal. As future development occurs in areas beyond pipeline service, both quantity and quality of groundwater sources could be threatened.”

The Department of Water Resources’ 2003 Bulletin 118 also characterizes groundwater in the foothills as follows:

“Groundwater development in the fractured rocks of the foothills of the southern Cascades and Sierra Nevada is fraught with uncertainty. Groundwater supplies from fractured rock sources are highly variable in terms of water quantity and water quality and are an uncertain source for large-scale residential development.”

6.2.2. Water Exchange or Transfer Opportunities

The District is geographically separated from its neighboring water purveyors by the three forks of the American River. Also, the District has no existing intertie facilities with neighboring water agencies to either exchange raw water or transfer treated water to supplement the District’s existing water source. Consequently, there is no immediate mechanism for the transfer of water into or out of the District through a mutual aid agreement should the need arise. Furthermore, due to the isolated nature of the District’s service area, it is not practical to construct any exchange or transfer facilities.

6.2.3. Desalinated Water Project Opportunities

The District does not have any opportunities to develop desalinated water due to its remote location from any ocean water, brackish water, or high salinity groundwater.

6.2.4. Recycled Water Opportunities

There is currently no recycled water being used in the District’s service area and there are no opportunities in the area to use recycled water because there are no sewer systems on the Divide. However, the District is the managing entity for the on-site wastewater disposal systems in the Auburn Lake Trails Subdivision. Treatment from these systems is limited to septic tank treatment and disposal is mainly via leach fields. Development of a recycled water supply from the Auburn Lake Trails Subdivision disposal system is not practical nor economically feasible.

Auburn Lake Trails Wastewater Disposal Systems

In 1984, as part of class action legal settlement, the District became the regulatory agency responsible for wastewater disposal within the 1,100 lot Auburn Lake Trails Subdivision in Cool, and the owner of the Community Disposal System (CDS) serving 139 smaller lots in the subdivision. The Auburn Lake Trails On-Site Wastewater Disposal Zone (OSWDZ or Zone) was formed on March 19, 1985. The purpose of the Zone is to preserve and protect the environment and public health through an approved management program for individual and small community waste disposal systems in lieu of an area-wide sewage collection, treatment, and disposal system. As set forth in the Resolution 84-6 the District “shall investigate, test, design, operate, monitor, inspect and if necessary, maintain and repair the On-Site Wastewater Disposal Systems within the Zone at the individual homeowner’s expense” The Auburn Lake Trails Zone was one of the

first of its type in the State and served as a model for other OSDZ in the State and in the nation.

There are currently 1007 developed lots within the Subdivision. The type of individual on-site wastewater disposal system utilized on a particular lot is dependent on site-specific soil conditions. Disposal systems currently utilized in the Subdivision are the conventional leach field, mound, pressure dosed, intermittent sand filter, and other alternative wastewater disposal systems.

The Community Disposal System (CDS) was used for the remaining 139 lots that could not support any of the previously mentioned systems. The CDS collects only septic tank effluent from each residential unit's septic tank. This partially treated wastewater flows by gravity or is pumped up to the effluent lift station. From the lift station, the effluent is pumped to a large tank for distribution to the leach fields. The wastewater effluent is not chemically treated prior to disposal. There are a total of 38 manholes, 13,360 feet of collection line, a lift station and wet well, and approximately 1,800 feet of force main all connected to the community leach fields. The lift station is equipped with an emergency generator and a failsafe electrical backup system. The community leach fields consist of approximately 11,600 lineal feet of leach line.

Presently, there are 135 homes connected to the CDS. An ultrasonic flow meter continuously monitors the wastewater flow to the CDS fields. Average dry weather wastewater flows from this CDS system have been about 28,000 gallons/day for the past five years. At build-out, it is anticipated that the wastewater flows will be approximately 32,000 gallons/day. This wastewater is not disinfected and is classified as primary wastewater.

Recycled Water Evaluation

In 2005, the Auburn Lake Trails property Owner's Association and the District evaluated the potential for utilizing recycled water from the CDS system to irrigate the POA golf course. The existing nine-hole golf course presently uses treated District water for irrigation purposes and for the past five years, the peak daily demand during the summer months is about 94,000 gallons per day. It was determined that it was cost prohibitive at this time for the following reasons:

- The wastewater system did not produce sufficient water during the summer months to meet the water demands of the golf course.
- A small ultra-filtration/disinfection plant would need to be installed to meet the State's recycled water standards.

The District will continue to explore funding mechanisms to recycle this wastewater for beneficial uses.

6.3. Future Water Projects

At some point in the future, if the District continues to grow and the demand for domestic treated water and agricultural raw water increases, a supplemental water supply to the Stumpy Meadows Project will be necessary to meet District-wide demands. A supplemental water supply would also reduce the magnitude and the frequency of projected water supply deficiencies during a

critical drought period.

6.3.1. Potential Water Supply Projects

Over the years, the District has investigated numerous water supply alternatives. The 1992 Department of Water Resources (DWR) report, “Georgetown Divide Water Management Study” evaluated a number of storage reservoir projects, pumping from the American River and diversion from the Rubicon River Project. More recent evaluations conducted by the District refined the various project configurations and cost estimates. The most recent study was performed in 2009, “Options to Increase Water Supply.” Table presents a summary of the options considered to increase the District’s water supply. Figure 3 presents a schematic of the District’s existing water supply system along with several of the most viable water supply options for the future. Most of these future water supply projects are in the investigative stage at this time with no immediate plans for implementation. There are however, two County water supply initiatives, as described in the “2009 – Options to Increase Water Supply” study, in various stages of development that may provide water supply to the District via the North Fork American River Pumping Plant.

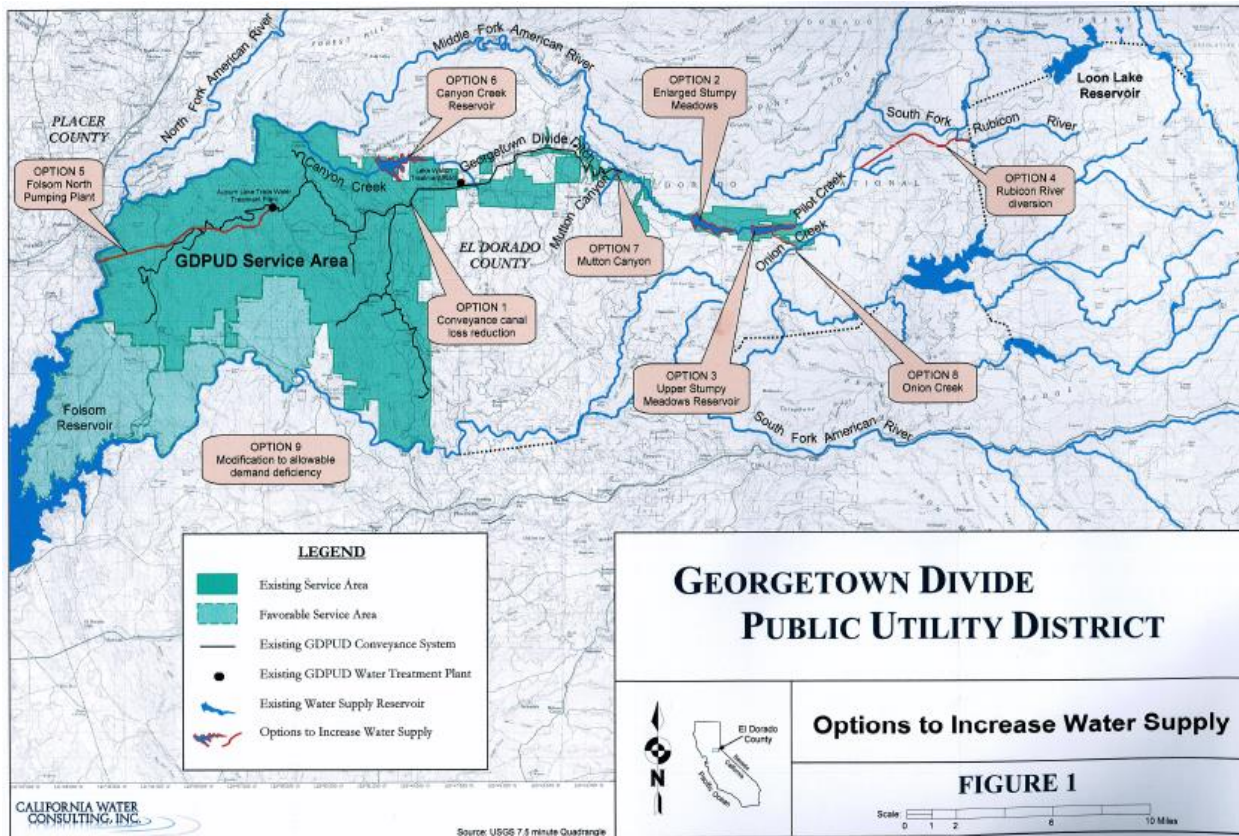


Figure 3 - Water Supply Options

Table 6-2 - Summary of Options to Increase Water Supply

| Option Description | Additional Normal Year (¹) Water Yield (acre- feet/yr.) | Initial Cost (\$ million) | Water Cost (\$/acre-foot/yr.) |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------|----------------------------------|
| Conveyance Canal Loss Reduction | 670 | 11.5 | 1,200 |
| Enlarge Stumpy Meadows Reservoir | 250 to 1,000 | (2) | (2) |
| Upper Stumpy Meadows Reservoir | 3,200 | (2) | (2) |
| Rubicon River Diversion | 3,300 to 10,300 | 59.0 | 470 to 1,100 |
| North Fork American River Pumping Plant (PL101-514 Fazio Water) | 10,300 | 14.2 | 230 |
| Canyon Creek Reservoir | 6,100 | 108.3 | 1,200 |
| Mutton Canyon Diversion | 100 | 0.14 | 130 |
| Onion Creek Diversion | 50 to 300 | 2.2 | 500 to 3,000 |
| (1) No information is available regarding the yield during dry years. | | | |
| (2) No cost information has been developed for this option. | | | |

Many of the additional water supply options identified in Table 6-2 are cost prohibitive, institutionally challenging and/or subject to third party permission and agreement by governmental entities whose favorable participation cannot be compelled. The North Fork American River Pumping Plant (aka American River Pump Station) water supply likely represents the most feasible new supply source in the long run, even with its limitations and high cost.

In the interim, the District continues to focus on reducing conveyance system losses through lining portions of the unlined open canal sections. In the past five years, the District has lined 2300 feet of canal. (0.5 AF estimated water conservation savings) The District has recently been awarded a CABY grant of \$1,147,859 to line approximately 12,380 lineal feet of the District's 70 mile ditch system. The project will reduce seepage, conserve water, increase the stability of the system and decrease outages within the District's existing water conveyance system. Consumnes American Bear Yuba (CABY) is a collaborative planning group that works with diverse stakeholders to improve water management in the Sierra foothills.

7.0 Water Supply Reliability

The District has taken steps to improve water service reliability. The District has an ongoing capital improvement program to address system reliability that maximizes the available water supply in the future.

In addition to forecasting domestic water demands for the next 20 years, Table 7-1 through Table 7-4 also project an increase in raw water agricultural demand during that same time period. In an effort to plan for future domestic demands, the District has taken steps to control the rate of increase of agricultural water service. The District adopted Ordinance 2005-01 in 2005 which allows District staff to respond to reliability issues predicted by the General Plan estimations of growth in agricultural water service. A copy of this ordinance can be found in Appendix G. New requests for agricultural service are evaluated each April based on available supply and will not be permitted unless there is sufficient capacity to meet the service requested. The maximum number of miner's inches allocated to raw water irrigation customers is limited to 632. Those that are unable to obtain raw irrigation water are placed on a waiting list and there are currently 43 people on this list.

During a normal water year, the operation of the raw water system begins about the middle of April when water from Stumpy Meadows is introduced into the conveyance system. All regulating reservoirs along the system are filled and the ditches are saturated and usually are ready for operation by May 1. Irrigation water is delivered to customers through standard orifices and measured in miner's inches. The contracted amount is delivered at a continual rate, with each user regulating onsite application. The irrigation season is generally from May 1 to October 1 of each year but can be shortened if there is a drought declaration. In 2015, the irrigation season was shortened by about 41% to 63 days (6/1/15 to 8/2/15) and almost 2800 AF of water was conserved.

The District's ongoing management practices and conservation programs to reduce losses in the water conveyance system by lining ditches with gunite, replacing ditches with pipelines, and improving operations that affect losses, will have a value in increasing the life of the present water supply. The District estimated in 2015 that the operational losses in the ditch conveyance system accounted for approximately 1603 acre-feet of water. Improved water supply efficiency will decrease the amount of water required from any of the water supply projects under consideration. However, conservation alone will not be sufficient to meet the longer-term (>20 years) projected demands within the District's service area, and eventually, implementation of an additional water supply supplemental to the Stumpy Meadows Project will be necessary.

7.1. Water Supply Reliability

This section describes the reliability of the District's water supply and its vulnerability to seasonal or climatic shortages.

The District's only supply of water is surface water from the Stumpy Meadows Reservoir. Because this is a surface water supply, it is subject to significant reductions during dry years. However, there are no other legal, environmental or water quality limits on this source of supply.

Options for additional water supply are presented in Table 6-2, but there are no current plans to implement any of these options.

The District’s water supply is the Pilot Creek watershed which culminates in the Stumpy Meadows Reservoir. The average annual runoff is 17,885 acre-feet (AF). Reservoir capacity is 20,000 AF. The District monitors its supply by measuring the reservoir level on the second Tuesday in April each year. During a normal year the reservoir would be full at this time. The lowest reservoir level seen at this time was during 1977 when the reservoir’s volume was only 11,060 AF. The District has elected to use the worst case single year condition from 1977 as the three-year condition to be conservative. Table 7-1 presents an estimate of the minimum water supply available during the next three years based on the driest three-year condition.

Supply Reliability During Worst-Case Three Year Dry Period

| Table 7-1 Retail: Basis of Water Year Data | | | |
|---------------------------------------------------|------------------|------------------------------------------------|----------------------------|
| Year Type | Base Year | Available Supplies if Year Type Repeats | |
| | | Volume Available | % of Average Supply |
| Average Year | 20000 | 12200 | 100% |
| Single-Dry Year | 11060 | 11060 | 55% |
| Multiple-Dry Years 1st Year | 11060 | 11060 | 55% |
| Multiple-Dry Years 2nd Year | 11060 | 11060 | 55% |
| Multiple-Dry Years 3rd Year | 11060 | 11060 | 55% |

7.1.1. Comparison of Supply and Demand

Tables 7-2 through 7-4 present a comparison of the District’s water demands and water supply for normal year, single dry year, and multiple dry years, respectively. It is important to note that even though the total demand exceeds the supply during the worst case dry year in 2035 by 1%, only 30% of the demand is for domestic water. The remaining 70% of the water demand is agricultural water. If these conditions were to occur, the District Board would address the situation by restricting the agricultural water use to the amount of water available. When the raw water agricultural demand is restricted to 2003 demands, the supply exceeds demand by 35% in 2035 during the worst case dry year.

| Table 7-2 Retail: Normal Year Supply and Demand Comparison | | | | |
|-------------------------------------------------------------------|--------|--------|--------|--------|
| | 2020 | 2025 | 2030 | 2035 |
| Supply totals | 12,200 | 12,200 | 12,200 | 12,200 |
| Demand totals | 7,140 | 8,426 | 9,748 | 11,119 |
| Difference | 5,060 | 3,774 | 2,452 | 1,081 |

| Table 7-3 Retail: Single Dry Year Supply and Demand Comparison | | | | |
|----------------------------------------------------------------|--------|--------|--------|--------|
| | 2020 | 2025 | 2030 | 2035 |
| Supply totals | 11,060 | 11,060 | 11,060 | 11,060 |
| Demand totals | 7,140 | 8,426 | 9,748 | 11,119 |
| Difference | 3,920 | 2,634 | 1,312 | (59) |

| Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison | | | | | |
|-------------------------------------------------------------------|---------------|--------|--------|--------|--------|
| | | 2020 | 2025 | 2030 | 2035 |
| First year | Supply totals | 11,060 | 11,060 | 11,060 | 11,060 |
| | Demand totals | 7,140 | 8,426 | 9,748 | 11,119 |
| | Difference | 3,920 | 2,634 | 1,312 | (59) |
| Second year | Supply totals | 11,060 | 11,060 | 11,060 | 11,060 |
| | Demand totals | 7,140 | 8,426 | 9,748 | 11,119 |
| | Difference | 3,920 | 2,634 | 1,312 | (59) |
| Third year | Supply totals | 11,060 | 11,060 | 11,060 | 11,060 |
| | Demand totals | 7,140 | 8,426 | 9,748 | 11,119 |
| | Difference | 3,920 | 2,634 | 1,312 | (59) |

7.1.2. Resource Maximization

The District maximizes their supply resource by planning their water deliveries based on the availability of water from the Stumpy Meadows reservoir each year. Priority is given to the domestic water customers and deliveries of raw agricultural water are evaluated each spring (mid-April) prior to the irrigation season (approximately from May 1 to October 1). Agricultural irrigation water is provided based on the water available that year.

8.0 Water Shortage Contingency Planning

Water shortage contingency planning is a strategic planning process to prepare for and respond to water shortages. Good planning and preparation can help the District maintain reliable supplies and reduce the impacts of supply interruptions. The Georgetown Divide Public Utility District (GDPUD or District) is geographically separated from its neighboring water purveyors by the three forks of the American River. Consequently, there is no immediate mechanism for the transfer of water into or out of the District through a mutual aid agreement should the need arise.

The District's Water Shortage Contingency Plan (WSCP) is a stand-alone document that can be amended as needed without amending the corresponding UWMP and is included in the 2015 UWMP as is required by law.

The plan describes the District's staged response to address potential long-term water shortage conditions due to drought and also describes the emergency response to sudden water shortages or water quality emergencies due to natural or man-made disasters and is the Water Supply Emergency Response Plan.

8.1. Stages of Action

The District has in the past, and will continue in the future, to respond to water supply shortages on an individual basis as they develop. Generally, for droughts or any other long-term water supply shortage, the District implements a program of water conservation measures that will result in use restrictions proportional to the severity of the reductions needed. In the past, such use restrictions have been associated with droughts. Although the circumstances surrounding future droughts (or any other long-term supply shortages) may not be identical to the droughts that the District has faced in the past forty years, the programs of voluntary and mandatory rationing developed in response to the increasingly severe actual or potential shortages in 1977-79 and more recently in 2013-15 provide the District with its model for planning future responses to severe water shortages.

All declarations of drought stages occur by action of the GDPUD Board of Directors and can occur during any time of the year. Regardless of water supply availability or service conditions, the Board of Directors reserves the right to set water conservation goals and modify stage declarations as necessary, based on reservoir levels, the impact to the environment or statewide water shortage conditions to align with regional or state water conservation policies, agreements, declarations or legal requirements.

8.2. Applicable Water Codes:

During times of water shortage, there are actions the District may take that are not solely based upon internal policies and regulations. Several California Water Code Sections and California Codes of Regulation grant authority to or mandate the water purveyor to declare drought conditions and implement drought stages. Included below are summaries of specific actions required during water shortage conditions; however, the official California Water Code or California Code of Regulations should be referenced for the complete language of the section.

- **Title 23, California Code of Regulation, Section 865** – Mandatory Actions by Water Suppliers – To promote water conservation, each urban water supplier shall implement all requirements and actions of the stage of its water shortage contingency plan that imposes mandatory restrictions on outdoor irrigation of ornamental landscapes or turf with potable water.
- **Section 350** – The governing body of the water purveyor may declare a water shortage emergency condition whenever it determines that ordinary demands cannot be satisfied without depleting supplies to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.
- **Section 351** – The declaration shall be made only after a public hearing is held, at which consumers have an opportunity to protest and to present their respective needs to the governing body. There is an exception for a breakage or failure that causes an immediate emergency.
- **Section 352** – At least seven days prior to the date of the public hearing, a notice of the time and place of the hearing shall be published in a newspaper that is distributed within the water purveyor’s service area. **Section 353** – When the governing body has declared a water shortage emergency condition within its service area, it shall adopt regulations and restrictions on the delivery and consumption of water supplied for public use in order to conserve water supply for the greatest public benefit, with particular regard to domestic use, sanitation, and fire protection.
- **Section 354** – After allocating the amount of water, which in the opinion of the governing body will be necessary to supply domestic use, sanitation, and fire protection, the regulations may establish priorities in the use of water for other purposes – without discrimination between consumers using water for the same purpose.
- **Section 355** – These regulations and restrictions shall remain in effect during the water shortage emergency condition, and until the water supply has been replenished or augmented.
- **Section 356** – These regulations and restrictions may prohibit new or additional service connections, and authorize discontinuing service to consumers willfully in violation of a regulation or restriction.
- **Section 357** – These regulations and restrictions prevail over any conflicting laws governing water allocations while the water shortage emergency condition is in effect.
- **Section 22257** – An irrigation district may impose equitable rules and regulations, including controls on the distribution and use of water, as conditions of ongoing service to its customers.

8.3. Drought and Water Management Tools

There are resources available to aid water purveyors and individuals before, during, and after a drought. Below is a brief description of a few of these tools.

- **California Urban Drought Guidebook**– a publication providing help to water managers facing water shortages by showing them how to use tried-and-true methods of the past, such as demand management, conservation analysis, and fiscal considerations; as well as new methods and technology such as ET controllers and cooling system efficiencies.

- **DWR Office of Water Use Efficiency** – makes available technical expertise, manages the CIMIS weather station network, carries out demonstration projects and data analysis to increase efficiency where possible, and provides loans and grants to achieve efficiency in water and energy. This information can be found at www.owue.water.ca.gov.
- **DWR Drought Conditions** – a webpage providing State and regional updates with regards to water conditions. More information can be found at <http://www.water.ca.gov/waterconditions/>
- **U.S. Bureau of Reclamation Drought Program** – aids federal water contractors and other interested parties in a wider view of drought conditions, encompassing the western United States. Staff from this program will also provide technical assistance, grant and loan funding, and expertise in drought planning. Information on this Bureau program can be found at www.usbr.gov/drought.
- **California Urban Water Conservation Council** – an organization serving water purveyors and environmental stakeholders through a collaborative process. Provides best management practices (BMPs) for municipal water conservation, as well as technical expertise for the implementation of these BMPs. More information can be found at www.cuwcc.org.

8.4. Drought Guidelines and Definitions

There are a number of circumstances during a drought in which the District would be required to make and implement decisions that are not solely based upon water supply availability, such as how long to stay in a drought stage, and how demand reductions should be quantified. It is also important to clearly define in advance the base periods that will be employed for each user class during the drought event.

8.4.1. Overall Guidelines

Below is a list of drought guidelines developed to assist staff in managing the drought event:

- 1) The District will strive to stay within each stage of drought for a complete billing cycle (2 months) for effective public outreach and the equitable implementation of drought rates (if applicable).
- 2) Drought stage demand reductions will be quantified by output at the water treatment plants during all stages; however, in Stages 3 and 4 meter reads may also be necessary to determine compliance with individual allocations and reduction targets.
- 3) This Water Shortage Contingency Plan shall be reviewed and updated every 5 years (or as needed) due to changes in water supplies, operations, expected water demands or other relevant factors.

8.4.2. Base Period Definitions

Below is a list of base period definitions developed to assist staff with the implementation of conservation measures during a drought or other District or State mandated requirements.

- 1) The base period for single-family residential customers is defined as the District-wide

average consumption per household – calculated using a three-year average of the consumption data for all single-family residential customers, divided by the total number of residential customers.

- 2) The base period for multi-family residential customers is defined as the District-wide average consumption per dwelling unit – calculated using a three-year average of the consumption data for all multi-family residential customers, divided by the total number of dwelling units.
- 3) The base period for commercial, governmental, and institutional customers, with meters serving both building and landscape, is defined as the three-year average of the individual customer’s consumption data.
- 4) The base period for landscape irrigation only customers is defined as the three-year average of the individual customer’s consumption data.

8.5. Ongoing Activities-Normal Water Conditions

Ongoing WSCP implementation actions will be completed both during periods of non-drought and drought periods. For normal water supply conditions, the District would continue to implement water conservation measures and prohibit water waste, while raising public awareness regarding water efficiency practices. These activities can be characterized as proactive actions that prepare for drought through monitoring, public outreach, and resource management.

Ongoing actions include the following:

- Work with the District Board of Directors and legal counsel on the establishment of drought rates or a drought contingency fund (as part of a CIP rate) if deemed necessary. It should be noted that the public will be informed regarding potential drought rates through public outreach and a required Proposition 218 public hearing.
- Establish a “drought contingency fund” either as part of an overall Capital Improvement Program (CIP) rate or a reserve fund for the expenses related to drought administration and loss of revenue during a drought.
- Enforce the water waste ordinance.

8.6. Public Outreach and information

Public outreach and information are integral to the implementation a successful WSCP and management of a drought event. Public education is the most important activity when a drought does occur, because demand management will not be successful if customers are not adequately informed regarding the water situation and the requirements of the District. The most important time for public outreach and education is at the beginning of Stage 1. Ongoing actions include but are not limited to the following activities:

- Educate customers regarding water saving devices and practices.
- Educate customers regarding the overall challenges of providing a reliable water supply in a semi-arid climate.
- Educate customers regarding drought stages through bill inserts or a printed message on the bill, an article in newsletters, e-mail messages, social media,

- drought website, direct mail post cards, and newspaper advertisements.
- Inform customers about potential drought rates if applicable.
- Develop and/or maintain a webpage for “Drought Stage” and “Water Conservation” information, including an easy-to-understand explanation of when a drought is called and when a drought has ended.
- Educate customers on how to read their water meters in order to determine their own monthly usage during times of demand restrictions.

8.7. Mandatory Provisions to Reduce Water Waste

The District adopted a water waste ordinance in 1982 (Appendix H) which authorizes abatement procedures to curtail blatant water waste. According to the ordinance, the District may require the installation of flow devices as a step prior to termination of service if wasteful conditions are not corrected within five days after giving the customer written notice. If conditions warrant, the Board can enact more stringent measures to supplement the ordinance and will do what is required to ensure reasonable apportionment of water supplies during times of limited supply. The existing block rate schedule also provides the basis for penalizing excessive use.

Under normal water conditions and during all drought stages, the District’s water waste ordinance will be enforced. All wasteful practices or unreasonable uses of water, whether willful or negligent are always prohibited. The following practices are considered wasteful practices or unreasonable uses of water during normal water conditions as well as during all water drought stages:

- Customers must repair leaks, breaks, faulty sprinklers and malfunctions within 72 hours of occurrence.
- Water for non-recycling decorative water features and fountains is prohibited.
- Landscapes shall only be watered between the hours of 8:00 p.m. and 8:00 a.m. to reduce evaporation and prevent landscape runoff. Care shall be taken not to water past the point of saturation.
- No landscape watering shall occur during rain/snow or within 48 hours after a 1/4” or more of precipitation.
- The washing of hard surfaced areas by direct hosing, except as necessary for public health and safety reasons.
- Hoses used to wash cars, boats, trailers or other vehicles and machinery must have automatic shut off nozzles.
- Unauthorized use of hydrants shall be prohibited. Authorization for use must be obtained from GDPUD.
- All new landscaping shall, at a minimum, adhere to the specifications outlined in the State’s Model Water Efficient Landscape Ordinance adopted by the California Department of Water Resources in 2010. This ordinance requires that all new construction with significant landscape area have efficient irrigation systems and include the use of low water use plants.

8.8. Penalties or Charges for Excessive Use

The District’s existing Ordinance 82-1, Section 7.5, allows for the District to discontinue service in the event the wasteful condition is not corrected within 5 days. Typically, the District charges \$25

for any violation of the ordinance. The District can establish penalties and charges above and beyond those that already exist as the water shortage stage increases. The District plans to update their existing ordinance to include the assessment of penalties for non-compliance in the next year.

State law dictates that public health and safety be prioritized over irrigation and agriculture in very serious water shortage conditions. Public health and safety needs rely on the treated water system and include fire protection, sanitation, medical/health clinics and other critical needs.

8.9. Mechanism for Monitoring Water Use

Since 99.8% of all Georgetown Divide Public Utility District customers are metered and the sources of supply are metered, the District is able to measure the effectiveness of any water shortage contingency plan that is implemented. The District collects sufficient data, in the normal course of operations, to determine actual reductions in sales, by user category, as compared to a given base year.

8.9.1. Normal Monitoring Procedure

In normal water supply conditions, production figures are recorded daily. Totals are reported monthly to the Operations Manager and incorporated into the water supply report.

8.9.2. Stage 1 and 2 Water Shortages

During a Stage 1 or 2 water shortage, daily production figures are reported to the Water Treatment Plant Supervisor. The Supervisor compares the weekly production to the target weekly production to verify that the reduction goal is being met. Weekly reports are then forwarded to the Operations Manager. Monthly reports are sent to the General Manager. If reduction goals are not met, the General Manager will notify the Board of Directors so that corrective action can be taken.

8.9.3. Stage 3 and 4 Water Shortages

During a Stage 3 or 4 water shortage, the procedure listed above will be followed, with the addition of a daily production report to the Operations Manager. Additionally, the usage patterns of the largest water users will be evaluated and targeted for additional outreach.

8.9.4. Disaster Shortage

During a disaster shortage, production figures will be reported to the Operations Manager hourly, and to the General Manager daily. Reports will also be provided to the Board of Directors and the El Dorado County Office of Emergency Services as necessary.

8.10. Water Supply Staged Response Trigger Levels

Historically, the amount of reservoir storage on April 15th has triggered the declaration of drought stages by the District Board of Directors. These range from a voluntary to mandatory reduction goals for both treated water and agricultural accounts of up to 50%. The reservoir levels in Table

8-1 present the trigger levels for the rationing stages and incorporate both supply and carry-over shortages.

The reservoir level is automatically reviewed by the District Board of Directors at the regular Board meeting in April prior to the release of irrigation water in May. It should be noted that the District Board of Directors can declare, modify or end a water shortage declaration based on remaining supply and forecasted weather conditions anytime of the year.

Table 8-1

| Stage | Water Supply Response Trigger Levels | |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------|
| | Percent Supply Reduction <i>Numerical value as a percent</i> | Water Supply Condition <i>(Narrative description)</i> |
| 1 | 15% | 17,000 AF (77% of normal) |
| 2 | up to 25% | 15,000 AF (68% of normal) |
| 3 | up to 35% | 13,000 AF (59% of normal) |
| 4 | up to 50% | 10,000 AF (45% of normal) |
| NOTES: Historically, the amount of storage in Stumpy Meadows reservoir on the second week in April triggers the the declaration of drought stages. | | |

8.10.1. Water Shortage Program Staged Response

The four stages of the GDPUD Water Shortage Contingency Plan depend upon District water supply conditions, and the corresponding response requested of our customers. If water supplies become slightly restricted, the Plan calls for an introductory Stage 1 drought response (Water Alert), during which customers are informed of possible shortages and asked to voluntarily conserve up to 15 percent. At Stage 2 drought (Water Warning) when water supplies become moderately restricted, both voluntary and mandatory measures are implemented to achieve a demand reduction goal of up to 25 percent. If water supplies subsequently become severely restricted, a Stage 3 drought (Water Crisis) can be called with the enforcement of mandatory measures to achieve a demand reduction goal of up to 35 percent. Lastly, if drought conditions persist and the District experiences extremely restricted water supplies, then a Stage 4 drought (Water Emergency) can be implemented that requires water rationing for health and safety purposes in order to achieve a 50 percent reduction of demands.

Table 8-2 outlines the four stages of rationing for water supply shortages of up to 50%. Stage 1 consists of voluntary measures and is an extension of the District’s ongoing education and financial incentive programs to encourage water conservation. Stage 2, 3 and 4 require mandatory rationing of both domestic and agricultural water.

The priority of domestic water over agricultural water is a long standing policy in the District and

has been successfully used during periods of reduced water supply. No new agricultural accounts will be accepted during Drought Stages 3 and 4. However, the Board has the discretion to limit new agricultural customers at any time when it is deemed necessary. The District will work with the untreated irrigation customers to shorten the season either by starting the season later than May 1 or end the season before October 1 or both to meet conservation targets.

No new domestic accounts will be accepted during Stage 3 unless the parcel has been assessed for improvements through a legal process; but during Stage 4, no new domestic accounts will be accepted. Potable water for street washing never occurs in the District's service area because there is no public entity to provide such a service.

Implementation of the stages are cumulative meaning that the declaration of a higher stage shall also include implementation of all the conservation methods described in previous stages. These actions shall be used as a starting point to meet targets and shall be monitored, as described later in this plan, for performance and are described in the following tables.

| Table 8-2 - Water Shortage Program Staged Response | | | | |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Stage One Water Alert | Stage Two Water Warning | Stage Three Water Crisis | Stage Four Water Emergency |
| Type of Program | Domestic Voluntary Agricultural Voluntary | Mandatory Mandatory | Mandatory Mandatory | Mandatory Mandatory |
| Conservation Goal | 15% | Up to 25% | Up to 35% | Up to 50% |
| District Actions | <ul style="list-style-type: none"> • Initiate informational campaign and encourage conservation. • Enforce water waste ordinance. • District Board has discretion to prohibit new agricultural accounts. | <ul style="list-style-type: none"> • Establish allocations • Limit landscape irrigation to specific days and number of days. • Intensify leak detection • Intensify public education • District Board has discretion to prohibit new agricultural accounts | <ul style="list-style-type: none"> • Establish more stringent allocations • Require retrofits prior to review of hardship exemptions • Implement drought surcharge, if available and necessary • District Board has discretion to prohibit new agricultural accounts. Shorten agricultural season to meet targets. • District Board has discretion to limit new domestic connections • Decrease line flushing • Reduce system loss • Implement water patrols | <ul style="list-style-type: none"> • Reduce allocations further limiting use to health and safety use only • Monitor use weekly, if necessary • End deliveries to landscape meters • Prohibit new agricultural connections • District Board has discretion to prohibit new domestic connections |
| Customer Actions | <ul style="list-style-type: none"> • Reduce water consumption • Comply with Water Waste Ordinance | <ul style="list-style-type: none"> • Further reduce use • Comply with water waste ordinance | <ul style="list-style-type: none"> • Conform with allocations • Comply with landscape irrigation restrictions | <ul style="list-style-type: none"> • Conform with allocations; Prohibit landscape irrigation • Monitor usage weekly or daily |
| Penalties | <ul style="list-style-type: none"> • Education visit | <ul style="list-style-type: none"> • Excess use charges • Citations • Flow restriction • Shutoff | <ul style="list-style-type: none"> • Excess use charges • Citations • Flow restriction • Shutoff | <ul style="list-style-type: none"> • Excess use charges • Citations • Flow restriction • Shutoff |

The following table provides specific restrictions and prohibitions on end uses.

| Table 8-3 Retail Only: Restrictions and Prohibitions on End Uses | | | |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------|
| Stage | Restrictions and Prohibitions on End Users | District Response | Penalty, Charge or Enforcement |
| 1 | Landscape - Restrict or prohibit runoff from landscape irrigation | Enforce Water Waste Ordinance | Yes |
| 1 | Other - Require automatic shut of hoses | Enforce Water Waste Ordinance | Yes |
| 1 | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | Enforce Water Waste Ordinance | Yes |
| 1 | Other - Require automatic shut of hoses | Enforce Water Waste Ordinance | Yes |
| 1 | Landscape - Limit landscape irrigation to specific times | Enforce Water Waste Ordinance | Yes |
| 2 | Landscape - Limit landscape irrigation to specific days | | Yes |
| 2 | CII - Lodging establishment must offer opt out of linen service | | Yes |
| 2 | CII - Restaurants may only serve water upon request | | Yes |
| 2 | Pools and Spas - Require covers for pools and spas | | Yes |
| 3 | Pools - Allow filling of swimming pools only when an appropriate cover is in place. | | Yes |
| 3 | Water Features - Restrict water use for decorative water features, such as fountains | Water for non-recycling decorative water features and fountains are prohibited. | Yes |
| 3 | Other - Prohibit use of potable water for construction and dust control | | Yes |
| 3 | Other - Prohibit vehicle washing except at facilities using recycled or recirculating water | | Yes |
| 3 | Other water feature or swimming pool restriction | Use of potable water for ponds prohibited. | Yes |
| 4 | Landscape - Prohibit all landscape irrigation | | Yes |

NOTES: 1. Implementation of the stages are cumulative meaning that the declaration of a higher stage shall also include implementation of all the conservation methods described in the previous stages. 2. The General Manager has the ability to assess fines and penalties but this measure is taken as a last resort.

Table 8-4 presents examples of domestic water conservation methods that may be applied at each stage of the water supply shortage response.

Stages of Water Shortage Contingency Plan - Consumption Reduction Methods

| Table 8-4 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Stage | Consumption Reduction Methods by Water Supplier | Additional Explanation or Reference (optional) |
| <i>Add additional rows as needed</i> | | |
| 1 | Expand Public Information Campaign | |
| 1 | Improve Customer Billing | Provide bill inserts on water conservation; identify past water usage; change format to include gpcd |
| 1 | Reduce System Water Loss | |
| 2 | Offer Water Use Surveys | |
| 3 | Increase Frequency of Meter Reading | If necessary, the largest water users will be identified for more frequent meter reading. |
| 3 | Decrease Line Flushing | |
| 3 | Increase Water Waste Patrols | |
| 3 | Moratorium or Net Zero Demand Increase on New Connections | Prohibit new domestic connections except those that have already been assessed through a legal process |
| 3 | Implement or Modify Drought Rate Structure or Surcharge | |
| 4 | Other | Prohibit all new domestic connections; flow restrictions; other measures as determined by the Board. |
| NOTES: Implementation of the stages are cumulative meaning that the declaration of a higher stage shall also include implementation of all the conservation methods described in the previous stages. | | |

8.10.2. Water Supply Emergency Response Plan.

The District's emergency response plan was prepared to respond to a sudden water shortage or water quality emergency such as might occur in the event of significant system damage from a major earthquake, or during a prolonged power outage, or in the event of a water quality emergency from bacteriological or chemical contamination of the water supply. Key provisions of the plan are summarized below and are included in the District's Emergency Response Plan:

Readiness

The District's primary emergency operations center would be created at the District office, at 6425 Main St. Georgetown CA. The District office is equipped with radios, telephones, telemetry equipment, emergency equipment, and supplementary documents and supplies. The emergency operations center would be the central point of coordination for government services, communications, and emergency public information.

Communication protocols have been established and damage evaluation procedures have been

defined. In the immediate period following a major disaster, such as a fire, the District's initial task would be to evaluate the water supply system and to isolate breaks in order to minimize storage losses as quickly as possible.

The emergency operating center staffing would include the General Manager or his/her designee plus additional staff to help coordinate disaster control activities and communicate with the public. Other key District personnel would be assigned specific roles depending on the magnitude of the emergency as well as the time of occurrence. On non-business days and after hours, the District maintains 24-hour response capability with the assignment of trained on-call workers, which can be summoned by calls from the District emergency phone service or the local Police and Fire Departments.

The District has assembled an inventory of equipment and spare parts, and maintains key vehicles in a "ready to respond" condition. The District also has arrangements with vendors for emergency backhoe and underground work, in the event there is more damage than the District's staff can manage. Crews would assemble at the District Office and be taken to the emergency work site by District personnel who would also be responsible for operating the valves to isolate the break and oversee the emergency repair work.

Response

The goal of the District's post disaster response actions is to maintain the water transmission and storage system intact and operational to the greatest extent possible. Emergency response protocols specify the leadership role of the on-call worker if the emergency occurs off-hours. The response plan is very specific with regard to operating protocols for the supply pumps and the monitoring of tank levels to ascertain the presence of significant leaks or pipeline breaks.

The repair or shut down work would be coordinated from the District Office and field crews would report progress to the emergency operations team. Regular progress reports would then be filed with the appropriate Police and/or Fire Department personnel.

8.10.3. **Impacts on Revenue and Expenditures**

The 2013-2015 drought in California did impact District revenues. In fiscal year 2014/15, operating revenue covered 7% less of operating expenses than in fiscal year 2011/12, the last normal year prior to the drought. There was a slight increase in expenditures for public outreach and updating the District's website. The District has general reserves available to respond to water shortage situations. Implementation of any stage of water rationing does not affect the minimum meter charge even though water usage will be reduced. The percentage increase in the increasing block rate schedule is usually sufficient to compensate for the reduction in water sold except in the most recent drought when there was a Stage 3 water declaration by the District Board, a 50% demand reduction in irrigation water and a State mandated 32% potable water demand reduction. The District may consider embedding a drought charge in future rate increases to fund a drought shortage fund. There will be no change in water cost to the District since the sole source of supply at this time is the District owned Stumpy Meadows Reservoir.

8.11. Water Quality Impacts on Reliability

The existing water quality of the District's surface water source continues to be excellent and therefore does not and should not affect the supply reliability between now and 2030. The District's 2015 Consumer Confidence Report is included in Appendix I. Stumpy Meadows Reservoir is a 20,000-acre-foot reservoir located with a crest elevation of 4,262 feet. The Pilot Creek basin watershed supplying the Stumpy Meadows Reservoir is approximately 11.7 square miles in size, ranging in elevation from 4,170 ft. to 6,190 ft. Land uses within the watershed area located above the Walton Lake Water Treatment Plant are predominately forested, undeveloped and low density residential. Public access is very limited and much of the watershed is gated and locked.

9.0 Demand Management Measures

9.1. Introduction

The ethic of water conservation is a fundamental component of policy and operation at Georgetown Divide Public Utility District. As our Gold Rush era water system has evolved to meet the challenging needs and demands of the people it serves, the District is committed to promoting conservation and maximizing operational efficiency.

Demand Management Measures (DMMs) are mechanisms a water supplier can use to increase water conservation. In 2014, new legislation (AB2067) streamlined the reporting requirements from 14 specific demand management measures to six more general requirements and an “other” category. Table 9-1 summarizes the DMMs and the District’s implementation status. The remainder of this Section provides a detailed description of each DMM.

The Board of Directors will maintain full flexibility in funding the various water conservation programs. As required by State law, the entire urban water management plan will be reviewed after five years.

9.1.1. Value of Water

To assess the benefits of the water conservation measures, the cost of treated water must be considered. Table 9.1 presents a summary of the District’s cost for treated water based on FY 2014/15 expenses. Any cost-benefit analysis used to evaluate the economic feasibility of a DMM will use \$5.48 per 1,000 gallons as the value of water.

| Table 9-1 Cost of Treated Water, FY 2014/15 | | |
|-----------------------------------------------|--------------------------|------------------------|
| Description | Allocation Basis | Cost |
| Source of Supply | 27% of total consumption | \$ 90,156.04 |
| Transmission and Distribution – Raw Water | 27% of total consumption | \$ 169,208.00 |
| Water Treatment | Total cost | \$ 720,892.00 |
| Transmission and Distribution – Treated Water | Total cost | \$ 785,562.00 |
| Customer Service | 90% of total accounts | \$ 249,840.90 |
| Administration | 60% of total cost | \$ 441,167.40 |
| Total Treated Water Cost | | \$ 2,456,826.34 |
| Acre-feet Treated Water Delivered in 2014 | | 1376 |
| Number of Treated Water Customers in 2014 | | 3,610 |
| Treated Water Cost per AF | | \$ 1,785.48 |
| Treated water Cost per 1000 gallons | | \$ 5.48 |

9.2. Implementation over the Past Five Years

The following table and narrative describes the District's efforts over the past five years describing each demand management measure that was implemented. Most of the programs were implemented as described in the 2010 UWMP and are ongoing programs. The exception is the school presentation program which was only provided in 2011 and 2012. It was discontinued in 2013 to 2015 due to lack of staffing and financial resources. The rebate programs were not implemented as they were not deemed economically feasible in the 2010 UWMP.

Table 9-2 DMM Implementation Status 2011-2015

| DMM | DMM Description | Implemented? |
|------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------|
| A | Water Survey Programs for Single-Family and Multi-Family Residential Customers | Yes; not fully implemented |
| B | Residential Plumbing Retrofits | Yes 2011-2012; No 2013-2015 |
| C | System Audits, Leak Detection and Repair | Yes |
| D | Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections | Yes |
| E | Large Landscape Conservation Programs and Incentives | Yes |
| F | High-Efficiency Washing Machine Rebate Programs | No ⁽¹⁾ |
| G | Public Information Programs | Yes |
| H | School Education Programs | Yes 2011-2012, No 2013-2015 |
| I | Conservation Programs for Commercial, Industrial, and Institutional Accounts | Yes; not fully implemented |
| J | Wholesale Agency Assistance Programs | No ⁽²⁾ |
| K | Conservation Pricing | Yes |
| L | Water Conservation Coordinator | Yes |
| M | Water Waste Prohibition | Yes |
| N | Residential Ultra-Low-Flush Toilet Replacement Programs | No ⁽¹⁾ |
| (1) Implementation not economically feasible. | | |
| (2) Implementation not applicable to District. | | |

9.2.1. DMM A – Residential Water Survey Program

The District continually monitors customer usage in a proactive manner so that when usage trends higher, the customer can be notified. To accomplish this, the District's customer service staff performs regular analysis of customer water usage from meter data during each bimonthly billing cycle. The District's meter readers and billing clerks have been trained to check for unusual changes in water consumption by comparing past water usage with the current billing data when it is being collected or processed. Customers are notified by phone of any apparent anomalies and are offered assistance from District staff in checking for potential causes of the identified increases in water use. Customers are also offered water conservation tips, instructions on how to read their meter and how to locate a leak. In addition, water conservation kits that include faucet and showerhead flow restrictors, toilet displacement devices, and toilet leak tablets are offered to the customer. It is estimated that on average twenty eight (28) customers were contacted each billing cycle for the past five years for a total of 840 customers. These calls are logged and followed up if necessary by the Water Conservation Coordinator. At least four new meters were also installed in 2015 when it was determined that the water meter was no longer working.

In addition, the District Board enacted a leakage consideration policy in the 1980s to provide financial incentive to customers for prompt leak repairs. The policy is based on compassion for the customer, prompt repair of major leaks and payment for the chemicals and electricity to treat the water that was lost due to leakage. To qualify for leakage consideration, customers must repair the leak within 2 weeks of notification. District staff estimate the expected usage based upon the same billing cycle during the previous year to determine the amount of water lost due to leakage. Water use due to leakage beyond the expected usage is billed at a reduced rate of \$2.55 per 1,000 cubic feet – as opposed to the current top tier rate of \$2.21 per 100 cubic feet. Note that only one consideration may be granted to a customer every 10 years. For the past five years, leak considerations were granted to 22 customers.

Effectiveness of these surveys is measured by a customer's water usage reported in meter readings. The District continues to monitor customer usage following the initial contact to ensure that corrective actions were effective.

Per the California Urban Water Conservation Council (CUWCC), water conservation from this DMM is estimated to be 20 gallons per day for each customer contacted. On average, the District contacted 168 residential customers per year in the last five years for an estimated savings of 1.2 million gallons per year. This savings is equivalent to about 0.07% of the District's average daily water production in the past five years.

Regardless of the savings, operations personnel have contacted many residences and businesses regarding their increased water use. Numerous malfunctioning toilets, faucets and irrigation devices are discovered and repaired annually as a result of this program.

This program is a historical program that has been used for the past 25 years. Considering the positive results of the existing program, the Georgetown Divide Public Utility District will continue to focus its water conservation work on efforts to contact high consumption residential users and assist them with reducing their water use. The District will continue to aggressively respond to all customer concerns regarding leaks and unusually high water usage.

The District has not provided on-site inspections/audits in the past due to financial constraints and staffing limitations. This best management practice, per the CUWCC, requires annual surveys and onsite inspections/audits of at least 1.5% of the District's residential customers. The District's current practices contact three times as many customers each year and the cost to implement an actual residential onsite audit program are not economically feasible at this time.

9.2.2. DMM B – Residential Plumbing Retrofit

Since 1992, all new and replacement plumbing fixtures sold in the state have been required to comply with applicable water conservation specifications. In 1991, the District's service area included about 2,400 residential customers. The District does not offer any rebate programs, however, the District does encourage the participation of rebate programs offered by the State or other organizations and they are publicized on the District's website.

The District's implementation of this DMM includes the distribution of water conservation kits free

of charge to all customers. These water conservation kits included high-quality, 2.5 gpm or less showerheads, 2.2 gpm or less faucet aerators, toilet displacement devices and toilet tank leak detection tablets. Installation instructions and water conservation literature are included in each kit. Water conservation kits are available at the District's office upon request. Kits are offered directly to residential customers when a customer has been contacted because of an unusually high bill.

The water conservation kits are targeted for distribution to the 2,400 pre-1992 residential customers. This program was publicized in the District's newsletters in 2011 and 2012. For the past three years, this program was not fully implemented due to significantly reduced staffing and limited financial resources during this time. The District will reinstate its' efforts to advertise the availability of the water conservation kits in the next five years.

Effectiveness of these water conservation kits on residential water use is difficult to quantify. Since 2010, it is estimated that the District distributed 50 water conservation kits to its customers. Per the CUWCC, water conservation from this DMM is estimated to be 12 gallons per day for each water conservation kit installed. Based on the number of kits distributed to date, this DMM has generated an estimated savings of 219,000 gallons per year. This savings is estimated to be 0.16% of the District's average daily water production.

9.2.3. DMM C – System Water Audits, Leak Detection and Repair

This program was implemented over the past five years. This is an ongoing program that is described on page 56 and Section 9.2.6 in this report.

9.2.4. DMM D – Metering with Commodity Rates

This program was implemented over the past five years. This is an ongoing program that is described on page 52 and Section 9.2.3 in this report.

9.2.5. DMM E – Large Landscape Conservation Programs and Incentives

The District currently has six customers that are considered large landscape domestic water users. The billing software was revised to include these customers as a separate sector to improve the District's tracking of their water usage. The District works with these domestic water users to identify conservation measures which would improve the irrigation efficiency of their landscaped areas. The District continues to provide economic incentives to customers through its rate structure to improve irrigation efficiency and conserve water.

All large landscape customers have dedicated meters and can monitor their irrigation usage. These meters improve efficiency and promote conservation by providing customers with detailed information on the water used to irrigate their property.

The District's largest water user among this sector is the privately owned nine-hole golf course located in the Auburn Lake Trails subdivision. Over the past nine years, the Auburn Lake Trails Property Owners Association (POA) invested significant funds to install a new irrigation system with electronic controls and a weather station to optimize the efficient irrigation of the course. They have been vigilant in reducing the amount of water used especially during the last two years

of the drought. The POA's efforts have resulted in a 51% decrease in water use between 2007 and 2015.

Many years ago, two evaporation/weather (CIMIS) stations were established in El Dorado County with the support and cooperation of the Department of Water Resources and the El Dorado/Georgetown Divide Resource Conservation District. To promote water conservation through efficient application of irrigation water, the District publishes weather data in local newspapers weekly during the irrigation season. District staff provides informational materials to assist in defining soil type, water holding capacity, and efficient irrigation scheduling for customers. The Conservation District has sponsored demonstrations and newspaper articles concerning development of effective irrigation schedules by using weather and soils data. In addition to the District's efforts, the El Dorado County Water Agency sponsors assistance to irrigators to insure optimal irrigation efficiency.

Effectiveness is monitored by tracking the District's large landscape irrigation customer's water usage. From 2011 to 2015, water use has dropped by nearly 66% for these large users during their peak summer irrigation season (July/August). This represents a water savings of about 239,000 gallons for a two month period. The current program that is in place is very flexible and has proven to be very effective.

The District will continue to work with its large landscape domestic customers to support all efforts to improve efficiency and encourage conservation. This small customer base (total of six customers), allows the District to custom tailor a conservation program specific to its customer's needs and has been extremely effective in reducing water use for these purposes.

9.2.6. DMM G – Public Information Program

The District continued their ongoing public information program in the past five years and it is described on page 55 and Section 9.2.5 in this report.

9.2.7. DMM H – School Education Program

The District developed a comprehensive school presentation program that included a slide show, video and distribution of water conservation information and premium items. A minimum of two presentations to local elementary schools were provided annually up until 2013 when the Water Conservation Coordinator retired. For the past three years due to significant staffing cuts and limited financial resources, this program was not implemented.

9.2.8. DMM I – Commercial, Industrial, and Institutional (CII) Conservation Programs

This is an historical program that has been in place for more than 25 years. Considering the results of the existing program, the District will continue to focus its water conservation work on efforts to contact high consumption commercial users and assist them with reducing their water use. The District will continue to aggressively respond to all customer concerns regarding leaks and unusually high water usage.

The District has 85 commercial accounts and 54 governmental/institutional accounts as of 2015. There are no industrial accounts. In total, these customers account for about 10% of total water

sales by volume. Most of the customers in this billing category are small retail businesses.

The District continually monitors commercial account usage in a proactive manner so that when usage trends higher, the customer can be notified. To accomplish this, the District's customer service staff performs regular analysis of customer water usage from meter data each bimonthly billing cycle. The District's meter readers and billing clerks have been trained to check for unusual changes in water consumption by comparing past water usage with the current billing data when it is being collected or processed. Customers are notified by phone of any apparent anomalies and are offered assistance from District staff in checking for potential causes of the identified increases in water use. These calls are logged and followed up if necessary by the Water Conservation Coordinator.

Effectiveness of this program is measured by a customer's water usage reported in meter readings. The District continues to monitor customer usage following the initial contact to ensure that corrective actions were effective.

Per the California Urban Water Conservation Council (CUWCC), water conservation from this DMM is estimated to be 20% for each customer contacted. On average, the District contacts 3 commercial customers each bimonthly billing cycle for an estimated savings of 2775 gallons per day. This savings is equivalent to about 0.2% of the District's average daily water production.

Regardless of the savings, operations personnel have had contact with many businesses regarding their water usage. Numerous malfunctioning toilets, faucets and irrigation devices are discovered and repaired annually as a result of this program.

Per the CUWCC, the CII conservation program should provide site-specific assistance including conservation measures such as installation of high efficiency toilets, dishwashers, ice machines, and washing machines. The District does not provide this level of implementation because it has not been economically feasible in the past. They do encourage the participation of rebate programs offered by the State or other organizations.

9.2.9. DMM J – Wholesale Agency Programs

The District is not a wholesale provider of water. Therefore, this DMM does not apply to the District and was not be implemented.

9.2.10. DMM K – Conservation Pricing

The District continues to implement this demand management measurement over the past five years and it is described on page 54 and in Section 9.2.4 of this report.

9.2.11. DMM L – Conservation Coordinator

The District has a very small staff and has not funded a position of Water Conservation Coordinator. In 2011 through 2012, the Water Quality Division Operations Manager took on the responsibilities for a variety of water conservation related duties and was the *de facto* Conservation Coordinator until she retired at the end of 2012. The District's current Operations Manager took on the role of Conservation Coordinator in 2015.

9.2.12. DMM M – Water Waste Prohibition

This measure was implemented over the past five years and is an ongoing program. It is described on page 51 and in Section 9.2.1 in this report.

9.2.13. DMM N – Residential Ultra-Low-Flush Toilets Replacement Programs

The District did not implement this program in the last five years. However, they do promote rebate programs on their website.

9.3. DMM Planned Implementation to Achieve Water Use Targets

The District plans to continue all of the following programs for the next five years.

Table 9-3 - District's DMM Planned Implementation 2015-2020

| DMM | DMM Description | Implemented |
|------------|--------------------------------------------------------------|--------------------|
| 1. | Water Waste Prevention Ordinance | Yes |
| 2. | Metering | Yes |
| 3. | Conservation Pricing | Yes |
| 4. | Public Education and Outreach | Yes |
| 5. | Programs to Assess and manage distribution system real loss | Yes |
| 6. | Water Conservation Program Coordination and Staffing Support | Yes |

9.3.1. DMM 1. – Water Waste Prevention Ordinance

In response to the drought years of 1976-1977, the District Board of Directors passed a water waste ordinance in 1982, Ordinance 82-1, which authorizes abatement procedures to curtail blatant water waste. According to the Section 7.5 of the ordinance, the District may discontinue water service if such conditions are not corrected within five days after giving the customer written notice. Typically, the District charges \$25 for any violation of the ordinance. However, the District can establish penalties and charges above and beyond those that already exist if deemed necessary. If conditions warrant, the Board can enact more stringent measures, such as the installation of flow devices, to supplement the ordinance and will do what is required to ensure reasonable apportionment of water supplies during times of limited supply. A copy of this ordinance is provided in Appendix H.

The following practices are considered wasteful practices or unreasonable uses of water, whether willful or negligent during normal water conditions as well as during all water drought stages:

- Customers must repair leaks, breaks, faulty sprinklers and malfunctions within 72 hours of occurrence.
- Water for non-recycling decorative water features and fountains.
- Landscapes shall only be watered between the hours of 8:00 p.m. and 8:00 a.m. to reduce evaporation and prevent landscape runoff. Care shall be taken not to water past the point of saturation.

- No landscape watering shall occur during rain/snow or within 48 hours after a 1/4:" or more of precipitation.
- The washing of hard surfaced areas by direct hosing, except as necessary for public health and safety reasons.
- Hoses used to wash cars, boats, trailers or other vehicles and machinery must have automatic shut off nozzles.
- Unauthorized use of hydrants shall be prohibited. Authorization for use must be obtained from GDPUD.
- All new landscaping shall, at a minimum, adhere to the specifications outlined in the State's Model Water Efficient Landscape Ordinance adopted by the California Department of Water Resources in 2010. This ordinance requires that all new construction with significant landscape area have efficient irrigation systems and include the use of low water use plants.

9.2.3 DMM 2. – Metering

The District began implementation of this DMM in 1961. Almost all (99.8%) of the District's domestic water connections are metered and all water is billed volumetrically. There are six older commercial and governmental connections that are not metered, which represents approximately 0.2% of the total treated water accounts. Most of these historical connections are along Main Street in Georgetown, where modification of the existing service for meter installation is difficult. However, the District plans to be fully metered by 2025. The majority of the District's meters are 15 years or older. The District is updating their capital improvement program and hopes to implement a District wide meter replacement program in the next five years.

The primary tool in promoting water conservation is the water meter. When there is a direct correlation between amount of water used and cost, people become aware and accountable, finding their own ways to conserve water. This practice is recognized as a sound urban water management practice.

However, due to the age of the meters within the District's service area, the non-revenue water (NRV = production water minus metered water sales) increased dramatically especially in the last two drought years when the customers consumed 33% less water than in 2013. The older meters tend to be less accurate at very low flows. From 2006 to 2010, the average NRV was 4.3% with a high of 7.8 %. In the last five years, the average NRV was 16% with a high of 27% in 2015.

In 2014, the Sierra Business Council (SBC) through a grant from Pacific Gas and Electric (PG&E) and the California Public Utilities Commission (CPUC) retained MC Engineering to conduct an analysis of the District's water meters in order to estimate the Apparent Losses (water lost due to meter inaccuracy) and to better understand the relationship between Apparent Losses and Real Losses (losses due to leakage). After analyzing a representative number of meters across all sizes, the study revealed that on average, the District's small meters (5/8 - 1") were under-

registering by approximately 8% (92% overall accuracy estimated). The intermediate meters were found to be losing 3% to 25% of the customer's usage (75% to 97 % overall accuracy). The large meters (3" to 6") were found to be losing 10% to 35% of the customer consumption (65% to 90% overall accuracy). On average, they estimated that the loss due to under-registering of the meters was 10% District-wide.

The production meters at both of the treatment plants are also more than forty (40) years old. A new meter will be installed at the new ALT Water Treatment plant in 2016/17. There are plans to calibrate the meter at the Walton Lake Water Treatment plant in the FY 2016/17.

The benefits of installing a new automatic meter reading (AMR) system technology were also evaluated as part of this study. It was determined that there are economy of scale benefits associated with a District wide meter replacement program. They estimated that the capital cost would be approximately \$1,500,000 to replace the meters and install an AMR system and that the payback would be less than 10 years considering the increased revenue and reduction in labor costs associated with manually reading and entering the meter data. This capital program would provide the following benefits:

- Enhance revenue by ensuring payment for all water sold,
- Encourage conservation by ensuring that customers pay for all water delivered, and
- Increase the agency's ability to account for its distributed water.

In the past, the District's metering and rate structure effectively promoted water conservation. The per capita residential water use in the District's service area averaged approximately 158 gallons per person per day compared to the statewide average of 196 gallons per person per day (Source: California Urban Water Conservation Council, 2001-02 statewide mean).

According to the California Urban Water Conservation Council (CUWCC), the water savings generated by the initial installation of water meters is about 25% of the total water use. For the District, these savings are equivalent to 373,500 gallons per day based on the highest water sales in 2013. It is doubtful that the District would achieve this savings due to new meter installation. However, continued implementation of this DMM is required to maintain the current level of water conservation.

9.2.4 DMM 3 – Conservation Pricing

Almost all (99.8%) of the District's domestic water connections are metered and the water is billed volumetrically. Since 1982, treated water has been billed on an inclining block rate structure where the unit cost increases with the amount used, which penalizes inefficient water usage.

In 2008, the District implemented a new water rate structure with increases in 2009 through 2011. The previous rate structure had been in place since July 1, 2006. There have been no rate increases since 2011.

| Table 9-4 | |
|--------------------------------------------------------------------------|-----------------------------|
| GDPUD Rate Schedule | |
| Bi-monthly minimum charge is for consumption of 2,000 cubic foot or less | |
| Residential minimum: \$47.14 | Commercial minimum: \$50.32 |
| Consumption above minimum of 2,000 cf: \$/cf | |
| 2,001-4,000 cf | \$0.0138 |
| 4,001-6,000 cf | \$0.0165 |
| 6,001-8,000 | \$0.0193 |
| 8,001 - thereafter | \$0.0221 |

The primary tool in promoting water conservation is the water meter. When there is a direct correlation between amount of water used and cost, people become aware and accountable, finding their own ways to conserve water. This practice is recognized as a sound urban water management practice.

The District's previous rate structures have effectively promoted water conservation. The District's per capita water use has always been lower than other areas like Sacramento that historically did not have meters until recently.

Per the CUWCC, the water savings generated by implementation of commodity rates are estimated to be 10% to 50% of the increase in water rate for the average customer (e.g. a 10% water rate increase would generate 1% to 5% in water savings). Over a four year period from 2008 to 2011, the District increased their residential rates 18% which generated a 16% reduction in per capita water usage. This is equivalent to about 460,000 gallons per day or 28 gpcd. However, the reduction in water consumption was not sustained in 2012 and 2013 when the per capita rate returned to pre-rate increase levels. Then in 2014 and 2015, the per capita water consumption dropped again significantly (20% and 32% respectively) due to the mandated conservation measures implemented by the District's Stage 3 drought declaration and the Governor's emergency drought order.

As stated earlier, the current rate structure was adopted in 2008 and implemented over three years (2009 - 2011). There have been no rate increases since 2011. The District is planning to re-evaluate current and projected service costs and associated funding mechanisms in the next five years.

9.2.5 DMM G – Public Information Program

Up until 2013, the District had an on-going public information program and conducted community outreach and public education activities. Due to the 2013-2015 drought together with limited staff and financial resources, the public information program efforts since 2013 were aimed primarily at motivating people to respond to the specific drought emergency that was occurring.

The District's plans to expand their water conservation public information and public outreach program in 2016 to 2020 as follows:

Presentations: Outreach efforts will expand to include a school presentation program, presentations at local service clubs, neighborhood association meetings and at other venues when requested. When feasible, the District will collaborate and coordinate with other water conservation organizations to reach the target audience more efficiently. The District will reestablish their presence with an information booth at festivals, special community events, etc. Additionally, District staff will continue to conduct public tours at the water treatment plant facilities.

Brochures and Flyers: The District will expand their public information program to include more frequent newsletters, bill inserts and billboard posting, etc. In 2015, the District switched from a bi-monthly postcard for billing purposes to a standard billing invoice with an envelope. This facilitates the inclusion of water conservation information (bill inserts) with the billing invoice. The District includes usage information on the bill but also hopes to include past water usage on the customer's bill for comparison purposes which will increase the customer's awareness of their personal water conservation efforts. In addition, the District will provide information on water conservation topics for inclusion in local newsletters and other papers.

The District has purchased and developed a number of pamphlets, flyers and information sheets containing water conservation information. These are available at the District office or can be mailed upon request. Appendix J presents several examples of the materials available to the District's customers.

In the event of a drought or pending drought the District uses general mailings, separate from the bimonthly billings, to announce water conservation programs to appeal to customers to reduce their water consumption. These efforts are supported with stepped-up public information initiatives using a variety of local media outlets.

Press Releases: Mandatory water conservation programs implemented by the District are announced with articles in local newspapers and newsletters. During a drought declaration, the District will again implement an active public relations effort to reinforce the need for active citizen participation in the conservation effort.

District Website and Social Media: In October 2015, the District revamped their website to better communicate with their customers focusing on ease of use and customer engagement. In July 2015, the District began posting the weekly Stumpy Meadows reservoir levels as well as the monthly conservation updates to report progress toward

conservation goals. This information was also shared on social media to improve customer awareness and engagement. The website now contains a dedicated page on water conservation with water conservation tips, how to fix leaks, progress reports, etc. The focus of these efforts is to reinforce the need to conserve water.

Online Billing Portal: When the District updated their website, they included an online billing portal which not only enables electronic bill payment but also provides historical water usage for all customers. This new feature will be promoted in future public outreach materials.

The District tracks the feedback regarding the information provided to the public. The District has no method to quantify the savings of this DMM but believes that this program is vital to a successful water conservation program and is in the public's interest.

This is an ongoing program but during the last two years of the drought, the District has expanded their efforts to provide public information and outreach services and materials to remind the public about water conservation and other water resource issues.

9.2.6 DMM 5 – System Losses

The District evaluates the water consumption at each billing cycle to quantify the amount of non-revenue water. Non-revenue water is the difference between total water sales and total water production and includes both authorized and unauthorized uses. Authorized uses include water for un-metered water connections, fire-fighting and training, hydrant flushing, filter rinse water, construction water and other miscellaneous uses. Unauthorized uses include pipeline leaks, water meter inaccuracy, tank overflows, and stolen water. This un-metered, unauthorized use is classified as apparent and real losses. In early 2016, the District conducted the 2015 water audit using the AWWA water audit software and determined that the non-revenue was 27% of the water production. It was determined through the meter accuracy study that at least 10% of the loss was due to under-registering meters as discussed above, however, the other real losses include pipeline leaks, stolen water, tank overflows and flushing.

The District understands that as the infrastructure ages, the number of leaks tend to increase and efforts are made to repair all identified leaks in the distribution system as quickly as possible after they are detected. Even minor leaks are reported by the meter readers and are investigated and repairs are made. In 2015, the District purchased leak detection equipment to facilitate the identification and the repair of leaks more efficiently. During the 2014-2015 drought declaration period, repairing leaks became a top priority for the District.

Leak detection and pipe replacement are fundamental to the operation of the treated water system. The District actively implements programs to reduce losses in both the treated and untreated water conveyance systems. The District's Board of Directors is finalizing a capital improvement program to assist in funding replacement of aging and inefficient facilities especially in areas of recurring pipeline leakage.

Remote sensing at the storage tanks accelerates response capability and minimizes losses when leaks occur. The District has also developed a water system pressure control program to reduce

pressure and thereby reduce water use. The District operates under 8 pressure zones and seventy (70) pressure reducing stations at locations throughout the District's service area so as to reduce high static pressure in its system and at individual water connections. In addition, the District recommends customers install a pressure reducing valve on their service connection if the District's pressure at that location exceeds 60 psi. Pressure management is particularly important for the District because of the topographic variations in the service area. Reduced pressure helps conserve water by reducing flow through fixtures, which limits quantities lost when fixtures leak or when water is inefficiently applied.

Stolen water became an issue during the drought so the District adopted Ordinance No. 2015-02 that provided administrative penalties and enforcement actions for the theft of water and tampering with District facilities, a copy of which is in Appendix K.

Although not required by this UWMP, loss reduction in the raw water conveyance system is another major focus of the District's maintenance and capital improvement program. The annual budget routinely includes funding for a rehabilitation program of the raw water conveyance system. Over the years, sections of the ditch system have been replaced with pipeline and unlined ditches have been gunited, thus significantly reducing seepage losses from the ditch system. Over 20% of the untreated water conveyance system, which is in large part Gold Rush era, is now in pipe or concrete-lined ditch. When repairs are made to the raw water conveyance system, pipe is used whenever possible to reduce losses and avoid the maintenance requirements of ditches.

Annual system audits are used to evaluate the effectiveness of the District's leak detection and repair program. The District's unaccounted-for water volume between 2000 and 2010 was about 4.3% of the overall treated water production, however it has significantly increased to an average of 16% from 2011 to 2015 and a high of 27% in 2015.

The CUWCC's best management practice for leak detection specifies that non-revenue water or water losses should be less than 10%. If the District could reduce this significant loss from leaks to below 10%, the District could potentially expect a 5% water conservation savings or about 68,000 gallons per day.

The District will continue its vigilance in reducing water losses with on-going programs to repair pipeline leaks as soon as they are discovered, replace old, less reliable pipelines, and upgrade older, potentially inaccurate, water meters. With the recent purchase of the leak detection equipment, the District hopes to implement a formal leak detection program especially in areas where there have been numerous leaks in recent years. The District is also seeking proposals from consultants to perform a leak detection survey for the District in 2016.

9.2.7 D6 – Conservation Coordinator and Staffing

Due to limited staff and financial resources, the District has not funded a formal water conservation program in the past five years. However, up until 2013, the Water Quality Division Operations Manager took on the responsibilities for a variety of water conservation related duties and implemented the District's water conservation programs and as such, was the *de facto*

Conservation Coordinator. From 2013 to date, the District experienced a significant reduction in staffing and at the same time, was faced with a drought. Therefore, the District concentrated their efforts on implementing their water shortage contingency plan and the Governor's drought emergency measures.

In 2016, the District again named the Operations Manager, Darrell Creeks the *de facto* Conservation Coordinator but there are plans to seek additional funding and a position to support the water conservation program.

The District has no method to quantify the savings provided by this DMM but believes that this coordination and oversight effort is critical to the District's water conservation efforts.

10.0 Plan Adoption, Submittal and Implementation

10.1 Plan Adoption and Submittal

Both the El Dorado County and the El Dorado County Development Services Division were notified on January 16, 2016 informing them that the District was updating the UWMP for 2015 and that a public hearing would be held in June at the District's regular Board meeting. A copy of these Notices is included in Appendix B.

Prior to adopting this UWMP, the District made the plan available to the staff, the Board of Directors, El Dorado County planning, the El Dorado County Water Agency and the public for review and input. The public hearing was noticed in the local newspaper, Georgetown Gazette, once a week for two successive weeks as required by the Government Code Section 6066. The notice included the time and place of hearing, as well as the location where the plan was available for public inspection. A copy of the public notice is included in Appendix C.

This Plan was presented to the Georgetown Divide Public Utility District's Board of Directors for review and adoption on June 14, 2016. The public hearing and adoption hearing was held at the same time and was appropriately noticed in the meeting agenda. The public hearing portion took place before the adoption portion to allow the Board of Directors the opportunity to modify the UWMP in response to public input before adoption. The adoption resolution can be found in Appendix D.

The 2015 UWMP will be submitted to the Water Efficiency Office in the Department of Water Resources, as required by law electronically through WUEdata, (a State online submittal tool), State Department of Water Resources by July 1, 2016. It was also filed with the California State Library and El Dorado County no later than 30 days after adoption.

10.2 Planned Implementation 2015-2020

This UWMP will be used by the Georgetown Divide Public Utility District (District) staff to guide the District's water conservation efforts through the year 2020. As required by §10621 (a) of the Water Code, the District will update the Plan again by July 1, 2021.

The District's per capita water usage in 2015 was 152 gpcd which meets not only the interim 2015 target of 185 but also meets the 2020 compliance target of 167 gpcd. In the last two years, the District has been operating under a drought declaration and the customers have been very supportive and proactive resulting in a water conservation savings of over 30% from 2013 levels. The challenge for the District will be to sustain these efforts moving forward. The following programs and actions will be taken over the next five years as described in Table 10-1 to comply with the 2020 target of 167 gpcd. It is estimated that implementation of these programs will result in a savings of 167 AF/ year. The District will continue to monitor its progress toward meeting this target.

Table 10-1 District’s 2015-2020 DMM Implementation Actions to Achieve the 2020 Target

| DMM | DMM Description | Actions | DMM Conservation Savings |
|-----|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 1. | Water Waste Prevention Ordinance | <ul style="list-style-type: none"> • Enforce Water Waste Ordinance • Update 1982 Ordinance to include additional administrative penalties and fines | Not quantified Ongoing program so savings are included in demand projections. |
| 2. | Metering | <ul style="list-style-type: none"> • Install meters on 6 unmetered connections prior to 2025 • Calibrate production meters at plants and develop a program for routine calibration • District-wide Meter replacement program with AMR | Assume 5% from new AMR meters 84 AF/year |
| 3. | Conservation Pricing | <ul style="list-style-type: none"> • Conduct a rate study and establish new rates; Consider a drought surcharge and/or embed a water shortage emergency fund in a CIP rate to cover revenue loss during drought and additional expenditures for outreach/enforcement | Not quantified Ongoing program so savings are included in demand projections. |
| 4. | Public Education and Outreach | <ul style="list-style-type: none"> • Re-establish school presentation program (4 presentations annually to elementary school students) • Re-establish information booth for 2 special events per year. • Assess and implement methods to make it easier for customers to see the effects of the water conservation efforts. • Continue and expand outreach programs through the use of news releases, the website, newsletters, social media and distribution of flyers/brochures. Post link to CIMIS for landscape irrigation information. • Targeted outreach to top water users year-round and additional outreach to top water users during the March – October months. This may include monthly meter readings to monitor consumption. | Not quantified Ongoing program so savings are included in demand projections. |
| 5. | Programs to Assess and manage distribution system real loss | <ul style="list-style-type: none"> • Conduct a leak detection survey • Conduct annual AWWA audit as required; Provide staff training through AWWA and CUWCC. • Update CIP program annually targeting replacement of pipelines with recurring leaks. • Reduce loss in treated water system to below 10%. • Although not a DMM, continue to reduce loss in the raw water conveyance system | Assume loss is reduced by 5% 77 AF/year |
| 6. | Water Conservation Program Coordination and Staffing Support | <ul style="list-style-type: none"> • Provide funding for a water conservation program and possibly a coordinator position. Seek someone with an AWWA certification and/or training in water conservation and landscape irrigation. • Enforce the State Model Landscape Ordinance; Establish water budgets for the existing six large landscape customers.. | Not quantified |
| 7. | Other-Residential and Commercial Water Survey and Plumbing Retrofit | <ul style="list-style-type: none"> • High bill contact for all customer classes. Notify customers of leaks on the customer’s side of meter when identified. Continue leak consideration policy as incentive to repair leaks promptly. • Distribute 100 conservation kits to pre-1992 homes in next five years. | Water Survey- 5 AF/year Conservation Kits 1 AF/year |

The District will document and monitor its programs in the following ways:

- Maintain an annual record of every presentation made, the location, the number of attendees and copies of all evaluation forms.
- Maintain an annual record of the number of water conservation kits distributed along with the customer's name.
- Maintain annual records of the number of and name and location of every special event attended and the number of contacts made.
- Maintain an annual record of the number of conservation brochures, flyers, newsletters, bill inserts, etc. distributed annually.
- Maintain a list of the number of high bill customers contacted each billing cycle by customer class.
- Maintain a list of the people granted a leak consideration annually.
- Maintain records of all targeted outreach to high water users.
- Monitor the water production records monthly and consumption reports bimonthly to determine compliance with the 167 gpcd target. Maintain annual records of water use by sector.
- Maintain all necessary records of leaks, flushing activities, construction water, stolen water, consumption records and production records, etc. to conduct the annual AWWA audit.
- Enforce the State Model Landscape Ordinance for all new customers meeting the minimum criteria of 2500 square feet for publicly owned or developer provided landscape area or 5000 square feet for homeowner provided landscaped area. Per the ordinance, establish a water budget allowance for all existing large landscape customers and monitor their usage.

Appendix A
2011-2015 Water Code Laws

| Change Number | Topic | CWC Section | Legislative Bill | Summary | Guidebook Section |
|---------------|-----------------------------------------|-------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1 | Demand Management Measures | 10631 (f)(1) and (2) | AB 2067, 2014 | Requires water suppliers to provide narratives describing their water demand management measures, as provided. Requires retail water suppliers to address the nature and extent of each water demand management measure implemented over the past 5 years and describe the water demand management measures that the supplier plans to implement to achieve its water use targets. | Chapter 9 |
| 2 | Submittal Date | 10621 (d) | AB 2067, 2014 | Requires each urban water supplier to submit its 2015 plan to the Department of Water Resources by July 1, 2016. | Chapter 10 |
| 3 | Electronic Submittal | 10644 (a) (2) | SB 1420, 2014 | Requires the plan, or amendments to the plan, to be submitted electronically to the department. | Chapter 10 |
| 4 | Standardized Forms | 10644 (a) (2) | SB 1420, 2014 | Requires the plan, or amendments to the plan, to include any standardized forms, tables, or displays specified by the department. | CH 1, Section 1.4 |
| 5 | Water Loss | 10631 (e) (1) (J) and (e) (3) (A) and (B) | SB 1420, 2014 | Requires a plan to quantify and report on distribution system water loss. | Appendix L |
| 6 | Estimating Future Water Savings | 10631 (e) (4) | SB 1420, 2014 | Provides for water use projections to display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans, when that information is available and applicable to an urban water supplier. | Appendix K |
| 7 | Voluntary Reporting of Energy Intensity | 10631.2 (a) and (b) | SB 1036, 2014 | Provides for an urban water supplier to include certain energy-related information, including, but not limited to, an estimate of the amount of energy used to extract or divert water supplies. | Appendix O |
| 8 | Defining Water Features | 10632 | AB 2409, 2010 | Requires urban water suppliers to analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas. | CH 8, Section 8.2.4 |

Appendix B
Notice of Intent to Adopt UWMP to Coordinating Agencies

**GEORGETOWN DIVIDE
PUBLIC UTILITY DISTRICT**

P.O. BOX 4240
GEORGETOWN, CALIFORNIA 95634

PHONE (530) 333-4356
FAX (530) 333-9442

January 25, 2016

Ken Payne, General Manager
El Dorado County Water Agency
4110 Business Drive Suite B
Shingle Springs, CA 95682

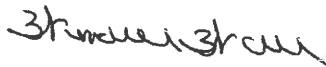
Subject: Georgetown Divide Public Utility District 2015 UWMP Notice

Dear Mr. Payne,

The Georgetown Divide Public Utility District is preparing its 2015 Urban Water Management Plan (UWMP). The UWMP is required to be submitted to the California Department of Water Resources every five years per water code 10610-10657. This letter is written to notify El Dorado County Water Agency that the District is updating the UWMP for 2015. The District intends to present its findings at a public hearing at the June 14, 2016 Board meeting.

If you have any questions or comments please contact me at (530) 333-4356.

Sincerely,



Wendell Wall
General Manager

cc: Siren & Associates

**GEORGETOWN DIVIDE
PUBLIC UTILITY DISTRICT**

P.O. BOX 4240
GEORGETOWN, CALIFORNIA 95634

PHONE (530) 333-4356
FAX (530) 333-9442

January 25, 2016

Roger Trout
Director, Development Services Division
El Dorado County
2850 Fairlane Court, Building C
Placerville, CA 95667

Subject: Georgetown Divide Public Utility District 2015 UWMP Notice

Mr. Trout,

The Georgetown Divide Public Utility District is preparing its 2015 Urban Water Management Plan (UWMP). The UWMP is required to be submitted to the California Department of Water Resources every five years per water code 10610-10657. The law requires a water agency to notify the county in which it serves water that it will be updating its UWMP. The District is updating the UWMP for 2015 and intends to present its findings at a public hearing scheduled for June 14, 2016.

If you have any questions or comments please contact this office at (530) 333-4356.

Sincerely,



Wendell Wall
General Manager

cc: Siren & Associates

Appendix C
Notice of Public Hearing

GEORGETOWN
GAZETTE
PROOF OF PUBLICATION
(2015.5 C.C.P.)

STATE OF CALIFORNIA
County of El Dorado

I am a citizen of the United States and a resident of the County aforesaid; I'm over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am a principal agent of and/or the publisher of the El Dorado Gazette, Georgetown Gazette & Town Crier, a newspaper of general circulation printed and published once each week in the town of Georgetown, Ponderosa Judicial District, County of El Dorado, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court to the County of El Dorado, State of California, under the date of April 3, 1970, Case Number 18589; that the notice, of which the attached is a printed copy (set in type no smaller than non-pareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

05/05, 05/12

All in the year 2016

I certify (or declare) under penalty of perjury that the foregoing is true and correct.
Dated at Placerville, California, this 12th day of MAY, 2016



Signature

Proof of Publication of:
NOTICE OF PUBLIC HEARING

NOTICE OF PUBLIC HEARING
GEORGETOWN DIVIDE
PUBLIC UTILITY DISTRICT
BOARD OF DIRECTORS
URBAN WATER MANAGEMENT PLAN
UPDATE

NOTICE IS HEREBY GIVEN that the Board of Directors of the Georgetown Divide Public Utility District (the "District") will hold a public hearing at its June 14, 2016 regular Board meeting at 2:00 PM at the District Office: 6425 Main Street, Georgetown, California to consider the adoption of an update to the District's Urban Water Management Plan and Water Shortage Contingency Plan ("UWMP"). The hearing will provide an opportunity for members of the community to provide input on the District's urban water use target for compliance with the SBX7-7, also known as the Water Conservation Bill of 2009, and the District's planned methods for meeting its urban water use target. Upon conclusion of the public hearing, the Board of Directors may revise, change, modify and/or adopt the Draft 2015 UWMP.

ALL INTERESTED PARTIES: are invited to attend the June 14, 2016 public hearing to express opinions or submit evidence for or against the approval of the UWMP. At the above noted time and place, testimony from interested persons will be heard and considered by the District Board of Directors prior to taking action or making any recommendation on the UWMP. Upon request, the agenda and the documents in the hearing agenda packet can be made available to persons with a disability. In compliance with the Americans with Disabilities Act, the District encourages those with disabilities to participate fully in the public hearing process. Any person requiring special assistance to participate in the meeting should call (530) 334-4356 or email gm@gd-pud.org at least forty-eight (48) hours prior to the meeting. Written comments are also accepted, prior to the hearing by the District, at: P.O. Box 4240, Georgetown, CA 95634. Information regarding the hearing is on file and may be viewed by interested individuals at the District Office: 6425 Main Street, Georgetown, California. If a challenge to the above proposed actions is made in court, persons may be limited to raising only those issues they or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the District Board.

The Urban Water Management Plan describes and specifies the proposed urban water use targets and may be viewed at the District Office: 6425 Main Street, Georgetown, California 95634, or online at www.gd-pud.org/.

If you have any questions, please call the District Clerk at (530) 333-4356, or stop by the office at 6425 Main Street, Georgetown, California 95634.

PUBLISH DATE: May 5, 2016 and May 12, 2016

5/5, 5/12

000266

**NOTICE OF PUBLIC HEARING
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT
BOARD OF DIRECTORS**

URBAN WATER MANGEMENT PLAN UPDATE

NOTICE IS HEREBY GIVEN that the Board of Directors of the Georgetown Divide Public Utility District (the "District") will hold a public hearing at its June 14, 2016 regular Board meeting at 2:00 PM at the District Office: 6425 Main Street, Georgetown, California to consider the adoption of an update to the District's Urban Water Management Plan and Water Shortage Contingency Plan ("UWMP"). The hearing will provide an opportunity for members of the community to provide input on the District's urban water use target for compliance with the SBX7-7, also known as the Water Conservation Bill of 2009, and the District's planned methods for meeting its urban water use target. Upon conclusion of the public hearing, the Board of Directors may revise, change, modify and/or adopt the Draft 2015 UWMP.

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The Urban Water Management Plan describes and specifies the proposed urban water use targets and may be viewed at the District Office: 6425 Main Street, Georgetown, California 95634, or online at www.gd-pud.org/.

If you have any questions, please call the District Clerk at (530) 333-4356, or stop by the office at 6425 Main Street, Georgetown, California 95634.

PUBLISH DATE: May 5, 2016 and May 12, 2016

Appendix D
Resolution to Adopt the Urban Water Management Plan

RESOLUTION 2016-11

RESOLUTION OF THE GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT ADOPTING THE URBAN WATER MANAGEMENT PLAN AND WATER SHORTAGE CONTINGENCY PLAN

WHEREAS, the California Legislature enacted Assembly Bill 797 (Water Code Section 10610 et seq., known as the Urban Water Management Planning Act) during the 1983-1984 Regular Session, and as amended subsequently, which mandates that every supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan, the primary objective of which is to plan for the conservation and efficient use of water; and

WHEREAS, the District is an urban supplier of water providing water to over 3,500 customers and a population of about 9,000, and

WHEREAS, the Plan shall be periodically reviewed at least once every five years, and that the District shall make any amendments or changes to its plan which are indicated by the review; and

WHEREAS, the Plan must be adopted by July 1, 2016, and after public review and hearing, filed with the California Department of Water Resources within thirty days of adoption; and

WHEREAS, the District has therefore, prepared and circulated for public review the Urban Water Management Plan on May 11, 2016 and a properly noticed public hearing regarding said Plan was held by the District on June 14, 2016, and

WHEREAS, the District will update and file said Plan with the California Department of Water Resources by July 1, 2016;

WHEREAS, The Water Shortage Contingency Plan is a standalone document contained within the Urban Water Management Plan,

NOW THEREFORE, be it hereby resolved as follows:

1. 2015 Urban Water Management Plan and the Water Shortage Contingency Plan is hereby adopted and ordered filed with the District Clerk;
2. The General Manager is hereby authorized and directed to electronically file the 2015 Urban Water Management Plan with the California Department of Water Resources by July 1, 2016 and filed with the California State Library and El Dorado County within 30 days after this date;
3. The General Manager is hereby authorized and directed to implement the Water Conservation Programs as set forth in the 2015 Urban Water Management Plan, which includes

water shortage contingency analysis and recommendations to the District Board regarding necessary procedures, rules, and regulations to carry out effective and equitable water conservation and water recycling programs;

4. In a water shortage, the General Manager is hereby authorized to declare a Water Shortage Emergency according to the Water Shortage Stages and Triggers indicated in the Plan, and implement necessary elements of the Plan;

5. The General Manager shall recommend to the District Board of Directors additional regulations to carry out effective and equitable allocation of water resources.

PASSED AND ADOPTED at a regular meeting of the Board of Directors of the GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT on the 14th day of June, 2016, by the following vote:

AYES:

NAYS:

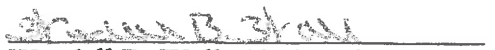
ABSENT:

ABSTAIN:



Norman A. Krizl
President, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

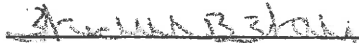
ATTEST:


Wendell B. Wall, Clerk and ex officio
Secretary, Board of Directors

GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

CERTIFICATION

I hereby certify that the foregoing is a full, true and correct copy of **Resolution 2016-11** duly and regularly adopted by the Board of Directors of THE GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT, County of El Dorado, State of California, on the 14th day of June, 2016.



Wendell B. Wall, Clerk and ex officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

Appendix E
Completed DWR UWMP Checklist

Checklist Arranged by Subject

| CWC Section | UWMP Requirement | Subject | Guidebook Location | UWMP Location In GDPUD 2015 UWMP |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------------------|----------------------------------------------------|
| 10620(b) | Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier. | Plan Preparation | Section 2.1 | Pg.1 Section 1.0 |
| 10620(d)(2) | Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable. | Plan Preparation | Section 2.5.2 | Pg. 2 Table 2-1 App. B |
| 10642 | Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan. | Plan Preparation | Section 2.5.2 | Pg.2 Section 2.2 |
| 10631(a) | Describe the water supplier service area. | System Description | Section 3.1 | Pg.6 Section 3.2 |
| 10631(a) | Describe the climate of the service area of the supplier. | System Description | Section 3.3 | Pg.9 Section 3.3 |
| 10631(a) | Provide population projections for 2020, 2025, 2030, and 2035. | System Description | Section 3.4 | Pg.12 Table 3-3 |
| 10631(a) | Describe other demographic factors affecting the supplier's water management planning. | System Description | Section 3.4 | Pg.10-12 Sections 3.4 and 3.6 |
| 10631(a) | Indicate the current population of the service area. | System Description and Baselines and Targets | Sections 3.4 and 5.4 | Pg.11-12 Section 3.5 |
| 10631(e)(1) | Quantify past, current, and projected water use, identifying the uses among water use sectors. | System Water Use | Section 4.2 | Pg.13-16 Sections 4.2 Tables 4-1 through 4-4 |
| 10631(e)(3)(A) | Report the distribution system water loss for the most recent 12-month period available. | System Water Use | Section 4.3 | Pg.13 Section 4.2 |
| 10631.1(a) | Include projected water use needed for lower income housing projected in the service area of the supplier. | System Water Use | Section 4.5 | Pg.17 Table 4-5 |
| 10608.20(b) | Retail suppliers shall adopt a 2020 water use target using one of four methods. | Baselines and Targets | Section 5.7 and App E | Pg.18 Table 5-1 |

| | | | | |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------|
| 10608.20(e) | Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data. | Baselines and Targets | Chapter 5 and App E | Pg.18-19 Table 5-1 and Table 5-2 Appendix L for SBx7-7 supporting data |
| 10608.22 | Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100. | Baselines and Targets | Section 5.7.2 | Pg. 18 Table 5-1 Appendix L for SBx7-7 supporting data |
| 10608.24(a) | Retail suppliers shall meet their interim target by December 31, 2015. | Baselines and Targets | Section 5.8 and App E | Pg.19 Table 5-2 |
| 10608.24(d)(2) | If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment. | Baselines and Targets | Section 5.8.2 | NA |
| 10608.36 | Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions. | Baselines and Targets | Section 5.1 | NA |
| 10608.40 | Retail suppliers shall report on their progress in meeting their water use targets. The data shall be reported using a standardized form. | Baselines and Targets | Section 5.8 and App E | Pg.19 Table 5-2 |
| 10631(b) | Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035. | System Supplies | Chapter 6 | Pg.22-23 Section 6.2 Table 6-1 |
| 10631(b) | Indicate whether groundwater is an existing or planned source of water available to the supplier. | System Supplies | Section 6.2 | Pg.23 Section 6.2.1 |
| 10631(b)(1) | Indicate whether a groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization. | System Supplies | Section 6.2.2 | NA |
| 10631(b)(2) | Describe the groundwater basin. | System Supplies | Section 6.2.1 | NA |
| 10631(b)(2) | Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump. | System Supplies | Section 6.2.2 | NA |
| 10631(b)(2) | For unadjudicated basins, indicate whether or not the department has identified the basin as overdrafted, or projected to become | System Supplies | Section 6.2.3 | NA |

| | | | | |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------|-------------------------------------------------------------|
| | overdrafted. Describe efforts by the supplier to eliminate the long-term overdraft condition. | | | |
| 10631(b)(3) | Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years | System Supplies | Section 6.2.4 | NA |
| 10631(b)(4) | Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped. | System Supplies | Sections 6.2 and 6.9 | NA |
| 10631(d) | Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis. | System Supplies | Section 6.7 | Pg. 24 Section 6.2.2 |
| 10631(g) | Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years. | System Supplies | Section 6.8 | Pg. 25-27 Section 6.3 Table 6-2 Figure 3 |
| 10631(h) | Describe desalinated water project opportunities for long-term supply. | System Supplies | Section 6.6 | Pg. 24 Section 6.2.3 |
| 10631(j) | Retail suppliers will include documentation that they have provided their wholesale supplier(s) – if any - with water use projections from that source. | System Supplies | Section 2.5.1 | NA |
| 10631(j) | Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types. | System Supplies | Section 2.5.1 | NA |
| 10633 | For wastewater and recycled water, coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area. | System Supplies (Recycled Water) | Section 6.5.1 | NA |
| 10633(a) | Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of wastewater collected and treated and the methods of wastewater disposal. | System Supplies (Recycled Water) | Section 6.5.2 | NA Pg.24 Section 6.2.4 |
| 10633(b) | Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project. | System Supplies (Recycled Water) | Section 6.5.2.2 | NA Pg.24 Section 6.2.4 |
| 10633(c) | Describe the recycled water currently being used in the supplier's service area. | System Supplies (Recycled Water) | Section 6.5.3 and 6.5.4 | NA Pg. 24 |

| | | | | |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|---------------|-------------------------------------------------|
| 10633(d) | Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses. | System Supplies (Recycled Water) | Section 6.5.4 | NA Pg.24-25 |
| 10633(e) | Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected. | System Supplies (Recycled Water) | Section 6.5.4 | NA |
| 10633(f) | Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year. | System Supplies (Recycled Water) | Section 6.5.5 | NA |
| 10633(g) | Provide a plan for optimizing the use of recycled water in the supplier's service area. | System Supplies (Recycled Water) | Section 6.5.5 | NA |
| 10620(f) | Describe water management tools and options to maximize resources and minimize the need to import water from other regions. | Water Supply Reliability Assessment | Section 7.4 | Pg.28 Section 7.1 |
| 10631(c)(1) | Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage. | Water Supply Reliability Assessment | Section 7.1 | Pg. 28-29 Section 7.1 |
| 10631(c)(1) | Provide data for an average water year, a single dry water year, and multiple dry water years | Water Supply Reliability Assessment | Section 7.2 | Pg. 29 Table 7-1 |
| 10631(c)(2) | For any water source that may not be available at a consistent level of use, describe plans to supplement or replace that source. | Water Supply Reliability Assessment | Section 7.1 | Pg. 28 Section 7 |
| 10634 | Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability | Water Supply Reliability Assessment | Section 7.1 | Pg. 44 Section 8.1.1 |
| 10635(a) | Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years. | Water Supply Reliability Assessment | Section 7.3 | Pg. 30 Tables 7-2, 7-3 and 7-4 |
| 10632(a) and 10632(a)(1) | Provide an urban water shortage contingency analysis that specifies stages of action and an outline of specific water supply conditions at each stage. | Water Shortage Contingency Planning | Section 8.1 | Pg. 32-44 Table 8-2 |
| 10632(a)(2) | Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency. | Water Shortage Contingency Planning | Section 8.9 | Pg. 29 Table 7-1 |

| | | | | |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------|-----------------------------------------------|
| 10632(a)(3) | Identify actions to be undertaken by the urban water supplier in case of a catastrophic interruption of water supplies. | Water Shortage Contingency Planning | Section 8.8 | Pg. 42 Section 8.10.2 |
| 10632(a)(4) | Identify mandatory prohibitions against specific water use practices during water shortages. | Water Shortage Contingency Planning | Section 8.2 | Pg. 41 Table 8-3 |
| 10632(a)(5) | Specify consumption reduction methods in the most restrictive stages. | Water Shortage Contingency Planning | Section 8.4 | Pg. 42 Table 8-4 |
| 10632(a)(6) | Indicated penalties or charges for excessive use, where applicable. | Water Shortage Contingency Planning | Section 8.3 | Pg. 37 Section 8.8 |
| 10632(a)(7) | Provide an analysis of the impacts of each of the actions and conditions in the water shortage contingency analysis on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts. | Water Shortage Contingency Planning | Section 8.6 | Pg. 43 Section 8.10.3 |
| 10632(a)(8) | Provide a draft water shortage contingency resolution or ordinance. | Water Shortage Contingency Planning | Section 8.7 | Appendix D |
| 10632(a)(9) | Indicate a mechanism for determining actual reductions in water use pursuant to the water shortage contingency analysis. | Water Shortage Contingency Planning | Section 8.5 | Pg. 37 Section 8-9 |
| 10631(f)(1) | Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code. | Demand Management Measures | Sections 9.2 and 9.3 | Pg. 46-51 Section 9.2 |
| 10631(f)(2) | Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program. | Demand Management Measures | Sections 9.1 and 9.3 | NA |
| 10631(i) | CUWCC members may submit their 2013-2014 CUWCC BMP annual reports in lieu of, or in addition to, describing the DMM implementation in their UWMPs. This option is only allowable if the supplier has been found to be in full compliance with the CUWCC MOU. | Demand Management Measures | Section 9.5 | NA |
| 10608.26(a) | Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets. | Plan Adoption, Submittal, and Implementation | Section 10.3 | Pg. 59 Section 11.1 Appendix C |
| 10621(b) | Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and | Plan Adoption, Submittal, and Implementation | Section 10.2.1 | Pg. 59 Section 11.1 Appendix B |

| | | | | |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------|------------------------------------|
| | considering amendments or changes to the plan. | | | |
| 10621(d) | Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016. | Plan Adoption, Submittal, and Implementation | Sections 10.3.1 and 10.4 | Pg. 59 Section 10.1 |
| 10635(b) | Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 60 days after the submission of the plan to DWR. | Plan Adoption, Submittal, and Implementation | Section 10.4.4 | Pg. 59 Appendix O |
| 10642 | Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan. | Plan Adoption, Submittal, and Implementation | Sections 10.2.2, 10.3, and 10.5 | Pg. 2 and 59 Appendix C |
| 10642 | The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water. | Plan Adoption, Submittal, and Implementation | Sections 10.2.1 | Pg. 2 Appendix B |
| 10642 | Provide supporting documentation that the plan has been adopted as prepared or modified. | Plan Adoption, Submittal, and Implementation | Section 10.3.1 | Appendix D |
| 10644(a) | Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library. | Plan Adoption, Submittal, and Implementation | Section 10.4.3 | Appendix N |
| 10644(a)(1) | Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption. | Plan Adoption, Submittal, and Implementation | Section 10.4.4 | Appendix O |
| 10644(a)(2) | The plan, or amendments to the plan, submitted to the department shall be submitted electronically. | Plan Adoption, Submittal, and Implementation | Sections 10.4.1 and 10.4.2 | Pg. 59 Section 10.1 |
| 10645 | Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours. | Plan Adoption, Submittal, and Implementation | Section 10.5 | Appendix P |

Appendix F
State Approved Population Methodology

Rebecca Siren

From: Huff, Gwen@DWR <Gwen.Huff@water.ca.gov>
Sent: Friday, April 8, 2016 10:23 AM
To: Rebecca Siren
Subject: RE: Georgetown Divide PUD Population Methodology with GW edits 4.1.16
Attachments: Georgetown Divide PUD Population Methodology with GW edits 4.8.2016.docx

Flag Status: Flagged

Rebecca –

I have reviewed the population methodology that was used for Georgetown PUD and find that it is appropriate and addresses the requirements of the water code.

I recommend one small edit, see attached, changing the word “connection” to “household” in the one instance that it occurs.

Please feel free to contact me if I can be of further assistance.

Gwen

*Gwen Huff
Senior Environmental Scientist
Urban Water Use Efficiency Unit
Department of Water Resources
gwen.huff@water.ca.gov
(916) 651-9672*

From: Rebecca Siren [mailto:rsiren@comcast.net]
Sent: Friday, April 01, 2016 5:12 PM
To: Huff, Gwen@DWR
Cc: rsiren@comcast.net
Subject: Georgetown Divide PUD Population Methodology with GW edits 4.1.16

Gwen,
Thanks for your help! Attached is the revised methodology with the latest edits.
Becky Siren
GDPUD consultant

Siren & Associates
P.O. Box 631
Cool, CA 95614
rsiren@comcast.net
Cell: 530-305-7399
FAX: 530-887-9955

Georgetown Divide PUD

Population Methodology

March 30, 2016

Population estimates for the baseline period and 2015 were developed by conducting a visual analysis of Georgetown Divide PUD service area, obtaining data from the 2000 and 2010 U.S. Census, determining the number of persons-per-household for the service area, and extrapolating data for non-census years.

The service area includes portions of three census tracts. By conducting a visual analysis, each of the District’s residential accounts (households) were assigned to one of the three census tracts.

“Persons per household” 2000 and 2010. The “Persons –per-household” was taken for each census tract (from census data) and then a weighted average was calculated for the entire service area. See Tables 1 and 2. Table 1 presents the 2000 U.S Census and District customer data used to determine the average number of people per household for the District’s service area. Based on the information presented in Table 1, the average number of people per household in the District’s service area was 2.71 in 2000. Based on the information presented in Table 2, the average number of people per household in the District’s service area was 2.47 in 2010. The 2008 recession had a significant impact on the Georgetown Divide area. Many families left the area and the schools saw a significant decrease in the number of students attending the Divide schools which is correlates to the decrease in persons per household from 2000 to 2010 (2.71 to 2.47).

Table 1 - District’s Number of People per Household

| Census Tract | 2000 Census Tract Data | | | 2000 District Information | |
|-------------------------------------------------------------------|------------------------|----------------------|------------------------|---------------------------|----------------------|
| | Population | Number of Households | Average Household Size | Number of Households | Estimated Population |
| 306.01 | 4,607 | 1,674 | 2.75 | 1,374 | 3,779 |
| 306.02 | 5,786 | 2,149 | 2.69 | 1,560 | 4,196 |
| 306.03 | 2,776 | 1,108 | 2.51 | 135 | 339 |
| District’s Weighted Average Number of People per Household | | | | | 2.71 |

Table 2 - District’s Number of People per Household

| Census Tract | 2010 Census Tract Data | | | 2010 District Information | |
|-------------------------------------------------------------------|------------------------|----------------------|------------------------|---------------------------|----------------------|
| | Population | Number of Households | Average Household Size | Number of Households | Estimated Population |
| 306.01 | 5,044 | 2017 | 2.50 | 1,525 | 3,813 |
| 306.02 | 6,545 | 2,669 | 2.45 | 1,819 | 4,457 |
| 306.03 | 3,564 | 1,502 | 2.37 | 163 | 386 |
| District’s Weighted Average Number of People per Household | | | | | 2.47 |

Table 3 displays the methodology used by the District to determine population in the non-census years. Weighted average Persons per Household for 2000 and 2010 are taken from Tables 1 and 2 and interpolated for the non-census years.

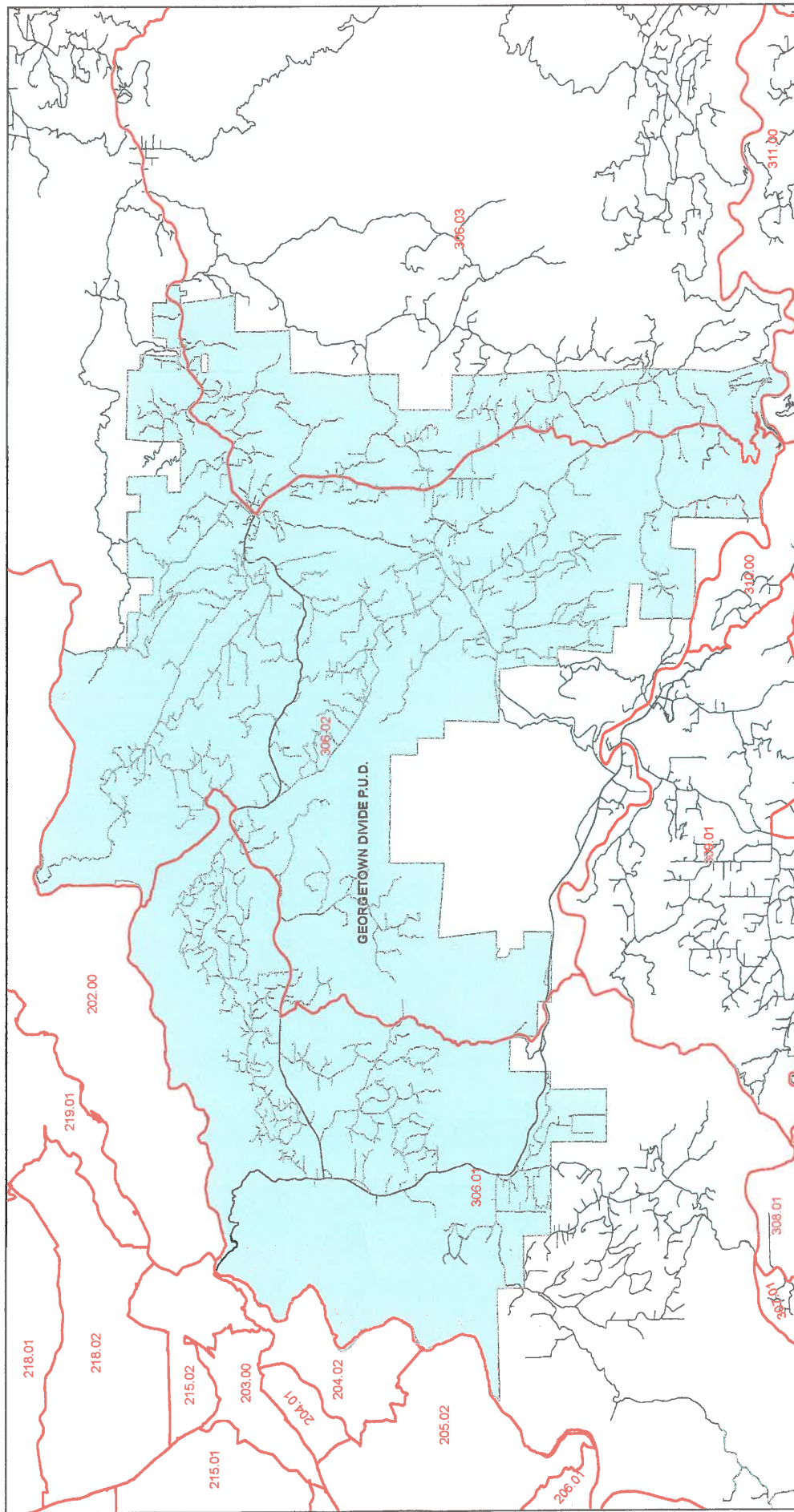
“Persons-per-Household” 2015. Since 2010, El Dorado County and the District have estimated a growth rate of about 1% (Source: El Dorado County Water Resources Development and Management Plan, 2014 West Slope Update and State Department of Finance, Unincorporated El Dorado County) so we have used that rate to increase the persons per household per year from 2010 to 2015 which is also reflected in the increase in new water service connections since 2010.

The population is calculated by multiplying the persons per household x number of households.

Table 3

| | | Single Family Households | Multi-Family Households | Total # SF +MF | Persons/ household | Population |
|---------|------|--------------------------------|----------------------------|-------------------|-----------------------|------------|
| Year 1 | 1999 | 2900 | 94 | 2994 | 2.71 | 8,114 |
| Year 2 | 2000 | 2975 | 94 | 3069 | 2.71 | 8,317 |
| Year 3 | 2001 | 3081 | 94 | 3175 | 2.70 | 8,573 |
| Year 4 | 2002 | 3183 | 94 | 3277 | 2.69 | 8,815 |
| Year 5 | 2003 | 3242 | 94 | 3336 | 2.66 | 8,874 |
| Year 6 | 2004 | 3331 | 94 | 3425 | 2.63 | 9,008 |
| Year 7 | 2005 | 3377 | 94 | 3471 | 2.60 | 9,025 |
| Year 8 | 2006 | 3403 | 94 | 3497 | 2.57 | 8,987 |
| Year 9 | 2007 | 3419 | 94 | 3513 | 2.54 | 8,923 |
| Year 10 | 2008 | 3419 | 94 | 3513 | 2.51 | 8,818 |
| Year 11 | 2009 | 3468 | 94 | 3562 | 2.48 | 8,834 |
| Year 12 | 2010 | 3413 | 94 | 3507 | 2.47 | 8,662 |
| Year 13 | 2011 | 3418 | 94 | 3512 | 2.47 | 8,675 |
| Year 14 | 2012 | 3430 | 94 | 3524 | 2.47 | 8,704 |
| Year 15 | 2013 | 3436 | 94 | 3530 | 2.49 | 8,790 |
| Year 16 | 2014 | 3437 | 94 | 3531 | 2.51 | 8,863 |
| Year 17 | 2015 | 3461 | 94 | 3555 | 2.53 | 8,994 |

Georgetown Divide Public Utility District Boundary with 2010 US Census Tract Overlay



Legend

- Highways
- Roads
- Census Tract
- SymbolID
- GPUD Boundary



Coordinate System: GCS WGS 1984
Datum: WGS 1984
Units: Degree

3/24/2016

Appendix G
District Ordinance 2005-01

ORDINANCE 2005-01

AN ORDINANCE ESTABLISHING RULES AND REGULATIONS
FOR IRRIGATION SERVICE IN THE GEORGETOWN DIVIDE
PUBLIC UTILITY DISTRICT

BE IT ENACTED by the Board of Directors of the GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT, County of El Dorado, State of California, as follows:

The rules and regulations for irrigation service within the GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT ("District") are adopted by the Board of Directors of said District as hereinafter set forth.

SECTION 1. General Conditions:

- (a) Control of System: District Works shall be under exclusive control and management of District personnel duly appointed by the Board of Directors.
- (b) The District shall not be liable for interruption, shortage or insufficiency of irrigation water supply, or for any loss or damage occasioned thereby.
- (c) The District shall not be liable for damage to person or property resulting directly or indirectly from privately owned conduits, meters or measuring devices.
- (d) Irrigation water is used at the customer's own risk and the customer agrees to hold the District, its officers and employees free and harmless from liability and damages that may occur as the result of defective water quality, shortages, fluctuation in flow or pressure, interruptions in service or for failure to deliver water.
- (e) Pumping of water by the customer is done at the customer's risk. The District assumes no liability for damage to pumping equipment or other damages as a result of turbulent water, shortages, excess of water or other causes.
- (f) No purchaser of water from the District acquires a proprietary or vested right by reason of use. No purchaser acquires a right to resell water or to use for a purpose other than that for which it

was applied nor to use it on premises other than indicated on the application. The terms, conditions, priorities and allocation of irrigation service may be altered and amended by the Board of Directors. The District does not guarantee irrigation service customers the right to future service.

(g) The District expressly asserts the right to recapture, reuse and resell all waters originating from District Works.

(h) Ditchtenders and other agents of the District shall have access to all lands irrigated from its water system and to all conduits for the purpose of inspection, examination, measurements, surveys or other necessary purposes of the District with the right of installation, maintenance, control and regulation of all meters and other measuring devices, gates, turnouts and other structures necessary or proper for the measurement and distribution of water.

(i) No bridges, crossing, pipe or other structures shall be placed in or over a canal without written permission of the District. Maintenance of the canal crossings shall not be the District's responsibility but shall rest with the owner of the crossing. Where the owner fails to maintain the crossing, the District may perform the necessary repairs or removal at the expense of the owner. Notice of the District's intent will be given, if possible, to the owner prior to the work commencing.

(j) No rubbish, garbage, refuse, chemicals or animal matter from any source may be placed in or allowed to be emptied into any ditch, canal or reservoir of the District.

(k) District canals or reservoirs shall not be used for swimming or bathing.

(l) Livestock shall not be permitted to contaminate the water supply nor destroy or damage the canal system or use thereof. Property owners are liable for any damage due to livestock.

(m) No conveyance system shall cause a cross connection with the District's water system with any other source of water.

(n) No buildings, corrals or other structures, fences, trees, lines or bushes shall be permitted upon rights-of-way or use thereof be made in any way except by written authority of the District. Construction of

fences and/or gates is not permitted without written approval of the specifications by the General Manager.

(o) Violation of Rules and Regulations: Failure to comply with rules and regulations of the District shall be sufficient cause for terminating irrigation service as determined by the Board of Directors.

(p) Any person dissatisfied with any determination of the District management shall have the right to appeal to the Board of Directors.

(q) Amendments: The Board of Directors of the District may at their discretion alter, amend or add to these rules and regulations. The Board of Directors will follow applicable laws during this process.

SECTION 2. Application for an Irrigation Service Account:

(a) No irrigation service will be rendered until a complete application for an Irrigation Service Account has been approved and is on file at the office of the District. Applications will be accepted between January 1st and March 1st for the impending irrigation season. The application for service shall state that the customer agrees to abide by the terms and conditions for service as established in the Irrigation Ordinance.

(b) Applications will be approved where the District Works have sufficient capacity to meet service requested. Applications will be considered for approval utilizing the following priority system:

- Priority 1. Applications for Irrigation Service to parcels that received irrigation service during the immediate past irrigation season.
- Priority 2. Applications for Irrigation Service to parcels with the most recent active Irrigation Service Account during the previous ten (10) irrigation seasons
- Priority 3. New applications for irrigation service to parcels that have been made after the 2003 irrigation season with priority established by the earliest season applied for. Applications and priority are specific to the section of ditch the parcel is located near.

Competing applications within the same priority level, will be determined by public lottery.

(c) Applications for an increase to service will receive Priority 3 status for the requested increase.

(d) Applications must in all cases be signed by the holder of title to the property requesting irrigation service. If the property requesting irrigation service is leased, two months of charges must be paid in advance. The landowner of leased property shall be responsible for all charges or assessments.

(e) Applications for an Irrigation Service Account to benefit a parcel of land that is not adjacent to the District Works must be accompanied by a legally recorded easement that allows the conveyance of water to the parcel requesting irrigation service. The easement shall grant the District the right of ingress and egress for inspection, installation and maintenance purposes.

(f) New applications for Out-of-District Irrigation Service Accounts will not be approved by the Board of Directors. An existing Out-of-District Irrigation Service Account that is inactive for two or more years will be deleted from the District's accounts and the service will be permanently removed.

SECTION 3. Distribution of Water:

(a) The irrigation season shall generally be from May 1 through October 1 of each year. The Board of Directors shall consider changes to the irrigation season to respond to climactic conditions and may implement such changes by a majority vote.

(b) The District does not guarantee irrigation water under pressure from the District Works. Pressure requirements of the customer are the sole responsibility of the customer and the District shall not be liable for any damage to equipment used to provide pressure to the customer.

(c) Water is distributed under continuous flow. Water must be used continuously during all days and nights including holidays and Sundays and no allowances shall be made for failure to use water when it is made available. Failure to use water on schedule shall not entitle the customer to any rebate.

(d) Irrigation service is provided for the entire irrigation season. Customers shall pay for irrigation service for the entire irrigation season regardless of their interest or ability to use water.

(e) When interruptions to irrigation service due to failure of the District Works extend beyond five (5) days, proportionate adjustments for such water loss will be made.

(f) Irrigation customers shall pay a proportionate amount for irrigation service when the irrigation season is extended or shortened by the Board of Directors.

(g) Unauthorized connections or the taking of water in an amount greater than applied and paid for, by any means, is a misdemeanor under California Penal Code Section 498 and shall be subject to criminal prosecution under Section 498 and any other applicable laws. In addition, the District may bring a civil action for damages and may refuse future service to the parcel.

(h) Irrigation customers shall prevent any unnecessary or wasteful use of water. Should a customer permit wasteful use of water, the District may discontinue service if such condition is not corrected within five (5) days after giving the parcel owner written notice of intention to terminate service.

(i) No more than one parcel shall be served through each Irrigation Service Account except with the prior written approval of the Board of Directors. Any such approval shall be recorded against each parcel with the caveat that the agreement expires upon any change of ownership. Each Irrigation Service Account shall have independent service lines and sumps.

(j) The minimum irrigation service for each Irrigation Service Account shall be one miner's inch, from the open ditch system, and one-half miner's inch from the irrigation pipeline system. In the future, the District may consider reducing the minimum irrigation service to one-half miner's inch from the open ditch system and one-quarter miner's inch from the irrigation pipeline system.

(k) All pumped services shall utilize a sump provided by the customer and acceptable to the District.

(l) All Irrigation Service Accounts must have an appropriate measuring device which shall be installed by the District. The customer shall pay the cost thereof including costs of installation. The District shall approve the location of the measuring device.

(m) Customers receiving irrigation service who request a change in flow rate during the season shall be charged a fee set by the Board of Directors for the adjustment.

(n) Replacement of measuring devices shall be at the expense of the customer if the replacement is necessary due to abnormal wear or abuse.

(o) Alternate Boxes -The Board of Directors shall not approve any new applications for Alternate Boxes.

(p) Unusual costs incurred by the District to provide irrigation service shall be paid in full by the applicant or customer. An estimate of the expense shall be approved by the property owner prior to work commencing.

SECTION 4. Charges, Rates and Billings:

(a) The District will maintain a uniform rate schedule which may be changed from time to time upon action of the Board of Directors. The rate schedule, by reference, is attached hereto and made a part of these rules and regulations.

(b) Irrigation billings are made bi-monthly (every two months) in advance.

(c) All penalties shall be charged as outlined on the billings

(d) Disconnected irrigation service accounts shall pay a fee to re-establish service

(e) Irrigation service accounts requesting verification of flow will pay a fee if the delivered flow is within 10% of the contracted amount

SECTION 5. REPEAL

(a) Upon the effective date of this Ordinance 2005-__ all previously adopted Ordinances pertinent to the Rules and Regulations for

Irrigation Service will be superceded and repealed, including, but not limited to, Ordinance 79-2, 79-8, 87-1, and 04-01.

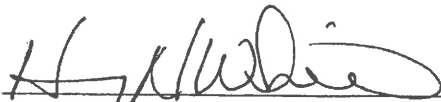
PASSED AND ADOPTED at a regularly held meeting of the Board of Directors of the GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT this tenth day of May, 2005.

AYES: Bob Diekon, Norman Krizl, Doug Pickell, JoAnn Shepherd and Hy Vitcov
NOES: None
ABSENT: None



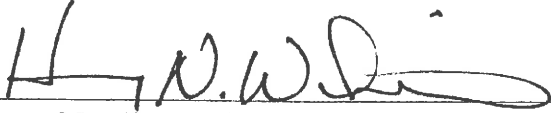
Bob Diekon, President
Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

ATTEST:



Henry N. White, Clerk and ex officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

I hereby certify that the foregoing is a full, true, and correct copy of Ordinance 2005-01 duly and regularly adopted by the Board of Directors of the Georgetown Divide Public Utility District, El Dorado County, California, at a meeting duly held on the tenth day of May, 2005.

A handwritten signature in black ink, appearing to read "H. N. White", written over a horizontal line.

Henry N. White, Clerk and ex officio Secretary of the
Georgetown Divide Public Utility District

Appendix H
District Ordinance 82-1

ORDINANCE 82-1

AN ORDINANCE ESTABLISHING RATES, RULES AND REGULATIONS FOR WATER SERVICE BY AND WITHIN THE GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT AND REPEALING ORDINANCE NOS. 77-10, 79-1, AND 81-1 RELATING TO SUCH RATES, RULES AND REGULATIONS

WHEREAS, the public interest, convenience and necessity requires that the provisions of the following ordinances heretofore adopted by the Board of Directors of the Georgetown Divide Public Utility District be consolidated, changed in certain respects, to wit: Ordinance 77-10, An Ordinance Establishing Rates, Rules, and Regulations for Water Service By and Within the Georgetown Divide Public Utility District and Repealing Ordinance Nos. 72-4, 74-7, 75-2, 75-4, 76-3, 77-4 and 77-5 Relating to Such Rates, Rules and Regulations, adopted on October 13, 1977; Ordinance 79-1, An Ordinance Amending Ordinance 77-10, An Ordinance Establishing Rates, Rules and Regulations for Water Service By and Within the Georgetown Divide Public Utility District, and Repealing Ordinance Nos. 72-4, 74-7, 75-2, 75-4, 76-3, 77-4, and 77-5 Relating to Such Rates, Rules and Regulations, by Amending Article 16 Thereof Relating to Pipeline and Storage Benefit Charges, adopted on February 16, 1979; and Ordinance 81-1, An Ordinance Establishing Rates, Rules and Regulations for Water Service By and Within the Georgetown Divide Public Utility District, and Repealing Ordinance Nos. 77-10, and 79-1 Relating to Such Rates, Rules and Regulations, adopted on February 4, 1981;

NOW, THEREFORE, BE IT ENACTED by the Board of Directors of the Georgetown Divide Public Utility District, El Dorado County, California, as follows:

ARTICLE 1 - DEFINITIONS

For the purpose of this Ordinance, the terms used herein are defined as follows:

Sec. 1-1. Applicant is the person making application for water service and shall be the owner of premises to be served by the water facilities for which such service is requested, or his authorized agent.

Sec. 1-2. Board is the Board of Directors of the District.

Sec. 1-3. Building is any structure used for human habitation or a place of business, recreation or other purpose containing water facilities.

Sec. 1-17. Single Family Residential Premises means a lot or parcel of real property under one ownership which includes one or more separate single family residential structures.

Sec. 1-18. Commercial or Multi-Family Residential Premises means a lot or parcel of real property under one ownership which includes one or more apartment houses, motels, office buildings, commercial buildings, and structures of like nature.

Sec. 1-19. Public Fire Protection Service means the services and facilities of the entire water supply, storage, and distribution system of the District, including the fire hydrants affixed thereto, and the water available for fire protection, excepting house service connections and appurtenances thereto.

Sec. 1-20. Regular Water Service means water service and facilities rendered for normal domestic and commercial purposes on a permanent basis, and the water available therefor.

Sec. 1-21. Service Connection Charge means the benefit entitlement of the lot or parcel of real property to a connection from the water main line to the limits of the road or easements in which the pipelines are located.

Sec. 1-22. Service or Service Connection means the pipeline and appurtenant facilities such as the curb stop, curb cock or valve used to extend water service from a distribution main to premises, but exclusive of the meter and meter box. Where services are divided at the curb or property line to serve several customers, each such branch service shall be deemed a separate service.

Sec. 1-23. Single Family Unit means the water capacity normally needed to serve a single family residential unit or the equivalent water usage for buildings used for purposes other than single family residences. SFU means Single Family Unit.

Sec. 1-24. Street is any public highway, road, street, avenue, alley, way, easement, or right of way.

Sec. 1-17. Single Family Residential Premises means a lot or parcel of real property under one ownership which includes one or more separate single family residential structures.

Sec. 1-18. Commercial or Multi-Family Residential Premises means a lot or parcel of real property under one ownership which includes one or more apartment houses, motels, office buildings, commercial buildings, and structures of like nature.

Sec. 1-19. Public Fire Protection Service means the services and facilities of the entire water supply, storage, and distribution system of the District, including the fire hydrants affixed thereto, and the water available for fire protection, excepting house service connections and appurtenances thereto.

Sec. 1-20. Regular Water Service means water service and facilities rendered for normal domestic and commercial purposes on a permanent basis, and the water available therefor.

Sec. 1-21. Service Connection Charge means the benefit entitlement of the lot or parcel of real property to a connection from the water main line to the limits of the road or easements in which the pipelines are located.

Sec. 1-22. Service or Service Connection means the pipeline and appurtenant facilities such as the curb stop, curb cock or valve used to extend water service from a distribution main to premises, but exclusive of the meter and meter box. Where services are divided at the curb or property line to serve several customers, each such branch service shall be deemed a separate service.

Sec. 1-23. Single Family Unit means the water capacity normally needed to serve a single family residential unit or the equivalent water usage for buildings used for purposes other than single family residences. SFU means Single Family Unit.

Sec. 1-24. Street is any public highway, road, street, avenue, alley, way, easement, or right of way.

Sec. 1-25. Treatment Plant Connection Benefit Charge means a treatment plant capacity charge for benefits to a lot or parcel of real property under one ownership.

Sec. 1-26. Water Department means the Board of Directors of the District performing functions related to the District water service, together with the General Manager, the Water Superintendent, the Office Manager, and other duly authorized representatives.

ARTICLE 2 - GENERAL PROVISIONS

Sec. 2-1. Effective Area. Except as herein otherwise expressly provided, this ordinance shall apply to and be effective within the boundaries of the District.

Sec. 2-2. Rules and Regulations. The following rules and regulations respecting water construction and provision of water and connection to the water supply, storage, and distribution facilities of District are hereby adopted, and all work in respect thereto shall be performed as herein required and not otherwise.

Sec. 2-3. Purpose. This Ordinance is intended, among other things, to provide certain minimum standards, provisions, and requirements for design, methods of construction, and use of materials in water facilities and water service connections hereafter installed, altered, or repaired, and with respect thereto shall not apply retroactively, that is, in the event of an alteration or repair hereafter made, it shall apply only to the new materials and methods used therein.

Sec. 2-4. Short Title. This Ordinance shall be known and may be cited as "Georgetown Divide Public Utility District Water Ordinance."

Sec. 2-5. Words and Phrases. For the purpose of this Ordinance, all words used herein in the present tense shall include the future; all words in the plural number shall include the singular number; and all words in the singular number shall include the plural number.

Sec. 2-6. Pressure Conditions. All applicants for service connections or water service shall be required to accept such conditions of pressure and service as are provided by the distribution system at the

location of the proposed service connection, and to hold the District harmless from any damages arising out of low pressure or high pressure water service conditions or from any interruptions in service.

Sec. 2-7. Maintenance of Water Pressure and Shutting Down for Emergency Repairs. The Board shall not accept any responsibility for the maintenance of pressure and it reserves the right to discontinue service while making repairs, replacements, and connections or performing other work in the operation of the water system. Consumers dependent upon a continuous supply should provide emergency storage.

Sec. 2-8. Tampering with District Property. No one, except an employee or representative of the Board, shall at any time in any manner operate the curb cocks or valves, main cocks, gates or valves of the District's water system, or interfere with meters or their connections, street mains, or other parts of the water system.

Sec. 2-9. Penalty for Violation. For the failure of the customer to comply with all or any part of this Ordinance, and any ordinance, resolution, or order fixing rates and charges of this District, a penalty for which has not hereafter been specifically fixed, the customer's service shall be discontinued and the water shall not be supplied such customer until he shall have complied with the rule or regulation, rate or charge which he has violated, or in the event that he cannot comply with said rule or regulation, until he shall have satisfied the District that in the future he will comply with all the rules and regulations established by ordinance of the District and with all rates and charges of this District. In addition thereto, he shall pay the District the sum of Ten Dollars (\$10.00) for renewal of his service.

Sec. 2-10. Ruling Final. All rulings of the Board shall be final. All rulings of the General Manager shall be final, unless appealed in writing to the Board within five (5) days. When appealed, the Board's ruling shall be final.

Sec. 2-11. Relief on Application. When any person, by reason of special circumstances, is of the opinion that any provision of this

Ordinance is unjust or inequitable as applied to his premises, he may make written application to the Board, stating the special circumstances, citing the provision complained of, and requesting suspension or modification of that provision as applied to his premises.

If such application be approved, the Board may, by resolution, suspend or modify the provision complained of, as applied to such premises, to be effective as of the date of the application and continuing during the period of the special circumstances.

Sec. 2-12. Relief on Own Motion. The Board may, on its own motion, find that by reason of special circumstances any provision of this regulation and ordinance should be suspended or modified as applied to a particular premises and may, by resolution, order such suspension or modification for such premises during the period of such special circumstances, or any part thereof.

Sec. 2-13. Separability. If any section, subsection, sentence, clause, or phrase of this Ordinance, or the application thereof to any person or circumstance is for any reason held to be unconstitutional or invalid, such decision shall not affect the validity of the remaining portions of this Ordinance or the application of such provision to other persons or circumstances. The Board hereby declares that it would have passed this Ordinance or any section, subsection, sentence, clause or phrase hereof irrespective of the fact that any one or more sections, subsections, sentences, clauses, or phrases be declared to be unconstitutional.

ARTICLE 3 - WATER DEPARTMENT

Sec. 3-1. Creation. A Water Department has been heretofore created comprising the Directors and the following positions, to wit: The General Manager, a Water Superintendent, a District Inspector, and an Office Manager. The same person may be appointed to any or all of said positions. They shall be appointed to serve at the pleasure of the Board. If the same person is appointed General Manager and any other position, then said person shall be known as the General Manager and shall assume

and execute all the duties and responsibilities of each of the positions to which he is appointed.

Sec. 3-2. Plumbing, Water Facility, Inspection, Compensation.

The Board of said District shall employ the District Engineer or such other person as may be designated by the Board to perform the duties of inspecting the installation, connection, maintenance, and use of all water facilities in said District, to be known as the District Inspector. He shall receive, as compensation for his services for making inspections required to be made by the ordinances, orders, and regulations from time to time enacted and ordered by said Board, a sum to be fixed by the Board. He shall serve during the pleasure of the Board.

Sec. 3-3. General Manager. The General Manager shall have full charge and control of the maintenance, operation and construction of the water works and system. He shall, with the consent and approval of the Board, have authority to employ and discharge all employees and assistants. He shall prescribe the duties of employees and assistants. He shall perform such other duties as are imposed from time to time by the Board, and shall report to the Board in accordance with the rules and regulations adopted by the Board.

Sec. 3-4. Water Superintendent - Duties. The Water Superintendent shall regularly inspect all physical facilities related to the District's water system, to see that they are in good repair and proper working order, and to note violations of any water regulations.

Sec. 3-5. Engineer, Inspector or Water Superintendent - Supervision. The Engineer, Inspector or Water Superintendent shall supervise all repair or construction work authorized by the Board, and perform any other duties prescribed elsewhere in this Ordinance or which shall be hereafter prescribed by the Board.

Sec. 3-7. Office Manager. The position of Office Manager is hereby created. He shall have charge of the office of the District and of the billing for and collecting the charges herein provided. He

shall perform such other duties as shall be determined by the General Manager.

Sec. 3-8. Id. - Duties. The Office Manager shall compute, prepare, and mail bills as hereinafter prescribed, make and deposit collections, maintain proper books of account, collect, account for, and refund deposits, do whatever else is necessary or directed by the District Auditor to set up and maintain an efficient and economical bookkeeping system, and perform any other duties now or hereafter prescribed by the Board.

Sec. 3-9. Performance of Duties. The foregoing duties of Engineer, Inspector, Water Superintendent, and Office Manager may be performed by existing District personnel or by an additional employee or employees or agent thereof.

Sec. 3-10. Compensation. The General Manager, Engineer, Inspector, Water Superintendent, and Office Manager shall receive such compensation as is prescribed by the Board.

ARTICLE 4 - NOTICES

Sec. 4-1. Notices to Customers. Notices to a water customer from the District will normally be given in writing, and either delivered or mailed to him at his last known address. Where conditions warrant and in emergencies, the District may resort to notification either by telephone or messenger.

Sec. 4-2. Notices from Customers. Notice from the customer to the District may be given by him or his authorized representative in writing, at the District's operating office. Where conditions warrant and in emergencies, the customer may resort to notification either by telephone or messenger.

ARTICLE 5 - STANDARD DISTRICT SPECIFICATIONS

Sec. 5-1. Design and Construction Standards. Minimum standards for the design and construction of water facilities within the

•District shall be in accordance with the applicable provisions of the ordinances, rules and regulations, and with the STANDARD DISTRICT SPECIFICATIONS for District heretofore or hereafter adopted by the District, copies of which are on file in the District office. The District or the District Engineer may permit modifications or may require higher standards where unusual conditions are encountered.

Two complete sets of "as built" drawings showing the actual location of all mains, valves, fire hydrants, house services, meters, if any, and appurtenances shall be filed with the District before final acceptance of the work.

**ARTICLE 6 - APPLICATION FOR REGULAR WATER SERVICE -
WHERE NO MAIN EXTENSION REQUIRED**

Sec. 6-1 Application for Water Service. Applications for regular water service, where no main extension is required, shall be made on the form of application approved by the Board from time to time.

Sec. 6-2. Undertaking of Applicant. Such application shall signify the customer's willingness and intention to comply with this and other ordinances or regulations relating to water service and to make payment for water service required.

Sec. 6-3. Payment for Previous Service. An application shall not be honored unless payment in full has been made for water service previously rendered to the applicant by the District.

Sec. 6-4. Installation of Services. Water services will be installed at the location and of the size determined by the Water Department. Service installations will be made only to property abutting on public streets or abutting on such distribution mains as may be constructed in alleys or easements, at the convenience of the Water Department. Services installed in new subdivisions prior to the construction of streets or in advance of street improvement must be accepted by the applicant in the installed location.

Section 6-5. Service Connections. Service connections will be installed in accordance with applicable provisions of Article 8.

ARTICLE 7 - GENERAL USE REGULATIONS

Sec. 7-1. Number of Services per Single Family Residential Premises. The applicant may apply for as many services as may reasonably be required for his single family residential premises, provided that the pipeline system for each single family residence shall be independent of the other single family residences on said premises and that they shall not be inter-connected.

Sec. 7-2. Supply to Separate Single Family Residential Structures. Each single family residence for which the application for water service is hereafter made, shall have a separate service connection, including a separate meter.

Sec. 7-3. Supply to Separate Commercial or Multi-Family Residential Premises. Each separate commercial or multi-family residential building for which application for a separate water service is hereinafter made, shall have a separate service connection, including a separate meter. Application for water service for more than one commercial or multi-family residential building on one lot or parcel of real property under one ownership shall have a separate service connection, including a separate meter, for all of the buildings under one application for water service.

Sec. 7-4. Number of Services Per Commercial or Multi-Family Residential Premises. The applicant may apply for as many services as may reasonably be required for his commercial or multi-family residential premises. The pipeline system from each service shall be independent of the others and they may not be inter-connected. One service with sufficient equivalent single family unit capacity may provide all of the service to any or all of the structures on the commercial or multi-family residential premises.

Sec. 7-5. Water Waste. No customer shall knowingly permit leaks or waste of water. Where water is wastefully or negligently used on a customer's premises, seriously affecting the general service, the

District may discontinue the service if such conditions are not corrected within five (5) days after giving the customer written notice.

Sec. 7-6. Responsibility for Equipment on Customer Premises.

All facilities installed by the District on private property for the purpose of rendering water service shall remain the property of the District and may be maintained, repaired, or replaced by the Water Department without consent or interference of the owner or occupant of the property. The property owner shall use reasonable care in the protection of the facilities. No payment shall be made for placing or maintaining said facilities on private property. No persons shall place or permit the placement of any object in a manner which will interfere with the free access to a meter box or will interfere with the reading of a meter.

Sec. 7-7. Changes in Customer's Equipment. Customers making any material changes in the size, character, or extent of the equipment or operations utilizing water service, or whose change in operations results in a large increase in the use of water, shall immediately give the District written notice of the nature of the change, and, if necessary, amend their application.

Sec. 7-8. Damage to Water System Facilities. The customer shall be liable for any damage to the District-owned customer water service facilities when such damage is from causes originating on the premises by an act of the customer or his tenants, agents, employees, contractors, licensees, or permittees, including the breaking or destruction of locks by the customer or others on or near a meter, and any damage to a meter that may result from hot water or steam from a boiler or heater on the customer's premises. The District shall be reimbursed by the customer for any such damage promptly on presentation of a bill.

Sec. 7-9. Ground Wire Attachments. All persons are forbidden to attach any ground wire or wires to any plumbing which is or may be connected to a service connection or main belonging to the District unless such plumbing is adequately connected to an effective driven ground installation on the premises. The District will hold the customer

- liable for any damage to its property occasioned by such ground wire attachments.

Sec. 7-10. Cross Connections. The customer must comply with the state and federal laws governing the separation of dual water systems or installations of backflow protective devices to protect the public water supply from the danger of cross-connections. Backflow protective devices must be installed as near the service as possible and shall be open to test and inspection by the Water Department. Plans for installation of backflow protective devices must be approved by the Water Department prior to installation.

In special circumstances, when the customer is engaged in the handling of especially dangerous or corrosive liquids or industrial or process waters, the District may require the customer to eliminate certain plumbing or piping connections as an additional precaution and as a protection of the backflow preventive devices.

As a protection to the customer's plumbing system, a suitable pressure relief valve must be installed and maintained by him, at his expense, when check valves or other protective devices are used. The relief valve shall be installed between the check valves and the water heater.

Whenever backflow protection has been found necessary on a water supply line entering a customer's premises, then any and all water supply lines from the District's mains entering such premises, buildings, or structures shall be protected by an approved backflow device, regardless of the use of the additional water supply line.

The double check valve or other approved backflow protection devices may be inspected and tested periodically for water tightness by the District. The devices shall be serviced, overhauled, or replaced whenever they are found defective and all costs of repair and maintenance shall be borne by the customer.

The service of water to any premises may be immediately discontinued by the District if any defect is found in the check valve

installation or other protective devices, or if it is found that dangerous unprotected cross-connections exist. Service will not be restored until such defects are corrected.

Sec. 7-11. Interruptions in Service. The District shall not be liable for damage which may result from an interruption in service from a cause beyond the control of the Water Department to make improvements and repairs. Whenever possible, and as time permits, all customers affected will be notified prior to making such shutdowns. The District will not be liable for interruption, shortage, or insufficiency of supply, or for any loss or damage occasioned thereby, if caused by accident, act of God, fire, strikes, riots, war, or any other cause not within its control.

Sec. 7-12. Ingress and Egress. Representatives from the Water Department shall have the right of ingress and egress to the customer's premises at reasonable hours for any purpose reasonably connected with the furnishing of water service.

ARTICLE 8 - METERS AND METERED SERVICE CONNECTIONS

Sec. 8-1. District Property. All services shall be metered. The service connection, whether located on public or private property, is the property of the District, and the District reserves the right to repair, replace and maintain it as well as to remove it upon discontinuance of service.

Sec. 8-2. Meters. When an application for service is granted under Article 6, the District will install the meter and meter box. A 5/8 x 3/4-inch meter will be furnished without charge. The applicant will pay a \$60 fee for the cost of installation. If the applicant desires a larger meter, the applicant shall pay the difference in cost between a 5/8 x 3/4-inch meter and that requested plus installation cost.

Only duly authorized employees or agents of the District will be permitted to install a meter and meter box.

Sec. 8-3. Meter Installations. Meters will be installed at the curb or within the easement, and shall be owned by the District and installed and removed at its expense after payment of the charges established therefor. No rent or other charge will be paid by the District for a meter or other facilities, including housing and connections, located on a customer's premises. All meters will be sealed by the District at the time of installation, and no seal shall be altered or broken except by one of its authorized employees.

Sec. 8-4. Change in Location of Meters. Meters may be re-located only if approved by the Board upon application. All cost of relocation shall be borne by the applicant.

Sec. 8-5. Location of Meters. The District reserves the right to determine the location of meters with respect to the boundaries of the premises to be served. The installation including the meter, shall be the property of the District. The service between the meter and the building served by the installation shall be the property of the customer and shall be maintained by the customer at his expense.

Sec. 8-6. Size of Meter. The size of the meter shall be determined by the size of the service connection requested by the applicant. These sizes shall be as follows: 5/8 x 3/4-inch, 25 GPM; 1 inch, 50 GPM; 1-1/2 inch, 100 GPM; 2 inch, 160 GPM; 3 inch, 350 GPM. GPM means gallons per minute.

Sec. 8-7. Curb Cock. Every service connection installed by the District shall be equipped with a curb cock or wheel valve. On metered services, the valve is to be on the customer's side of the service installation, as close as is practicable to the meter location. Such valve or curb cock is intended for the exclusive use of the District in controlling the water supply through the service connection pipe. If the curb cock or wheel valve is damaged by the consumer's use to an extent requiring replacement, such replacement shall be at the consumer's expense.

Sec. 8-8. Meter Tests - Deposit. If a customer desires to have the meter serving his premises tested, he shall first deposit Ten Dollars (\$10.00). Should the meter register more than two percent (2%) fast, the deposit will be refunded, but should the meter register less than two percent (2%) fast, the deposit will be retained by the Water Department.

Sec. 8-9. Adjustment for Meter Errors - Fast Meters. If a meter, tested at the request of a customer pursuant to Sec. 8-8, is found to be more than two percent (2%) fast, the excess charges for the time service was rendered the customer requesting the test, or for a period of six months, whichever shall be the lesser, shall be refunded to the customer.

Sec. 8-10. Adjustment for Meter Errors - Slow Meters. If a meter, tested at the request of a customer pursuant to Sec. 8-8, is found to be more than twenty-five percent (25%) slow, in the case of domestic service, or more than five percent (5%) slow, for other than domestic services, the District may bill the customer for the amount of the undercharge based upon corrected meter readings for the period, not exceeding six months, that the meter was in use.

Sec. 8-11. Non-Registering Meters. If a meter is found to be not registering, the charges for service shall be at the minimum monthly rate or based on the estimated consumption, whichever is greater. Such estimates shall be made from previous consumption for a comparable period or by such other method as is determined by the Water Department and its decision shall be final.

ARTICLE 9 - BILLING

Sec. 9-1. Billing Period. The regular billing period will be monthly, bi-monthly, or quarterly at the option of the District. The District may bill such charges with other charges for services rendered by the District.

Sec. 9-2. Meter Reading. Meters will be read, as nearly

service will also be turned off for non-payment of bills rendered under Ordinance No. 71-3.

Sec. 10-2. Charges a Debt. Failure to receive a bill does not relieve an owner or consumer of liability. Any amount due shall be deemed a debt to the District, and any person, firm, or corporation failing, neglecting or refusing to pay said indebtedness shall be liable to an action in the name of the District in any court of competent jurisdiction for the amount thereof.

Sec. 10-3. Reconnection Charge. A reconnection charge of Ten Dollars (\$10.00) plus penalties as provided in Sec. 11-1 will be made and collected prior to renewing service following a discontinuance.

Sec. 10-4. Unsafe Apparatus. Water service may be refused or discontinued to any premises where apparatus or appliances are in use which might endanger or disturb the service to other customers.

Sec. 10-5. Cross-Connections. Water service may be refused or discontinued to any premises where there exists a cross-connection in violation of state or federal laws or this Ordinance.

Sec. 10-6. Fraud or Abuse. Service may be discontinued, if necessary, to protect the District against fraud or abuse.

Sec. 10-7. Non-compliance with Regulations. Service may be discontinued for non-compliance with this or any other ordinance or regulation relating to the water service to customer by District.

Sec. 10-8. Continuing Liability. The customer shall be liable for minimum use charges whether or not any water is used. The property remains liable for water standby or facilities charges in any event.

ARTICLE 11 - COLLECTION BY SUIT

Sec. 11-1. Penalty. Rates and charges which are not paid on or before the day of delinquency shall be subject to a penalty of ten percent (10%) and thereafter shall be subject to a further penalty of one-half of one percent (1/2 of 1%) per month on the first day of each month following.

as possible, on the same day of each billing period. Bills for periods containing less than ninety percent (90%) of a full billing period will be prorated.

Sec. 9-3. Opening and Closing Bills. Opening and closing bills for less than the normal billing period shall be prorated both as to minimum charges and quantity blocks. If the total period for which service is rendered is less than one month, the bill shall not be less than the monthly minimum charge applicable. Closing bills may be estimated by the Water Department for the final period as an expediency to permit the customer to pay the closing bill at the time service is discontinued.

Sec. 9-4. Charges. All charges are due and payable at the office of the District on the date of mailing the bill to the property owner or his agent as designated in the application or otherwise, and delinquent 30 days after the Post Office cancellation date. Service may be discontinued without further notice if payment is not made by the delinquent date.

Sec. 9-5. Payment of Bills. Bills for metered water service shall be rendered at the end of each billing period. Flat rate service and all standby or facilities charges shall be billed in advance. Bills shall be payable on presentation. On each bill rendered by the District shall be printed substantially the following: "If this bill is not paid within thirty (30) days after the Post Office cancellation date, service may be discontinued. A reconnection charge and penalties will be made and collected prior to renewing service following a discontinuance. Delinquent standby or facilities charges can become a lien on your property and may be collected on the county tax rolls."

Sec. 9-6. Water Used Without Regular Application Being Made. A person taking possession of premises and using water from an active service connection, without having made application to the District for water service, shall be held liable for the water delivered from the date

of the last recorded meter reading, and if the meter is found inoperative, the quantity consumed will be estimated. If proper application for water service is not made upon notification to do so by the District, and if accumulated bills for service are not paid immediately, the service may be discontinued by the District without further notice.

Sec. 9-7. Damages Through Leaking Pipes and Fixtures. When turning on the water supply as requested and the house or property is vacant, the District will endeavor to ascertain if water is running on the inside of the building. If such is found to be the case, the water will be left shut off at the curb cock on the inlet side of the meter. The Board's jurisdiction and responsibility ends at the meter and the Board will, in no case, be liable for damages occasioned by water running from open or faulty fixtures, or from broken or damaged pipes beyond the meter.

Sec. 9-8. Damage to Meters. The Board reserves the right to set and maintain a meter on any service connection. The water consumer shall be held liable, however, for any damage to the meter due to his negligence or carelessness and, in particular, for damage caused by hot water or steam from the premises.

ARTICLE 10 - DISCONTINUANCE OF SERVICE

Sec. 10-1. Disconnection for Non-payment. Service may be discontinued for non-payment of bills on or after the thirtieth day following the date of Post Office cancellation. At least five (5) days prior to such discontinuance, the customer will be sent a final notice informing him that discontinuance will be enforced if payment is not made within the time specified in said notice. The failure of the District to send, or any such person to receive, said notice shall not affect the District's power hereunder. A customer's water service may be discontinued if water service furnished at a previous location is not paid for within the time herein fixed for the payment of bills. If a customer receives water service at more than one location and the bill for service at any one location is not paid within the time provided for payment, water service at all locations may be turned off. Water

Sec. 11-2. Suit. All unpaid rates and charges and penalties herein provided may be collected by suit.

Sec. 11-3. Costs. Defendant shall pay all costs of suit, including reasonable attorney fees, in any judgment rendered in favor of District.

ARTICLE 12 - PUBLIC FIRE PROTECTION

Sec. 12-1. Use of Fire Hydrants. Fire hydrants are for use by the District or by organized fire protection agencies pursuant to contract with the District. Other parties desiring to use fire hydrants for any purpose must first obtain written permission from the Water Department prior to use and shall operate the hydrant in accordance with instructions issued by the Water Department. Unauthorized use of hydrants will be prosecuted according to law.

Sec. 12-2. Moving of Fire Hydrants. When a fire hydrant has been installed in the location specified by the proper authority, the District has fulfilled its obligation. If a property owner or other party desires a change in the size, type, or location of the hydrant, he shall bear all costs of such changes, without refund. Any change in the location of a fire hydrant must be approved by the proper authority.

Sec. 12-3. Water Pressure and Supply. The District assumes no responsibility for loss or damage due to lack of water or pressure, either high or low, and merely agrees to furnish such quantities and pressures as are available in its general distribution system. The service is subject to shutdowns and variations required by the operation of the system.

ARTICLE 13 - SPECIAL PROVISIONS

Sec. 13-1. Pools and Tanks. When an abnormally large quantity of water is desired for filling a swimming pool or for other purposes, arrangements must be made with the District prior to taking such water. Water to be used for other than domestic purposes, such as

swimming pools and tanks, will be supplied only through a meter and filter system approved by the State Board of Health. All meters, lines, checks, filters, and appurtenances are to be furnished and installed by customer, under the supervision of the Water Superintendent. The system is to be open for inspection by the Water Superintendent at all times.

Permission to take water in unusual quantities will be given only if it can be safely delivered through the District's facilities and if other consumers are not inconvenienced thereby.

Sec. 13-2. Responsibility for Equipment. The customer shall, at his own risk and expense, furnish, install, and keep in good and safe condition all equipment that may be required for receiving, controlling, applying, and utilizing water, and the District shall not be responsible for any loss or damage caused by the improper installation of such equipment or the negligence or wrongful act of the customer or of any of his tenants, agents, employees, contractors, licensees, or permittees in installing, maintaining, operating, or interfering with property caused by faucets, valves, and other equipment that are open when water is turned on at the meter, either originally or when turned on after a temporary shutdown.

Sec. 13-3. Service Connections. The service connections, extending from the water main to the boundary of the road or public easement right of way in which the water main is situate, and the meter, meter box, and curb cock or wheel valve, shall be maintained by the District. All pipes and fixtures extending or lying beyond the boundary of said road or easement right of way shall be installed and maintained by the owner of the property.

ARTICLE 14 - RATES

Sec. 14-1. Rate Resolution. Charges for the use of water within Improvement District shall be prescribed by the Board by resolution, which may be amended from time to time within the limits established by any bond proceedings. Such resolution shall be on file in the

Office of the Secretary and copies thereof shall be available on request.

Sec. 14-2. Special Charges. At the time of making a new service connection to the District water system from any parcel of land and/or an increase in the size of an existing service connection to said water system from any parcel of land the special charges which are applicable thereto pursuant to the provisions of Articles 15, 16 and 17 of this Ordinance shall be paid prior to the making thereof. Payment of such charges shall entitle such parcel only to the limited benefits covered by the charges paid, and thereafter water service to such parcel shall remain subject to all of the provisions of said Articles 15, 16 and 17. The portions of such charges which represent treatment plant benefit charges and pipeline and storage benefit charges, respectively, shall be placed in the special funds, respectively, and used only for the special purposes, respectively, provided in said Articles 15 and 16.

Sec. 14-3. Payment of Special Charges By Special Assessments.

In the event the Board has heretofore included or hereafter includes any parcels of land within the boundaries of an improvement district formed for the purpose of acquiring, constructing and financing by special assessments, in whole or in part, water facilities to serve such parcels, the confirmation and levy by the Board of an assessment in the proceedings to form such improvement district shall constitute payment of the special charges applicable to such parcels, respectively, pursuant to the provisions of Articles 15, 16 and 17 of this Ordinance insofar as and to the extent that the individual assessments levied on such parcels, respectively, include amounts for the special charges provided for in said Articles 15, 16 and 17.

Sec. 14-4. Payment of special charges for parcels of land outside of improvement districts, as provided for and contemplated by Articles 15, 16 and 17 of this Ordinance, either by special assessments levied in other improvement districts or otherwise, shall confer on such

parcels only the limited rights of service and use in the facilities of the improvement district to which such charges relate as are covered by said special charges so paid.

ARTICLE 15 - TREATMENT PLANT BENEFIT CHARGES

Sec. 15-1. Georgetown-Buckeye Treatment Plant. Any parcel for which a treatment plant benefit charge has not been assessed or otherwise paid for in an amount sufficient (at the rate applicable thereto at the time of any assessment or payment for such benefit) to cover the single family unit capacity attributable to a new connection to the portion of the District water system regularly served by the treatment plant constructed in the proceedings for Georgetown-Buckeye Water Improvement District, Assessment District 1971-1, and/or an increase in the size of an existing connection to said portion of said water system shall pay, prior to receiving such new connection or such increase in size of an existing connection, the amount of \$250.00 for each unpaid for single family unit capacity attributable to such connection or increase in size of connection, on the basis of the following table:

| <u>Size of Connection</u> | <u>Attributable Capacity</u> |
|---------------------------|------------------------------|
| 5/8 x 3/4 inch | 1 single family unit |
| 1 inch | 2 single family units |
| 1-1/2 inch | 5 single family units |
| 2 inch | 10 single family units |
| 3 inch | 20 single family units |

All such treatment plant connection benefit charges collected pursuant to this Ordinance shall be placed in a special fund entitled "Treatment Plant Benefit Charges - Georgetown-Buckeye Treatment Plant". The proceeds of said fund shall be credited annually or at such other periods as the Board may prescribe by resolution upon the assessments levied upon all of the parcels of property within the boundaries of Georgetown-Buckeye Water Improvement District, Assessment District 1971-1, until the total amount of treatment plant benefit charges assessed and collected under this section of this Ordinance or Ordinance No. 75-2 (An

Ordinance Providing for Water Service by the Georgetown Divide Public Utility District to Parcels of Land Outside the Boundaries of Georgetown-Buckeye Water Improvement District, Assessment District 1971-1, and Establishing Rates, Rules and Regulations Therefore; and Amending Section 15-1 and Deleting Article 20 of Ordinance No. 72-4, An Ordinance Establishing Rates, Rules and Regulations for Water Service by the Georgetown Divide Public Utility District Within the Boundaries of Georgetown-Buckeye Water Improvement District, Assessment District 1971-1), or Ordinance No. 76-3 (An Ordinance Amending Section 15-1 of Ordinance No. 72-4 (As said Section Was Amended by Ordinance No. 75-2), Entitled An Ordinance Establishing Rates, Rules, and Regulations for Water Service by the Georgetown Divide Public Utility District Within the Boundaries of Georgetown-Buckeye Improvement District, Assessment District 1971-1) or Ordinance 77-10 (An Ordinance Establishing Rates, Rules and Regulations for Water Service by and Within the Georgetown Divide Public Utility District, and Repealing Ordinance Nos. 72-4, 74-7, 75-2, 75-4, 76-3, 77-4, 77-5, Relating to Such Rates, Rules and Regulations) shall equal \$43,569.26. Thereafter, the proceeds from treatment plant benefit charges assessed and collected under said ordinances (in excess of said \$43,569.26) shall be accumulated and used only for expansion and/or improvements of the treatment plant constructed in the proceedings for Georgetown-Buckeye Water Improvement District, Assessment District 1971-1.

Sec. 15-2. Auburn Lake Trails Treatment Plant. Any parcel of land for which a treatment plant benefit charge has not been assessed or otherwise paid for in an amount sufficient (at the rate applicable thereto at the time of any assessment or payment for such benefit) to cover the single family unit capacity attributable to a new connection to the portion of the District water system regularly served by the treatment plant constructed in the proceedings for Improvement District No. U-1, and/or an increase in the size of an existing connection to said portion

of said water system shall pay, prior to receiving such new connection or such increase in size of an existing connection, the amount of \$350.00 for each unpaid for single family unit capacity attributable to such connection or increase in size of connection, on the basis of the following table:

| <u>Size of Connection</u> | <u>Attributable Capacity</u> |
|---------------------------|------------------------------|
| 5/8 x 3/4 inch | 1 single family unit |
| 1 inch | 2 single family units |
| 1-1/2 inch | 5 single family units |
| 2 inch | 10 single family units |
| 3 inch | 20 single family units |

All such treatment plant benefit charges collected pursuant to this section of this Ordinance or Ordinance No. 77-4 (An Ordinance Establishing Rates, Rules, and Regulations for Water Service by the Georgetown Divide Public Utility District Within the Boundaries of Greenwood Water Improvement District, Assessment District 1977-1) or Ordinance No. 77-10 (An Ordinance Establishing Rates, Rules and Regulations for Water Service By and Within the Georgetown Divide Public Utility District, and Repealing Ordinance Nos. 72-4, 74-7, 75-2, 75-4, 76-3, 77-4 and 77-5 Relating to Such Rates Rules and Regulations) shall be placed in a special fund entitled "Treatment Plant Benefit Charges - Auburn Lake Trails Treatment Plant" and used only for expansion and/or improvement to said treatment plant.

ARTICLE 16 - PIPELINE AND STORAGE BENEFIT CHARGES

Sec. 16-1. Amount. Prior to connection to the District water system of any building located within the District, except buildings within Improvement Districts U-1 or U-2, and for which pipeline and storage benefit charges were not assessed for such building in the proceedings for a water improvement district or otherwise paid for in the amount applicable thereto at the time of any assessment or payment for such benefit, said charges shall be paid in the amounts of: Pipeline - \$300.00 per building; Storage - \$350.00 per building. Notwithstanding the foregoing provisions of this section, said pipeline charge shall be deemed paid for the first such building connected or to be connected to the District water system for each separate parcel of land which existed at the time of construction of the water main to which such building is connected, if the owner of such parcel shared in the cost of said water main by

payment of all or a portion of the cost of said main.

Sec. 16-2. Special Funds. All pipeline and storage benefit charges collected pursuant to this Ordinance or Ordinance No. 72-4 (An Ordinance Establishing Rates, Rules, and Regulations for Water Service by the Georgetown Divide Public Utility District Within the Boundaries of Georgetown-Buckeye Water Improvement District, Assessment District 1971-1), 75-4 (An Ordinance Establishing Rates, Rules, and Regulations for Water Service by the Georgetown Divide Public Utility District Within the Boundaries of Garden Valley Water Improvement District, Assessment District 1975-1), 77-4 (An Ordinance Establishing Rates, Rules, and Regulations for Water Service by the Georgetown Divide Public Utility District Within the Boundaries of Greenwood Water Improvement District, Assessment District 1977-1), and Ordinance 77-10 (An Ordinance Establishing Rates, Rules, and Regulations for Water Service by and Within the Georgetown Divide Public Utility District, and Repealing Ordinance Nos. 72-4, 74-7, 75-2, 75-4, 76-3, 77-4, and 77-5. Relating to Such Rates, Rules, and Regulations) shall be placed in separate special funds, one such fund for each water improvement district or separate area within a water improvement district. The names of each of said funds shall include the designation "Pipeline Benefit Fund" and "Storage Benefit Fund" and the name of the water improvement district or separate area within a water improvement district. The "Pipeline Benefit Charge" and the "Storage Benefit Charge" collected for a building shall be placed in the fund for the water improvement district or the separate area within a water improvement district within which is the water main to which the building is connected.

Monies in each of said funds, respectively, shall be used only for maintenance and/or extension of water mains, and/or maintenance and/or expansion or construction of storage facilities of benefit to parcels of land served by the acquisitions and improvements made for the water improvement districts or separate areas within a water improvement district, the names of which are included in the names of such funds.

ARTICLE 17 - SERVICE CONNECTION CHARGES

Sec. 17-1. Amount. Prior to the making of a new connection or increasing the size of an existing connection to the District water system for which a service connection charge has not been paid, by special

assessment therefore in proceedings for a water improvement district, or otherwise, a service connection charge shall be paid. The amount thereof shall be (a) the actual costs of constructing a new or larger service line from the water distribution main to the boundary of the road easement in which such main is located, if same is required, or (b) the amount set forth in the following table for the size of the new connection or the size to which an existing connection is increased, to wit:

| <u>Size of Service Connection.</u> | <u>Meter Capacity (GPM)</u> | <u>Amount of Charge</u> |
|------------------------------------|-----------------------------|-------------------------|
| 5/8 x 3/4 inch | 25 | \$350.00 |
| 1 inch | 50 | \$365.00 |
| 1-1/2 inch | 100 | \$430.00 |
| 2 inch | 160 | \$480.00 |

whichever is larger.

ARTICLE 18 - NON-ADJACENT PARCELS TO IMPROVEMENT DISTRICT PIPELINE

Sec. 18-1. The owners of all parcels of land included within a water improvement district which are not adjacent to a road or public easement in which a pipeline constructed pursuant to the proceedings for such district is situate will be responsible for providing, at the cost and expense of the owners of such parcels, the necessary water lines from their parcel to the service lines provided for their respective parcels at the limits of the road or public easement in which the pipeline which will serve said parcels is situate; provided, however, that if necessary and upon request, the District shall condemn at the cost and expense of the owner or owners requesting the same the requisite easements for such service lines.

ARTICLE 19 - APPORTIONMENT OF ASSESSMENT IN EVENT OF DIVISION OF LAND SUBJECT HERETO

Sec. 19-1. In the event any parcel of land assessed in improvement district proceedings conducted by the Board is thereafter divided into two or more separate parcels, the assessment on such parcel shall be assigned to the separate parcels as follows:

(a) Where there is one existing service connection to such parcel, to the separate parcel served by the existing service connection;

(b) Where there are two or more existing service connections to such parcel, to the separate parcel or parcels served by said existing connections; and

(c) Where there are no existing service connections to such parcel, to the separate parcel which is nearest the pipeline constructed in the proceedings.

Sec. 19-2. Notwithstanding the foregoing, the assessment can be made to a different one of the separate parcels than above specified where the choice is between one of two or more separate parcels all of which or none of which have existing connections therefrom, either as appropriate in the judgement of the Engineer or as agreed to be the owner or owners of the separate parcels involved in such choice.

Sec. 19-3. Engineering, administrative, legal and other costs of apportionment of assessments upon division of parcels of land shall be borne by the owner of the parcel before division or to the new parcel or parcels to which the assessment is assigned.

ARTICLE 20 - MODIFICATION OF CHARGES

Sec. 20-1. Where the division of parcels of land or use of land for industrial, commercial, subdivision or residential projects require more than an equivalent 10 single family unit (SFU) water capacity demand for service, the Georgetown Divide Public Utility District reserves the right to modify the foregoing charges to accurately reflect the financial implications of said parcel division or use, by reason of the potential for major influence on the capacity operation and service availability of any of the facilities serving any existing water improvement district. Said modification of charges shall be made by the District Board of Directors based upon information provided by the District Engineer and staff relative to all applicable water costs and present and future water service demands.

ARTICLE 21 - REPEAL

Sec. 21-1. Ordinance Nos. 77-10, 79-1 and 81-1, the full titles and dates of adoption of which are set forth in the preamble of this Ordinance, are hereby repealed and shall be of no further force and effect; provided only that the monies in the special funds designated in any of said ordinances shall be placed in the corresponding special funds provided for in the Ordinance.

ARTICLE 22 - EFFECTIVE DATE


Sec. 22-1. Adoption and Effective Date. This Ordinance shall take effect thirty (30) days after its passage. At least one week before the expiration of said thirty days, copies thereof shall be posted in three public places within the Improvement District, and it shall be published once in the Georgetown Gazette and Town Crier, a newspaper of general circulation published in the District.

PASSED AND ADOPTED at a regularly held regular meeting of the Board of Directors of GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT on this 14th day of April, 1982.


AYES: Directors Robert E. Flynn, John C. Lampson, Fred G. DeBerry, and Arthur E. Smoot.

NOES: None.

ABSENT: Director Lee J. Hoddy.

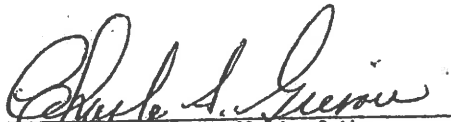

ROBERT E. FLYNN, President
Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

ATTEST:


CHARLES F. GIERAU, Clerk and ex officio Secretary of the Board of Directors thereof.

(SEAL)

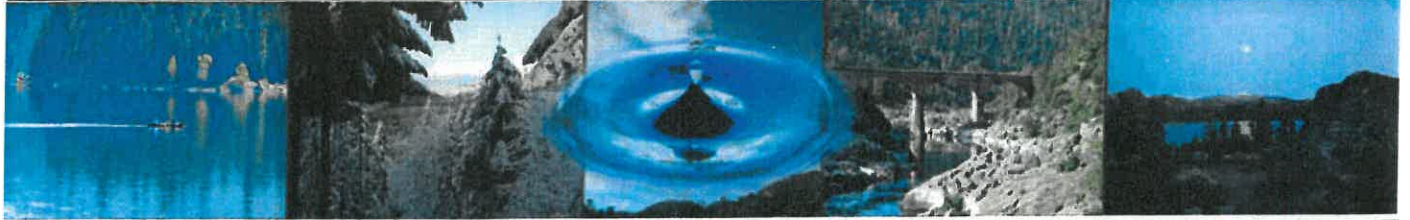
I hereby certify that the foregoing is a full, true and correct copy of Ordinance No. 82-1, duly and regularly adopted by the Board of Directors of the Georgetown Divide Public Utility District, El Dorado County, California, on April 14, 1982, 1982.


CHARLES F. GIERAU, Clerk of the
GEORGETOWN DIVIDE PUBLIC
UTILITY DISTRICT

(SEAL)

Appendix I
2015 Consumer Confidence Report

Georgetown Divide Public Utility District



Domestic Water

Irrigation Service

On-Site Waste Disposal

1946~ 2015 Reflecting on the Past. Planning for the Future.

The Georgetown Divide Public Utility District is pleased to present this information to our customers, which includes two documents mandated by the California Department of Public Health, the **Consumer Confidence Report/Annual Water Quality Report** and a **State Notification Letter** regarding a Treatment Technique

DEAR WATER USER,

This report contains important information about your drinking water quality. We are pleased to report that in 2015 as in years past, your water meets or exceeds all U.S. Environmental Protection Agency (EPA) and state drinking water health standards. The District vigilantly safeguards its water supplies and once again, your water system has not violated a maximum contaminant level or any other water quality standard. Included in these pages are details on where your water comes from, what it contains and how it compares to state standards. For additional information on water quality, customers may contact GDPUD at (530) 333-4356.

Este informe constiene informacion muy importante sobre su agua beber. Traduzcaldo hable con alguien que lo entienda bien.

Your Water Supply

Your water originates in the Sierra, flows into Stumpy Meadows Reservoir which is an extremely high quality surface water source. The water is then transported through a Gold Rush-era canal system and pipes to the Walton Lake and Auburn Lake Trails water treatment plants. The Walton Lake plant serves the communities of Georgetown, Garden Valley, Kelsey and Greenwood. The Auburn Lake Trails plant serves Auburn Lake Trails, Cool and Pilot Hill. Both plants use a multi-barrier process to ensure the quality of your drinking water. Each plant uses liquid bleach to disinfect raw water before it undergoes treatment. The treatment process involves coagulation for the removal of fine particles, filtration using sand and anthracite, disinfection, and reduction of corrosivity through use of sodium carbonate. Treated water is stored in tanks and piped to customers.

Water Quality Rules Explained

In order to ensure that tap water is safe to drink, the EPA and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling USEPAs Safe Drinking Water Hotline (1-800-426-4791). The California notification levels are available on the Department's website.

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/NotificationLevels.

Some People Are More Vulnerable

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA and Centers for Disease Control (CDC) guidelines on appropriate means to lessen risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

GDPUD Board of Directors

The Board of Directors meets regularly on the second Tuesday of each month, at 2:00 p.m. at the District offices, located at 6425 Main Street in Georgetown. Your Board members are:

- Norm Krizl, President
- Carl Hoelscher, Vice President
- Lon Uso, Treasurer
- Jesse Hanschild, Director
- Maria Capraun, Director

The District's office hours are Monday through Friday, 7:45 a.m. to 4:30 p.m.

Natural Materials Can Enter Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, reservoirs and canals. As water travels over the surface of the land it dissolves naturally occurring minerals and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial Processes and petroleum production, and can also come from gas stations, urban stormwater runoff, septic systems and agricultural application.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

About Contaminants

If present, elevated levels of lead can cause serious health problems especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. GDPUD is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/lead>.

WATERSHED HEALTH

Water Source Assessment

Source water protection is the primary barrier for providing safe drinking water. A contaminant that does not enter the water source does not need to be removed. An assessment of the district's drinking water source was completed in December 2002. The source is considered most vulnerable to the following activities for which no associated contaminants have been detected in the water supply: historic gas stations, historic mining operations, wastewater treatment systems, forest management activities, recreational use, storm drain and storm water discharges and illegal dumping. You may request a copy of the complete assessment or a summary at the GDPUD office or by contacting Bruce Berger, the CDPH Sanitary Engineer, at (916) 449-5666.

Understanding the Consumer Confidence Report

The tables presented in this report list all of the drinking water contaminants that were **detected** during the 2015 calendar year, unless otherwise noted. The state allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

Definitions

LRAA: Locational Running Annual Average

MCL: Maximum Contaminant Level. The highest level of a contaminant that is allowed in drinking water. Primary MCL's are set as close to the PHG's (or MCLG's) as is economically and technologically feasible. Secondary MCL's are set to protect the odor, taste, and appearance of drinking water.

MCLG: Maximum Contaminant Level Goal. The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's are set by the U.S. Environmental Protection Agency.

MRDL: Maximum Residual Detection Limit. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG: Maximum Residual Detection Limit Goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NTU: Nephelometric Turbidity Units. A measurement of water clarity.

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

Primary Drinking Water Standard: MCL's for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Regulatory Action Level (AL): is the concentration of a contaminant which if exceeded, triggers treatment or other requirements that a system must follow.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor or appearance of drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

ND: Non-Detected

NS: No Standard

NA: Not Applicable

ppm: parts per million

ppb: parts per billion

mg/L: milligrams per liter (1 mg/L = 1 ppm)

pCi/l: pico curies per liter

TOC: Total Organic Carbon

Treatment Technique (TT): is a required process intended to reduce the level of a contaminant in drinking water.

**Georgetown Divide Public Utility District Consumer Confidence Report
2015 Calendar Year (Reported in 2016)**

| Primary Drinking Water Standards-Health Related | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------|-------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Constituent/ Parameter | Unit | MCL | PHG or (MCLG) | Your Water | | Meets Standards | Typical Source of Contaminant |
| | | | | Walton Lake WTP Service Area | Auburn Lake Trails WTP Service Area | | |
| Turbidity and Microbiological Primary Drinking Water Standards | | | | | | | |
| Turbidity | NTU | TT=1NTU | 0.1 | 0.29 highest (0.04 average) | 0.28 highest (0.04 average) | YES | Soil runoff |
| | | TT=95% of samples <0.3 NTU | NA | 100% | 100% | YES | |
| TURBIDITY NOTE: Turbidity is a measurement of the cloudiness of the water or the level of suspended matter in the water. The District monitors it because it is a good indicator of the effectiveness of our filtration system. High turbidity can hinder the efficacy of disinfectants. In reporting turbidity, the highest single measurement and the lowest monthly percentage of samples meeting the turbidity limits are specified. | | | | | | | |
| Total Coliform Bacteria (Total Coliform Rule- (weekly samples) | | No more than one positive monthly sample | 0 | 1 | 0 | YES | Naturally present in the environment |
| Fecal Coliform and E.Coli (Total Coliform Rule-weekly samples) | | A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or E.Coli positive. | 0 | 0 | 0 | YES | Human and animal fecal waste |
| COLIFORM NOTE: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. | | | | | | | |
| Inorganic Chemicals-Source Water Results | | | | | | | |
| Nitrate as NO ₃ | ppm | 45 | 45 | 0.53 | ND | YES | Runoff/leaching from fertilizer use; septic tanks and sewage; erosion from natural deposits. |
| Disinfection Byproducts, Disinfectant Residuals and Disinfection Byproducts Precursors | | | | | | | |
| TTHMs (Total Trihalomethanes) | ppb | 80 | NA | 29.25 LRAA (25.0-39.0 range) | 48.25 LRAA (32.0-63.0 range) | YES | By product of drinking water disinfection |
| Haloacetic Acids | ppb | 60 | NA | 16.4 LRAA (11.0-17.6 range) | 24.1 LRAA (12.0-30.9 range) | YES | By product of drinking water disinfection |
| Chlorine | ppm | MRDL=4.0 | MRDLG=4 | 0.87 average (0.44-1.19 range) | 1.04 average (0.21-1.62 range) | YES | Drinking water disinfectant added for treatment |
| Constituents with a Secondary Drinking Water Standard and General Mineral Constituent (Source Water-2014 results) | | | | | | | |
| Iron | ppb | 300 | NS | ND | 100 | YES | Leaching from natural deposits; industrial wastes |
| Total Dissolved Solids (TDS) | ppm | 1000 | NS | 18 | 21 | YES | Runoff/leaching from natural deposits |
| Specific Conductance (EC) | micromhos | 1600 | NS | 22 | 38 | YES | Substances that form ions in water; seawater influence |
| Chloride | ppm | 500 | NS | 0.91 | 1.00 | YES | Runoff/leaching from natural deposits; seawater influence |
| Sulfate | ppm | 500 | NS | 0.54 | 0.81 | YES | Runoff/leaching from natural deposits; industrial waste |
| Aggressive Index | | NS | NS | 9.3 (slightly corrosive) | 9.12 (slightly corrosive) | | Natural or industrially influenced balance of hydrogen, carbon and oxygen in the water; affected by temperature and other factors |
| Alkalinity as Calcium Carbonate | ppm | NS | NS | 15 | 14 | | Naturally occurring in water |
| Calcium | ppm | NS | NS | 2.3 | 3.0 | | Naturally occurring in water |
| Sodium | ppm | NS | NS | 1.6 | 1.5 | | Sodium refers to the salt present in the water and is generally naturally occurring |
| Total Hardness | ppm | NS | NS | 9.0 | 21.0 | | Naturally occurring in water, generally from magnesium and calcium |
| pH (daily treated water in 2015) | Units | NS | NS | 8.10 average (7.91-8.3 range) | 8.35 average (8.05-8.6 range) | | Naturally occurring in water |

Georgetown Divide Public Utility District

PUBLIC NOTICE TO DISTRICT CUSTOMERS

OLDER WATER TREATMENT PROCESS DOES NOT MEET STATE STANDARDS

Dear Customer,

The Georgetown Divide Public Utility District takes great pride in the high quality of the water we supply to our customers. In our many years of service, our water has always met or exceeded state and federal public health standards. Even though our water continues to meet all of these standards, one of the methods in our water treatment process has become outdated under today's state standards. This is not surprising in a smaller, rural community where water treatment plants are older (the Auburn Lake Trails plant was built in 1971). It is financially challenging for a district with a small customer base to pay for millions of dollars in water system improvements. Twelve years ago, on February 9, 2004, the California Department of Public Health, Office of Drinking Water issued an administrative order (No. 01-09-04CO-002) that instructs the district to comply with state regulations regarding the filtration of drinking water. Printed here is the state's public notification message:

NOTIFICATION OF FAILURE TO COMPLY WITH DRINKING WATER TREATMENT STANDARDS

"The Georgetown Divide Public Utility District is providing this notice at the direction of the State Water Resources Control Board, Division of Drinking Water to bring to your attention certain matters regarding the treatment of your drinking water supply. The Department establishes standards for the quality of drinking water, including regulations for the quality of water supplies drawn from lakes and streams (i.e., surface water). If such water is inadequately treated, microbiological contaminants in the water may cause disease. Disease-causing organisms, if present, can cause symptoms including diarrhea, cramps, nausea, and possibly jaundice, and any associated headaches and fatigue. (These symptoms, however, are not just associated with disease-causing organisms in drinking water, but also may be caused by a number of factors other than your drinking water.) Since it is infeasible to analyze treated water for all disease-causing organisms that may be present, the Department has established enforceable requirements (Surface Water Treatment Regulations) for treating surface water to reduce the risk of these adverse health effects. The regulations include specific criteria for filtering and disinfecting surface water to remove or destroy microbiological contaminants. Drinking water that is treated to meet these criteria is considered to be safe. The Georgetown Divide Public Utility District water treatment plants use a filtration technology that is not among those listed in the Surface Water Treatment Regulations. Because the District has not demonstrated to the Department that its treatment plants provide a degree of treatment equivalent to the listed technologies, the plants are not considered to be in compliance with the Department's regulations. . The District is currently working toward bringing the ALT water treatment plant into compliance with the regulations by constructing a new treatment plant at the existing ALT site. It is estimated that construction will start in 2016 and be completed by March 2018. The District will keep you informed on a regular basis of progress made. If you have any questions regarding this notification, or our service, please call GDPUD at (530) 333-4356".

District Summary

The Walton Lake water treatment plant was upgraded in 2005 which brought the plant into compliance with State regulations. The Auburn Lake Trails (ALT) water treatment plant was considered to be state of the art when it was built, but the "in-line filtration" technology does not meet current standards. Your Board of Directors wants to provide the best possible service to customers but is also very concerned about costs and resulting impacts on water rates. The district is making significant progress with the ALT water treatment plant project. The new Auburn Lake Trails Water Treatment Plant, which will meet state and federal surface water treatment standards when complete, is on track to be completed by 2018. In the meantime, you may consider your water safe to drink.

Appendix J

Examples of Public Education Documentation

- California Water Facts
- Landscape Design
- Outdoor Water Conservation Checklist
- Ways to Save Water

Easy Ways to Save Water

California Department of Water Resources

Conserve Water Every Day

California's geography makes it challenging to meet all our water needs. Rain and snow fall mostly in remote places, while most of the population lives in drier locations.

Water distribution systems like the State Water Project exist to bring water to people where they need it most.

Your efforts at conserving water help assure that all Californians will get the water they need.

Flex Your Power

By conserving energy, you can help prevent water shortages.

Blackouts could lead to sewage and storm water discharge systems failing if pumps lose power.

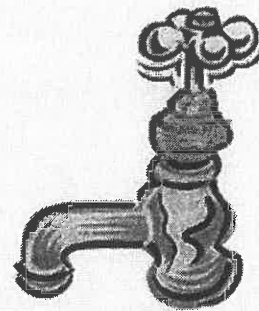
Major water pipeline breaks could also result.



Tips on Leaks

Lots of water can be lost by little leaks. A small drip can waste 70 gallons of water in a day and more than 1,000 gallons a day can pour through a steady leak of one-sixteenth inch in size. Fix leaky faucets and toilets right away. When hot water is dripping, energy is also being wasted. Since a leak can be a major water waster, always fix any leak as soon as possible.

Faucet Leaks



Most leaks, besides toilet leaks, are in the faucets, and most are mainly due to worn washers. Check your tap a couple of times a year to see if all the faucets are working properly.

Toilet Leaks

Put food coloring in your toilet tank and wait for 20-minutes. If it seeps into the toilet bowl, you have a leak. Many toilet leaks can be fixed with simple tools and a do-it-yourself manual.



Pipe Leaks

To detect unseen leaks, read your water meter. Don't run any water for one hour, then read your water meter again. If the meter has moved, you may have a leak.

The State Water Contractors in cooperation with the California Department of Water Resources funded this brochure.

GRAY DAVIS
Governor
State of California

MARY D. NICHOLS
Secretary for Resources
The Resources Agency

THOMAS M. HANNIGAN
Director
Department of Water Resources



September 2001

Learn more about California's water supply and water conservation efforts.

Easy Ways
to Save
Water

For more information about the State Water Project and accessibility, or to obtain this publication in an alternate form call the Department of Water Resources' Office of Water Education at 1-800-272-8869.

Visit DWR's Web site at <http://www.dwr.water.ca.gov/>

For TTY phone service, call (916) 653-6226.

CALIFORNIA

Water Facts



Compliments of:
Georgetown Divide PUD
P.O. Box 4240/6425 Main St.
Georgetown, CA 95634
(530) 333-4356



WATER EDUCATION FOUNDATION

717 K Street, Suite 317
Sacramento, CA 95814
Phone (916) 444-6240
Fax (916) 448-7699

Internet: www.watereducation.org

| Item | Qty. | \$ Amount |
|------|------|-----------|
|------|------|-----------|

California Water Map, \$10 ea. _____

Water Awareness Guide, \$3 ea. _____

Layperson's Guide to
California Water, \$7 ea. _____

Subscription to *Western Water*,
\$35/yr. _____

Catalog _____ no charge

Subtotal _____

Add 7.75% sales tax _____

Shipping & handling _____

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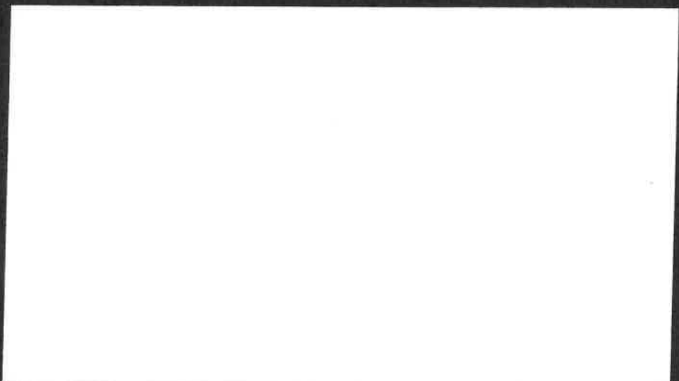
Credit card number for Visa, Mastercard or AmEx orders

_____ exp. date

Signature _____

(Must be signed to process credit card order)

Return to the Water Education Foundation



California Water Facts

This booklet was developed to help you identify your source of water, realize the importance of water in a semi-arid state and understand the competition for our most precious resource.

.....



When a person turns on the faucet, he or she may be tapping a water source close to home or one hundreds of miles away because of the complex web of water rights and delivery established long ago.

Where a community's water comes from depends largely on the foresight of its founders and the historic use of local lands and water. Some cities claimed water rights early to assure an adequate supply into the future.

Much of California's water is stored as snow in the Sierra Nevada mountains.

Other communities with plentiful surface water close to home failed to establish rights to those sources, and as a result, today do not have enough local water for their needs. Consequently, these communities must import water, sometimes over great distances, from state, federal or local water projects.

.....

The mission of the Water Education Foundation, an impartial nonprofit organization, is to create a better understanding of water issues and help resolve water resource problems through educational programs.

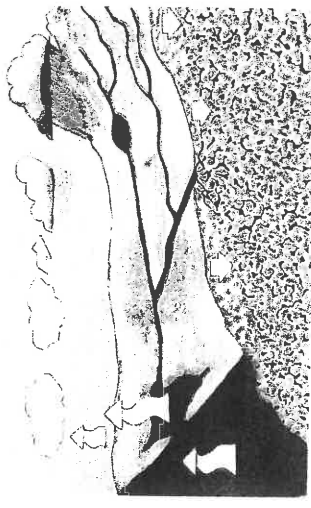
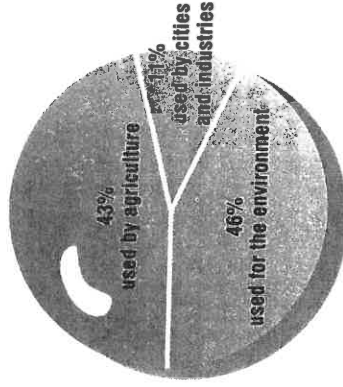
Brochure produced with a grant from the U.S. Bureau of Reclamation, Mid-Pacific Region. Cover texture photo courtesy of Roland Mills, Oasis Studios, Grass Valley, CA. Brochure designed by Blue Cat Studio, Colfax, CA. revised June 2002



Rain and Snow

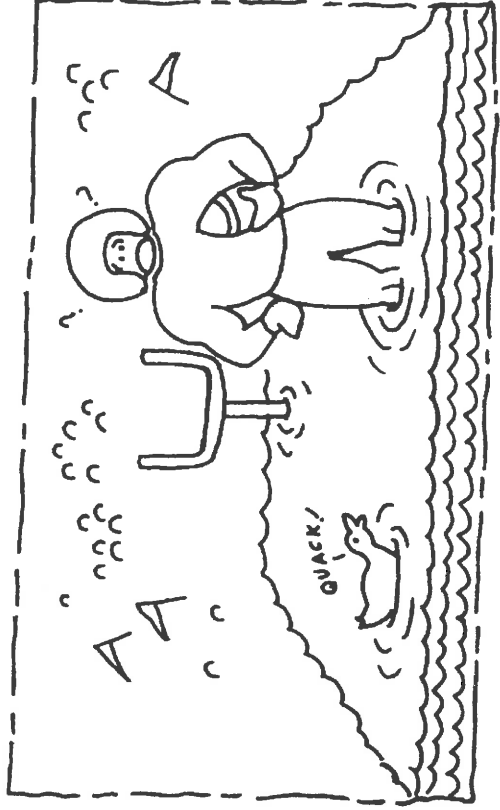
California receives about 193 million acre-feet of water each year as precipitation (rain and snow), but there is great variability between regions. Yearly precipitation on the North Coast is about 90 inches but only 2 inches in Death Valley.

Much of this precipitation evaporates, leaving California with 78 million acre-feet in surface water supply (including Colorado River and Klamath River supplies). Of that water:



Precipitation can fall to the earth as rain, snow, sleet, hail or dew.

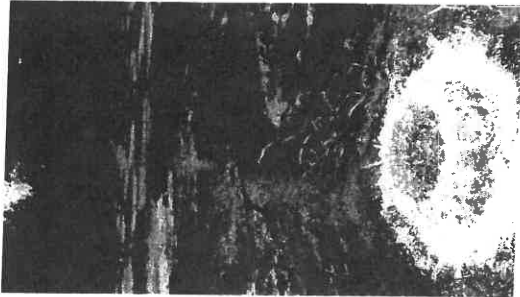
An acre-foot equals about 326,000 gallons, or enough water to cover an acre of land about the size of a football field, one foot deep. An average California household uses between one-half and one acre-foot of water per year for indoor and outdoor use.



Water Use

Surface Water

The water that runs into rivers, lakes and manmade reservoirs is called "surface water." Homes, farms and the environment use about 65.4 million acre-feet of surface water a year.



Irrigating an orchard (with groundwater).

Groundwater

We use about 12.5 million acre-feet of groundwater in an average year (about 30 percent of total statewide water use). In drought years, however, groundwater use increases to about 40 percent of total use. At present, California is overdrafting its groundwater supplies (extracting more water than is returned) by about 1.5 million acre-feet a year.

History

California's mild climate and abundant natural resources attracted early settlers, but water was the catalyst that allowed the semi-arid state to grow and prosper. Putting it to use required capturing the water and moving it from areas north of Sacramento, where nearly 75 percent of the state's rainfall occurs, to central and southern California, where 80 percent of the agricultural and urban use exists.



Groundwater fills the pores (spaces) between rocks and other materials found beneath the earth's surface.

Large water development, storage and distribution projects transported the water, changing arid land to farmland and giving life to new cities and towns. Without these projects, much of the state would be different from what we see today.

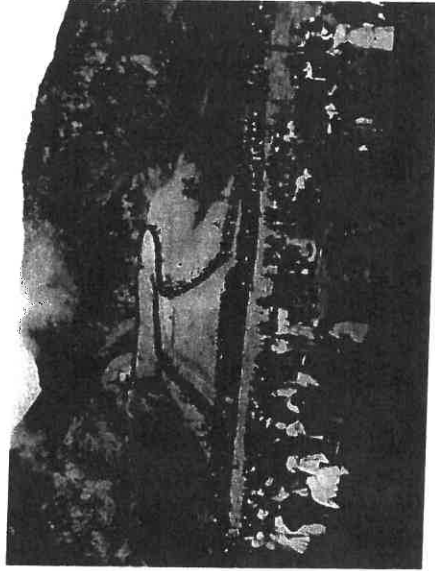
These projects, built from the 1930s to 1970s, helped make California the nation's leading producer of food and fiber, a major manufacturing center, the most populous state, and the eighth largest economy in the world.

Water Delivery

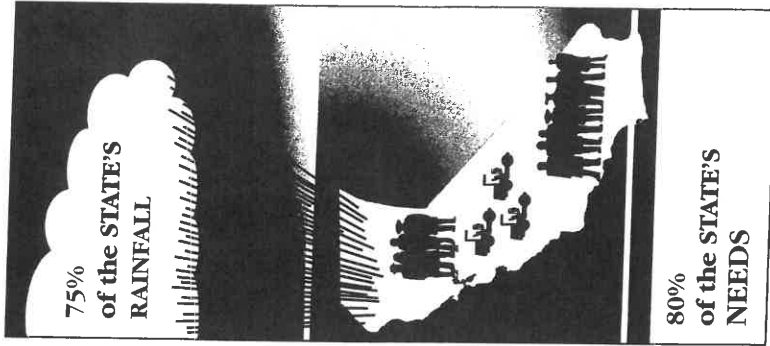
Water is free in California, but customers must pay for the cost of treating, pumping and transporting water and/or for building the dams, reservoirs and aqueducts needed to store and deliver the water.

There are over 1,000 local, state and federally owned and operated reservoirs in California. About 70 percent of California's annual water supply for urban and agricultural use is met by locally owned and operated dams, storage reservoirs and aqueducts. Examples are the Hetch Hetchy Reservoir in Yosemite National Park, which serves the city of San Francisco, and the Colorado River Aqueduct built by the Metropolitan Water District of Southern California, which brings Colorado River water to southern California.

There also are two major water projects, the State Water Project (SWP) and the federal Central Valley Project (CVP), that carry water from northern California to central and southern California users.



The Los Angeles Aqueduct, carrying water from the Owens Valley, helped the city grow from a population of 214,000 in 1905 to 3.8 million today.



The Water Projects



~ Natural Rivers
 ~ Water Projects

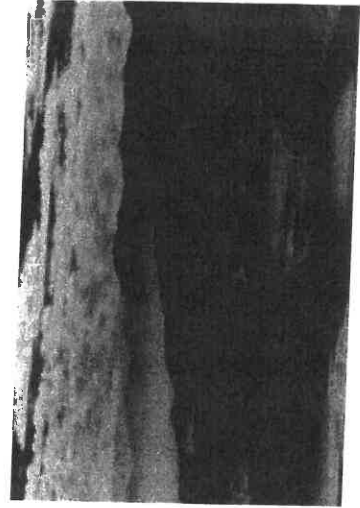
State Water Project

California's State Water Project (SWP) consists of 20 dams and extends more than 600 miles from northern to southern California. The SWP delivers about 3 million acre-feet annually and serves farmers in the San Joaquin Valley and urban users in southern California and the Bay Area, and is operated by the California Department of Water Resources.

Central Valley Project

The federal Central Valley Project (CVP), which is operated by the U.S. Bureau of Reclamation, includes 18 federal reservoirs and four state-federal reservoirs. The CVP was built primarily to irrigate the Central Valley, and in a normal year delivers 7 million acre-feet of water. About 90 percent of the CVP's water is used to irrigate more than 3 million acres of farmland — and the project also provides water to about 2 million urban consumers.

Major elements of California's water delivery system which transport water from areas of precipitation to areas of need.



A primary feature of the SWP is the 444-mile long California Aqueduct which transports water from the Sacramento-San Joaquin Delta south to the Los Angeles area. About 30 percent of SWP water is used by agriculture. About 20 million Californians — or two-thirds of the state — get part of their water from the SWP.

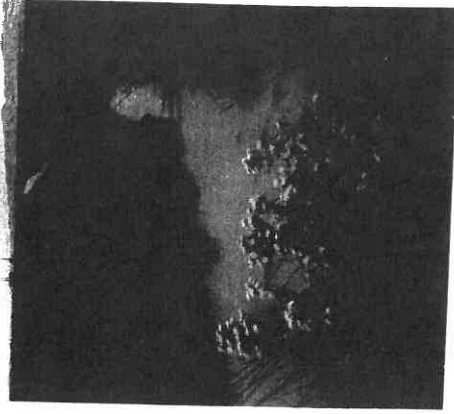
Environmental Protection

In the decades since construction of the state's major water projects, societal values have shifted in favor of environmental protection and enhancement. Beginning in the 1970s, elected officials recognized these values through passage of state and federal laws designed to protect the environment. These laws include the Endangered Species Act (ESA), Clean Water Act and legislation that protects many rivers as "wild and scenic." These laws have made it more difficult to develop traditional water projects.

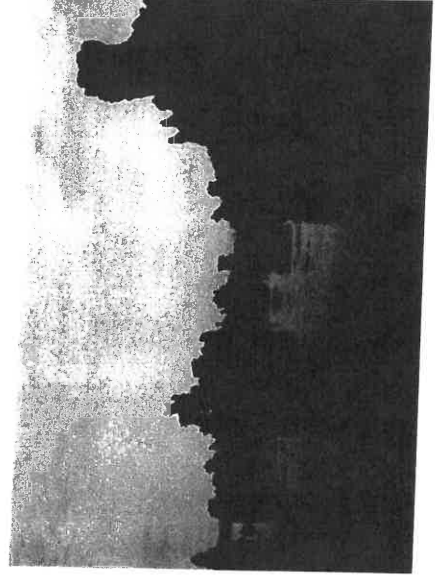
While there remains broad general support for such environmental regulations, the restrictions they impose have sparked more criticism in recent years. The ESA, in particular, has required major changes in water project operations as officials try to protect several endangered species, including the winter-run chinook salmon.

Because more water is being used for environmental purposes, there often is less for traditional farming and municipal uses. This has heightened the competition for this precious resource.

Wetlands filter pollutants from water, store flood waters, recharge groundwater aquifers, and support migratory waterfowl.



A legal battle over Mono Lake, located in eastern Sierra Nevada, established that the public trust doctrine applies to water rights. The doctrine holds that natural resources are the property of all, and in 1994, Los Angeles was ordered to restrict its water diversions until the lake's level rises.



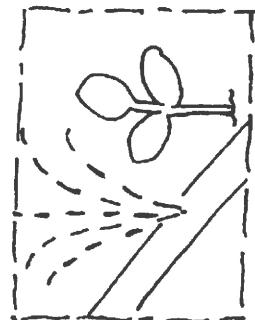
Alternative Water Sources

Officials estimate that by 2020, California's current population of 32 million will reach 47.5 million, and as the state grows, so will the demand for water. Officials are pursuing several options to stretch water supplies to meet demand. One way of stretching water supplies is through water conservation (see page 10).



Southern California leads the state in treating wastewater and reusing it to water golf courses, parks and landscapes or refill depleted groundwater basins.

Agriculture has increased use of drip irrigation and other methods to conserve water.



Water recycling—the treatment and reuse of municipal wastewater—to irrigate fields, water golf courses and recharge groundwater aquifers is seen as a key way to “create” more water. By 2020, state officials say that water recycling programs could provide an additional 1 million acre-feet of water annually.

Converting salt water into fresh water—sea water desalination—was once commonly viewed as too expensive a source of drinking water.

During the 1987–1992 drought, three coastal communities developed desalination plants to offset severe water shortages. New technology could lead to more desalination plants in the future.

Water marketing or transfers—exchanging, leasing or selling water from one user to another—is slowly gaining support in California. Many concerns about third-party economic impacts, instream environmental water needs and legal constraints remain.

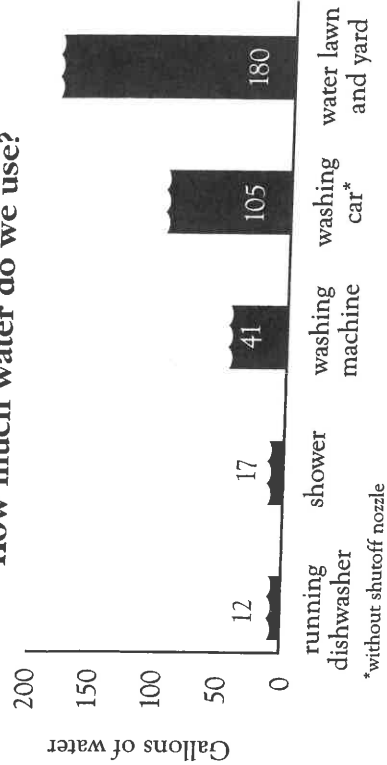
Water Trivia

The earth's water supply

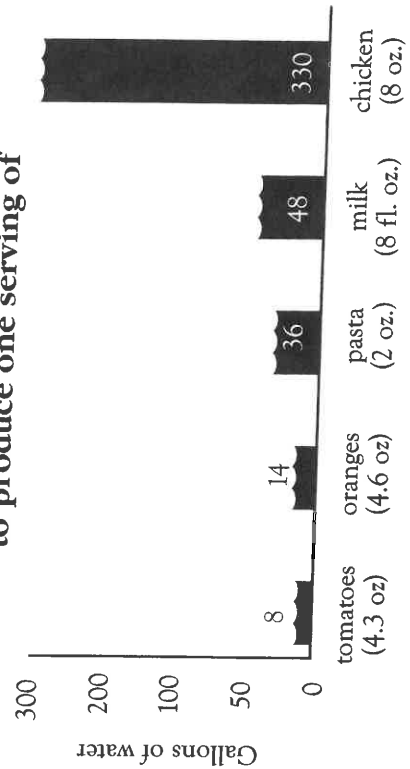
| | |
|----------------------|--------|
| Salt Water | 97.2% |
| Fresh Water | 2.8% |
| Groundwater | 0.6% |
| Lakes and Streams | 0.01% |
| Glaciers and Icecaps | 2.2% |
| Water Vapor | 0.001% |

Amount of water contaminated by 1 quart of oil =

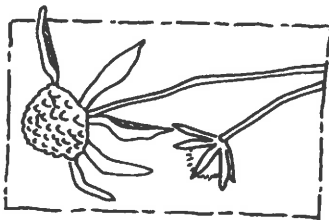
How much water do we use?



How much water does it take to produce one serving of



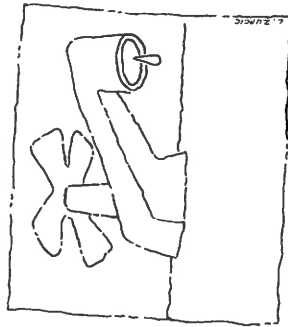
Saving Water At Home



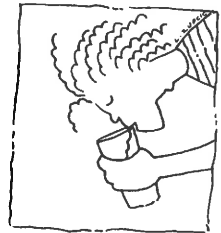
With watering the yard, filling the swimming pool or hot tub and washing the car, outdoor water needs consume about half the water used in a typical single-family home. Xeriscape — landscaping with plants that use less water — has become a popular way for people to cut outdoor water use by as much as 50 percent.

Another approach is the use of landscape “water allowances.” Customers have a set amount of water to use and can plant whatever they want—water rate charges encourage the use of water-efficient irrigation systems.

While half of residential water is used outdoors, big savings also can be made indoors — especially in the bathroom. A national study shows that the toilet accounts for 26.7 percent of the average household’s indoor water use. A traditional toilet can be the biggest water-using fixture in the house, consuming about 3.6 gallons per flush. Ultra-low-flush toilets use about 1.5 gallons per flush. After the toilet, the biggest bathroom guzzler is the shower or bathtub. An eight-minute shower with a 2.2 gallon-per-minute showerhead can use 17 gallons of water. A bath, on the other hand, uses 24 gallons.

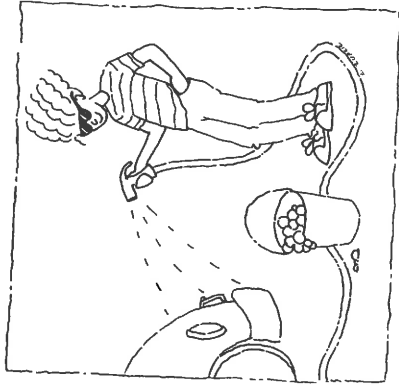


In the kitchen, a typical dishwasher uses between 8 and 15 gallons of water. New, water-efficient styles can use as little as 6 gallons per load. In the laundry room, a typical clothes washer uses 41 gallons per load. High-efficiency clothes washers reduce the average volume per load by 40 percent.

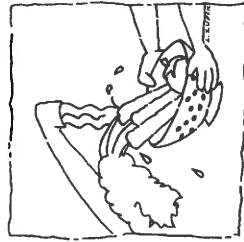


Per capita residential water use in California varies considerably, from about 290 gallons a day for Central Valley cities to about 150 gallons per day for some Central Coast communities.

Water Conservation Tips



Wash the car only with a bucket and hose equipped with a shut-off nozzle or at a commercial car wash that uses recycled water.



Do not leave the water running while brushing teeth, shaving, washing dishes, defrosting food or cleaning produce.

Do not over-water the lawn or allow water to run into the street.

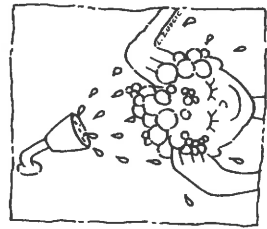
Install an ultra-low flush toilet or toilet tank displacement bag.

Detect leaks and repair them within 48 hours.

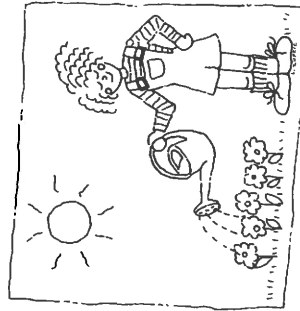
Do not hose down sidewalks or driveways.

Wash only full loads of laundry and dishes.

Do not use the toilet to flush trash.

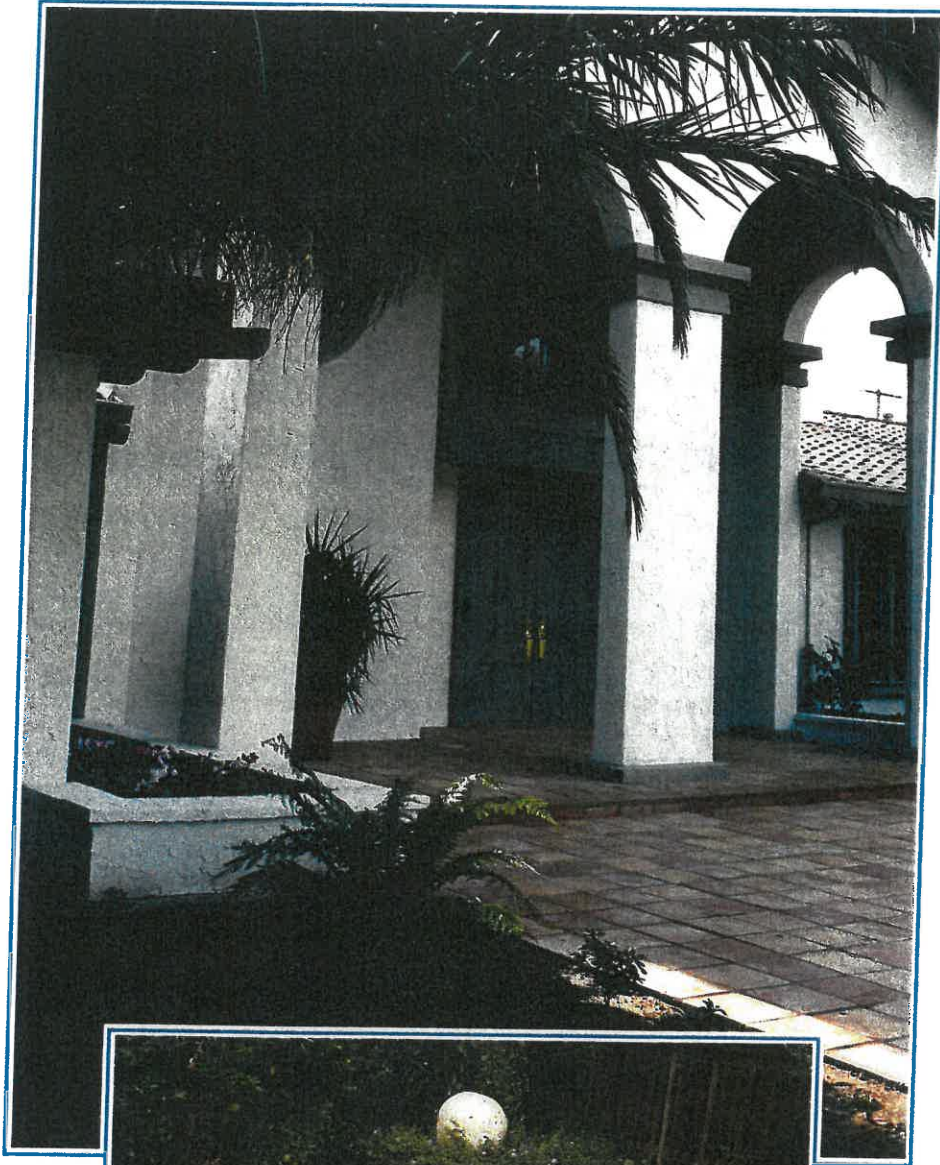


Install a water-saving showerhead.



Only water outdoors in the early morning or evening.

LANDSCAPE DESIGN II



RE-DO YOUR LANDSCAPE
THE EASY AND EFFICIENT WAY

CONSIDERATIONS

WHY RE-DO YOUR LANDSCAPE?

Lifestyles are rapidly changing in our society, and landscapes are changing as well. Families are not interested in spending a great deal of time on the upkeep of their yards. On the other hand, they want green outdoor spaces for resting places, entertaining and family activities.

Whether you're doing it yourself or having it done, renovating your landscape can extend your living space, add new usage areas to your yard, help cut down on the time you spend on maintenance, and drastically reduce water use.

Almost half of the water used in a single-family home goes on the landscape. Low water-using landscapes can reduce landscape watering by half, often quite a savings on the monthly water bill.

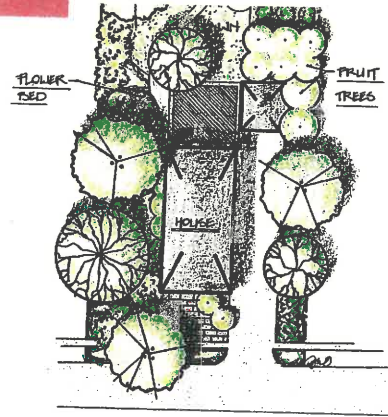
BEFORE YOU DIG IN

PLAN IT

You'll need to start with a master plan based upon your site and your requirements for your yard. Visits to botanical and demonstration gardens that emphasize water-efficient plants, irrigation systems and design can give you ideas to start out with.

First assess your site. Look at soil conditions, drainage, wind, sun, slopes and water-use areas. Next, assess your needs — what uses you will make of your outdoor space. Ask yourself these questions:

- ▼ What do you like most and least about your current landscape?
- ▼ How do you and your other family members plan to use the landscape and its new spaces? Relaxation? Outdoor cooking? Entertaining? Gardening? Swimming? Sports? Etc.?
- ▼ If you have children, what specific uses will they be growing into or out of?
- ▼ What about pets? Do you want them shut out or let into specific areas?
- ▼ Is there some particular landscape style (i.e., formal, Japanese, natural, etc.) you want to use? Is that style in keeping with the structure of your home?
- ▼ Is anyone in your family allergic to any plants or to bees?
- ▼ Does your site require any additional screening to ensure privacy?
- ▼ How much money have you budgeted for improvements?



SKETCH IT

Now use graph paper to draw up a model showing property boundary lines, house, fences, existing trees and shrubs and walkways. Also show the sun, soil, drainage and wind zones from your assessment. Most importantly, divide your existing landscape into low, moderate, and high water-use zones according to the following guidelines. (Your goal is to reduce the size of your high water-use areas while increasing the size of moderate to low water-use areas.)

▼ The highest water-use area of your yard is, in most cases, your lawn. Think about ways to reduce the size of your lawn by replacing it with areas of hardscape and less-thirsty groundcover, shrubs and trees. On your renovated landscape, your lawn can then be an oasis of green designed in the shape of a rounded, pool-like focal point, rather than a boring expanse.

▼ Moderate water-use areas include plants like groundcovers, annuals, vegetable gardens, and water-conserving plants with mulch. Such areas should be timer-watered or watered manually, as needed, using sprinkle or drip irrigation.

▼ Low water-use areas include *established* water-conserving trees and shrubs with mulch, and can be drip irrigated very infrequently once they are established.

▼ No water-use areas include hardscapes and some established native plants.

Once you have your "base map" completed, trace it and then draw in the new features you want your landscape to have (or have a professional do this). As you choose each element for your yard or patio, consider how it fits in with your total plan. Once you've got your plan, you can prioritize, in terms of your budget, how to go about completing the project. (This brochure includes a sample design which was completed in a three-year process.)

HOW TO RE-DO YOUR LANDSCAPE IN STAGES

CLEAR IT

Remove any unwanted structures and/or plants.

BUILD IT

A good overall plan for your project should include an irrigation system that can accommodate your landscape as it is now as well as the design of your renovated landscape. Install it using these guidelines:

- ▼ Use separate irrigation valves and timing schedules for areas of low, moderate, and high water use.
- ▼ Your high water-use lawn will be most water efficient if your sprinklers are on automatic timers.
- ▼ Moderate and low water-use areas should be irrigated using drip, ooze, or bubbler systems. (Your local do-it-yourself store, hardware store, or nursery should have brochures outlining how to install these.)
- ▼ Experts point out that *all* irrigation is more efficient on some type of automated timer — as long as you reset your timer as the seasons, and your yard's water requirements, change.
- ▼ Proper forethought will help you avoid having to figure out how to install a watering system *around* any new hardscapes you might add. (You can put PVC sleeves *under* them if you plan ahead.)

Next add in the hardscape areas that will help you reduce the size of your lawn. Use hardscapes like decking and walkways in conjunction with larger areas of low water-use plants. Hardscape materials include wood, flagstone, river stone, pavers and concrete.

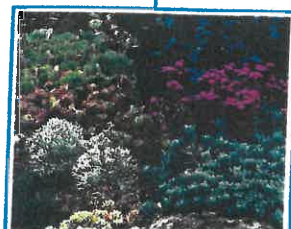
PLANT IT

Planting just before or during the rainy season is best because it reduces transplant shock and allows the plants' roots to establish at greater depths so that summer drought is not as damaging. Remember that even non-thirsty plants require water until they are established.

It's important to group plants with similar watering, sun, and soil pH needs together. If you disperse low water-using plants with plants requiring more water, you may end up over-watering the less thirsty plants. If in doubt, ask a professional which plants "go together" in the different areas of your landscape.

When choosing plants, think in terms of their ultimate size. If you are concerned about the barren look of your landscape before it "grows in," and want more of an instant effect, consider planting fast-growing temporary plants with the permanent ones. As the permanent ones fill out, you can then remove the temporary ones.

Mulch, material added on top of the soil, buffers the soil from extreme temperatures, traps moisture and keeps water-robbing weeds down. Mulching materials include wood chips, fir bark, and fine gravel. To be efficient, mulch should be applied to a depth of two to six inches.



MAINTAIN IT

Water according to your plants' needs and adjust irrigation timers to match weather patterns. Contact your local water utility, county cooperative extension office, or nursery for tips on watering schedules in your particular area.

NEED HELP?

Many of the projects undertaken in a landscape renovation are well within the abilities of do-it-yourselfers. A little elbow grease and commitment can help you save on the costs of labor and leave more money for plants. But doing it yourself has disadvantages, too. A project that might take a few weeks in the hands of a landscape contractor can stretch into months or years if you only have weekends to devote to it. Remember, too, that certain design elements, like decking and irrigation systems, may require building permits. If the idea of doing it *all* yourself seems a little overwhelming, consider, at the very least, having designs drawn for you by a professional. You might also opt for finding a professional who will allow you to do some of the labor yourself. Also, many pros will do "consultation" visits, offering information to get you started.

HOW TO FIND A REPUTABLE PRO

If you do opt for working with a professional, you'll need to know how to select one.

There are two types of licensed professionals with whom you might want to deal on your renovation project: landscape architects, who usually design large outdoor spaces; and landscape contractors, who build landscapes. Landscape designers may have as much formal training as the licensed professionals, but have not obtained licensing as architects or contractors.

The California Landscape Contractors Association has several brochures on finding and hiring a qualified person to install your landscape. They will also send you a list of licensed contractors in your area and their specialties. You can then call for pricing information.

The California Council of Landscape Architects provides similar information.

A local nurseryman can help with how-to advice, tell you which water-conserving plants will work in *your* area, and provide you with equipment, materials and plants. The California Association of Nurserymen has a certification program and can tell you which local nursery has certificated people available. (See the *RESOURCES* section of this brochure for the addresses of CLCA, CCLA, and CAN.)

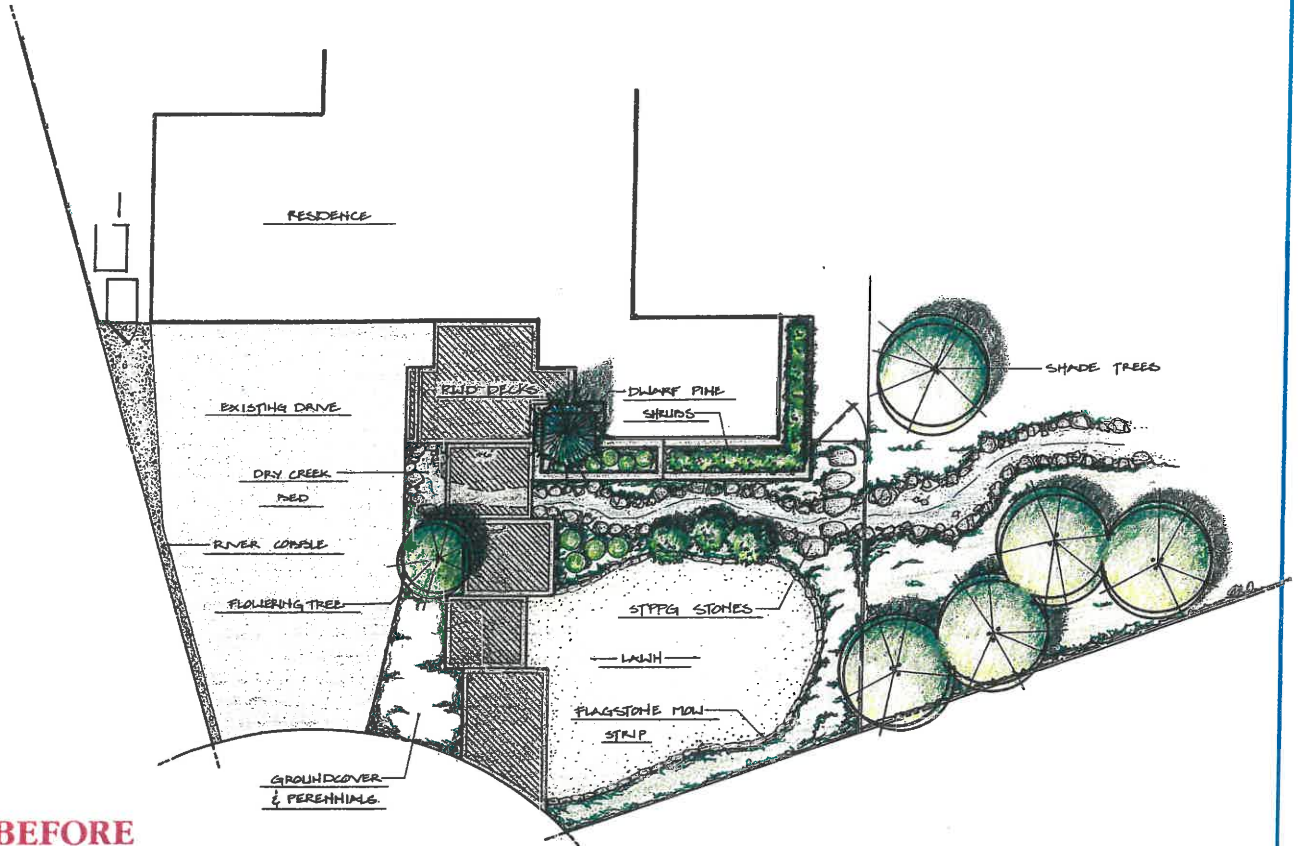
FROM DULL AND DREARY

TO

VIVID VITAL

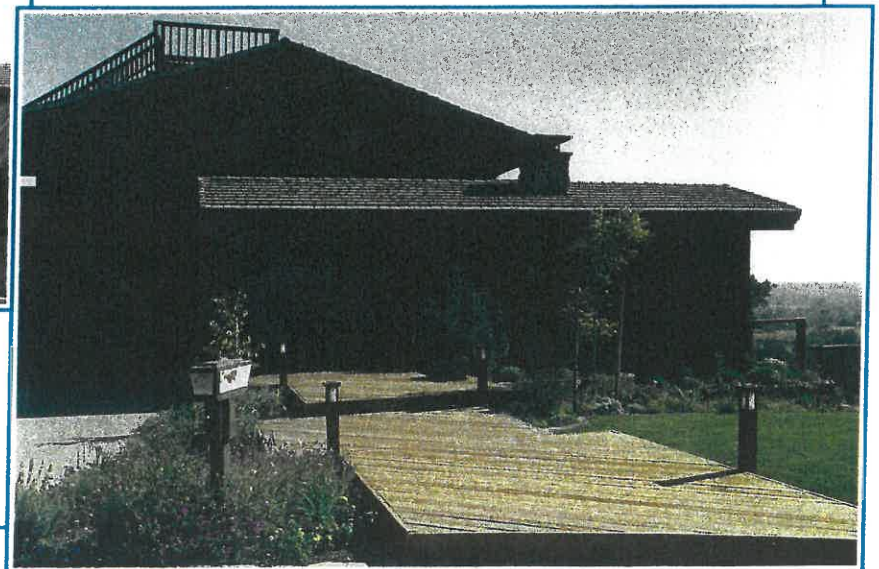
The goals of this renovation were to reduce the lawn area, solve a drainage problem and add color and interest. The renovation includes a much more extensive entry walkway with lighting and large redwood pads. A functional dry creekbed further reduces lawn area while

non-thirsty perennial and groundcover plantings add color and interest. The use of plants native to the area and the overall design of the renovation combine to give a natural feeling to this water-efficient front landscape.



BEFORE

AFTER

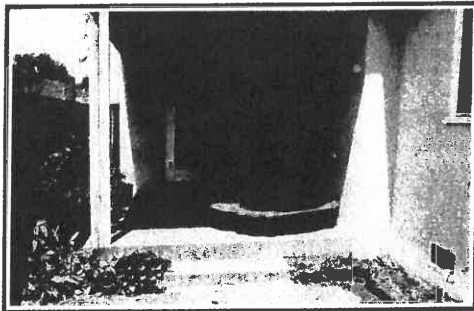


SITE 1

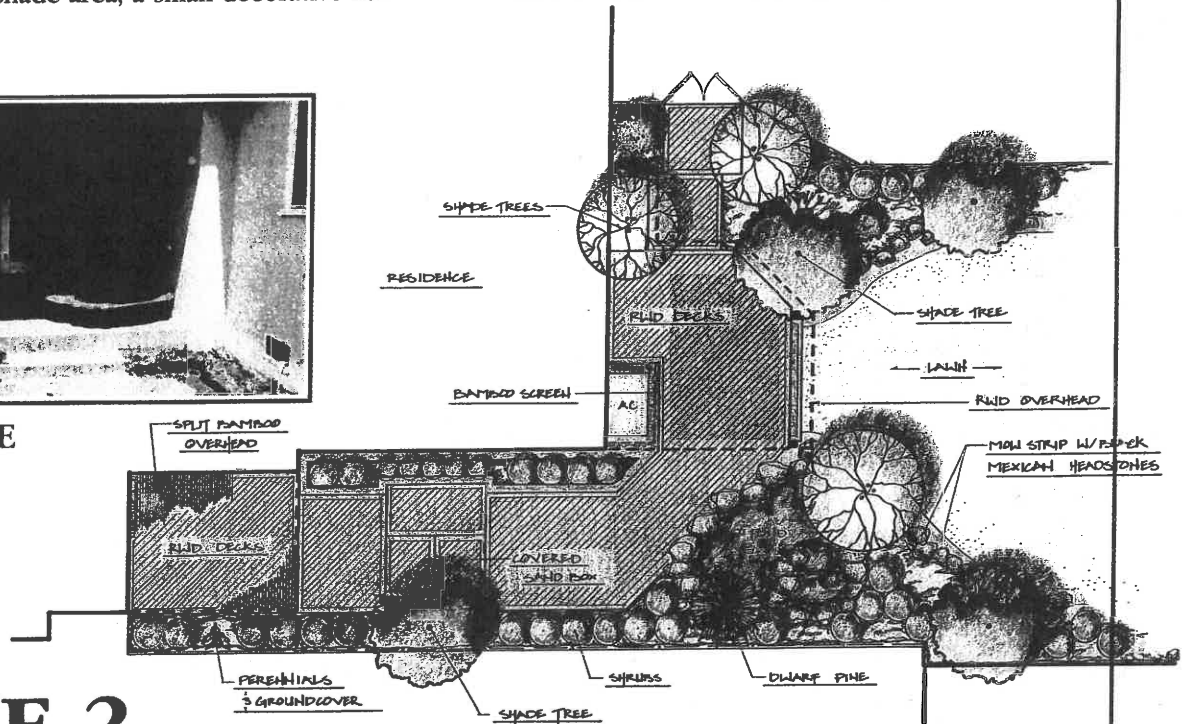
FROM BORING 'BURB TO FUNLAND

This existing back yard was all water-thirsty lawn with a small concrete pad. The space was re-designed with an oriental flavor and defined to provide for the many activities of an active young family. The addition of a large entertainment area, a shade area, a small decorative fish

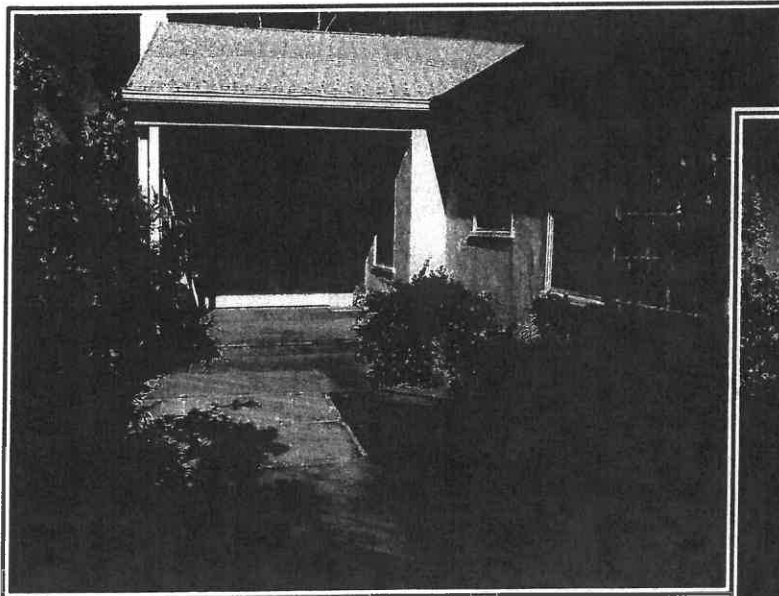
pond in which the children can wade, and a sand box that closes up to become part of the deck all serve to lower the yard's water requirements. An added bonus — the trellis overhead to the south reduces the heat load on the house in hot summer months.



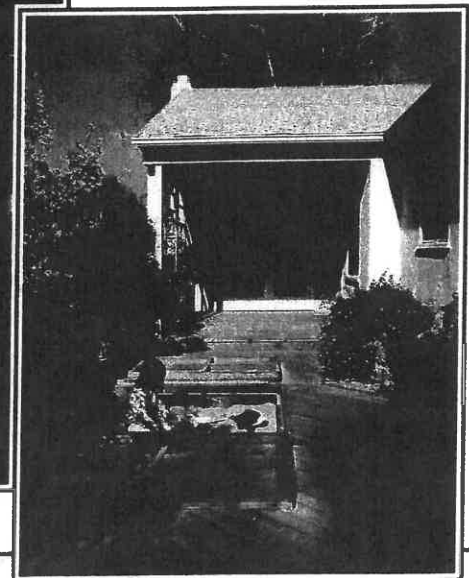
BEFORE



SITE 2



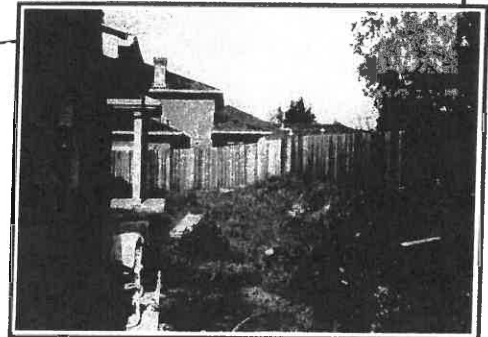
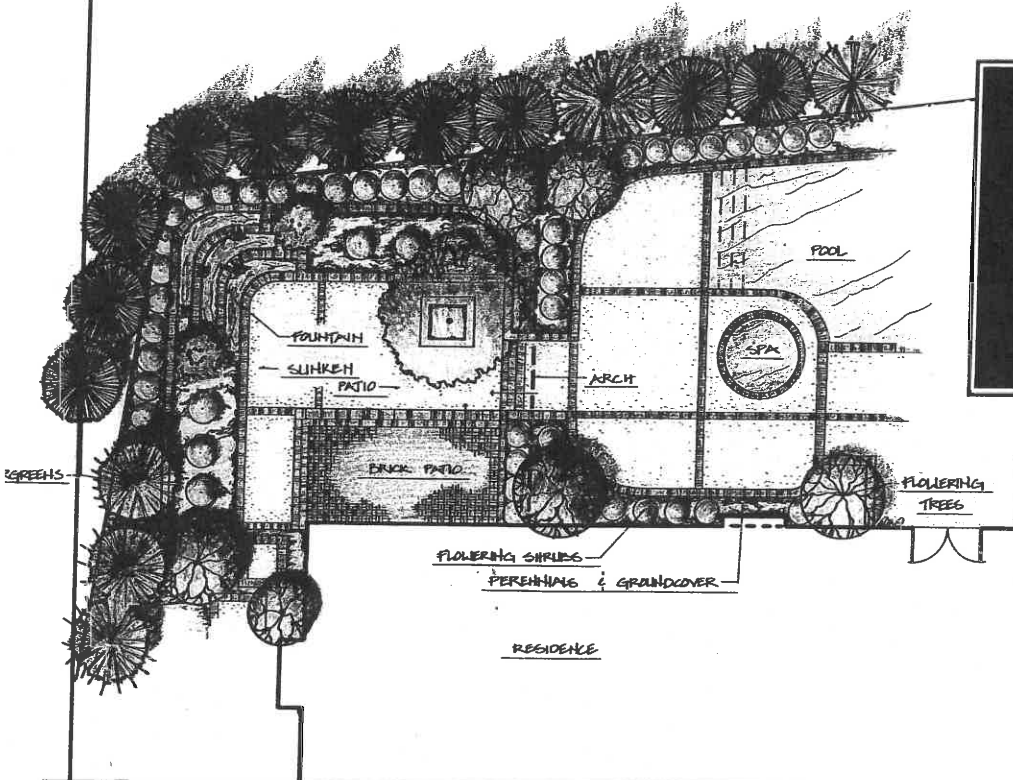
AFTER



FROM PUBLIC PATCH **TO** PRIVATE PARADISE

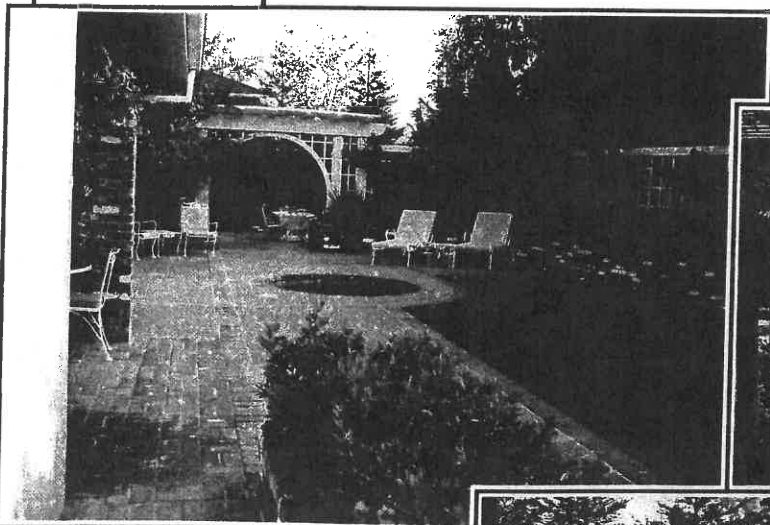
This long, narrow back yard had myriad problems: no privacy on the side yard, a view of a neighbor's house and an electric utility power station and major drainage problems. Renovated with no use of grass whatsoever, the

yard is green, lush and colorful year-round. The fountain recirculates water and all irrigation is drip. The fence and extensive use of brick lend a French country feeling to the low-maintenance, functional yard.

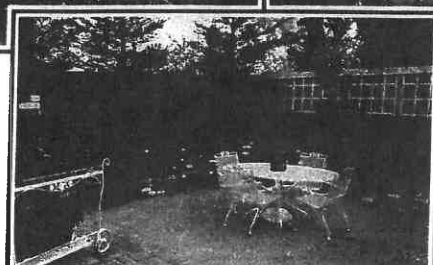
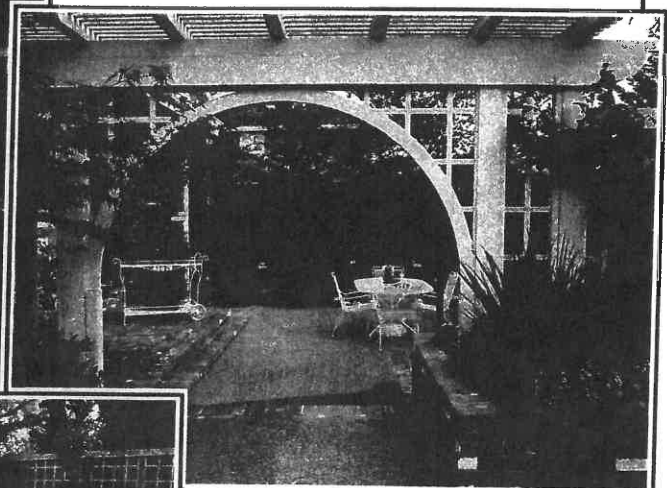


BEFORE

SITE 3



AFTER



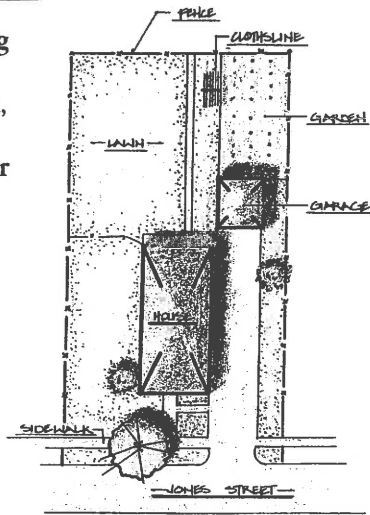
A

3-YEAR PLAN

BEGIN ...

By analyzing existing landscape with an eye toward function, aesthetics, and how to cut back on water usage.

Develop a plan designating the finished elements, hardscapes and plantings.



YEAR 1

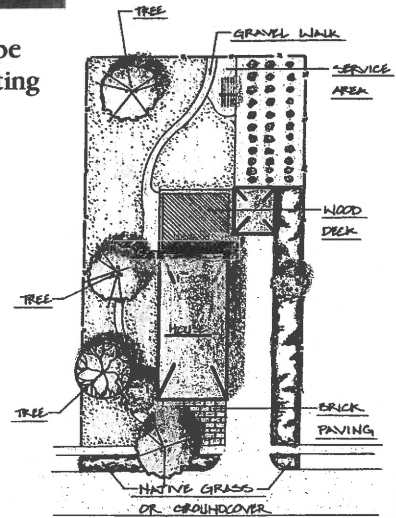
Install all hardscape and renovate existing irrigation.

Then add:

- ▼ Shade Trees
- ▼ Groundcover

Reduce:

- ▼ Lawn Areas



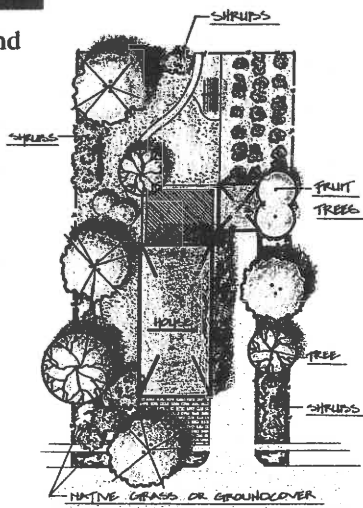
YEAR 2

Adjust irrigation, and add:

- ▼ More Shade Trees
- ▼ Shrubs
- ▼ Groundcover

Reduce:

- ▼ Lawn Areas



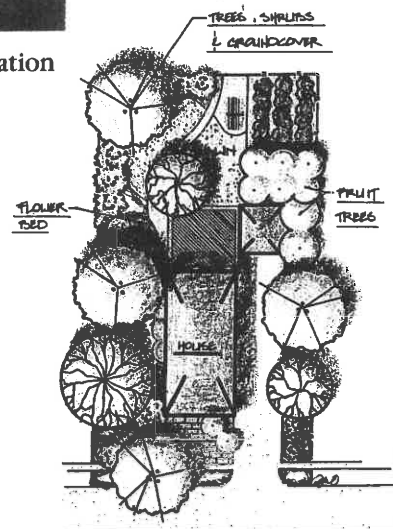
YEAR 3

Finely adjust irrigation and add more:

- ▼ Shade Trees
- ▼ Shrubs
- ▼ Groundcover

Further Reduce:

- ▼ Lawn Areas





Indoor Water Conservation Checklist

FREE AND EASY IDEAS

Kitchens

- Don't leave the faucet running while you rinse or wash dishes.
- Scrape food from dishes first, then rinse only as much as needed. Rinsing in a second sink or tub uses less water than rinsing under a faucet.
- Limit use of the garbage disposal. Save food scraps to run the garbage disposal only once, or save more water by composting.
- Operate the dishwasher only when it is fully loaded. Each dishwasher cycle uses 9-25 gallons of water, depending on the model.
- Capture and use otherwise wasted water (waiting for water to warm or cool, vegetable or dish water). Soapy water is generally OK for watering plants as long as there is no bleach or borax.
- Keep a water bottle in the refrigerator for drinking instead of running tap water until cold.

Bathrooms

- Toilets use 27% of average indoor household water. Don't use toilets as waste baskets or ash trays.
- Showers use 17% of indoor water. Take shorter showers, five minutes or less. Turn shower water off except to wet before soaping, then again for rinsing.
- Cut down on bathtub use or fill the tub to a lower level.
- Capture the initial cold water in a bucket to water potted plants. Turn it all the way to hot until you get the temperature you want to decrease the wait.
- Faucets use 16% of indoor water. Only run water when actually using it.
- Turning off the tap while brushing your teeth or shaving can save more than 200 gallons of water each month.
- Rinse your razor in a partially filled sink instead of running the water.
- Teach children to turn water faucets off quickly and tightly after each use.



Laundry

- Clothes washers consume 22% of indoor water. Wash only full loads of laundry. Each washing cycle uses 20 – 40 gallons of water, depending on the model of the machine.
- Teach children to change into play clothes after school so that school clothes can be worn more than once before washing.



SOME EFFORT OR EXPENSE

- Leaks consume 14% of average indoor water use. Check for and repair toilet leaks, which can waste as much as 200 gallons a day.
 - ✓ Put food coloring in the tank and wait. If color shows in the bowl you have a leak.
 - ✓ Adjust or replace the flapper. If you hear the toilet running but color didn't appear in the bowl, adjust the float arm to below the overflow line.
 - ✓ If it still leaks, call a plumber.
- Check and repair faucet and pipe leaks. You can check your entire system by turning everything off and seeing if the water meter still shows flow.
- Install low-flow shower heads and faucet flow restrictors (aerators). You can purchase quality, low-flow fixtures for around \$10 to \$20 each and achieve water savings of 25%–60%.
- Replace older toilets with 1.28 gallons-per-flush high efficiency toilets.
- Install a circulating hot water system with a timer.
- Replace traditional clothes washers with new, energy- and water-conserving machines that use less than 27 gallons of water per load.
- Insulate hot water pipes. Running the "hot" line to clear cool water is wasteful.





Outdoor Water Conservation Checklist

FREE AND EASY IDEAS

- Water your lawn only when needed, 2-3 days a week at most. If you step on your lawn and the grass springs back, it does not need to be watered.
- Water early in the morning when temperatures and winds are at their lowest levels to reduce evaporation.
- Turn off your sprinklers when it rains. Rain sensors and shutoff switches are inexpensive and can be retrofitted to almost any system.
- See the indoor water conservation checklist for ways to capture otherwise wasted water to use for watering potted plants.
- Don't water the gutter. Runoff is wasteful and can carry pollutants to creeks.
- Check your irrigation monthly for:
 - ✓ Spray heads blocked by plant growth or clogged with debris
 - ✓ Poorly aimed nozzles/misaligned and tilted heads/incorrect arc (adjust at head)
 - ✓ Mixed heads (each station should only have one kind of head)
 - ✓ Overspray (adjust flow through the valve, use different nozzles, or adjust the flow control screw on the nozzle itself)
 - ✓ Broken heads (water leaks from the seal around the pop-up stem), broken parts (some expense)
 - ✓ Heads that weep even when off (due to a faulty valve or the lack of check valves)
 - ✓ Sunken heads in a lawn (may need taller risers or turf may need dethatching – some expense)
- Reset your irrigation timers four times a year as the seasons change. Most homeowners overwater each fall by 25% or more because they don't readjust at the end of September when solar radiation is already halfway to winter lows.
- Use a trigger nozzle on hoses so water won't run except when you intend it to.
- Teach children that hoses and sprinklers are not toys. Restrict or eliminate use of hose-end water toys.
- Use a broom to clean driveways and other hardscape.
- Schedule each individual zone in your irrigation system to account for the type of plant, sprinkler, sun exposure and soil type for the specific area. The same watering schedule rarely applies to all zones in the system.
- Remove dying plants and weeds that compete for available water.
- Maintain sharp blades on pruning shears and lawn mowers to reduce plant water loss.
- Aerate lawns and apply compost periodically to decrease compaction and improve penetration of water, air and nutrients into root zones. Lawns need aeration when water pools or runs off after only a few minutes of watering.
- Avoid installing water features. Even recycled water evaporates.



INEXPENSIVE OR MODERATE EFFORT REQUIRED

- Mulch flower and garden areas, as well as tree and shrub bases.
- Avoid planting turf or installing spray irrigation in areas that are difficult to water without runoff, such as isolated strips along sidewalks and driveways and on slopes.
- At least once a year, confirm that all irrigation systems are distributing water uniformly and inspect, repair, and/or adjust subsurface or drip watering systems.
- Immediately shut off irrigation system(s) and adjust whenever irrigation water falls or runs onto hard surfaces such as sidewalks, streets or driveways.
- Repair all leaks as soon as detected, including hose couplings.
- Plant drought-tolerant or low-water plants for landscaping.
- Cover pools, spas and other water features when not in use to minimize evaporation. A good pool cover will save energy by up to 90% and water by up to 70%, saving nearly 1,000 gallons of water per month.
- Seasonally check pools and spas for leaks, which can lose up to 1,000 gallons a day. Symptoms of leaks include water level drops over 2 inches per week in the summer (with automatic filling off) or increased need for chemicals.
- The more frequently swimming pool filters are cleaned, the less often you'll need to replace the pool water.

GOOD WATER SAVING INVESTMENTS

- Install a weather-based irrigation controller and efficient nozzles. Your local water agency may offer rebates.
- Reduce the amount of lawn you have, especially where it isn't used for play.
- Plant drought-tolerant and native plants.
- Employ a certified landscape-irrigation auditor to conduct a thorough and comprehensive check for efficiency of water application. He or she can inspect and tune your system to ensure optimal efficiency.
- Replace lawns with artificial turf.
- Determine specific water requirements for all existing landscape plants, and water accordingly. Plants with the same water needs should be planted and irrigated together so you don't have to overwater some to give the rest enough.
- Water all plants deeply but infrequently to encourage deeper, healthier rooting.
- Install drip irrigation for trees, shrubs, slopes and narrow spaces.
- Replace pool filters with newer water conserving models. A single back-flush with older models uses 180-250 gallons of water.
- Harvest water from rainfall for landscape irrigation purposes. Systems can range from rain barrels to underground cisterns.



GEORGETOWN DIVIDE PUD

P.O. Box 4240
Georgetown, CA 95634
(530)333-4356

In the Home

Water is essential to each of us every day. But it's a limited resource, so we all need to rethink the way we use water on a daily basis. By following these water-saving tips inside your home, you can help save water every day, whether or not California is in a drought:

Laundry Room

- Use the washing machine for full loads only to save water and energy
- Install a water-efficient clothes washer

Save: 16 Gallons/Load

Kitchen

- Run the dishwasher only when full to save water and energy.
- Install a water- and energy-efficient dishwasher.

Save: 3 to 8 Gallons/Load

- Install aerators on the kitchen faucet to reduce flows to less than 1 gallon per minute.

Bathroom

- Install low-flow shower heads.

Save: 2.5 Gallons

- Take five minute showers instead of 10 minute showers.

Save: 12.5 gallons with a low flow showerhead, 25 gallons with a standard 5.0 gallon per minute showerhead.

- Fill the bathtub halfway or less.

Save: 12 Gallons

- Install a high-efficiency toilet.

Save: 19 Gallons Per Person/Day

- Install aerators on bathroom faucets.

Save: 1.2 Gallons Per Person/Day

- Turn water off when brushing teeth or shaving.

Save: Approximately 10 Gallons/Day

- Don't use the toilet as wastebasket.

Outdoors

There are lots of ways to save water, but reducing the water you use outdoors can make the biggest difference of all. By making a few easy changes to the way we use water outside our homes – like watering lawns only when needed, adjusting sprinklers to avoid watering sidewalks and using a broom instead of a hose – you can save a significant amount of water every day.

Landscape

- Water early in the morning or later in the evening when temperatures are cooler.
Save: 25 gallons / each time you water
- Check your sprinkler system frequently and adjust sprinklers so only your lawn is watered and not the house, sidewalk, or street.
Save: 15-12 gallons / each time you water
- Choose a water-efficient irrigation system such as drip irrigation for your trees, shrubs, and flowers.
Save: 15 gallons / each time you water.
- Water deeply but less frequently to create healthier and stronger landscapes.
- Put a layer of mulch around trees and plants to reduce evaporation and keep the soil cool. Organic mulch also improves the soil and prevents weeds.
Save: 20-30 gallons / each time you water / 1,000 sq. ft.
- Plant drought-resistant trees and plants.
Save: 30- 60 gallons / each time you water / 1,000 sq. ft.
- Information about evapotranspiration (ET) and weather based irrigation controllers is available at: <http://www.cuwcc.org>. and www.cimis.water.ca.gov

Cleanup

- Use a broom to clean driveways, sidewalks and patios.
Save: 8-18 gallons / minute
- Wash cars/boats with a bucket, sponge, and hose with self-closing nozzle.
Save: 8-18 gallons / minute

Activities

- Teach children that the hose and sprinkler are not toys.
- Install a pool/spa cover to reduce evaporation and filter backwash.
Save: 30 gallons / day
- Test pool and spa water frequently and maintain appropriate chemical balances to avoid the need to drain it except for structural repairs. Check your pool and pool plumbing for leaks.

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- Install a pool/spa cover to reduce evaporation and filter backwash.
Save: 30 gallons / day
- Test pool and spa water frequently and maintain appropriate chemical balances to avoid the need to drain it except for structural repairs. Check your pool and pool plumbing for leaks.

Do-It-Yourself Residential Customer Water Audit

This guide will assist you in understanding your water meter, checking for leaks, estimating your household's current water use, and making adjustments to your water use. Call Georgetown Divide PUD at (530) 333-4356 if you have any questions.

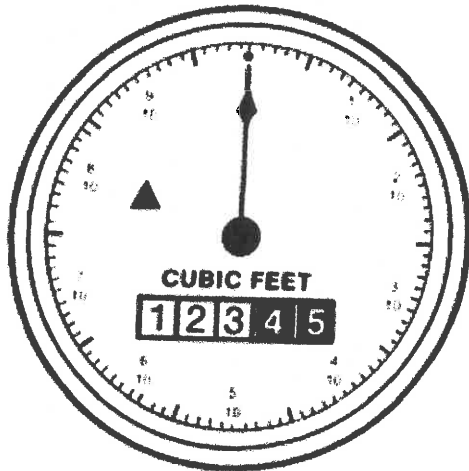
What Your Water Meter Can Tell You

Your meter can tell you how much water you are using per day, week, month and year. You can monitor your meter yourself and check your figures to verify the accuracy of your water bill. Your meter can also show leaks in your water system.

How To Find Your Water Meter

Your water meter is inside a rectangular concrete box, flush with the ground, and is usually located near the roadway or sidewalk. Watch for spiders, snakes, and bugs when opening the box.

Reading Your Water Meter



Cubic Feet Meter
1 cubic foot = 7.48 gallons

Each full rotation of the sweep hand indicates one cubic foot, or 7.48 gallons of water. The markings around the outside of the dial indicate tenths and hundredths of one cubic foot. The meter shown reads 123 units or 12,345 cubic feet.

Think you have a leak?

Here are a few steps to help determine if you have a leak and where it may be.

How To Detect Leaks

To test for leaks in your plumbing system, stop all indoor and outdoor water use activity. Check and record the numbers and the position of the sweep hand on your water meter. Wait two to four hours (overnight if possible), then recheck your water meter. If the sweep hand has moved, or the numbers have changed, water is leaking somewhere in your plumbing system. Be sure water softeners or filters are not operating.

Slow Leaks

Some leaks are too slow to move the dial. Turn off the water at the meter and wait a few hours. When you slowly turn the water back on, if water rushed to fill the pipes, you may have a leak.

If a leak is detected at the meter

Turn off the house valve to determine if the leak is inside the house. This is usually located at a hose bib on an outside wall in a direct line from the water meter. If the meter dial still moves, you should investigate the possibility of a leak in the line between the meter and the house.

Irrigation System Leaks

Leaks in your irrigation system won't always show on your meter due to their separate shutoff valves. To find leaks, walk your irrigation lines. Check for unusual wet spots, leaky or broken sprinkler heads, and use your meter to measure total irrigation use. Locate all hose bibs and check for leaks or drips. Replace the washers if there are any leaks.

Toilet Leaks

Check toilets for leaks. Put dye tablets or a few drops of food coloring in the tank. Don't flush. Wait 10 minutes. If color appears in the bowl, there is a leak in the toilet mechanism. Repair any leaks.

Water Use Outside the House

This section will help you determine how much water you are using and show you ways to cut back on your water use.

Garden Hoses and Bibs

Measure garden hose output by writing down the time needed to fill a 1 or 2 gallon bucket. Calculate the amount of water used in one minute.

***A typical 5/8 inch hose at 50 psi uses 14 gallons per minute.**

Perform a timed consumption test for your Irrigation System

- > Turn off all water use in the house.
- > Record the reading on the water meter.
- > Turn on the sprinklers for the usual watering schedule.
- > When the sprinklers shut off, read the meter again.
- > Determine how much water is used each time you irrigate.
- > **Enter this number in the Calculate Weekly Water Use section on page 4**

Perform a catch-can test

- > Set three 12-ounce coffee mugs at various places on the lawn where they will be adequately reached by the sprinklers.
- > Turn the system on for 15 minutes.
- > Measure the depth of the water in each mug with a ruler and take the average depth.
- > The lawn should receive about 1 inch at a time applied once a week, unless weather is very warm. Set your system so that it applies 1 inch of water to your lawn once a week. This can vary based on your soil and slope.

Sprinkler Efficiency

Check the accuracy of the irrigation system timers by comparing the watering time of each irrigation system to actual time by a clock. Look at all sprinkler heads and check for operating efficiency. Consider replacing old sprinkler heads with water efficient models. Over-spray can increase your necessary watering time. Reposition sprinkler heads to make sure any overspray is avoided.

Pools and Spas

Check operation of swimming pool filtering equipment. Contact your pool dealer if you have any concerns. Here are some things to consider:

- > How often is pool back-flushed?

- > Are fill valve and automatic float operating properly?
- > Do you cover your pool or spa? A covered pool minimizes evaporation.
- > Operation of spa filtering equipment.

Water Use Inside the House

Garage and/or Laundry Area

- > Does the clothes washer have a small load cycle or is it a high-efficiency front loading machine? Determine the number of gallons used per washing cycle by reading the meter before starting and after finishing a load in the washing machine - make sure that is the only water you are using when measuring at the meter. **(use this number to help on page 4)** Consider replacing an old machine with a high-efficiency machine.
- > Is there a water softener installed? What brand and type?
 - Is it a self-regenerative type (salt is routinely added)?
 - How often does the softener back-flush?
 - Is the discharge setting set to minimum?

Kitchen

- > Does the dishwasher have a water-saving cycle?

Kitchen and Bathroom Sinks

Aerators can reduce water flow by one-half. Do you have aerators installed on your faucets? Aerators can be purchased at your local hardware store. You can also reduce water flow and pressure by turning down the valves under the sinks.

Check output of faucets at kitchen sink:

Turn on the faucet to the normal flow used for general purposes. Write down the time needed to fill a 1-gallon jug. Calculate the number of gallons used in one minute.

Showerheads

Put a 1 or 2 gallon bucket under showerhead, turn on showerhead full blast. Check number of seconds needed to fill bucket. Calculate how many gallons flow out in one minute (gpm). If showerhead output is more than 3 gpm per minute replace the showerhead with a low-flow model of 3 gpm or less. You may also check your meter before and after using the shower to determine water volume used. Contact GDPUD for a free low-flow showerhead.

Toilets

Check toilet tank size. Look to see if the size is stamped on the inside walls on the tank or on the lid. If the size is not marked on the toilet, turn off handle to shut off water to the toilet. Flush. The tank should be empty. Use a 1-gallon jug to fill tank to water line to determine tank size. Consider replacing any toilet with a 3-7 gallon tank with a low-flow model using only 1.6 gallons per flush or a high-efficiency model using 1.3 or less. If you can't replace your toilet at this time consider installing a displacement bag in tanks that are 3-7 gallons.

Calculating Weekly Water Use

Irrigation System

Take the water use calculation from your timed consumption test on page 2. Multiply this by the number of times your sprinkler system is operating during a seven day period to determine your total weekly irrigation use.

_____ amount of water used during one sprinkler cycle x _____ number of times
sprinklers run per week = _____ my total weekly irrigation use

Indoor and Misc. Water Use

Use the worksheet on page 5 to determine your total weekly indoor and other water use calculation. After completing the worksheet on page 4 enter your daily total below.

_____ my total daily water use indoors x 7 days = _____ my weekly indoor water use

Total Use

Add the weekly irrigation use total and the weekly indoor totals together.

_____ weekly irrigation use + _____ weekly indoor water use = _____ total weekly
use

Total Weekly Use x 4 weeks = Total Monthly Use

Total Monthly Use x 2 months = Total Bimonthly USE



Appendix K
District Ordinance 2015-02
Theft of Water and Tampering with District Facilities

ORDINANCE NO. 2015-02
OF THE GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT
ESTABLISHING A DISTRICT ORDINANCE FOR THE THEFT OF WATER
AND TAMPERING WITH DISTRICT FACILITIES

Be it enacted by the Board of Directors of the Georgetown Divide Public Utility District that:

WHEREAS, California Penal Code section 498 prohibits the theft of utility services, including water; and

WHEREAS, California Penal Code section 624 prohibits every person from willfully damaging, tampering with, or digging up water pipes or waterworks; and

WHEREAS, California Penal Code section 625 prohibits every person who, with intent to defraud or injure, opens or causes to be opened, or draws water from any disconnected utility connection after having been notified that the same has been closed or shut for specific cause, by order of competent authority; and

WHEREAS, any person who violates Penal Code sections 498, 624, or 625 is guilty of a misdemeanor; and

WHEREAS, California Civil Code section 1882 et seq. authorizes the Georgetown Divide Public Utility District (the "District") to bring a civil action for damages against any person who commits, authorizes, solicits, aids, abets, or attempts any of the following acts:

- a. Diverts, or causes to be diverted, utility services by any means whatsoever.
- b. Makes, or causes to be made, any connection or reconnection with property owned or used by the utility to provide utility service without the authorization or consent of the utility.
- c. Prevents any utility meter, or other device used in determining the charge for utility services, from accurately performing its measuring function by tampering or by any other means.
- d. Tampers with any property owned or used by the utility to provide utility services.

e. Uses or receives the direct benefit of all, or a portion, of the utility service with knowledge of, or reason to believe that, the diversion, tampering, or unauthorized connection existed at the time of the use, or that the use or receipt, was without the authorization or consent of the utility; and

WHEREAS, pursuant to California Government Code section 53069.4, the District may, by ordinance, make the violation of any ordinance enacted by its Board of Directors subject to a civil administrative fine or penalty; and

WHEREAS, because water is a vital resource, the District has determined that it is appropriate to impose civil administrative fines for the theft of water to protect this vital resource; and

WHEREAS, the District Board of Directors finds that this Ordinance is in the best interest of the District to protect the health, safety and welfare of the community; and

WHEREAS, the Board of Directors finds that this Ordinance is consistent with state law and the policies of the District.

NOW, THEREFORE, the Board of Directors of the Georgetown Divide Public Utility District does ordain as follows:

GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT THEFT OF SERVICE
AND TAMPERING VIOLATIONS

Section 1. Recitals. The District hereby finds and determines that the above recitals are true and correct and are incorporated herein.

Section 2. Violations.

- a. For the purposes of this Ordinance, "water theft" means and includes all of the following:
 1. the use, diversion, receipt or taking of District water by any means from any public fire hydrant, blow-off valve, water main, water service lateral or other District facility or connection to a District facility; and
 2. the use, diversion, receipt, or taking of District water by any means without paying the full and lawful District charges for such water, or by tampering with District property or facilities.

3. For the purposes of this ordinance, "unauthorized use" includes the use of water from a stationary service connection where lawful water service has been discontinued or from a public fire hydrant, regardless of whether payment is provided to the District for the water drawn from the public fire hydrant, or any use of a hydrant meter in violation of the terms and conditions of a hydrant meter permit.
- b. "Tampering" with District equipment or facilities is considered grounds for discontinuance of utility service. "Tampering" shall include, but not be limited to:
1. Opening valves at the Curb or meters that have been turned off by District personnel.
 2. Breaking, picking or damaging cut-off locks.
 3. Bypassing meter in any way.
 4. Taking unmetered water from hydrants by anyone other than authorized officials of a recognized fire department, fire insurance company or District employee for any purpose other than firefighting, testing or flushing of hydrants.
 5. Use of sprinkler system water service for any purpose other than fire protection.
 6. Removing, disabling or adjusting meter registers.
 7. Connecting to or intentionally damaging water lines, valves or other appurtenances.
 8. Moving the meter or extending service without permission of the District.
 9. Any intentional act of defacement, destruction or vandalism to District property or an act that affects District property.
 10. Unauthorized use of a pump or device for removal of water from the ditch system.
 11. Any intentional blockage or obstruction of District property.

- c. Water theft and tampering are prohibited. Each act of water theft or tampering constitutes a misdemeanor.
- d. If any person takes water from a fire hydrant without authorization or otherwise tampers with District property, the District will submit a record of the vehicle license plate number or photo (if available) to El Dorado County Sheriff Department for investigation.
- e. The District may report any water theft to the appropriate prosecuting agency and press for prosecution of said activity pursuant to the Penal Code.

Section 3. Administrative Penalties. In addition to pursuing criminal penalties, the District, upon discovering water theft or tampering with District property, may also pursue the following remedies or other remedies available at law or equity:

- a. require the immediate removal of any equipment, connections or tools used to accomplish the water theft that is attached to District property;
- b. charge the customer or perpetrator an administrative penalty of:
 - 1. \$150 for the first violation;
 - 2. \$250 for a second violation within a twelve-month period; and
 - 3. \$350 for each violation thereafter within a twelve-month period.

Section 4. Other Remedies. In addition to any other remedies provided in this Ordinance or available under applicable law, the District may alternatively seek injunctive relief in the Superior Court or take enforcement action. All remedies provided herein shall be cumulative and not exclusive. If a customer or any other person turns on water service without District authorization, tampers with any locked water meter, tampers with a service connection or District facilities, bypasses a meter, or otherwise makes an unauthorized connection to District facilities without District permission, or commits water theft, the District may:

- a. turn off the water service and install a lock;
- b. estimate, if necessary, the water taken and charge the customer, offender or water recipient three times the normal rate of the water taken from the District facility;

- c. charge the customer, offender or water recipient for the damage to the District lock, meter or other property;
- d. remove the meter and plug the service;
- e. terminate and remove the service from its connection to the water main;
- f. charge a deposit of two times the amount of the average use to reestablish service;
- g. require the return of any District hydrant meter; and
- h. prohibit any person who has committed three violations of this Ordinance within a twelve-month period from obtaining a District hydrant meter permit for a period of three (3) years from the date of the third violation.

Section 5. Notice.

- a. A "Notice of Violation" will be mailed or delivered to the customer for the following:
 - 1. Evidence suggests the possibility of theft of service, including irrigation water, at the customer's property.
 - 2. If the violation does not constitute an immediate threat of safety or equipment integrity to the system, the customer will be ordered to immediately cease any unlawful practice.
- b. A "Notice of Violation" will be mailed or delivered to the customer after service is cut-off for the following:
 - 1. In the opinion of the District's General Manager, theft of service is clearly evident on the customer's property and immediate action is necessary.
 - 2. In the opinion of the District's General Manager, there is an immediate danger to public health or safety.

Section 6. Payment and Appeal Procedures. The District shall calculate the amount of damages and penalty(ies) to be imposed, and shall send a bill to the customer, or if the offender is not a customer of record, an invoice for payment of the damages or penalty(ies) may be sent to the offender, water user or recipient.

- a. All costs relating to the District's processing and handling of the water theft, investigation and enforcement thereof, and potential charges for reestablishment of service, shall be borne by the party having responsibility for the water account at the time of the water theft, or if there is no customer of record, by the offender, water user or recipient. These charges include, but are not limited to, service call charges, water charges, turnoff of service, charges for damage to District facilities and equipment, and plug or termination fees. Before the meter will be replaced and service reestablished, the party requesting service, if in any way involved in or related to, or associated with, parties involved in the water theft, shall deposit twice the average bi-monthly water bill, plus the standard meter reinstallation fee, in addition to all service call charges, and an amount representing any damage to District property.
- b. All charges relating to the District's processing and handling of the water theft involving the taking of water from a public fire hydrant shall be borne by the offender, water user or recipient, including, but not limited to, the cost of any water, charges for any damage to District facilities and equipment, and costs of investigation and enforcement.
- c. Any person (an "appellant") who wishes to appeal the imposition of an administrative penalty imposed by the District pursuant to this Ordinance, or who wishes to appeal the imposition of a three-year prohibition on a hydrant meter permit pursuant to Section 4(h), shall comply with the following procedures:
 1. The appellant shall submit an appeal request to the District no later than fifteen (15) calendar days from the date of the bill or invoice sent to the customer or offender.
 2. A response to the appeal request shall be provided by the District within thirty (30) calendar days from receipt of the appeal request.
 3. If an appeal request is denied, the appellant may resubmit the appeal request to the District Board of Directors no later than fifteen (15) calendar days from the date of the denial.
 4. The appellant may request to provide evidence in writing or in person in support of his or her appeal.
 5. The decision by the District Manager or if appealed to the Board of Directors, their final decision, shall be final.

6. Within ten (10) days after the denial of the appeal is deemed final, the appellant shall pay any disputed penalty(ies) imposed by the District.
7. The provisions of Section 1094.6 of the Code of Civil Procedure of the State of California shall be applicable to judicial review of the decision.

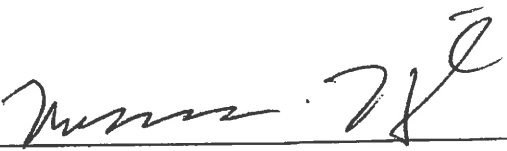
Section 7. Effective Date. This Ordinance shall become effective and in full force thirty days after its passage.

I HEREBY CERTIFY that the foregoing Ordinance was duly INTRODUCED at a regularly held meeting of the Board of Directors of the GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT on the 13th day of October, 2015, and was PASSED AND ADOPTED by the Board of Directors of the GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT on this 10th day of November, 2015, by the following vote:

AYES:


NOES:

ABSENT:



Norman A. Krizl, President
Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

ATTEST:



Wendell B. Wall, Clerk and ex officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

CERTIFICATION

I hereby certify that the foregoing is a full, true, and correct copy of Ordinance 2015-02 duly and regularly adopted by the Board of Directors of the Georgetown Divide Public Utility District, El Dorado County, California, at a meeting duly held on the 10th day of November 2015.

Wendell B. Wall

Wendell B. Wall, Clerk and ex officio

Secretary of the

GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

Appendix L
State Required SBx7-7 Tables

SB X7-7 Table 0: Units of Measure Used in UWMP*

(select one from the drop down list)

Acre Feet

**The unit of measure must be consistent with Table 2-3*

NOTES:

SB X7-7 Table-1: Baseline Period Ranges

| Baseline | Parameter | Value | Units |
|-----------------------------------|------------------------------------------------------|-------|-----------|
| 10- to 15-year baseline period | 2008 total water deliveries | 699 | Acre Feet |
| | 2008 total volume of delivered recycled water | 0 | Acre Feet |
| | 2008 recycled water as a percent of total deliveries | 0.00% | Percent |
| 5-year baseline period | Number of years in baseline period ¹ | 10 | Years |
| | Year beginning baseline period range | 1999 | |
| | Year ending baseline period range ² | 2008 | |
| | Number of years in baseline period | 5 | Years |
| | Year beginning baseline period range | 2004 | |
| | Year ending baseline period range ³ | 2008 | |

¹ If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.

² The ending year must be between December 31, 2004 and December 31, 2010.

³ The ending year must be between December 31, 2007 and December 31, 2010.

NOTES:

SB X7-7 Table 2: Method for Population Estimates

| Method Used to Determine Population (may check more than one) | |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | 1. Department of Finance (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available |
| <input checked="" type="checkbox"/> | 2. Persons-per-Connection Method |
| <input type="checkbox"/> | 3. DWR Population Tool |
| <input type="checkbox"/> | 4. Other DWR recommends pre-review |
| NOTES: | |

SB X7-7 Table 3: Service Area Population

| Year | | Population |
|------------------------------------------|-------------|------------|
| 10 to 15 Year Baseline Population | | |
| Year 1 | 1999 | 8,114 |
| Year 2 | 2000 | 8,317 |
| Year 3 | 2001 | 8,573 |
| Year 4 | 2002 | 8,815 |
| Year 5 | 2003 | 8,874 |
| Year 6 | 2004 | 9,008 |
| Year 7 | 2005 | 9,025 |
| Year 8 | 2006 | 8,987 |
| Year 9 | 2007 | 8,923 |
| Year 10 | 2008 | 8,818 |
| Year 11 | | |
| Year 12 | | |
| Year 13 | | |
| Year 14 | | |
| Year 15 | | |
| 5 Year Baseline Population | | |
| Year 1 | 2004 | 9,008 |
| Year 2 | 2005 | 9,025 |
| Year 3 | 2006 | 8,987 |
| Year 4 | 2007 | 8,923 |
| Year 5 | 2008 | 8,818 |
| 2015 Compliance Year Population | | |
| | 2015 | 8,994 |
| NOTES: | | |

SB X7-7 Table 4: Annual Gross Water Use *

| | Baseline Year Fm SB X7-7 Table 3 | Volume Into Distribution System Fm SB X7-7 Table(s) 4-A | Deductions | | | | | Annual Gross Water Use |
|------------------------------------------------------|----------------------------------------|---------------------------------------------------------------|----------------|--------------------------------------|----------------------------------------------------|--------------------------------------|---------------------------------------------|------------------------|
| | | | Exported Water | Change in Dist. System Storage (+/-) | Indirect Recycled Water Fm SB X7-7 Table 4-B | Water Delivered for Agricultural Use | Process Water Fm SB X7-7 Table(s) 4-D | |
| 10 to 15 Year Baseline - Gross Water Use | | | | | | | | |
| Year 1 | 1999 | 1906 | 0 | 0 | 0 | 0 | 1,906 | |
| Year 2 | 2000 | 1809 | 0 | 0 | 0 | 0 | 1,809 | |
| Year 3 | 2001 | 1956 | 0 | 0 | 0 | 0 | 1,956 | |
| Year 4 | 2002 | 1938 | 0 | 0 | 0 | 0 | 1,938 | |
| Year 5 | 2003 | 1885 | 0 | 0 | 0 | 0 | 1,885 | |
| Year 6 | 2004 | 2191 | 0 | 0 | 0 | 0 | 2,191 | |
| Year 7 | 2005 | 2088 | 0 | 0 | 0 | 0 | 2,088 | |
| Year 8 | 2006 | 1958 | 0 | 0 | 0 | 0 | 1,958 | |
| Year 9 | 2007 | 1992 | 0 | 0 | 0 | 0 | 1,992 | |
| Year 10 | 2008 | 2144 | 0 | 0 | 0 | 0 | 2,144 | |
| Year 11 | 0 | | | | 0 | 0 | 0 | |
| Year 12 | 0 | | | | 0 | 0 | 0 | |
| Year 13 | 0 | | | | 0 | 0 | 0 | |
| Year 14 | 0 | | | | 0 | 0 | 0 | |
| Year 15 | 0 | | | | 0 | 0 | 0 | |
| 10 - 15 year baseline average gross water use | | | | | | | | |
| 5 Year Baseline - Gross Water Use | | | | | | | | |
| Year 1 | 2004 | 2191 | | | 0 | 0 | 2,191 | |
| Year 2 | 2005 | 2088 | | | 0 | 0 | 2,088 | |
| Year 3 | 2006 | 1958 | | | 0 | 0 | 1,958 | |
| Year 4 | 2007 | 1992 | | | 0 | 0 | 1,992 | |
| Year 5 | 2008 | 2144 | | | 0 | 0 | 2,144 | |
| 5 year baseline average gross water use | | | | | | | | |
| 2015 Compliance Year - Gross Water Use | | | | | | | | |
| 2015 | | 1,528 | | | 0 | 0 | 1,528 | |

* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3

NOTES:

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

| Name of Source | | Stumpy Meadows Reservoir | | |
|---------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------------------------------------------|------------------------------------------------------|-------|
| This water source is: | | | | |
| <input checked="" type="checkbox"/> | | The supplier's own water source | | |
| <input type="checkbox"/> | | A purchased or imported source | | |
| Baseline Year <i>Fm SB X7-7 Table 3</i> | Volume Entering Distribution System | Meter Error Adjustment* <i>Optional (+/-)</i> | Corrected Volume Entering Distribution System | |
| 10 to 15 Year Baseline - Water into Distribution System | | | | |
| Year 1 | 1999 | 1906 | | 1906 |
| Year 2 | 2000 | 1809 | | 1809 |
| Year 3 | 2001 | 1956 | | 1956 |
| Year 4 | 2002 | 1938 | | 1938 |
| Year 5 | 2003 | 1885 | | 1885 |
| Year 6 | 2004 | 2191 | | 2191 |
| Year 7 | 2005 | 2088 | | 2088 |
| Year 8 | 2006 | 1958 | | 1958 |
| Year 9 | 2007 | 1992 | | 1992 |
| Year 10 | 2008 | 2144 | | 2144 |
| Year 11 | 0 | | | 0 |
| Year 12 | 0 | | | 0 |
| Year 13 | 0 | | | 0 |
| Year 14 | 0 | | | 0 |
| Year 15 | 0 | | | 0 |
| 5 Year Baseline - Water into Distribution System | | | | |
| Year 1 | 2004 | 2191 | | 2,191 |
| Year 2 | 2005 | 2088 | | 2,088 |
| Year 3 | 2006 | 1958 | | 1,958 |
| Year 4 | 2007 | 1992 | | 1,992 |
| Year 5 | 2008 | 2144 | | 2,144 |
| 2015 Compliance Year - Water into Distribution System | | | | |
| | 2015 | | | 1,528 |
| <i>* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document</i> | | | | |
| NOTES: | | | | |

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)

| Baseline Year <i>Fm SB X7-7 Table 3</i> | | Service Area Population <i>Fm SB X7-7 Table 3</i> | Annual Gross Water Use <i>Fm SB X7-7 Table 4</i> | Daily Per Capita Water Use (GPCD) |
|---------------------------------------------------|------|-------------------------------------------------------------|------------------------------------------------------------|------------------------------------------|
| 10 to 15 Year Baseline GPCD | | | | |
| Year 1 | 1999 | 8,114 | 1,906 | 210 |
| Year 2 | 2000 | 8,317 | 1,809 | 194 |
| Year 3 | 2001 | 8,573 | 1,956 | 204 |
| Year 4 | 2002 | 8,815 | 1,938 | 196 |
| Year 5 | 2003 | 8,874 | 1,885 | 190 |
| Year 6 | 2004 | 9,008 | 2,191 | 217 |
| Year 7 | 2005 | 9,025 | 2,088 | 207 |
| Year 8 | 2006 | 8,987 | 1,958 | 195 |
| Year 9 | 2007 | 8,923 | 1,992 | 199 |
| Year 10 | 2008 | 8,818 | 2,144 | 217 |
| Year 11 | 0 | | #REF! | |
| Year 12 | 0 | 0 | #REF! | |
| Year 13 | 0 | 0 | #REF! | |
| Year 14 | 0 | 0 | #REF! | |
| Year 15 | 0 | 0 | #REF! | |
| 10-15 Year Average Baseline GPCD | | | | 203 |
| 5 Year Baseline GPCD | | | | |
| Baseline Year <i>Fm SB X7-7 Table 3</i> | | Service Area Population <i>Fm SB X7-7 Table 3</i> | Gross Water Use <i>Fm SB X7-7 Table 4</i> | Daily Per Capita Water Use |
| Year 1 | 2004 | 9,008 | 2,191 | 217 |
| Year 2 | 2005 | 9,025 | 2,088 | 207 |
| Year 3 | 2006 | 8,987 | 1,958 | 195 |
| Year 4 | 2007 | 8,923 | 1,992 | 199 |
| Year 5 | 2008 | 8,818 | 2,144 | 217 |
| 5 Year Average Baseline GPCD | | | | 207 |
| 2015 Compliance Year GPCD | | | | |
| 2015 | | 8,994 | 1,528 | 152 |
| NOTES: | | | | |

SB X7-7 Table 6: Gallons per Capita per Day
Summary From Table SB X7-7 Table 5

| | |
|----------------------------------|------------|
| 10-15 Year Baseline GPCD | 203 |
| 5 Year Baseline GPCD | 207 |
| 2015 Compliance Year GPCD | 152 |
| NOTES: | |

SB X7-7 Table 7: 2020 Target Method*Select Only One*

| Target Method | | Supporting Documentation |
|-------------------------------------|----------|----------------------------------------------------------------------|
| <input type="checkbox"/> | Method 1 | SB X7-7 Table 7A |
| <input type="checkbox"/> | Method 2 | SB X7-7 Tables 7B, 7C, and 7D <i>Contact DWR for these tables</i> |
| <input checked="" type="checkbox"/> | Method 3 | SB X7-7 Table 7-E |
| <input type="checkbox"/> | Method 4 | Method 4 Calculator |

NOTES:

SB X7-7 Table 7-E: Target Method 3

| Agency May Select More Than One as Applicable | Percentage of Service Area in This Hydrological Region | Hydrologic Region | "2020 Plan" Regional Targets | Method 3 Regional Targets (95%) |
|------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------|------------------------------|---------------------------------|
| <input type="checkbox"/> | | North Coast | 137 | 130 |
| <input type="checkbox"/> | | North Lahontan | 173 | 164 |
| <input checked="" type="checkbox"/> | 100% | Sacramento River | 176 | 167 |
| <input type="checkbox"/> | | San Francisco Bay | 131 | 124 |
| <input type="checkbox"/> | | San Joaquin River | 174 | 165 |
| <input type="checkbox"/> | | Central Coast | 123 | 117 |
| <input type="checkbox"/> | | Tulare Lake | 188 | 179 |
| <input type="checkbox"/> | | South Lahontan | 170 | 162 |
| <input type="checkbox"/> | | South Coast | 149 | 142 |
| <input type="checkbox"/> | | Colorado River | 211 | 200 |
| Target <i>(If more than one region is selected, this value is calculated.)</i> | | | | 167 |
| NOTES: | | | | |

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target

| 5 Year Baseline GPCD From SB X7-7 Table 5 | Maximum 2020 Target* | Calculated 2020 Target From Appropriate Target Table | Confirmed 2020 Target |
|----------------------------------------------------|-------------------------|---------------------------------------------------------------|--------------------------|
| 207 | 197 | 167 | 167 |

* Maximum 2020 Target is 95% of the 5 Year Baseline GPCD

NOTES:

SB X7-7 Table 8: 2015 Interim Target GPCD

| Confirmed 2020 Target <i>Fm SB X7-7 Table 7-F</i> | 10-15 year Baseline GPCD <i>Fm SB X7-7 Table 5</i> | 2015 Interim Target GPCD |
|-------------------------------------------------------------|--------------------------------------------------------------|-----------------------------|
| 167 | 203 | 185 |
| NOTES: | | |

SB X7-7 Table 9: 2015 Compliance

| Actual 2015 GPCD | 2015 Interim Target GPCD | Optional Adjustments (in GPCD) | | | | | Adjusted 2015 GPCD | 2015 GPCD (Adjusted if applicable) | Did Supplier Achieve Targeted Reduction for 2015? |
|---------------------|-----------------------------|-------------------------------------|-------------------------------------|-------------------------------------|----------------------|-------------|-----------------------|------------------------------------------|---------------------------------------------------------------|
| | | Extraordinary Events | Weather Normalization | Economic Adjustment | TOTAL Adjustments | 0 | | | |
| 152 | 185 | From Methodology 8 (Optional) | From Methodology 8 (Optional) | From Methodology 8 (Optional) | 0 | 151.6689446 | 151.6689446 | YES | |

NOTES:

Appendix M
State Required UWMP Tables

Table 2-1 Retail Only: Public Water Systems

| Public Water System Number | Public Water System Name | Number of Municipal Connections 2015 | Volume of Water Supplied 2015 |
|----------------------------|--------------------------|--------------------------------------|-------------------------------|
| 910013 | Georgetown Divide PUD | 3,663 | 1,128 |
| | | | |
| | | | |
| TOTAL | | 3,663 | 1,128 |

NOTES: This includes estimated water supplied to 6 unmetered CII customers.

Table 2-2: Plan Identification

| Select Only One | Type of Plan | Name of RUWMP or Regional Alliance applicable <i>drop down list</i> | <i>if</i> |
|-------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------|-----------|
| <input checked="" type="checkbox"/> | Individual UWMP | | |
| <input type="checkbox"/> | Water Supplier is also a member of a RUWMP | | |
| <input type="checkbox"/> | Water Supplier is also a member of a Regional Alliance | | |
| <input type="checkbox"/> | Regional Urban Water Management Plan (RUWMP) | | |
| NOTES: | | | |
| | | | |

Table 2-3: Agency Identification

Type of Agency (select one or both)

- | | |
|-------------------------------------|------------------------|
| <input type="checkbox"/> | Agency is a wholesaler |
| <input checked="" type="checkbox"/> | Agency is a retailer |

Fiscal or Calendar Year (select one)

- | | |
|-------------------------------------|-----------------------------------|
| <input checked="" type="checkbox"/> | UWMP Tables Are in Calendar Years |
| <input type="checkbox"/> | UWMP Tables Are in Fiscal Years |

If Using Fiscal Years Provide Month and Date that the Fiscal Year Begins (mm/dd)

Units of Measure Used in UWMP (select from Drop down)

| | |
|------|----|
| Unit | AF |
|------|----|

NOTES:

Table 3-3 Retail: Population - Current and Projected

| Population Served | 2015 | 2020 | 2025 | 2030 | 2035 |
|-------------------|-------|-------|-------|--------|--------|
| | 8,994 | 9,453 | 9,935 | 10,442 | 10,974 |

NOTES: Population is based on a 1% growth rate. Source is Department of Finance, El Dorado County and the average growth rate in connections for the District.

Table 4-1 Retail: Demands for Potable and Raw Water - Actual

| Use Type | | 2015 Actual | | |
|----------------------------|-----------------------------------------------------------------|-----------------------------------|--------------|--|
| | Additional Description | Level of Treatment When Delivered | Volume | |
| Single Family | | Drinking Water | 946 | |
| Multi-Family | Includes 10 metered customers representing 94 residential units | Drinking Water | 13 | |
| Commercial | | Drinking Water | 36 | |
| Institutional/Governmental | | Drinking Water | 84 | |
| Landscape | This includes six customers with a dedicated landscape meter. | Drinking Water | 42 | |
| Agricultural irrigation | | Raw Water | 1,895 | |
| | | TOTAL | 3,017 | |

NOTES: This includes estimated water used by three unmetered commercial customers (@ 0.41 AF/service average) and three governmental customers (@1.48 AF/service average). Agricultural (untreated) water is metered using a subsurface orifice and is sold in miner's inch.

| Table 4-3 Retail: Demands for Potable and Raw Water - Projected | | | | | | |
|-----------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------|--------------|--------------|---------------|--|
| Use Type | Additional Description | Projected Water Use <i>Report To the Extent that Records are Available</i> | | | | |
| | | 2020 | 2025 | 2030 | 2035 | |
| Single Family | | 1,485 | 1,561 | 1,641 | 1,724 | |
| Multi-Family | | 14 | 18 | 19 | 20 | |
| Commercial | | 53 | 56 | 59 | 62 | |
| Institutional/Governmental | | 141 | 149 | 156 | 164 | |
| Landscape | | 71 | 74 | 78 | 82 | |
| Other | | 381 | 280 | 174 | 113 | |
| Agricultural irrigation | raw water | 4,995 | 6,288 | 7,621 | 8,954 | |
| TOTAL | | 7,140 | 8,426 | 9,748 | 11,119 | |

NOTES: Agricultural (raw water) demand does not include carriage and ditch losses. Projected raw agricultural usage is based on the El Dorado County Water Agency Water Resource and Development Management Plan, West Slope Update 2014. The plan's projections does not reflect the District's 2005 Irrigation Ordinance which limits agricultural usage to the 2003 demand which was 4,995 AF. Losses are included in the potable treated water demand. The Other includes known future latend demands from existing inactive customers, existing created parcels and future demands from low income housing (70 AF). It does not include future demands from potential development projects or Favorable Areas from the El Dorado County General Plan that may be annexed to the District in the future.

| Table 4-3 Retail: Total Water Demands | | | | | |
|---------------------------------------------------------------------------------|-------|-------|-------|-------|--------|
| | 2015 | 2020 | 2025 | 2030 | 2035 |
| Potable and Raw Water <i>From</i> <i>Tables 4-1 and 4-2</i> | 3,017 | 7,140 | 8,426 | 9,748 | 11,119 |
| Recycled Water Demand* <i>From</i> <i>Table 6-4</i> | 0 | 0 | 0 | 0 | 0 |
| TOTAL WATER DEMAND | 3,017 | 7,140 | 8,426 | 9,748 | 11,119 |
| <i>*Recycled water demand fields will be blank until Table 6-4 is complete.</i> | | | | | |
| NOTES: | | | | | |

| Table 4-4 Retail: 12 Month Water Loss Audit Reporting | |
|-------------------------------------------------------------------------------------------------------------------|-----------------------|
| Reporting Period Start Date (mm/yyyy) | Volume of Water Loss* |
| 01/2015 | 404 |
| * Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet. | |
| NOTES: | |

Table 4-5 Retail Only: Inclusion in Water Use Projections

| | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| <p>Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) <i>Drop down list (y/n)</i></p> | <p>No</p> |
| <p>If "Yes" to above, state the section or page number, in the cell to the right, where citations of the codes, ordinances, etc... utilized in demand projections are found.</p> | |
| <p>Are Lower Income Residential Demands Included In Projections? <i>Drop down list (y/n)</i></p> | <p>Yes</p> |
| <p>NOTES:</p> | |

Table 5-1 Baselines and Targets Summary*Retail Agency or Regional Alliance Only*

| Baseline Period | Start Year | End Year | Average Baseline GPCD* | 2015 Interim Target * | Confirmed 2020 Target* |
|-----------------|------------|----------|------------------------|-----------------------|------------------------|
| 10-15 year | 1999 | 2008 | 203 | 185 | 167 |
| 5 Year | 2004 | 2008 | 207 | | |

*All values are in Gallons per Capita per Day (GPCD)

Table 5-2: 2015 Compliance
Retail Agency or Regional Alliance Only

| Actual 2015 GPCD* | 2015 Interim Target GPCD* | 2015 GPCD* <i>(Adjusted if applicable)</i> | Did Supplier Achieve Targeted Reduction for 2015? Y/N |
|-------------------------------------------------------------|------------------------------------|---------------------------------------------------|-------------------------------------------------------------------|
| 152 | 185 | 152 | Yes |
| <i>*All values are in Gallons per Capita per Day (GPCD)</i> | | | |

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015

| <input checked="" type="checkbox"/> | There is no wastewater collection system. The supplier will not complete the table below. | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------------------------------|----------------------|---------------------------------------------------------|---------------------------------------------------------------------------------|
| | Percentage of 2015 service area covered by wastewater collection system (optional) | | | | | |
| | Percentage of 2015 service area population covered by wastewater collection system (optional) | | | | | |
| Wastewater Collection | | | Recipient of Collected Wastewater | | | |
| Name of Wastewater Collection Agency | Wastewater Volume Metered or Estimated? <i>Drop Down List</i> | Volume of Wastewater Collected from UWMP Service Area 2015 | Name of Wastewater Treatment Agency Receiving Collected Wastewater | Treatment Plant Name | Is WWTP Located Within UWMP Area? <i>Drop Down List</i> | Is WWTP Operation Contracted to a Third Party? (optional) <i>Drop Down List</i> |
| <i>Add additional rows as needed</i> | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Total Wastewater Collected from Service Area in 2015: | | 0 | | | | |
| <p>NOTES: The District manages the Onsite Wastewater Management Zone for the Auburn Lake Trails subdivision. Most of the lots are served by onsite septic systems however, there is a Community Disposal System (CDS) for the 139 lots that could not support an onsite septic system. The CDS collects only septic tank effluent from each residential unit's septic tank. There are currently 135 homes connected to the CDS. Average dry weather wastewater flows from this CDS system have been about 28,000 gallons/day for the past five years. At build-out, it is anticipated that the wastewater flows will be approximately 32,000 gallons/day. This wastewater is not disinfected and is classified as primary wastewater.</p> | | | | | | |

Table 6-3 Retail: Wastewater Treatment and Discharge Within Service Area in 2015

| <input checked="" type="checkbox"/> No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below. | | | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------|-------------------------------------------|---------------------------------------------|----------------------------------------------------------------------|------------------------------------------|--------------------|-------------------------------|------------------------------|----------------------------------|
| Wastewater Treatment Plant Name | Discharge Location Name or Identifier | Discharge Location Description | Wastewater Discharge ID Number (optional) | Method of Disposal <i>Drop down list</i> | Does This Plant Treat Wastewater Generated Outside the Service Area? | Treatment Level <i>Drop down list</i> | 2015 volumes | | | |
| | | | | | | | Wastewater Treated | Discharged Treated Wastewater | Recycled Within Service Area | Recycled Outside of Service Area |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Total | | | | | | | 0 | 0 | 0 | 0 |

NOTES:

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area

Recycled water is not used and is not planned for use within the service area of the supplier.
The supplier will not complete the table below.

Name of Agency Producing (Treating) the Recycled Water:
Name of Agency Operating the Recycled Water Distribution System:
Supplemental Water Added in 2015
Source of 2015 Supplemental Water

| Beneficial Use Type | General Description of 2015 Uses | Level of Treatment <i>Drop down list</i> | 2015 | 2020 | 2025 |
|----------------------------------------------|----------------------------------|---------------------------------------------|------|------|------|
| Agricultural irrigation | | | | | |
| Landscape irrigation (excludes golf courses) | | | | | |
| Golf course irrigation | | | | | |
| Commercial use | | | | | |
| Industrial use | | | | | |
| Geothermal and other energy production | | | | | |
| Seawater intrusion barrier | | | | | |
| Recreational impoundment | | | | | |
| Wetlands or wildlife habitat | | | | | |
| Groundwater recharge (IPR)* | | | | | |
| Surface water augmentation (IPR)* | | | | | |
| Direct potable reuse | | | | | |
| Other (Provide General Description) | | | | | |
| Total: | | | 0 | 0 | 0 |

*IPR - Indirect Potable Reuse

NOTES:

Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual



Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.

| Use Type | 2010 Projection for 2015 | 2015 Actual Use |
|----------------------------------------------|--------------------------|-----------------|
| Agricultural irrigation | | |
| Landscape irrigation (excludes golf courses) | | |
| Golf course irrigation | | |
| Commercial use | | |
| Industrial use | | |
| Geothermal and other energy production | | |
| Seawater intrusion barrier | | |
| Recreational impoundment | | |
| Wetlands or wildlife habitat | | |
| Groundwater recharge (IPR) | | |
| Surface water augmentation (IPR) | | |
| Direct potable reuse | | |
| Other | | |
| Total | 0 | 0 |

NOTES:

Table 6-6 Retail: Methods to Expand Future Recycled Water Use

| Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation. | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------|-----------------------------------------|
| Provide page location of narrative in UWMP | | | |
| Name of Action | Description | Planned Implementation Year | Expected Increase in Recycled Water Use |
| <i>Add additional rows as needed</i> | | | |
| | | | |
| | | | |
| | | | |
| Total | | | 0 |
| NOTES: | | | |

Table 6-7 Retail: Expected Future Water Supply Projects or Programs

| No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below. | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------|-------------------------|-----------------------------|-------------------------------------------------------|---------------------------------------------------------------------------|
| Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format. | | | | | | |
| Provide page location of narrative in the UWMP | | | | | | |
| Name of Future Projects or Programs | Joint Project with other agencies? | | Description (if needed) | Planned Implementation Year | Planned for Use in Year Type <i>Drop Down List</i> | Expected Increase in Water Supply to Agency <i>This may be a range</i> |
| | <i>Drop Down List (y/n)</i> | <i>If Yes, Agency Name</i> | | | | |
| <i>Add additional rows as needed</i> | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| NOTES: | | | | | | |

Table 6-8 Retail: Water Supplies — Actual

| Water Supply | Additional Detail on Water Supply | 2015 | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------|----------------------------------------|------------------------------------------------|
| <i>Drop down list</i> <i>May use each category multiple times.</i> <i>These are the only water supply categories that will be recognized by the WUEdata online submittal tool</i> | | Actual Volume | Water Quality <i>Drop Down List</i> | Total Right or Safe Yield <i>(optional)</i> |
| <i>Add additional rows as needed</i> | | | | |
| Surface water | Stumpy Meadows Reservoir | 20,000 | Raw Water | 12,200 |
| | | | | |
| | | | | |
| | | | | |
| | Total | 20,000 | | 12,200 |

NOTES: This surface water reservoir is owned by GDPUD.

Table 6-1 Retail: Water Supplies — Projected

| Water Supply | Additional Detail on Water Supply | Projected Water Supply <i>Report To the Extent Practicable</i> | | | |
|---------------|------------------------------------|-------------------------------------------------------------------|------------|------------|------------|
| | | 2020 | 2025 | 2030 | 2035 |
| | | Firm Yield | Firm Yield | Firm Yield | Firm Yield |
| Surface water | Stumpy Meadows Reservoir 20,000 AF | 12,200 | 12,200 | 12,200 | 12,200 |
| Total | | 12,200 | 12,200 | 12,200 | 12,200 |

Stumpy Meadows Reservoir has a storage capacity of 20,000 AF but its firm reliable yield is 12,200 AF which is the maximum annual quantity of water that can normally be made available each year under historic hydrologic conditions.

Table 7-1 Retail: Basis of Water Year Data

| Year Type | Base Year | Available Supplies if Year Type Repeats | |
|-----------------------------|-----------|-------------------------------------------|---------------------|
| | | <input type="checkbox"/> Volume Available | % of Average Supply |
| Average Year | 20000 | 12200 | 100% |
| Single-Dry Year | 11060 | 11060 | 55% |
| Multiple-Dry Years 1st Year | 11060 | 11060 | 55% |
| Multiple-Dry Years 2nd Year | 11060 | 11060 | 55% |
| Multiple-Dry Years 3rd Year | 11060 | 11060 | 55% |

Table 7-2 Retail: Normal Year Supply and Demand Comparison

| | 2020 | 2025 | 2030 | 2035 |
|---------------|--------|--------|--------|--------|
| Supply totals | 12,200 | 12,200 | 12,200 | 12,200 |
| Demand totals | 7,140 | 8,426 | 9,748 | 11,119 |
| Difference | 5,060 | 3,774 | 2,452 | 1,081 |

| Table 7-2 Wholesale: Normal Year Supply and Demand Comparison | | | | | |
|---------------------------------------------------------------|------|------|------|------|---------------|
| | 2020 | 2025 | 2030 | 2035 | 2040 (Opt) |
| Supply totals (autofill from Table 6-9) | 0 | 0 | 0 | 0 | 0 |
| Demand totals (autofill fm Table 4-3) | 0 | 0 | 0 | 0 | 0 |
| Difference | 0 | 0 | 0 | 0 | 0 |
| NOTES: | | | | | |

| Table 7-3 Retail: Single Dry Year Supply and Demand Comparison | | | | |
|----------------------------------------------------------------|--------|--------|--------|--------|
| | 2020 | 2025 | 2030 | 2035 |
| Supply totals | 11,060 | 11,060 | 11,060 | 11,060 |
| Demand totals | 7,140 | 8,426 | 9,748 | 11,119 |
| Difference | 3,920 | 2,634 | 1,312 | (59) |

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison

| | | 2020 | 2025 | 2030 | 2035 |
|-------------|---------------|--------|--------|--------|--------|
| First year | Supply totals | 11,060 | 11,060 | 11,060 | 11,060 |
| | Demand totals | 7,140 | 8,426 | 9,748 | 11,119 |
| | Difference | 3,920 | 2,634 | 1,312 | (59) |
| Second year | Supply totals | 11,060 | 11,060 | 11,060 | 11,060 |
| | Demand totals | 7,140 | 8,426 | 9,748 | 11,119 |
| | Difference | 3,920 | 2,634 | 1,312 | (59) |
| Third year | Supply totals | 11,060 | 11,060 | 11,060 | 11,060 |
| | Demand totals | 7,140 | 8,426 | 9,748 | 11,119 |
| | Difference | 3,920 | 2,634 | 1,312 | (59) |

**Table 8-1 Retail
Stages of Water Shortage Contingency Plan**

| Stage | Water Supply Response Trigger Levels | |
|-------|-----------------------------------------------------------------|----------------------------------------------------------|
| | Percent Supply Reduction <i>Numerical value as a percent</i> | Water Supply Condition <i>(Narrative description)</i> |
| 1 | 15% | 17,000 AF (77% of normal) |
| 2 | up to 25% | 15,000 AF (68% of normal) |
| 3 | up to 35% | 13,000 AF (59% of normal) |
| 4 | up to 50% | 10,000 AF (45% of normal) |

NOTES: Historically, the amount of storage in Stumpy Meadows reservoir on the second week in April triggers the the declaration of drought stages.

Table 8-3 Retail Only: Restrictions and Prohibitions on End Uses

| Stage | Restrictions and Prohibitions on End Users | | Penalty, Charge or Enforcement |
|-------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------|
| 1 | Landscape - Restrict or prohibit runoff from landscape irrigation | Enforce Water Waste Ordinance | Yes |
| 1 | Other - Require automatic shut of hoses | Enforce Water Waste Ordinance | Yes |
| 1 | Other - Customers must repair leaks, breaks, and malfunctions in a timely manner | Enforce Water Waste Ordinance | Yes |
| 1 | Other - Require automatic shut of hoses | Enforce Water Waste Ordinance | Yes |
| 1 | Landscape - Limit landscape irrigation to specific times | Enforce Water Waste Ordinance | Yes |
| 2 | Landscape - Limit landscape irrigation to specific days | | Yes |
| 2 | CII - Lodging establishment must offer opt out of linen service | | Yes |
| 2 | CII - Restaurants may only serve water upon request | | Yes |
| 2 | Pools and Spas - Require covers for pools and spas | | Yes |
| 3 | Pools - Allow filling of swimming pools only when an appropriate cover is in place. | | Yes |
| 3 | Water Features - Restrict water use for decorative water features, such as fountains | Water for non-recycling decorative water features and fountains are prohibited. | Yes |
| 3 | Other - Prohibit use of potable water for construction and dust control | | Yes |
| 3 | Other - Prohibit vehicle washing except at facilities using recycled or recirculating water | | Yes |
| 3 | Other water feature or swimming pool restriction | Use of potable water for ponds prohibited. | Yes |
| 4 | Landscape - Prohibit all landscape irrigation | | Yes |

NOTES: 1. Implementation of the stages are cumulative meaning that the declaration of a higher stage shall also include implementation of all the conservation methods described in the previous stages. 2. The General Manager has the ability to assess fines and penalties but this measure is taken as a last resort.

Table 8-4 Retail Only:

Stages of Water Shortage Contingency Plan - Consumption Reduction Methods

| Stage | Consumption Reduction Methods by Water Supplier | Additional Explanation or Reference <i>(optional)</i> |
|--------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <i>Add additional rows as needed</i> | | |
| 1 | Expand Public Information Campaign | |
| 1 | Improve Customer Billing | Provide bill inserts on water conservation; identify past water usage; change format to include gpcd |
| 1 | Reduce System Water Loss | |
| 2 | Offer Water Use Surveys | |
| 3 | Increase Frequency of Meter Reading | If necessary, the largest water users will be identified for more frequent meter reading. |
| 3 | Decrease Line Flushing | |
| 3 | Increase Water Waste Patrols | |
| 3 | Moratorium or Net Zero Demand Increase on New Connections | Prohibit new domestic connections except those that have already been assessed through a legal process |
| 3 | Implement or Modify Drought Rate Structure or Surcharge | |
| 4 | Other | Prohibit all new domestic connections; flow restrictions; other measures as determined by the Board. |

NOTES: Implementation of the stages are cumulative meaning that the declaration of a higher stage shall also include implementation of all the conservation methods described in the previous stages.

| Table 8-4 Retail: Minimum Supply Next Three Years | | | |
|----------------------------------------------------------|--------|--------|--------|
| | 2016 | 2017 | 2018 |
| Available Water Supply | 11,060 | 11,060 | 11,060 |
| NOTES: | | | |

Table 10-1 Retail: Notification to Cities and Counties

| City Name | 60 Day Notice | Notice of Public Hearing |
|--------------------------------------|-------------------------------------|-------------------------------------|
| <i>Add additional rows as needed</i> | | |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| County Name <i>Drop Down List</i> | 60 Day Notice | Notice of Public Hearing |
| <i>Add additional rows as needed</i> | | |
| El Dorado County | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| | | |

Appendix N
Submittal Letter to State Library

**GEORGETOWN DIVIDE
PUBLIC UTILITY DISTRICT**

P.O. BOX 4240
GEORGETOWN, CALIFORNIA 95634

PHONE (530) 333-4356
FAX (530) 333-9442

June 15, 2016

California State Library
Government Publication Section
P.O. Box 942837
Sacramento, CA 94237-0001
Attention: Coordinator, Urban Water Management Plans

Subject: Georgetown Divide Public Utility District 2015 Final UWMP

Dear Coordinator,

The Georgetown Divide Public Utility District Board of Directors recently adopted the District's 2015 Urban Water Management Plan (UWMP) at the June 14, 2016 Board meeting. Pursuant to State regulations, I have enclosed a CD of the UWMP for your records.

If you have any questions or comments please contact me at (530) 333-4356.

Sincerely,



Wendell Wall
General Manager

cc. Siren & Associates

Appendix O
Submittal Letter to El Dorado County

**GEORGETOWN DIVIDE
PUBLIC UTILITY DISTRICT**

P.O. BOX 4240
GEORGETOWN, CALIFORNIA 95634

PHONE (530) 333-4356
FAX (530) 333-9442

June 15, 2016

Roger Trout
Director, Development Services Division
El Dorado County
2850 Fairlane Court, Building C

Subject: Georgetown Divide Public Utility District 2015 Final UWMP

Dear Mr. Trout,

The Georgetown Divide Public Utility District Board of Directors recently adopted the District's 2015 Urban Water Management Plan (UWMP) at the June 14, 2016 Board meeting. Pursuant to State regulations, I have enclosed a CD of the UWMP for your records.

If you have any questions or comments please contact me at (530) 333-4356.

Sincerely,



Wendell Wall
General Manager

cc. Siren & Associates

GEORGETOWN DIVIDE
PUBLIC UTILITY DISTRICT
P.O. BOX 4240 PHONE (530) 333-4356
GEORGETOWN, CALIFORNIA 95634 FAX (530) 333-9442

June 15, 2016

Ken Payne, General Manager
El Dorado County Water Agency
4110 Business Drive Suite B
Shingle Springs, CA 95682

Subject: Georgetown Divide Public Utility District 2015 Final UWMP

Dear Mr. Payne,

The Georgetown Divide Public Utility District Board of Directors recently adopted the District's 2015 Urban Water Management Plan (UWMP) at the June 14, 2016 Board meeting. I have enclosed a CD of the UWMP for your records.

If you have any questions or comments please contact me at (530) 333-4356.

Sincerely,



Wendell Wall
General Manager

cc. Siren & Associates

I Darrell Creeks hand delivered the final draft copy of the 2015 Urban Water Management Plan for Georgetown Divide PUD to the El Dorado County Planning DEPT and the El Dorado County Water Agency on 5/12/16.

**Darrell Creeks
Operations Manager
Georgetown Divide Public Utility District**

A handwritten signature in blue ink, appearing to read 'D. Creeks', with a long horizontal flourish extending to the right.

Appendix P
GDPUD Web Page posting 2015 UWMP



gd-pud.org

Keto Chocolate Cake in a Mug | Ruled Me

REI Email Sign Up Coupon - REI.com

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-  [2012 GDPUD Municipal Service Review](#)
-  [2015 ALT Plant Cost per Connection Analysis](#)
-  [2011 Total Compensation Study](#)
-  [2011 Geotechnical Engineering Study for ALT Plant Upgrade Project](#)
-  [2010 Urban Water Management Plan](#)
-  [2010 Cost of Service Report](#)
-  [2010 ALT Plant Replacement Project - Environmental Assessment / Initial](#)

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-  [2010 ALT Plant Replacement Project - Environmental Assessment / Initial Study](#)
-  [2010 ALT Plant Draft Environmental](#)
-  [2010 ALT Plant Archeological Inventory](#)

