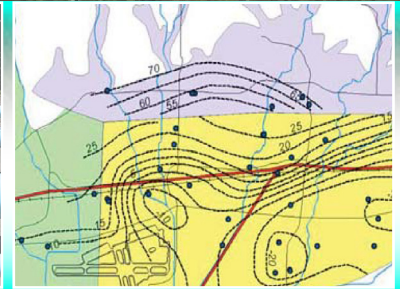
July 2014

Goleta Water District

Drought Preparedness and Water Shortage Contingency Plan



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List of Abbreviations and Acronyms

AF	Acre Feet
AFY	Acre Feet per year
AWWA	American Water Works Association
CCWA	Central Coast Water Authority
CIMIS	California Irrigation Management Information System
COMB	Cachuma Operations and Maintenance Board
CUWCC	California Urban Water Conservation Council
DWR	California Department of Water Resources
EPA	Environmental Protection Agency
ET	Evapotranspiration
GIS	Geographic Information System
GW	groundwater
GWD	Goleta Water District
HCF	Hundred Cubic Feet
mg/L	Milligrams per Liter
msl	Mean Sea Level
RWEP	Regional Water Efficiency Program
SAFE	Safe Water Supplies Ordinance
SWP	State Water Project
TDS	Total Dissolved Solids
UWMP	Urban Water Management Plan
WMLRP	Water Management and Long Range Planning

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Section 1: Introduction

Droughts occur with unpredictable frequency, intensity, and duration. Developing and maintaining a safe and reliable water supply portfolio to serve its customers is a Goleta Water District (GWD or District) priority, including preparing for drought and water shortages. During a drought or other water shortage, the Goleta Water District Board of Directors will consider drought severity indicators and available supply in determining the need for water shortage declarations and implementation of demand reduction programs and other related activities

Water supply projections and hydrologic conditions are significant components in deciding when and to what extent a drought response is needed. The degree of the water supply shortage determines the necessary level of response from the District and customers. This Drought Preparedness and Water Shortage Contingency Plan (Plan) recommends and provides the foundation for a progressive response to worsening water shortage conditions.

1.1 Purpose and Intent

The objectives of this Plan are to describe, in a single resource, the conditions which constitute a water shortage emergency, define and discuss the various stages of action, and provide guidance and procedures to undertake during a declared water shortage. The Plan is consistent with the California Department of Water Resources Urban Drought Guidebook 2008 Update, California Water Code §§350 – 359, Government Code §§8550-8551, and the Urban Water Management Plan Act. Broadly, this Plan allows the District to identify and quickly respond to shortage in a manner that provides for public health and safety while minimizing the impacts to customers.

1.2 Goleta Water District

Goleta Water District is a County Water District operating pursuant to the provisions of the California Water Code. The District was formed in 1944 to provide water to the Goleta Valley. The District initially relied on local groundwater until the Federal Cachuma Project began making deliveries in 1955. Since that time, the Cachuma Project has been and continues to be the primary water supply source for the District. As described in Section 2 of this Plan, current District water supplies also include water from the State Water Project (SWP), groundwater, and recycled water.

The District service area is located in the South Coast portion of Santa Barbara County with its western border adjacent to El Capitan State Park, its northern border along the foothills of the Santa Ynez mountains and the Los Padres National Forest, the City of Santa Barbara to the east, and the Pacific Ocean to the south (Figure 1-1). The service area encompasses approximately 29,000 acres, and provides water service to approximately 87,000 residents. The District service area includes the City of Goleta, University of California, and Santa Barbara Airport; the remainder is located in unincorporated Santa Barbara County. La Cumbre Mutual Water Company, El Capitan Mutual Water Company, and several other small private water purveyors are located within the District service area but these entities have their own supply, water distribution facilities, and customers; GWD does not serve these customers.

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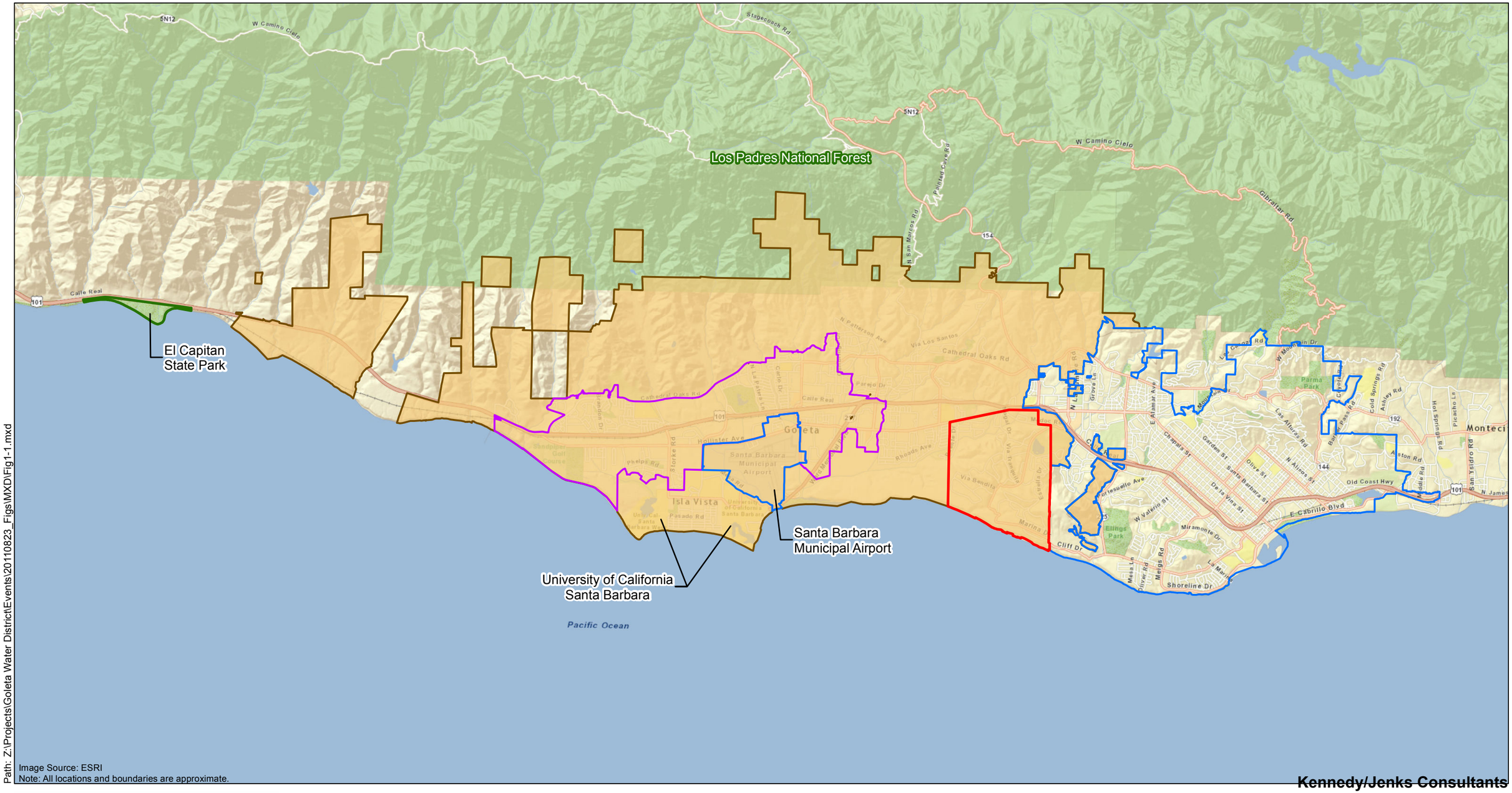

Image Source: ESRI
Note: All locations and boundaries are approximate.

Legend

- El Capitan Beach State Park
- La Cumbre Mutual Water Company
- City of Goleta
- City of Santa Barbara
- GWD Service Area Boundaries

N

0 4,250 8,500
Feet

Kennedy/Jenks Consultants

Goleta Water District
Santa Barbra County, California

Goleta Water District Service Area

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Figure 1-1

1.3 Historic Drought Activities: The 1987-92 Drought

The 1987-92 drought, considered to be one of the three most significant droughts in state history, was notable for its six-year duration and the statewide nature of its impacts. Statewide reservoir storage was approximately 40 percent of average by the third year of the drought and did not return to average levels until 1994. In 1991 Governor Pete Wilson issued an executive order creating a Drought Action Team to coordinate a response to deteriorating water supply conditions and directed DWR to implement a drought water bank. Twenty-three counties, including Santa Barbara County, declared local drought emergencies by the end of 1991.

Following the 1987-92 drought, the California Department of Water Resources (DWR) examined agencies' responses to the dry conditions across the state and their impacts. The majority of the State's urban water retailers implemented demand reduction techniques—either voluntary or mandatory—at some point during the drought. Demand reductions and allocation programs were typically accomplished through extensive customer education and outreach programs where mandatory rationing levels reached as high as 50 percent in some communities. Small communities in isolated areas without back-up water sources and the ability to connect to other water systems typically had no recourse other than demand reduction or hauling water. Customers of agricultural water agencies reduced planted acreage to match demand to projected water supplies. Virtually all the State's larger water agencies implemented short-term demand management actions in response to the ongoing drought conditions. By 1991 most agencies were implementing significant demand reduction measures such as rationing, mandatory restrictions, surcharges and fines.

In its review of the 1991 drought response, DWR expressed concern with the effects of demand hardening on water agencies' ability to implement shortage contingency measures in the future. Demand hardening is the concept that as water agencies implement plumbing fixture retrofit programs or have greater percentages of new housing stock with low water use fixtures, it becomes increasingly difficult for the agencies to implement rationing programs and achieve measurable savings without affecting customers' lifestyles. Therefore while the goal is to minimize customer impacts, in the higher water shortage stages lifestyle and habit changes will be necessary.

1.4 Relationship to Other Planning

This Plan will become part of a larger framework used by the District to responsibly manage water resources and ensure the highest level of reliable service for customers. On a regular basis the District reviews and updates its water supply management strategy based on an extensive evaluation of its various supplies, supply reliability, drought scenarios, and anticipated demand. The most recent Water Supply Management Plan was completed in 2011, and the Groundwater Management Plan was completed in 2010. Every five years, as part of its Urban Water Management Plan, the District prepares a "20-year look ahead" and compares estimates of supply against estimates of demand. The most recent Urban Water Management Plan was completed in 2011. GWD is also a signatory to the California Urban Water Conservation Council's Memorandum of Understanding Regarding Water Conservation in California, and as such, reviews and reports on its conservation actions. These documents form the basis for understanding supply and demand trends and guiding long-range water management decisions.

This Plan and the District Emergency Response Plan, which is undergoing an update concurrently with the preparation of this Plan, provide specific guidance related to water management outside of normal conditions. This Plan provides specific protocols for responding to water shortages, such as

demand reduction and supply augmentation; whereas the Emergency Response Plan provides procedures for dealing with power outages, earthquakes, fires and other events that could cause a water system outage. The demand reduction measures described in this Plan could be "activated" as part of any emergency response.

1.5 Organization of the Plan

The Plan is organized into seven sections:

- Section 1 provides an introduction to the Plan, including background on the District, historic drought activities, and purpose of the Plan.
- Section 2 identifies and describes the factors affecting water supply, including the indicators of shortage conditions as well as the process and uncertainties inherent in the forecasting process.
- Section 3 establishes five water shortage stages and outlines the "triggers" for each stage.
- Section 4 reviews the general strategies the District will employ to mitigate the impacts of drought and water shortage on the community.
- Section 5 discusses water shortage response actions that apply to each stage. Actions are grouped into the following categories:
    - Public outreach
    - Demand reduction programs
    - Enforcement
    - Other operational actions
- Section 6 provides an overview of the various financial impacts that may occur during each of the five water shortage stages, and provides an overview of how to plan for and mitigate the financial impacts of drought.
- Section 7 provides a summary of resources referenced during the development of each section of the Plan, including water shortage contingency plans developed by other water providers.

Section 2: Drought Severity Indicators

The District tracks the health of its water supplies and trends in demand on an ongoing basis. As discussed, water resource management and reporting tools include the District Urban Water Management Plan (updated every five years, most recently in November 2011), the GWD Water Supply Management Plan (April 2011), Groundwater Management Plan for the Goleta Groundwater Basin (May 2010), Annual Goleta Water District Budget and Comprehensive Annual Financial Report, monthly public water supply statistics provided to the California Department of Public Health, and biennial water conservation reports submitted to the California Urban Water Conservation Council. Tracking supply and demand takes on more significance in a drought. This section discusses the difference between the terms "drought" and "water shortage," reviews the various indicators of drought and how these indicators can be used to estimate the severity of drought, and informs the necessary level of response. This section also describes other conditions which may affect supply, such as unanticipated emergencies or water quality changes.

2.1 Drought vs. Water Shortage

Droughts vary from region to region and are therefore inherently difficult to define. Generally, drought originates from an extended period of dry weather that causes a shortage in water supplies. It is a naturally occurring climatic phenomenon with impacts that vary from area to area. Droughts are different from other natural hazards in that they generally have a slow onset, evolve over a period of time, and are not distinct weather events, such as hurricanes or tornadoes. The DWR defines drought as:

> "A deficiency of precipitation over an extended period of time resulting in a water shortage for some activity, group, or environmental sector."

By contrast, a water shortage often results from a drought, but could also occur due to other causes, such as earthquakes, infrastructure failure, or other emergencies. A water shortage occurs when water supplies are insufficient to support existing demands. GWD triggers for declaration of a water shortage are defined and discussed in detail in Section 3 of this Plan.

2.2 Weather Indicators

Weather ultimately determines the extent and severity of drought. National, statewide, and local resources provide information that can help water resource managers plan for and gauge the impact of a drought, as discussed further below.

2.2.1 National Resources

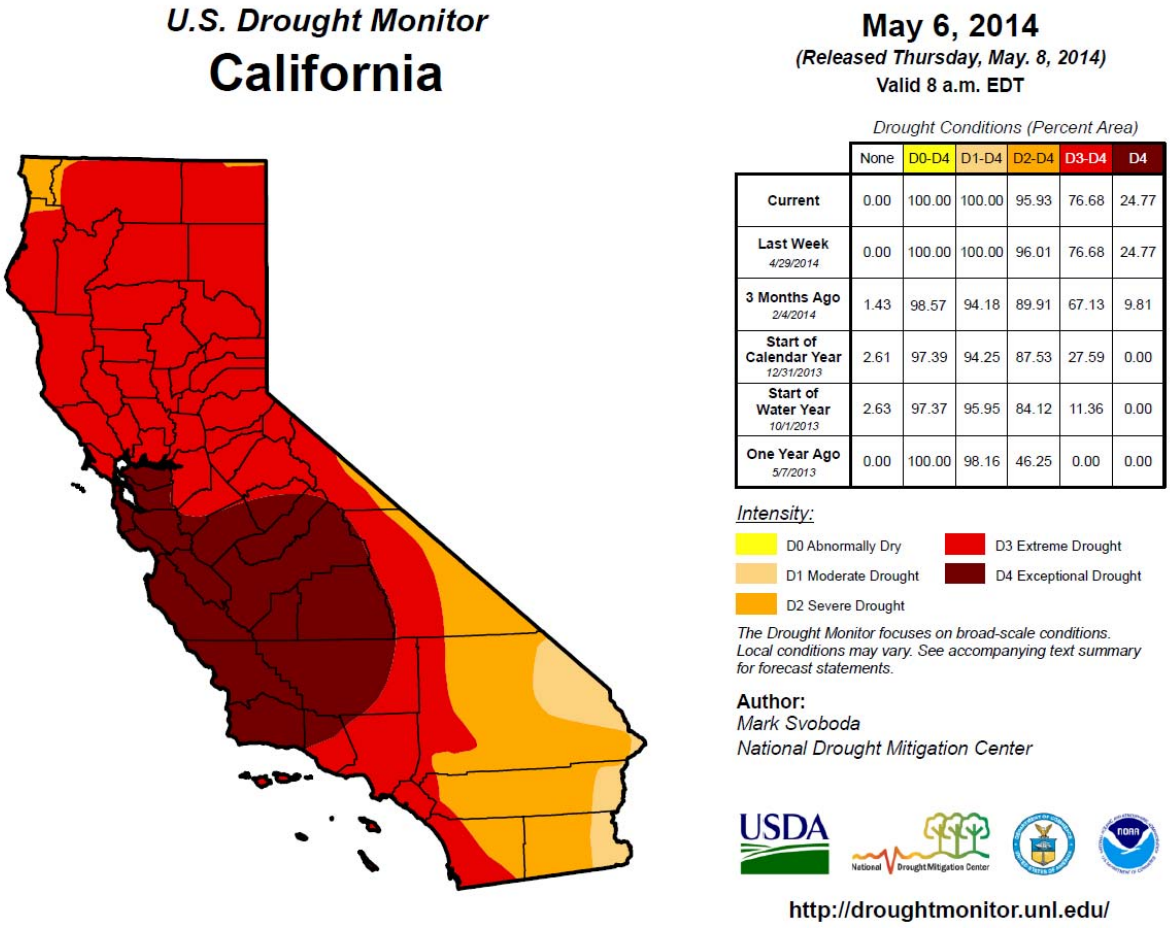
The National Drought Mitigation Center publishes the U.S. Drought Monitor, which maps the intensity of drought throughout the U.S. as well as in individual states (droughtmonitor.unl.edu). The severity of drought is measured based on a combination of soil moisture, stream flow, and precipitation. The following five categories are nationally recognized and used to characterize the severity of drought:[1]

[1] http://droughtmonitor.unl.edu/AboutUs/ClassificationScheme.aspx

- Abnormally dry – short-term dryness going into or coming out of a drought.
- Moderate Drought – some water shortages developing or are imminent.
- Severe Drought – water shortages common.
- Extreme Drought – widespread water shortages or restrictions.
- Exceptional Drought – shortages of water in reservoirs, streams, and wells; water emergencies.

Figure 2-1 provides a snapshot of the output from the U.S. Drought Monitor on May 6, 2014

Figure 2-1
Example Output of the U.S. Drought Monitor



2.2.2 Statewide Resources

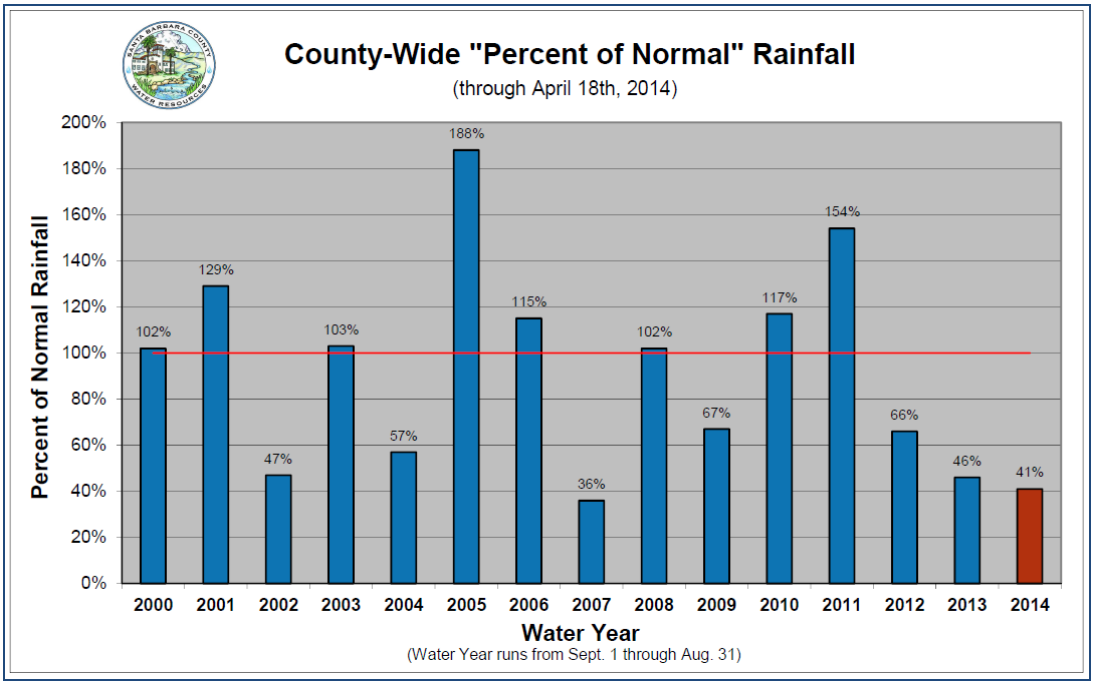
The Data Exchange Center of DWR collects extensive data on climatic conditions, stream flow, and snowpack, runoff, and reservoir conditions. DWR Bulletin 120 is a publication issued four times a year, in the second week of February, March, April, and May. It provides a summary of water conditions statewide as well as for the Central Coast hydrologic region. In addition to reporting on

statewide water conditions (precipitation since start of water year, snow water content, reservoir storage), Bulletin 120 provides a forecast of runoff (compared to normal runoff) for the water year[2].

2.2.3 Local

Rainfall amounts are one basic indicator of a wet or dry year. Data on local rainfall totals and reservoir levels are maintained by the County of Santa Barbara and updated regularly. On average, the County receives 16 inches of rainfall per year (County of Santa Barbara 2011). The majority of rainfall typically occurs in a 5 month period between December and April. The amount of precipitation the county receives varies annually, as reflected in Figure 2-2 below.

Figure 2-2
Santa Barbara County Rainfall as Percent of Normal 2000 to 2014



Source: www.countyofsb.org/uploadedFiles/pwd/Water/Rainfall_-_Annual_Percent_of_Normal_-_CountyWide.pdf

Timing and distribution of rainfall are as important to local water supply availability as the quantity of rainfall received. Years in which the majority of rainfall occurs over a short period of time or particularly early in the wet season typically result in lower stream flows and lake levels during the dry summer months. By contrast, years in which storms are spread out over the rainy season and occur later in the spring generally support higher stream flows and lake levels.

2.3 Supply Indicators

The District water supply portfolio is made up of supplies from Lake Cachuma (Cachuma Project Water), the SWP, the Goleta Groundwater Basin, and recycled water.

[2] Bulletin 210 can be found at: cdec.water.ca.gov/snow/bulletin120.

2.3.1 Cachuma Project Water

In a normal year, the majority (approximately 56 percent) of the District water supply comes from the U.S. Bureau of Reclamation Cachuma Project. The Cachuma Project utilizes water from the Santa Ynez River, which is impounded in Lake Cachuma by Bradbury Dam. Water is provided to Cachuma Project Member Units for irrigation, domestic, and municipal industrial water uses. The Cachuma Member Units include GWD, the City of Santa Barbara, Montecito Water District, the Carpinteria Valley Water District, and the Santa Ynez River Water Conservation District Improvement District #1. The Cachuma Operations and Maintenance Board (COMB) operates, repairs, and maintains Cachuma Project facilities.

Water is diverted from Lake Cachuma to the South Coast through the Tecolote Tunnel, which extends from the Santa Ynez Mountains to the South Coast Conduit. The South Coast Conduit delivers water to GWD at the Corona Del Mar Water Treatment Plant for distribution to the District service area. Additionally, the District chlorinates raw lake water at the Glen Annie Turnout for delivery to agricultural customers along the Goleta West Conduit.

District entitlement to Cachuma yield is 9,322 acre feet per year (AFY); normal deliveries to GWD are 9,322 AFY. The amount of Cachuma Project water delivered to member units varies from year to year depending on winter runoff, stored lake supplies, water demand, downstream releases for fish and other water supply sources. The State Water Resources Control Board is currently considering modifications to the U.S. Bureau of Reclamation water rights permits 11308 and 11310 for the purpose of protecting public trust (fishery flows) and water right holders below Bradbury Dam. Another element of uncertainty is the available storage in Lake Cachuma. The original capacity of Lake Cachuma was estimated at 204,874 acre-feet (SWRCB 2011), but siltation has reduced lake capacity. A bathymetric survey conducted in 2008 suggests the reservoir capacity is approximately 186,636 AF at elevation 750.0 feet (MNS 2008 cited in SWRCB 2011). The minimum operating pool for Cachuma Lake is estimated to be between 20,000 and 12,000 AF, but pumps are required for diversions to Tecolote Tunnel when lake storage is lower than approximately 47,000 AF.

There are several models used to estimate Cachuma supplies. The District will utilize current models and discussion among COMB agencies to prepare a two year look ahead of potential Cachuma supplies. Historically, Cachuma storage is lowest in November and highest in April (Stetson Engineers 2006). Reservoir storage starts to drop in May as releases are made for downstream water rights holders and Member Units. GWD's demands are typically lowest in December and January and highest in June and August.

2.3.2 State Water Project Water

In a normal year, GWD plans for the delivery of 3,800 AF of SWP water, which is approximately 23 percent of its supply portfolio. GWD has a SWP allocation of 7,000 AFY and additional drought

buffer allocation of 450 AFY. GWD has 4,500 AFY capacity in the Coastal Branch of the California Aqueduct; accordingly, the 7,000 AFY allocation serves to improve SWP supply reliability and increase the amount of carryover SWP water stored and available for use in dry years.

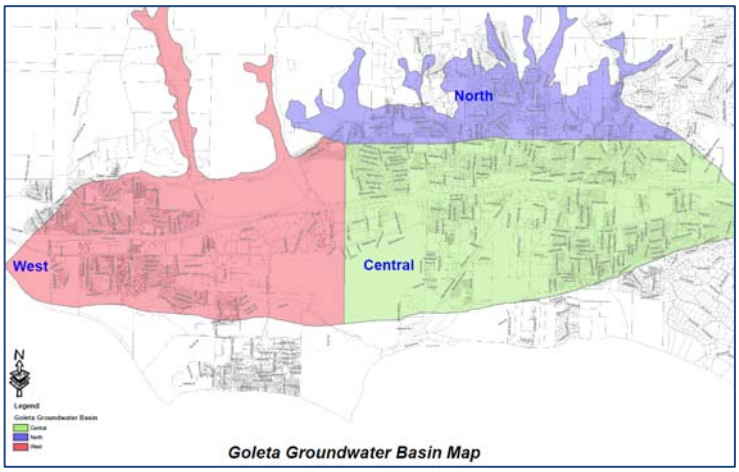
The SWP is a large state-built, multi-purpose system operated by DWR. The SWP includes 34 storage facilities, reservoirs, lakes, 20 pumping plants, multiple hydroelectric plants, and approximately 700 miles of aqueducts and pipelines. The SWP pumps water into the 444 mile long California Aqueduct. The Coast Branch Aqueduct splits from the California Aqueduct near Kettleman City and traverses south where deliveries are made to entities in San Luis Obispo and Santa Barbara counties. GWD receives its SWP through a Water Supply Agreement with the Central Coast Water Authority.

The amount of SWP water delivered in a given year depends on a number of factors, including demand, rainfall, snowpack, runoff, and legal/regulatory constraints on SWP operations. To assist water resource managers in determining the reliability of State water supplies, the DWR (operator of the SWP) prepares a SWP Delivery Reliability Report. The report provides estimates of current and future SWP delivery reliability given assumptions about climate change and regulatory requirements placed on the SWP that can be helpful in water supply planning. The Draft State Water Project Delivery Reliability Report 2013, which was published in December 2013, estimates that the long-term average delivery of SWP contracts amounts (referred to as Table A deliveries) will be 62 percent in year 2013 and 58 percent in year 2033. This same report estimates that over a six year drought under current conditions deliveries would be approximately 30 percent of Table A amounts, and in a single dry year as little as 12 percent. In the future (year 2033) drought deliveries are estimated to be 30 percent over a 6 year drought and 11 percent in a severely-dry year.

Typically, DWR proposes an initial allocation of SWP water in December and then adjusts the allocations throughout the spring. As of the writing of this Drought Preparedness and Water Shortage Contingency Plan, DWR proposed an initial 2014 allocation of five percent in December 2013, which was revised to zero percent in January 2014, and revised again to 5 percent in April 2014, with delivery limited until after September. The January 2014 allocation marked the first time in the 54-year history of the State Water Project that DWR announced a zero allocation for all 29 SWP contractors.

2.3.3 Groundwater

The Goleta Groundwater Basin (Goleta GW Basin) is an important local source of supply for GWD. District use of water from the Goleta Groundwater Basin is governed by the Wright Judgment, the voter-approved SAFE Ordinance (Appendix A), and the Groundwater Management Plan for the Goleta GW Basin (2010).



Goleta Groundwater Basin Map

The Wright Judgment resulted from a lawsuit filed in 1972 by a group of landowners seeking adjudication of water rights in the Goleta North-Central Groundwater Basin, and was settled in 1989. The resulting adjudication gave GWD an appropriative right to extract 2,000 AFY from the basin. Subsequent transfers from other entities overlying the basin have increased the District annual allowable base extraction to 2,350 AFY, which constitutes approximately 14 percent of the District supply portfolio. This excludes water the District has stored in the basin, as well as the drought buffer (described further in Section 3) available to GWD when the basin is above 1972 levels or when there are reduced deliveries of Cachuma water.

Groundwater level monitoring of the Goleta GW Basin is currently performed in April and December of each year. The U.S. Geological Survey, under contract with GWD, collects data from seven index wells representative of the Basin. The wells have complete historical records dating back to 1972. The "Normal Operations" range for the basin is between the 1972 and 2007 elevations (-26 feet to -4 feet mean sea level). Groundwater elevations below -26 feet mean sea level (msl) (1972 level) indicate drought or other water shortage condition and the "Drought Plan for Groundwater Pumping" included in the Goleta Groundwater Basin Groundwater Management Plan should be followed.

As further described in Section 4, given the robust GWD drought buffer, it is assumed that in all year types (wet, normal, dry) GWD's base extraction will be available. Groundwater elevations are reviewed following the December and April measurements to look for indications of drought and to determine appropriate groundwater management consistent with the Groundwater Management Plan.

2.3.4 Recycled Water

Recycled water is generally considered a "drought-proof" supply. In a normal year recycled water makes up approximately 7 percent of the District water supply, or about 1,150 AF (GWD 2011b). The recycled water production capacity of the Reclamation Plant is approximately 3,000 AFY, but the ability to fully utilize recycled water is limited by condensed use patterns. Recycled water use is heaviest during the irrigation season and is limited to a 12-hour rather than a 24-hour period. Furthermore, storage is available to address daily fluctuations but not seasonal variability. Given that GWD's recycled water capacity is greater than its normal use of recycled water, its assumed that in all year types (wet, normal, dry) GWD will have available 1,150 AF of recycled water.

For the purposes of this Plan, recycled water will not be considered as a source of the District's supply portfolio because it would not be subject to demand reduction programs, water allocations, or other drought response programs. Recycled water is, however, considered as a potential drought mitigation measure, and the potential to increase recycled water use is described further in Section 4.

2.3.5 Other Supply Availability Considerations

In determining the availability of supply for any given period (i.e., the next 12 months, the next 24 months, etc.) the District must look beyond the total quantity of supplies and consider other factors that affect water supply availability.

Infrastructure Capacity

Assessing infrastructure capacity to extract groundwater, deliver SWP water, and distribute water through the District distributions system is of paramount importance in determining the availability of supplies. For example, the District uses the Goleta GW Basin for storage of water supplies through its active Aquifer Storage and Recovery program. Consistent with recommendations provided in the DWR Urban Drought Guidebook, the District temporarily suspends groundwater banking practices and withdraws previously banked groundwater to augment other supplies and meet customer demand during drought. While ample groundwater supplies may be available to the District, the ability to extract stored water from the basin is limited by groundwater pumping infrastructure capabilities. Therefore, the groundwater extraction capacity will influence the availability of this supply. As discussed in Section 4, supply mitigation options include making capital improvements to enhance the District's ability to extract groundwater.

Similarly, the Central Coast Branch of the California Aqueduct has limited pipeline capacity, which may impact the timing of delivery of SWP water, as discussed below.

Timing of Delivery

The timing of delivery, particularly as it relates to SWP water, must also be considered in evaluating District supply availability. For example, in April 2014 DWR announced a five percent allocation of SWP water (up from zero percent in December), with the caveat that delivery could not be taken until September 2014. Accordingly, the District could not incorporate SWP water into its supply model until September, limiting the availability of that supply.

Goleta Water District – City of Santa Barbara Interconnect

The District has five existing interconnects with the City of Santa Barbara that can be used during emergencies, shutdowns of the Corona Del Mar Water Treatment Plant or South Coast Conduit, or other times of need for supplemental supplies. The current capacity of the interconnect is approximately 3 million gallons per day (mgd). The potential to increase the capacity of the interconnect is discussed as a supply mitigation option in Section 3 of this Plan.

Water Quality

Decreasing water levels due to drought can sometimes lead to water quality changes that limit the use of a particular source of supply. Based on current conditions and past experiences GWD does not anticipate significant or immediate changes in water quality due to drought.

There is a direct relationship between salinity (measured as total dissolved solids [TDS]) and inflow to Lake Cachuma. Modeling conducted as part of the Cachuma Project Water Rights Hearing demonstrate that salinity concentrations of both the SWP and Santa Ynez River increase as flow decreases. Modeling anticipates that TDS in Lake Cachuma will be less than 500 milligrams per liter (mg/L) in a very wet year to more than 850 mg/L in a dry year. However, even with these increases in salinity, water will continue to meet the primary drinking water standard (1,000 mg/L TDS). The

District Corona Del Mar Water Treatment Plant has the capacity to address any water quality issues with lake water, such as increased salinity or turbidity.

In the past, chloride concentrates were a concern in the Goleta GW Basin and peaked during periods of heavy groundwater pumping. This is less likely to occur now that low-chloride Cachuma spill water is used to recharge the groundwater basin. However, long periods of heavy groundwater pumping could degrade groundwater quality and, at very high rates, raises the risk of pulling ocean water into the basin (Goleta Water District and La Cumbre Mutual Water Company 2010). GWD will continue to monitor and test the water quality of all its water supplies during a drought.

2.3.6 Potential Supply Enhancement Opportunities

Supply enhancement options to consider in times of drought or a water shortage emergency generally fall into three broad categories: enhance existing supplies, utilize a reserve supply, and acquire a new supply. Reducing demand is also a critical drought response action. The District will review the potential supply enhancement options as part of its "pre-water shortage" planning, as discussed in Section 5.1.

2.4 Demand Indicators

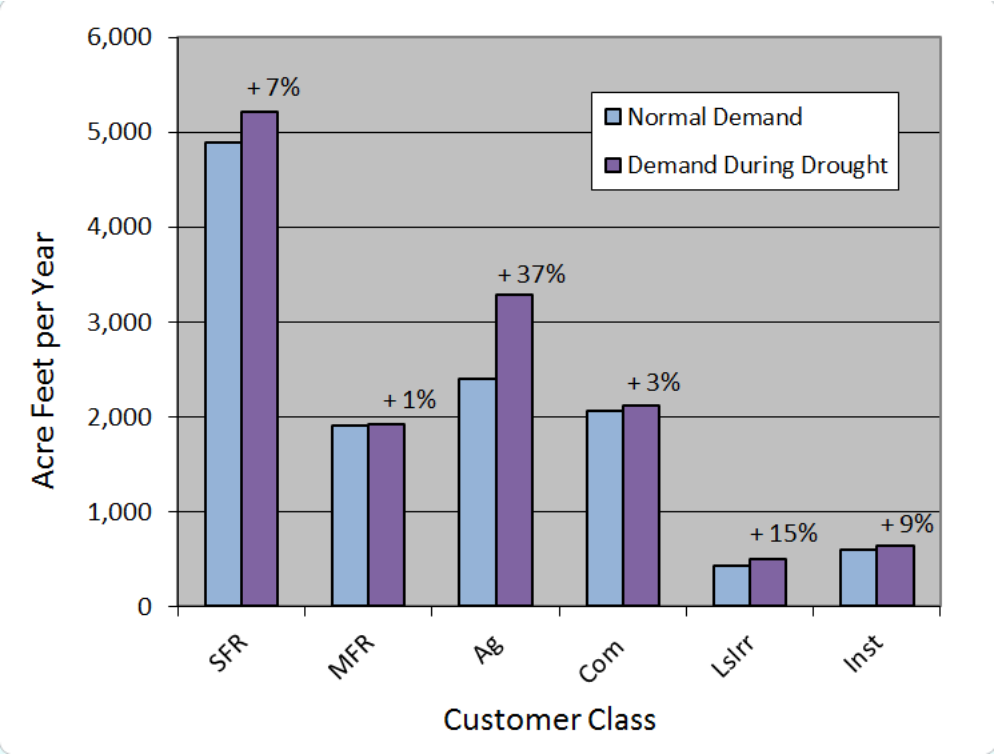
Water use by District customers is primarily influenced by climate (e.g., evapotranspiration, precipitation) and economic factors. The extent of these effects may vary based on local conditions. Hence, it is essential to consider the effect of the various factors influencing water demand and plan accordingly for potential changes in demand.

To determine the factors influencing water use in GWD service area, GWD billing data for years 2003 to 2012 was examined. Regression analyses were performed to evaluate the correlation between water use for various categories (single family, multifamily, commercial/industrial and landscape irrigation), weather (ET, precipitation) and economic (unemployment rate) factors[3]. The statistical analyses indicate that water use is affected by both weather and economy. The effect of weather (ET) varied with land use; agricultural and landscape irrigation demand are significantly affected by ET. Figure 2-3 shows the estimated increase in average annual water use by District customers during drought conditions (low precipitation, high ET) for different customer classes, assuming normal unemployment.

Demand analysis indicates that water use is higher for all types of users in a better economy. This Plan assumes a normal unemployment rate (50th Percentile). It is particularly important to estimate increases in demand as they relate to weather when evaluating demand indicators. As reflected above, demand increases among all customer classes when evapotranspiration (a measure of drought) is above average (90th percentile). Multi-family and commercial water uses have little change, but outdoor water uses (agriculture, landscape irrigation) increase much more dramatically. Since agriculture alone represents approximately twenty percent of District water use, seasonal variability in overall demand is particularly high for the District and can be expected during drought conditions.

[3] Weather data for these analyses were obtained from the California Irrigation Management Information System (CIMIS) database for CIMIS Station 107. Unemployment data for Goleta was obtained from the State of California Employment Development Department database.

Figure 2-3
Increases in Demand During Drought



2.5 Uncertainty Associated with Forecasts

Forecasting the potential severity and duration of drought is difficult. While the current state of climate science can provide information on general trends, uncertainty cannot be entirely eliminated. However, as described in the sections above, proactive planning helps mitigate the impact of these uncertainties. By performing a comprehensive review of water supplies throughout the year, as appropriate for each source of supply, the District gets a preliminary snapshot of conditions that allows for early planning, including lining up resources to mitigate a potential supply shortage and initiating the appropriate customer outreach to reduce demand.

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Section 3: Determining Water Shortage Stages

3.1 Five Stage Approach

The purpose of establishing water shortage stages is to clearly define the severity of the shortage and establish appropriate targets for customer demand reductions. Defining drought stages allows the District to craft a progressive response to worsening drought conditions, with each stage "triggering" different specific actions. The Water Shortage Contingency Plan contained in the District Urban Water Management Plan (UWMP) defines four specific water shortage stages and provides a framework for District actions during each stage. This Plan adds a fifth water shortage stage by dividing Stage IV into two distinct stages (IV and V) to allow for a transition between a 35 percent system-wide reduction target and a 50 percent or greater reduction target. The five-stage approach provides different levels of response for a water shortage event ranging from a 10 percent supply deficiency to a 50 percent or greater deficiency.

Table 3-1 summarizes the water shortage stages defined by Goleta Water District.

3.2 Water Shortage Stage Determination

The District has existing water supply and demand models it runs on a regular basis. During a drought or if a water supply shortage is imminent, Figure 3-1 provides a snapshot of the tool the District utilizes to determine the potential for a supply shortage early in the planning process (i.e., the beginning of the Water Year, in October or November). The necessary steps for determining a water shortage stage involve: (1) evaluating potential changes in demand across customer categories; (2) examining shortage for each supply source including shortage caused by infrastructure limitations; and (3) evaluating and identifying available supply mitigation options, as discussed in Section 4.1 of this Plan.

The District water supply and demand model utilizes supply and demand inputs to produce supply availability percentage outputs for the following 12 and 24 month periods. This allows the District to determine whether a water supply shortage is anticipated in any given year, and the severity of a shortage based on the availability of the different sources of supply and trends in demand. The model is updated periodically with actual customer demand data, any changes in the delivery timing or quantity of water supplies, including projected and actual groundwater production data.

In addition, if conditions authorizing the release of potable water under the SAFE Ordinance are not met, a water shortage emergency under the SAFE Ordinance will be triggered

3.3 Water Shortage Stages

Table 3-1 provides a summary of the five water shortage stages, including the supply shortage condition (potential current year/12 month shortage and anticipated future/24 month supply deficiency), system-wide reduction targets, and demand reduction measures for each stage.

Figure 3-1
Water Supply and Demand Model

Supply & Demand Model

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Demand													
Goleta West Conduit	235	166	133	209	112	59	112	204	199	270	223	238	2,160
Potable													
Single-family residential													
TMRA < 8 (4,805 Cust)	69	55	43	57	39	34	52	63	66	78	70	76	700
TMRA ≥ 8 (8,430 Cust)	423	340	263	351	237	209	320	387	403	479	427	465	4,302
Multi-family residential	196	172	151	180	151	127	200	231	187	190	168	181	2,135
Commercial	206	153	122	180	124	111	166	201	191	222	195	211	2,082
Agricultural (Urban)	208	159	141	151	150	174	240	232	170	218	246	210	2,300
Institutional	65	58	47	48	46	40	58	83	64	60	53	56	680
Landscape irrigation	53	43	13	24	17	23	28	46	59	73	66	67	513
City of SB Repayment												240	240
Total Demand	**1454**	**1147**	**912**	**1200**	**876**	**777**	**1177**	**1448**	**1339**	**1590**	**1449**	**1744**	**15,113**
Supply													
Cachuma Carryover	216												
Unused Cachuma												2331	2,331
Cachuma	1018	857	814	511	-179	-188	396	711	746	926	925	670	7,207
Groundwater	317	288	86	74	206	284	289	289	326	351	351	340	3,201
State Water													-
GWD Delivered	*0*	*0*	*12*	*615*	*749*	*648*	*437*	*321*	*118*	*144*	*0*	*373*	*3,417*
Exchange	*119*	*2*	*0*	*0*	*0*	*33*	*54*	*127*	*149*	*169*	*173*	*164*	*990*
Adjustments					100							197	297
Subtotal	1454	1147	912	1200	876	777	1177	1448	1339	1590	1449	1744	15,113
Total Supply	**1454**	**1147**	**912**	**1200**	**876**	**777**	**1177**	**1448**	**1339**	**1590**	**1449**	**1744**	**17,443**
% Supply (12-Month)	-	-	93%	93%	94%	94%	96%	95%	92%	90%	87%	84%	-
% Supply (24-Month)	-	-	86%	85%	85%	85%	85%	84%	82%	80%	78%	76%	-

Stage I

3.4 Process for Declaring a Water Shortage

Water Code Sections 350 to 352 dictate specific processes to guide the District Board of Directors in declaring a water shortage, including a specially noticed public hearing:

> *Cal. Water Code Section 350*. The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, may **declare a water shortage emergency** condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

> *Cal. Water Code Section 351.* Excepting in event of a breakage or failure of a dam, pump, pipe line or conduit causing an immediate emergency, the declaration shall be made only after a **public hearing** at which consumers of such water supply shall have an opportunity to be heard to protest against the declaration and to present their respective needs to said governing board.

Table 3-1
Water Shortage Stages

Stage	Supply Shortage Condition	System-wide Reduction Target	Demand Reduction Measures
I	If any of the following occur: • District water supply is 85 to 90% of normal (10-15% supply deficiency) for the next twelve months. • District water supply is insufficient to provide 80% of normal deliveries for the next twenty four months. • Contamination of 10% of water supply (pollutant exceeds primary drinking water standards)	15%	• Voluntary water use reductions
II	If any of the following occur: • District water supply is 75 to 85% of normal (16-25% supply deficiency) for the next twelve months. • District water supply is insufficient to provide 75% of normal deliveries for the next twenty four months. • Contamination of 20% of water supply (pollutant exceeds primary drinking water standards)	25%	• Mandatory: limits and prohibitions on certain uses
III	If any of the following occur: • District water supply is 65 to 75% of normal (26-35% supply deficiency) for the next twelve months. • District water supply is insufficient to provide 65% of normal deliveries for the next twenty four months. • Contamination of 30% of water supply (pollutant exceeds primary drinking water standards)	35%	• Same as Stage II, but more severe • Potential drought rates
IV	If any of the following occur: • District water supply is 55 to 65% of normal (36-45% supply deficiency) for the next twelve months. • District water supply is insufficient to provide 55% of normal deliveries for the next twenty four months. • Contamination of 40% of water supply (pollutant exceeds primary drinking water standards)	45%	• Same as Stage III, but more severe
V	If any of the following occur: • District water supply is less than 55% of normal (46% or higher supply deficiency) for the next twelve months. • District water supply is insufficient to provide 50% of normal deliveries for the next twenty four months. • Contamination of 50% or more of water supply (pollutant exceeds primary drinking water standards) • Unanticipated loss of water distribution or supply facilities due to disaster or man-made emergencies	50% or greater	• Same as Stages III & IV, but more severe

> *Cal. Water Code Section 352*. **Notice of the time and place of hearing** shall be published pursuant to Section 6061 of the Government Code at least seven days prior to the date of hearing in a newspaper printed, published, and circulated within the area in which the water supply is distributed, or if there is no such newspaper, in any newspaper printed, published, and circulated in the county in which the area is located.

Per the California Water Code, the District will provide the legally required notice of the time and place of the Water Shortage Hearing at least seven days in advance. The shortage declaration will be accompanied by adoption of a Water Shortage Ordinance establishing regulations and procedures for implementing various water shortage stages. An Ordinance is generally needed when the intent is to regulate persons or property or impose fines. A general draft Water Shortage Ordinance is provided in Appendix B.

3.5 SAFE Ordinance Moratorium

The voter-approved SAFE Ordinance prohibits allocating water to new or additional potable water service connections to properties not previously served by the District unless certain circumstances are met. Specifically, new water allocations may be made only when the following conditions are satisfied:

- The District receives 100 percent of its annual Cachuma Project allocation; and
- The District has met all of its *Wright Judgment* obligations; and
- There is no water rationing; and
- The District has met its obligation to make its annual storage contribution to the drought buffer.

Under the SAFE Ordinance, the District determines each year whether the listed conditions will have been met as of the beginning of the next calendar year. Pursuant to the language of SAFE and the District procedures implementing it, the District adopts a resolution in December setting forth the new water allocation for the subsequent calendar year (1 percent of the total potable District supply if the above conditions are met).

As discussed above, a water shortage emergency will occur if the listed conditions under the SAFE Ordinance are not met and the District will adopt restrictions on new development as set forth in the SAFE Ordinance. Such action will be taken independently of the other actions set forth in this Plan because of the timing requirements in the SAFE Ordinance.

Section 4: Water Shortage Impact Mitigation Strategy

Drought response actions typically rely on the ability of a water agency to either temporarily augment supply and/or reduce water demand. Successful drought response programs typically combine a variety of elements, from outreach and water pricing to use restrictions and enforcement; each increasing in intensity as the shortage persists and progresses. This section reviews the general strategies the District will employ to mitigate the impacts of drought and water shortage on the community. Section 5 adds specificity to these strategies and reviews the specific actions the District will take during each water shortage stage.

Table 4-1, below, provides a summary of the system-wide reduction target for each water shortage stage.

Table 4-1
System-Wide Reduction Targets

Stage	Supply Deficiency		System-wide Reduction Target
	Current Supply (Next 12 months)	Future Supply (Next 24 months)	
I	10-15%	20%	15%
II	16-25%	25%	25%
III	26-35%	35%	35%
IV	36-45%	45%	45%
V	46% or greater	50%	50% or greater

4.1 Supply Management and Enhancement

The District has several foundational planning documents and policies that guide the management of its water supplies. For example, the Water Supply Management Plan recommends a strategy for prioritizing different water sources. Under normal operations, Cachuma project water is used before groundwater is utilized; however, in a drought, the Water Supply Management Plan recommends pumping groundwater first so as to maximize the amount of water that can be extracted from the basin with existing well facilities. The UWMP and the Groundwater Management Plan are also important planning tools, while the voter-approved SAFE Water Supplies Ordinance and the *Wright Judgment* place specific parameters around when and how the District can pump groundwater above its annual right to 2,350 AFY. While the District will continue to manage its water supplies pursuant to these guiding documents and policies, during times of drought, the District may consider various supply enhancement options, as discussed below.

Supply enhancement options to consider in times of drought or a water shortage emergency generally fall into three broad categories: enhance existing supplies, utilize reserve supplies, and acquire new supplies. Prior to declaring a water shortage, the District will evaluate potential supply enhancement and mitigation options, which may include:

- Groundwater supply mitigation.
    - Rehabilitate or modify inactive wells to increase pumping capacity.
    - Install new/additional wells to be used in emergencies and during drought.

  The "Drought Plan for Groundwater Pumping" included in the Goleta Groundwater Basin Groundwater Management Plan should be followed if groundwater elevations drop below - 26 feet mean seal level (1972 level).
- Recycled water. Expand the use of recycled water through infrastructure improvements/modifications, adding new customers, or transporting/trucking recycled water for use in areas not adjacent to the existing distribution system.
- Goleta Water District – City of Santa Barbara Interconnect. Construct new high capacity connection (interconnect) between the water distribution systems of the District and the City of Santa Barbara. Preliminary planning for the high capacity connection took place in 2006 and envisioned construction of approximately 700 feet of 20-inch diameter water line, a large meter and new booster station. Once constructed, the additional interconnect would increase the capacity of the existing interconnect by 100 percent (from three to six million gallons per day).
- Central Coast Water Authority (CCWA) acquisition program. Participate with the CCWA to identify and secure additional imported supplies for the South Coast. Given the fact that in normal water years the District has more State Water available than it needs to meet customer demand, there could be opportunities for exchanges (balanced and unbalanced), in which the District would secure water supplies during drought and repay those water supplies at a negotiated exchange rate during normal conditions.

There are various considerations for each supply enhancement option, including timeframe for implementation, potential quantity of supply available, length of time supply would be available (seasonally, single year, multi-year), financial implications, and environmental considerations.

4.2 Demand Management and Drought Response Programs

4.2.1 Customer Class Reduction Targets

To determine where reductions could be achieved among District customer classes, water use for each customer class was analyzed by reviewing 10 years of District billing data. This analysis, coupled with an estimate of water needs for health and safety, provided the basis for setting customer demand reduction targets.

Single family residential customer reduction targets are generally slightly higher than the overall system-wide reduction target and more than multi-family customers due to the relatively higher proportion of outdoor to indoor use among single family households. The District will develop regulations to implement scaled reductions in each customer class. Generally, the targets would be achieved through the various demand reduction programs described in this Plan; public outreach, restrictions, incentive programs (landscape rebates, efficient fixtures, etc.), and disincentive

programs (fees, penalties, rates). The District's demand reduction programs are designed to achieve specific demand reduction targets for each customer class.

Priority of Use

Priority for use of available potable water during shortages is based on the legal requirements set forth in the California Water Code, Sections 350-358. Accordingly, water use reduction targets and allocations discussed below have been established according to the following ranking system in this Plan (listed from highest to lowest priority):

1. **Health and Safety**. Minimum health and safety allocations for interior residential needs (includes single and multi-family residential, hospitals and convalescent facilities, retirement and mobile home communities, student housing, firefighting, and public safety).
2. **Business.** Commercial, industrial, institutional/governmental operations (where water is used for manufacturing and for minimum health and safety allocations for employees and visitors), to maintain jobs and economic base of the community (not for landscape use).
3. **Irrigation - Permanent.** Permanent agriculture (orchards, vineyards, and other commercial agriculture which would require at least five years to return to production).
4. **Irrigation – Annual**. Annual agriculture (floriculture, strawberries, other truck crops).
5. **New connections**. The SAFE Ordinance prohibits the District from making new service connections during times of drought.

Table 4-2 shows how different customer classes are categorized by use priority.

Table 4-2
Use Priority for Different Goleta Water District Customer Classes

	Use Priority			
	1	2	3	4
Customer Class	*Health and Safety*	*Business*	*Irrigation-Permanent*	*Irrigation - Annual*
Single Family Residential	X			
Multi-Family Residential	X			
Commercial		X		
Institutional	X			
Agriculture*	X		X	
Landscape Irrigation				X

*Health and safety for agriculture only applies to Agriculture-Residential accounts that include some domestic or other essential use.

4.2.2 Supplier Efficiency Actions

A demonstrated commitment to efficiency by the supplier can help win public support and cooperation as well as provide valuable examples of where water savings can be achieved. While the District implements many supplier efficiency actions on an ongoing basis, additional or enhanced efforts will be made to conserve water during drought, including:

- Expanding distribution system water audits, leak detection and repair.
- Implementing water theft prevention programs (monitor for mismatches in water deliveries against water sales).
- Limiting landscape irrigation at supplier facilities and working with other local governments to reduce outdoor water uses (i.e., reducing irrigation of medians and parks, replacing lawns with water wise landscaping).
- Reducing water usage for main flushing, and capturing flushed water for irrigation or other uses where possible.
- Expediting identification, testing, and replacement of aged, broken, leaking, and inaccurate meters and other appurtenances.
- Conducting an audit of fixtures (toilets, sinks, etc.) at supplier facilities to determine if newer, higher-efficiency options are available for retrofit.
- Turning off and draining any decorative fountains at District facilities.

4.2.3 Public Outreach Plan

Without exception, experience has shown that a well-informed public is generally more willing to respond to requests to voluntarily conserve or alter water use patterns, and will be more likely to comply if mandatory water use restrictions become necessary. DWR (2008) estimates that public information campaigns alone have reduced demand in the range of 5 to 20 percent, depending on the time, money, and effort invested by an agency. Public information campaigns support voluntary and mandatory reduction measures by educating and convincing the public that a critical water shortage exists and providing information on how water is used and how the public can help. The DWR Drought Guidebook uses the GWD experience during the 1987-92 drought to illustrate that when the public perceives the drought to be severe, behaviors change (such as flushing the toilet less often).

Information provided to the public should include descriptions of the conditions that will trigger implementation of the drought contingency plan and what the plan entails (restrictions, enforcement provisions, etc.). Providing practical “consumer” information will help water users comply with the plan. For example, information about restrictions on lawn watering might be accompanied with information about proper lawn watering practices.

A study examining the effectiveness of drought management programs in reducing residential water use (Virginia Polytechnic Institute 2006) showed considerable variation in the effectiveness of drought management programs and highlighted the importance of public information and enforcement. Results, shown in Table 4-3, indicate that overall reductions in residential water use ranged from 0 to 7 percent for voluntary restrictions and from 0 to 22 percent for mandatory restrictions. The observed differences were statistically attributed to information efforts for voluntary restrictions and both information and enforcement efforts for mandatory restrictions.

Table 4-3
Drought Program Management Variables Effect on Residential Water Use

Classification	Estimated Change in Water Use	Statistically Different than No Effect?
Voluntary Restrictions		
Little or no information disseminated	-2%	No
Moderate level of information	-2%	No
Aggressive information dissemination	-7%	Yes
Mandatory Restrictions		
Low information and low enforcement	-5%	No
Moderate information and low enforcement	-6%	Yes
Aggressive information and low enforcement	-12%	Yes
Low information and moderate enforcement	-4%	No
Moderate information and enforcement	-9%	Yes
Aggressive information and moderate enforcement	-15%	Yes
Moderate information and aggressive enforcement	-20%	Yes
Aggressive information and enforcement	-22%	Yes

Source: Virginia Polytechnic Institute 2006

The District will implement a public information campaign in all stages of drought, which will become more aggressive as the severity of the drought increases. While general media coverage of a drought is likely to increase awareness, the District will develop and implement an agency-specific, comprehensive outreach program. The goals of the outreach program will be to:

- Educate customers and public about state and local drought conditions.
- Make water shortage stages and customer responsibilities clear.
- Target specific customer groups with specialized messaging.
- Provide information to customers and general public that will assist in reducing water demand.

The District regularly communicates with its customers and has a long history of promoting conservation. Ongoing outreach activities include semi-annual customer newsletters, billing statement messages, and the District website. The District also participates in the Regional Water Efficiency Program (RWEP) with other Santa Barbara County water suppliers, which sponsors programs that promote water conservation and awareness, including WaterWiseSB.org, the water conservation website for Santa Barbara County. WaterWiseSB.org provides additional opportunities for regional collaboration and coordinated outreach.

District public outreach will be expanded beyond these existing ongoing efforts during anticipated water shortages, consistent with the Drought Outreach Plan. In addition to traditional outreach (newsletters, billing statements, website), the District should consider utilizing new and innovative outreach platforms, such as social media. Proposed outreach should include, but is not limited to:

- Using existing outreach platforms to communicate drought information including the District Newsletter, billing inserts, billing statements, etc.
- Development of drought related post-cards, flyers, and other collateral materials for distribution to District customers.
- Social media sites (YouTube, Twitter, Facebook, and Flicker) to distribute messaging.
- Customized state and regional partner outreach materials and links.
- Multi-media conservation campaign, including testimonial water conservation case studies, experiences and lessons learned from a variety of District customer types (residential, agricultural, institutional, and commercial). This campaign can be prepared in multiple formats (video, audio, print, and web).
- Enhanced community presence including participation in community events (Earth Day, Lemon Festival, Farmers Markets, etc), coordination with community organizations to disseminate information (University of California Santa Barbara, Chamber of Commerce, etc.) and distribution of District materials (handouts at schools, plumbing centers, hardware stores, City of Goleta, farmers markets, and community festivals).
- Targeted outreach (contact by letters and phone calls) to large water users and agricultural customers as appropriate.
- Employee outreach and education to insure consistent organization messages concerning drought and conservation.

Proposed outreach targets and goals are summarized below:

Outreach Target	Goals of Coordination
All customers of GWD	Educate customers and public about drought conditions
Targeted customer segments (Single-family Residential, Landscape Irrigation, Agriculture, etc.)	Make water shortage stages and customer responsibilities clear
	Target specific customer groups
General Public	Provide information to customers and general public that will assist them in reducing water demand

4.2.4 Demand Reduction Programs

The types of management measures and restrictions employed for each response stage are related to the severity of the water supply or demand conditions and to specific demand reduction targets for each stage. The following list of principles helped guide GWD's approach to restrictions and the associated customer communication and outreach described in this Plan:

- Eliminate waste: before requiring customers to reduce consumption, the focus should be on controlling waste and unnecessary use. This not only reduces consumption but, also demonstrates public commitment, leadership and sets an example for customers.

- Restrict less essential uses before essential uses.
- Affect individuals or small groups before affecting large groups or the public as a whole, allowing as much public activity as possible to be unaffected.
- Minimize adverse financial effects.
- Minimize and avoid irretrievable loss of natural resources.
- Enforce restrictions.

There are a variety of demand reduction techniques the District will implement to promote customer conservation during a water shortage, which fall into the following general categories described below.

Voluntary Water Use Reductions

All customers will be asked to voluntarily reduce their water usage by 20 percent during a Stage I Water Shortage. The District will provide water conservation tips and suggestions through various public touch points and outreach, encourage and distribute conservation devices such as low flow shower heads and faucet aerators, discourage excessive outdoor watering, and encourage planting of water wise plants. The District will also work with its largest customers (the University, the County, etc.) to reduce water consumption and will enhance water audits for various classes of customers.

Limits on Certain Uses

The District will place mandatory restrictions on certain uses, such as restricting outdoor watering to prescribed times and number of days per week beginning in Stage II, with days and times for landscape watering further limited in later stages. Limits may also include methods of irrigation (i.e., sprinkler ban).

Prohibitions

Prohibitions will vary by drought stage, with the fundamental purpose of prohibiting non-essential uses not required for basic health and safety. Specific prohibitions will be described in the Water Shortage Ordinance adopted by the Board of Directors. Examples include prohibition on the use of potable water to wash down driveways, sidewalks, and other hardscaping or paved surfaces; washing cars and boats, and use of water for decorative fountains, cooling purposes, and construction. In Stage V, all non-essential outdoor water use, except recycled water or grey water, will be banned. Prohibitions and the associated drought stage are summarized in Section 5.

Mandatory Requirements

The District will adopt regulations at the appropriate water shortage stage that require customers to take certain measures to promote water conservation, such as posting signage at various establishments, undergoing a water audit to maximize or demonstrate water conservation, and prescribing to customer-specific water budgets, where applicable. Water budgets establish a baseline for how much irrigation landscaping should require based on the size and type of grass, plants, and trees.

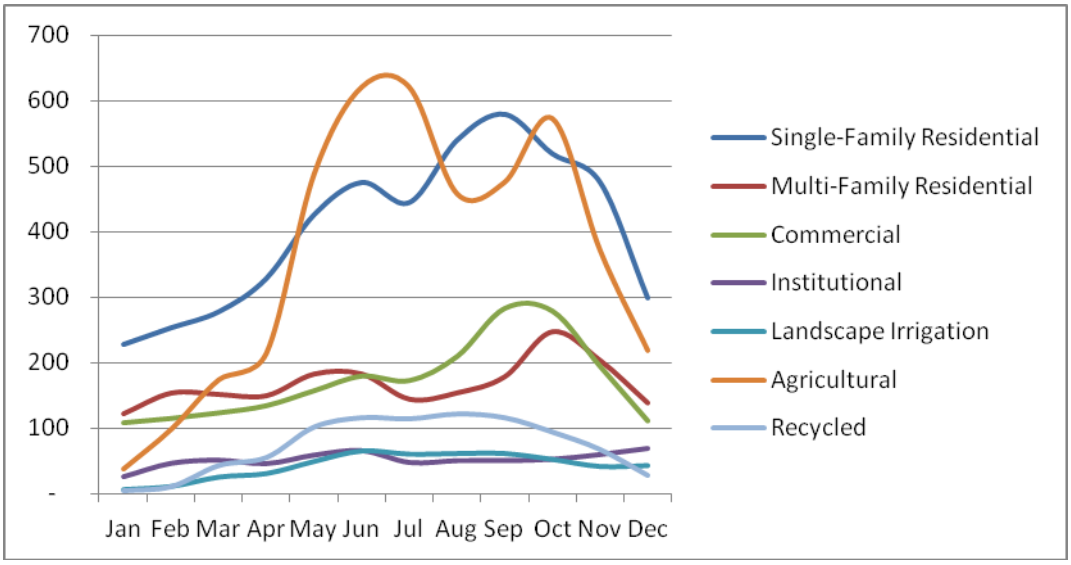
Outdoor-Focused Demand Reduction

Since an average of 50 percent of residential water use in Southern California is for outdoor landscape irrigation, restrictions on outdoor water use are generally highly effective in reducing

water demand (http://bewaterwise.com). Outdoor uses are typically considered to be discretionary or nonessential, are highly visible and relatively easy to monitor, and often are a substantial component of water demand, particularly during the summer months when drought conditions are often most severe.

GWD's seasonal variability in 2012 ranged from 33 to 87 percent. Monthly variability in water use for the different customer classes is provided in Figure 4-1. The range of water use by season underscores the importance of implementing outdoor landscape-focused reduction programs.

Figure 4-1
Variability in Total Monthly Water Use (AFY) for Different District Customers



Given the significance and visibility of lawn watering as the predominant component of seasonal use, best management practices in drought contingency plans typically prescribe time-of-use and other restrictions on lawn watering. While soil conditions and the type of grass are critical to any lawn's ability to survive with reduced watering, lawn watering restrictions are based on prevailing conditions in the District's service area.

According to studies by the American Water Works Association (2011), a twice-a-week watering schedule is preferable to an alternate-day lawn watering schedule. For example, residences with street addresses ending in even numbers are allowed to water on Sundays and Thursdays and those with addresses ending in odd numbers are allowed to water on Saturdays and Wednesdays. This schedule, coupled with allowances for "anytime watering" with a hand-held hose, bucket, or drip irrigation system, should provide most users with adequate opportunity to maintain both a healthy and attractive landscape.

Kenney, Klein, and Clark (2004) conducted a study of water conservation measures implemented by several cities in Colorado during drought conditions in the summer of 2002 and found that restrictions were an effective tool in meeting demand reduction goals. The study found that during periods of mandatory restrictions savings of 18 to 56 percent were achieved, meeting suppliers' reduction goals. Voluntary restrictions yielded 4 to 12 percent reductions. Many of the water providers specified the time of day watering was to occur, special rules for irrigating trees, and allowances for hand watering. Restrictions, both voluntary and mandatory, were combined with

public education campaigns and sometimes included other measures (e.g., price increases). Four of the water providers limited lawn watering to once every three (3) days and saw an average reduction of 22 percent. Three providers limited lawn watering to twice a week and saw an average reduction of 33 percent. One provider limited lawn watering to once a week and saw a reduction of 56 percent. For these studies, water use was calculated as "expected use per capita", which is a comparison of actual per capita use (deliveries) in 2002 with the level of use anticipated in 2002, had watering restrictions not been in effect and given the adverse climatic conditions associated with drought. They also saw similar results looking at "net use", which is a calculation that compares daily system-wide water deliveries in 2002 to the 2000 to 2001 average for the same dates.

4.2.5 Enforcement

Mandatory restriction programs require a system of enforcement, which typically combines both monitoring and penalties. Monitoring includes activities to identify instances of noncompliance, and programs are generally most successful when the enforcer has physical presence in the community, combined with a mechanism for residents to report violations. Ultimately, enforcement also requires a system of credible repercussions for those found to be violating the provisions of a drought management program.

GWD may utilize penalty fees and excess use fees as an enforcement tool. District Code Chapter 6.20.110 authorizes fines and penalties for violations of District rules and regulations. Penalty fees apply in situations involving a violation of water restrictions and will include the issuance of written warnings. Fines (penalties) are charged for repeat offenders.

In addition to fees, the District may provide for the installation of flow restrictors that will provide the minimum water flow needed for health and safety purposes. In these extreme cases of repeated violations, the customer will be charged a fee to cover the cost of installation of the flow restrictor. The flow restrictor will remain in place for a period of time to be determined by the General Manager. The customer would pay the cost of removal of the device. The District will not use flow restrictors where fire suppression sprinklers are on the same line as the water provided for domestic purposes.

Enforcement mechanisms associated with each water shortage stage are discussed in Section 5 of this Plan. Specific enforcement details, including the use and amount of penalty fees, will be established in the Water Shortage Ordinance requirement associated with the specific water shortage stage.

4.3 Interagency Coordination

Successful implementation of this Drought Preparedness and Water Contingency Plan will require coordination and communication with agencies that supply water to GWD, neighboring retail water agencies, and land use agencies, for the purposes of water supply planning and public outreach coordination.

4.3.1 Supply Planning

The District will meet with CCWA, COMB, and Goleta Sanitary District as appropriate to confirm assessment of supplies, discuss supplemental supplies potentially available to the District, and identify and refine supply alternatives (such as implementing measures that will increase the

amount of water that can be pulled from the lake) and supply enhancement options. In years where conditions are particularly dry or are preceded by a dry year, the District will begin modeling its anticipated available supplies and projected demand based on current trends to determine any potential shortfall in supplies during the following 12 and 24 month periods.

4.3.2 Public Outreach Coordination

The District will meet with retail water agencies and land use agencies is to ensure that residents in the Goleta area are receiving consistent messages about the drought and water shortage severity, and are aware of the actions they can take to reduce demand. Key agencies would include the Cities of Goleta and Santa Barbara, and the County of Santa Barbara. The District and these agencies already have many forums in which they interact. The District will continue and intensify this interaction during drought. The intent of these meetings will be to develop a common message to the community about the drought and to find opportunities to share costs (e.g., share costs of radio announcements and newspaper advertisements). As the drought progresses, the meetings will serve to refine the drought messaging to address any common misconceptions or common customer questions.

4.4 Staff Resources

Enforcement, increased customer inquiries, and other water shortage related actions may necessitate the need for additional staff resources if drought conditions persist. Following are examples of areas that may require additional staff resources and training:

- Goleta Water District service area and customer types
- Customer service standards
- Customer billing system
- Public outreach materials
- Assistance available to customers to reduce water use
- Water rates, charges, and penalties
- Water use restrictions and allocations
- Enforcement of water use restrictions and allocations
- District safety standards

4.4.1 Water Shortage Response Team

Forming a Water Shortage Response Team is a critical step in the successful implementation of this Plan. The Water Shortage Response Team should include the functions listed below to ensure a coordinated and consistent response across the entire organization. The Water Shortage Response Team will be formed as soon as a potential shortage is identified and will remain in operation until the drought declaration is lifted.

- ***General Manager***. Provides the overall direction on the response.
- ***Assistant General Manager.*** Functions to manage the overall response, assign staff, and outreach to customers. This person should have the authority to speak to the Board of Directors, the public, and the media.

- ***Water Supply and Conservation Manager.*** Familiar with District water sources. Identifies opportunities for new supply or alternative supplies as well as expanded use of non-potable supplies. Develops costs for supply alternatives. Oversees implementation of outreach and conservation programs. Provides liaison with customers to implement demand reduction and provides costs estimates for different demand reduction programs.
- ***Operations Manager.*** Implements programs to reduce system water use. Oversees the team that will provide field enforcement in coordination with Water Supply and Conservation Manager. Monitors daily customer demand/system production and trends.
- ***Chief Financial Officer/Administrative Manager.*** Oversees cost estimates for supply alternatives and demand reduction programs, estimates changes in revenue, and provides guidance on use of reserve funds, and recommended rate changes.
- ***Chief Engineer.*** Plans, designs, and oversees development of new and expanded supply infrastructure, such as well rehabilitations or intertie construction.
- ***Chief Communications Administrator.*** Develops and implements Drought Outreach Plan, implements customer outreach campaigns with local newspapers, billing inserts, direct mail, radio, television, and other drought/water shortage-related tasks.
- ***Customer Service Supervisor.*** Oversees staffing for customer service needed during drought, including the appeals process associated with water allocations, staffing for any water "water waste" hotlines, creation of door hangers and violation notices, and handles changes to the customer billing system.
- ***Legal Counsel.*** Reviews legality of programs, moratorium, rate changes, interagency agreements, contracts, and other legal matters.

These roles will be needed during all stages of drought and likely can be staffed using GWD's existing organizational structure.

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Section 5: Water Shortage Actions

This Section provides an action plan for implementing each water shortage stage. The actions to be taken during each stage are generally broken into five categories:

- Public Outreach Plan
- Demand Reduction Programs
- Enforcement
- Other Operational Actions

5.1 Pre-Water Shortage

While water supply planning is a year-round task, the District generally begins assessing its water supplies for the following year in October, concurrent with the beginning of the Cachuma Water Year. This allows the District to plan for the resources needed to mitigate supply and begin customer outreach to manage demand if a water shortage is anticipated. In years where conditions are particularly dry or are preceded by a dry year, the District will begin modeling its anticipated available supplies and projected demand based on current trends to determine any potential shortfall in supplies during the following twelve and twenty four month periods. Following is a summary of the activities that take place prior to declaration of a water shortage:

- Monitor supply sources available to the District for the coming 12 month and 24 month periods (during drought, supply and demand monitoring is ongoing until the drought/water shortage ends).
- Monitor customer demand trends.
- Prepare initial assessment of supplies.
- Coordinate with CCWA, COMB, and Goleta Sanitary District as appropriate to confirm assessment of supplies and identify additional supply mitigation options.
- Determine initial shortage estimate.
- If shortage anticipated, form Water Shortage Response Team and prepare informational update for the Water Management and Long Range Planning (WMLRP) Committee.
- Evaluate potential supply enhancement and mitigation options (discussed in Section 4.1).
- Review and update communications plan and public outreach plan.

Under normal water supply conditions, potable water production figures are recorded daily. The District includes monthly water production totals as part of their monthly report to the State Department of Health Services. During a drought or water shortage emergency, production figures are monitored on a weekly basis to ensure that demand reduction and water production targets are being met.

5.2 Stage I Water Shortage

- **Customer Conservation Goal: 20%**[4]
- **Demand Reduction Measures: Voluntary**

The District Board of Directors will declare a Stage I Water Shortage when any of the following conditions is met:

- District water supply is 85 to 90 percent of normal (10 to 15 percent supply deficiency) for the next twelve months.
- District water supply is insufficient to provide 80 percent of normal deliveries for the next twenty four months.
- Contamination of 10 percent of water supply (pollutant exceeds primary drinking water standards).

In anticipation of any one of the above circumstances, staff should prepare a water supply and demand update for the WMLRP Committee recommending that the Board of Directors declare a Stage I Water Shortage. Following review by WMLRP, an item should be taken to the Board of Directors regarding a Stage I Water Shortage Declaration if conditions so warrant. The information presented to the Board of Directors and its appropriate Committees should include:

- A water supply analysis, providing an update on the current and projected status of District water supplies.
- A demand analysis providing an overview of current demand and how the District is calculating projected demand.
- Water shortage stage planning, including a potential water shortage stage timeline.
- Stage I implementation details, including the tools and programs the District has in place to successfully implement Stage I demand reductions. This may include topics such as public outreach, customer demand reduction programs, supplier efficiency actions, and any additional planning currently underway.

The Board of Directors shall then adopt a Resolution Declaring a Stage I Water Shortage the month the water shortage conditions related to Stage I (i.e., triggers) are effective, and urge the public to engage in water conservation activities and reduce water use by 20 percent. District staff shall subsequently implement the following Stage I Water Shortage measures.

5.2.1 Public Outreach Plan – Stage I

To maximize the level of voluntary customer conservation the Stage I declaration will be coupled with an aggressive public outreach campaign presented to the District Public Information Committee. Public outreach efforts will focus on educating District customers and the general public about current supply and demand conditions, encouraging customers to understand and commit to further reducing their water use, and providing tools and resources to customers so they can successfully reduce use. Outreach activities include:

[4] While the system-wide reduction target is 15%, the conservation goal the District will set for its customers is 20%.

- Press Release following Board Stage I Declaration.
- Development of a Water Shortage Declaration media kit.
- Media interviews and inquiries.
- District Newsletter – Water Supply Story, General Manager's Message, and Water Conservation Tips.
- District website – Updates to the home page, conservation, and water supply sections to provide conservation tools and tips for customers.
- Ongoing conservation related billing statement messages.
- Coordination with regional and statewide partners on messaging and outreach.
- Development and utilization of customized state and regional partner outreach materials and links (SaveOurH20, ACWA, WaterWiseSB, etc.).
- Outreach at community events (i.e., the Santa Barbara Home and Garden Expo, Santa Barbara Association of REALTORS workshop, school fairs and programs, workshop with landscaping professionals, etc.).
- Outreach to hotels and restaurants to establish opportunities for customers to request daily washing of linens and water for the table, respectively.
- District employee outreach and education to promote consistent organizational messages related to water supply and conservation.

5.2.2 Demand Reduction Programs – Stage I

Achieving Stage I demand reduction targets will rely largely on public outreach, discussed above. The following additional measures will be taken to facilitate customer conservation, and are consistent with state law, drought management guidelines, and industry best practices:

- Accelerate audit and incentive programs for agriculture, large customers, and irrigation accounts.
- Identify largest water users in each sector and contact for complementary water audits.
- Identify and notify customers of possible leaks.
- Encourage use of drip irrigation and drought tolerant plants.
- Enforce prohibition of water theft.[5]

5.2.3 Enforcement – Stage I

During a Stage I Water Shortage, enforcement is minimal and will rely primarily on observations of District staff in the field and customer reports of violations. Enforcement in Stage I will include:

- Active enforcement of water waste prohibition (District Code 6.20.070).

[5] Water delivered by the District may not be transported to an off-site location or resold pursuant to District Code Section 6.20.030.

- Water conservation hotline to allow customers to report water waste and leaks.

Customers found to be in violation will be issued a written warning, and may be subject to a fine as authorized by the District Code (6.20.110).

5.2.4 Other Operational Actions – Stage I

Additionally, actions should be taken by District staff to determine impacts of the drought and demand reductions on District operations and prepare for implementation of subsequent water shortage stages. Other operational actions in Stage I include:

- Implement supplier efficiency actions.
- Review District facilities, water fixtures, and landscaping for efficiency and identify any areas for improvement.
- Reduce water usage for main flushing, street flushing, and hydrant flushing.
- Intensify maintenance efforts to identify and correct water leaks in the distribution system.
- Drain and shut off decorative fountains at District facilities.
- Increase frequency and intensity of interagency coordination for the purposes of water supply planning and public outreach coordination, as discussed in Section 4.3 of this Plan.
- Provide customer service staff with information, resources, and talking points to address customer inquiries related to the drought and water shortage declaration.
- Begin drafting Board Resolution, code changes and regulations that will go into effect when a Stage II declaration is made.
- Plan for the funding and implementation of specific conservation programs that will be launched with subsequent water shortage stages.
- Review potential fiscal impacts of drought (i.e., increased water supply, operational, and capital costs); and demand reduction (reduced revenue).
- If needed, start process for evaluating need for and establishing drought surcharge or special rates, which may include consulting special counsel and hiring financial consultants.
- Determine method for charging fees and penalties for customer violations during Stage II (and subsequent stages).
- Identify and plan for the need for additional staff. In planning for additional staff, consideration should be given to available office space, office equipment, computers, and furniture. Field personnel will require items such as cell phones, tablet computers, and vehicles.
- Prepare implementation process for Stage II restrictions.
- Prepare appeals process for Stage II restrictions.

5.3 Stage II Water Shortage

- **Customer Conservation Goal: 25%**
- **Demand Reduction Measures: Mandatory: limits and prohibitions on certain uses**

A Stage II Water Shortage is declared when any of the following conditions is met:

- District water supply is 75 to 85 percent of normal (16 to 25 percent supply deficiency) for the next twelve months.
- District water supply is insufficient to provide 75 percent of normal deliveries for the next twenty four months.
- Contamination of 20 percent of water supply (pollutant exceeds primary drinking water standards).

In anticipation of any one of the above circumstances, staff should prepare a water supply and demand update for the WMLRP Committee recommending that the Board of Directors declare a Stage II Water Shortage. Following WMLRP review, an item should be taken to the Board of Directors regarding a Stage II Water Shortage Declaration. The information presented to the Board of Directors and its appropriate Committees should include:

- A water supply update, including current and projected status of District water supplies.
- Demand management activities, including all of the activities being implemented under the Stage I Water Shortage (supplier efficiency, demand reduction programs, community involvement, regional partnerships and programs, public outreach, media relations, etc.).
- A customer demand update including actual water demands, how customers have responded to requests for voluntary conservation (Stage I), and projected water use going forward.
- Supply management activities, including how supply sources are being prioritized, capital projects planned or underway that will augment supplies, recycled water options, and any other supply management activities.
- Stage II implementation details, including the tools and programs the District has in place to successfully implement additional demand reduction programs and prohibitions, if needed. This may include topics such as public outreach, customer demand reduction programs, supplier efficiency actions, and any additional planning currently underway.
- Next steps, including potential timing of subsequent stages.

Any proposed changes to the District Code as a result of the Water Shortage Declaration should be reviewed and approved by the Administration Committee prior to consideration by the Board of Directors. The Board shall then adopt a Resolution and/or Ordinance Declaring a Stage II Water Shortage and establishing rules and regulations for addressing the water shortage. District staff shall subsequently implement the Stage II Water Shortage measures described below.

5.3.1 Public Outreach Plan – Stage II

Public outreach efforts associated with Stage II will focus on further educating and informing District customers and the general public about current supply and demand conditions, notifying customers of new demand reduction targets (25 percent), prohibited activities, and associated penalties for violations, and directing customers to tools and resources that will help them conserve water. Outreach activities include:

- Press Release following Board declaration of a Stage II Water Shortage.
- Targeted outreach to customers with large landscapes regarding irrigation restrictions (i.e., schools, parks, property managers, etc.).
- Postcard or letter to all District customers notifying of demand reduction programs/requirements.
- Publish information on how to preserve most valuable landscaping (trees, edible plants, etc.), including appropriate watering systems and use of gray water.
- Enlist support of business groups, such as the Chamber of Commerce, to help encourage conservation among commercial customers.
- Educate customers on how to perform regular household meter reading and leak detection.
- Publish "conservation stories" featuring individuals and business demonstrating leadership in water conservation.
- Continued implementation of all other public outreach actions of Stage I (newsletter articles, media interviews, media kit, billing statement messages, District employee outreach, etc.).

5.3.2 Demand Reduction Programs – Stage II

Achieving Stage II demand reduction targets will rely heavily on water use limits and prohibitions that will reduce non-essential use, as well as ongoing, intensified public outreach. The following additional measures may be taken during Stage II:

- Enact and implement water waste restrictions, which may specifically include:
    - No washing down of sidewalks, driveways, parking lots, or other hardscapes, unless necessary to protect public health and safety.
    - No flooding or runoff into streets or gutters.
    - Prohibit potable water to escape from breaks within the customer's plumbing system for more than 48 hours after the customer is notified or discovers the break (or provide proof of scheduling repair).
- Potable water not to be used to clean, fill, or maintain levels in decorative fountains, with certain exceptions that will be identified in the Water Shortage Ordinance associated with a Stage II declaration.
- Encourage the use of pool covers when not in active use.
- Promote meter reading and leak detection by all customers.

- Restrict landscape irrigation to designated times (i.e., no watering between the hours of 10:00 AM and 4:00 PM) to be specified in the Water Shortage Ordinance.
- Restrict landscape watering to no more than two days per week (would not apply to agricultural customers). For example:
    - Odd residential addresses to water Saturday and Tuesday.
    - Even residential addresses to water Sunday and Wednesday
    - Commercial, industrial, and institutional customers to water Monday and Friday
- Encourage large landscapes to adhere to water budgets where requested by the District.
- Prohibit exterior washing of buildings, dwellings, or other structures (with certain exceptions to be addressed in the Water Shortage Ordinance).
- Prohibit vehicles and boats to be washed except at commercial car washing facilities, or by use of a bucket and/or hose equipped with a shutoff nozzle.
- Prohibit draining and refilling of swimming pools (with certain exceptions to be addressed in the Water Shortage Ordinance), unless specifically authorized.
- Encourage hotels, motels, and other lodging to post notice of shortage condition with tips in every guest room and refrain from daily linen washing unless specifically requested by patron.
- Encourage gyms, athletic clubs, public pools, and other similar establishments to post water shortage signs at their facilities, and encourage shortened showers.

5.3.3 Enforcement – Stage II

Similar to Stage I, enforcement of demand reduction programs during a Stage II Water Shortage will rely largely on observations of field staff and customer reports of violations. Additional enforcement mechanisms that will be implemented during a Stage II Water Shortage include written citations, fines, and potential installation of flow restrictors, as detailed below.

In addition to any other penalty permitted by law, the following penalty system may apply to violations of the water use restrictions and limitations discussed above. Specific details and monetary penalty amounts will be established in the Water Shortage Ordinance.

- ***First Violation: Customer notification and education.*** The customer will be notified by District staff of the particular violation observed, and the demand reduction programs (restrictions, limitations, etc.) currently in place. The customer will be directed to resources and tools that will help them comply with requirements. Examples of notification include information posted on the customer's door, mailed materials, and personal or phone contact by District staff.
- ***Second Violation: Written citation.*** The District will issue a written notice notifying the customer of the specific violation, date and time the violation was observed, and consequences for subsequent violations.
- ***Subsequent Violations: Fine.*** The District may impose a penalty fee (fine) for violation of demand reduction programs, the amount of which will be established in the Water Shortage Ordinance.

- ***Flow restrictor.*** The District may install a flow restrictor on the service where the violation occurred, for a period to be determined by the General Manager.
- Continued use of water conservation hotline will allow customers to report water waste and leaks.
- Enforcement of water waste prohibitions, including hiring/assigning additional field staff as necessary.

5.3.4 Other Operational Actions – Stage II

Additionally, the following actions should be taken by District staff to determine impacts of the drought and demand reductions on District operations and prepare for implementation of subsequent water shortage stages. Other operational actions of Stage II include:

- All supplier efficiency actions of Stage I.
- Comply with all customer restrictions detailed above.
- Convene an appeals process for exceptions and appeals of penalties (staffing, forms, etc.).
- Increase frequency and intensity of interagency coordination for the purposes of water supply planning and public outreach coordination, as discussed in Section 4.3 of this Plan.
- Begin implementing specific conservation programs that will be launched with Stage II (i.e., landscape rebates, toilet rebates, etc.).
- Review additional fiscal impacts of drought (i.e., increased water supply, operational, and capital costs); and demand reduction expected during Stage II (reduced revenue).
- Continue process for evaluating need for and establishing drought surcharge or special rates, which may include consulting special counsel and hiring financial consultants.
- Prepare utility billing system (or other customer information system) and bill format to accommodate chosen approach to drought rates, if applicable.
- Increase customer service training and support to address Stage II requirements, fees and penalties, etc.
- Identify and plan for the need for additional staff (see Stage I).
- Defer previously scheduled capital projects as necessary to invest in water supply augmentation.
- Provide updates to the Administration, Public Information, and WMLRP committees, and the Board of Directors, as appropriate.
- Begin preparing for implementation of Stage III, as appropriate.

5.4 Stage III Water Shortage

- **Customer Conservation Goal:** **35%**
- **Demand Reduction Measures:** **Same as Stage II, but more severe Potential drought rates**

A Stage III Water Shortage is declared when any of the following conditions is met:

- District water supply is 65 to 75 percent of normal (26 to 35 percent supply deficiency) for the next twelve months.
- District water supply is insufficient to provide 65 percent of normal deliveries for the next twenty four months.
- Contamination of 30 percent of water supply (pollutant exceeds primary drinking water standards).

In anticipation of the need for a Stage III Water Shortage Declaration, staff should prepare a water supply and demand update for the WMLRP Committee recommending that the Board of Directors declare a Stage III Water Shortage. Subsequently, an item should be taken to the Board of Directors regarding a Stage III Water Shortage Declaration. The information presented to the Board of Directors and its appropriate Committees should include:

- A water supply update, including current and projected status of District water supplies.
- A customer demand update including actual water demands, how customers have responded to the call for a 25 percent demand reduction for Stage II (use limits and prohibitions, etc.), and projected water use going forward.
- Supply management activities, including how supply sources are being prioritized, capital projects planned or underway that will augment supplies, recycled water options, and any other supply management activities.
- Demand management activities, including all of the activities being implemented under the Stage II water shortage (supplier efficiency, demand reduction programs, community involvement, regional partnerships and programs, public outreach, media relations, etc.).
- Stage III implementation details, including the tools and programs the District has in place to successfully implement Stage III demand reduction programs and prohibitions. This may include topics such as public outreach, customer demand reduction programs, drought rates, supplier efficiency actions, and any additional planning currently underway.
- Next steps, including potential timing of subsequent stages.

Any proposed changes to the District Code as a result of the Water Shortage Declaration should be reviewed and approved by the Administration Committee prior to consideration by the Board of Directors. Following review by the Board's Committees, the Board shall adopt a Resolution and/or Ordinance Declaring a Stage III Water Shortage and establishing rules and regulations for addressing the water shortage. District staff shall subsequently implement the Stage III Water Shortage measures described below.

5.4.1 Public Outreach Plan – Stage III

Public outreach efforts associated with Stage III will focus on large reductions in outdoor water use, notifying customers of heightened demand reduction targets and new rates (if applicable), and directing customers to tools and resources that will help them conserve water. Outreach activities include:

- Press Release following Board Stage III declaration.
- Consider hiring a third party to assist with the launch of a major publicity campaign.
- Postcard/mailer to all customers regarding rate changes (if applicable).
- Publish weekly demand charts in a local newspaper.
- Expand and intensify all other public outreach actions of Stages I and II (newsletter articles, media interviews, media kit, billing statement messages, District employee outreach etc.).

5.4.2 Demand Reduction Programs – Stage III

Achieving Stage III demand reduction targets will continue to rely heavily on water use limits and prohibitions that will reduce non-essential use coupled with possible implementation of drought rates. Drought rates, to be developed in compliance with the requirements of Proposition 218, will serve as the primary disincentive for high water use (discussed further in Section 6 of this Plan). The tiered rates will be designed to ensure the District can meet the system-wide reduction targets by discouraging excessive nonessential use beyond what is needed for health and safety. The following additional measures may be taken during Stage III:

- Reduce water budgets for large landscapes.
- Encourage all commercial (non-residential) customers to prominently post water shortage signage with specified language at specified locations.
- Further restrict designated times for landscape irrigation (i.e., no watering between the hours of 9:00 AM and 9:00 PM).
- Continue to enforce the demand reduction programs established during Stage II, with any applicable modifications to programs under Stage III.

5.4.3 Enforcement – Stage III

Specific enforcement mechanisms for Stages III, IV, and V will be established in the respective Water Shortage Ordinance. Generally, the District will use drought rates to drive customer conservation, although penalty stages may change, as reflected below, and penalty fees may increase. Stage III enforcement will include:

- Implementation of drought rates.
- Modification of penalties for violations to allow for only one written warning (citation) prior to incurring a penalty fee.
    - ***First Violation: Written citation.*** The District will issue a written notice notifying the customer of the specific violation, date and time the violation was observed, and consequence for subsequent violation(s).

- ***Subsequent Violations:***
  - ***Fine*** **-** The District may impose a penalty fee (fine) for violation of demand reduction programs, the amount of which will be identified in the Water Shortage Ordinance.
  - ***Flow restrictor*** – The District may install a flow restrictor on the service where the violation occurred, for a period to be determined by the General Manager.

- Increased penalty fees.
- Expanded water waste enforcement (i.e., additional field staff).

5.4.4 Other Operational Actions – Stage III

Additional actions that should be taken by District staff to determine impacts of the drought and demand reductions on District operations and prepare for implementation of subsequent water shortage stages include:

- All supplier efficiency actions of Stages I and II, plus intensify system leak detection and repair.
- Adopt drought rates in compliance with Proposition 218 requirements (discussed further in Section 6).
- Adjust billing format as necessary to accommodate rate changes.
- Increase frequency and intensity of interagency coordination.
- Continue implementing specific conservation programs launched with Stage II, as appropriate.
- Continue to review additional fiscal impacts of drought.
- Identify and plan for the need for additional staff.
- Begin preparing for implementation of Stage IV.
- Provide regular updates to the Administration, Public Information, and WMLRP committees, and the Board of Directors, as appropriate.

5.5 Stage IV Water Shortage

- **Customer Conservation Goal: 45%**
- **Demand Reduction Measures: Same as Stage III, but more severe**

A Stage IV Water Shortage is declared when any of the following conditions is met:

- District water supply is 55 to 65 percent of normal (36 to 45 percent supply deficiency) for the next twelve months.
- District water supply is insufficient to provide 55 percent of normal deliveries for the next twenty four months.
- Contamination of 40 percent of water supply (pollutant exceeds primary drinking water standards).

As with previous water shortage stage declarations, staff should prepare a water supply and demand update for the WMLRP Committee, as well as presenting all proposed revisions to the District Code associated with a Stage IV Water Shortage to the Administration Committee. The Board of Directors shall adopt a Resolution and/or Ordinance Declaring a Stage IV Water Shortage. The information included in the staff reports and attendant Resolution and/or Ordinance should mirror the format and information provided in the Stage III declaration.

5.5.1 Public Outreach Plan – Stage IV

Public outreach efforts associated with Stage IV will focus on large reductions in outdoor water use and educating customers on the severity of the water supply situation. Outreach activities include:

- Press Release following Board Stage IV declaration.
- Implement major publicity campaign initiated during Stage III.
- Provide regular media briefings and updates on supply situation.
- Expand and intensify all other public outreach actions of Stages I – III (newsletter articles, demand graph, media interviews, media kit, billing statement messages, District employee outreach, etc.).

5.5.2 Demand Reduction Programs – Stage IV

The following additional demand reduction programs may be employed during Stage IV Water Shortage.

- Prohibit irrigation of roadway median strips with potable water.
- Limit the use of potable water on golf courses to the irrigation of putting greens and tees.
- Prohibit filling of new swimming pools, spas, hot tubs, or the draining and refilling of existing pools.
- Further reduce water budgets for large landscape customers to irrigate only the most valuable plants and trees.
- Restrict landscape watering to 1 day per week.
- Prohibit use of sprinklers (hand watering only).
- Prohibit irrigation of turf/lawn with potable water (irrigation with recycled water is permitted).
- Prohibit on-site vehicle washing, such as company fleets, dealer lots, etc.
- Continue to enforce the demand reduction programs established during Stages II and III, with any applicable modifications to programs under Stage III.

5.5.3 Enforcement – Stage IV

During a Stage IV Water Shortage, the District should expand water waste enforcement to 24 hours a day, and increase drought rates and penalty fees and continue to implement enforcement mechanisms of Stages I, II, and III.

5.5.4 Other Operational Actions – Stage IV

Additional actions that should be taken by District staff to determine impacts of the drought and demand reductions on District operations and prepare for implementation of a potential Stage V Water Shortage include:

- All supplier efficiency actions of Stages I – III.
- Publicly notice rate increase (if applicable).
- Continue implementing specific conservation programs, as appropriate.
- Continue to review additional fiscal impacts of increased water supply costs and demand reduction revenue loss.
- Increase administrative staff as necessary to handle increase in appeals, appeal hearings, customer inquiries, etc.
- Increase field staff as necessary to implement 24/7 enforcement of demand reduction programs, install flow restrictors, and/or facilitate shut offs.
- Establish a control center for centralized monitoring of customer demand, reservoir levels, and water supply and production.
- Begin preparing for implementation of Stage V.
- Provide regular updates to the Administration, Public Information, and WMLRP committees, and the Board of Directors, as appropriate.

5.6 Stage V Water Shortage

- **Customer Conservation Goal: 50% or greater**
- **Demand Reduction Measures: Same as Stage IV, but more severe**

A Stage V Water Shortage is declared when any of the following conditions is met:

- District water supply is less than 55 percent of normal (46 percent or higher supply deficiency) for the next twelve months.
- District water supply is insufficient to provide 50 percent of normal deliveries for the next twenty four months.
- Contamination of 50 percent or more of water supply (pollutant exceeds primary drinking water standards).
- Unanticipated loss of water distribution or supply facilities due to disaster or emergencies.

Staff will present an update to the WMLRP Committee recommending that the Board of Directors declare a Stage V Water Shortage, as well as presenting all proposed revisions to the District Code associated with a Stage IV Water Shortage to the Administration Committee. The Board of Directors shall adopt a Resolution and/or Ordinance Declaring a Stage V Water Shortage. The information included in the staff reports and attendant Resolution and/or Ordinance should mirror the format and information provided in the Stages III and IV, with the

addition of any contingency plans that will be implemented during Stage V to ensure the continued delivery of water to the community.

5.6.1 Public Outreach Plan – Stage V

Public outreach efforts associated with Stage V will build on prior efforts and will incorporate implementation of the crisis communication plan included in the District Emergency Response Plan. Outreach activities will include:

- Press release following Board Stage V Declaration.
- Press event at the Goleta Water District Headquarters.
- Implement the District Emergency Response Plan, as appropriate.
- Continue to implement major publicity campaign launched during Stage III.
- Contact critical customers notifying them of the water supply situation (hospital, medical clinics, County jail, UCSB, and other large and critical users).

5.6.2 Demand Reduction Programs – Stage V

The following additional demand reduction programs may be employed during Stage V Water Shortage:

- Prohibit all outdoor irrigation consistent with the Stage V Water Shortage Declaration (with the exception of recycled water and gray water).
- No water for recreational purposes.
- Close public pools.
- Continue to enforce the demand reduction programs established during Stages II – V.

5.6.3 Enforcement – Stage V

During a Stage V Water Shortage, the District will continue the enforcement mechanisms implemented in Stage IV. Additional needs for enforcement will be assessed at the time a Stage V Water Shortage is declared and through its duration. If needed, the District may coordinate with local law enforcement to ensure compliance with demand reduction programs.

- Increase drought rates.
- Increase penalty fees.
- Continue to implement enforcement mechanisms of Stages I – IV.
- Coordinate with law enforcement as needed to address demand reduction program enforcement challenges.

5.6.4 Other Operational Actions – Stage V

Additional actions that should be taken by District staff to determine impacts of the drought and demand reductions on District operations and prepare for implementation of a potential Stage V Water Shortage include:

- Coordinate with the California Department of Public Health, local governments, and emergency response agencies regarding water quality and public health issues.
- Continue 24 hour per day water waste enforcement.
- Continue close monitoring and reporting of water production and consumption.
- Undertake emergency planning as needed to address escalating supply shortage.
- Explore possibilities for further enhancing supply, including:
    - Work with Cachuma Member Units to determine the feasibility of extracting water from the Lake Cachuma dead pool.
    - Consider options for providing financial support to the City of Santa Barbara in its efforts to reactivate the plant and receive some of the production. Additionally, if the City or any future desalination project partners have excess supplies following the reactivation of the desalination plant, there may be opportunities for the District to purchase a portion of excess supplies.

5.7 Water Shortage Conclusion

The water shortage ends when water supply and demand return to normal and are sufficiently balanced to provide adequate supplies without the need for restrictions or additional customer conservation and the conditions triggering a moratorium under the SAFE Ordinance are no longer present. Importantly, the thresholds identified in Table 3-1 must no longer be triggered. Staff will provide a water supply update to the WMLRP Committee recommending that the committee forward a recommendation to rescind the water shortage declaration to the Board of Directors. The Administration Committee should consider and recommend that the Board rescind the water use rules and regulations in effect as a result of the water shortage declaration. The activities listed below will be carried out following Board action:

- Issue a press release or public notice that the water shortage is over and communicate customer appreciation.
- Debrief staff involved in carrying out the water shortage plan regarding effectiveness of actions, identify lessons learned, and document recommended improvements for future water shortage events.
- Compile documentation and files of the water shortage event and related actions for future reference.
- Assess revenue losses and financial impact of water shortage.
- Review status and need for capital projects, programs, and initiatives that were deferred as a result of the water shortage.

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Section 6: Impact of Drought on District Finances

Developing alternative sources of supply and reducing customer demand in response to drought results in increases to water agency costs while reducing revenue. This section provides an overview of the various financial impacts that may occur during each of the water shortage stages. This section also provides an overview of how to plan for and mitigate the financial impacts of drought or prolonged water shortage.

6.1 Profile of Goleta Water District Costs and Revenues

6.1.1 Costs

GWD has three primary water systems to serve customers: a potable system that serves residential, commercial, institutional, and urban agriculture customers; a recycled water system that provides non-potable water for landscape irrigation and other approved non-potable uses; and a raw water delivery system (the Goleta West Conduit) which serves agricultural customers. Each system has associated fixed and variable costs. Fixed costs *do not* vary with the amount of water sold to customers and include items such as fixed contractual costs associated with the District water supply agreements, personnel expenses, and building maintenance. Approximately 90 percent of GWD's costs are fixed (CDM 2011). Variable costs *do* change based on the amount of water acquired, treated, and sold. Variable costs include commodity charges associated with the District water supplies, water treatment costs, distribution system O&M, special project and consultant costs, among others.

Table 6-1 provides a rough planning level estimate of the variable costs associated with the various water sources available to GWD. Table 6-1 includes variable costs only and does not reflect the full cost of providing service from a particular water source. As shown in the table, variable costs associated with potable water are approximately $0.54 per hundred cubic foot (HCF). This means as water sales decrease, costs for potable water also decrease by approximately $0.54 per HCF. While there is a minor savings for each unit of water that is not treated and delivered, any "savings" are greatly outweighed by the fixed costs. Even without diverting, treating, or delivering any water, GWD would have costs (in 2011 dollars) exceeding $26 million.

In addition, during drought, District costs are likely to increase as a result of water supply augmentation projects, increased operations and maintenance activities, incentive-based water conservation programs, as well as public outreach and education efforts. Additional costs may also include supplemental staff needed to carry out the water shortage contingency plan. The augmented Drought Response Team may be made up of a combination of staff reassigned from other duties, temporary hires, interns, and consultants; the exact composition will vary depending on District staffing composition at the time of the drought.

Table 6-1
Planning Level Variable Costs by Water Source
(FY 2011)

Current Variable Costs	$/HCF	$/AF	Notes
Potable Water (groundwater, CCWA, Cachuma Water)	0.54	235.22	(a)
Recycled Water	0.92	400.75	(b)
Raw Water (Goleta West Conduit)	0.07	30.49	(c)

Notes:
(a) Variable Costs from Cost of Service Analysis Table 2 less variable costs Recycled Water System and Goleta West Conduit. Assumes 5,145,000 HCF potable water.
(b) From Cost of Service Analysis Appendix 1, Water Purchases and O&M Expenses. Assumes 439,956 HCF recycled water.
(c) From Cost of Service Analysis Appendix 2, O &M Expenses, power purchases. Assumes 960,367 HCF raw water.

6.1.2 Revenues

The District does not receive property tax or other pass through revenue. Accordingly, customer rates and charges are the primary source of revenue for funding water system operations, emergency reserves, and capital projects. District revenues are derived from meter charges (fixed) and commodity rates (variable). In September 2011, GWD adopted a rate structure designed to ensure rates effectively match actual costs of providing water service. Under the District rate structure, meter charges make up approximately 30 percent of revenues and water sales make up approximately 70 percent of revenues. Current District commodity rates are show in Table 6-2 below. Projected revenues from water sales under normal circumstance as outlined in the District Five Year Financial Plan are shown in Table 6-3 (this table does not include meter charges or new service connection charges).

Table 6-2
Goleta Water District Commodity Charges

	FY 2013-14		FY 2014-15		FY 2015-16	
Commodity Charge	*$/HCF*	*$/AF*	*$/HCF*	*$/AF*	*$/HCF*	*$/AF*
Urban Low Water Use (less than 4 HCF)	$4.90	$2,134.44	$5.04	$2,195.42	$5.09	$2,217.20
Urban	$5.12	$2,230.27	$5.27	$2,295.61	$5.32	$2,317.39
Agricultural (potable water)	$1.38	$601.13	$1.42	$618.55	$1.43	$622.91
Recreation Irrigation[(a)]	$3.70	$1,611.72	$3.81	$1,659.64	$3.84	$1,672.70
Recycled Water	$2.96	$1,289.38	$3.05	$1,328.58	$3.08	$1,341.65
Agriculture (raw water)	$1.26	$548.86	$1.30	$566.28	$1.21	$527.08

(a) Recreation Irrigation is defined in the GWD Code as potable water service for irrigation that could be replaced with reclaimed water irrigation, except for the fact that the district's reclaimed water distribution system is not located to as to make reclaimed water deliveries available to the property (1.04.020).

Table 6-3
Projected Customer Water Sales Revenue

	FY 2013-14	FY 2014-15	FY 2015-16
Urban	$18,927,205	$19,570,676	$19,842,987
Single Family (~50% of Urban Demand)	$9,463,602	$9,785,338	$9,921,494
Multi-family (~20% of Urban Demand)	$3,785,441	$3,914,135	$3,968,597
Commercial (~23% of Urban Demand)	$4,353,257	$4,501,256	$4,563,887
Institutional (~7% of Urban Demand)	$1,324,904	$1,369,947	$1,389,009
Agricultural (potable water)	$971,128	$1,000,261	$1,010,264
Recreation (Potable Irrigation)	$689,713	$716,088	$729,035
Recycled Water	$873,684	$1,012,381	$1,136,117
Agriculture (raw water)	$605,341	$623,501	$629,736
Total Revenue from Water Sales	**$22,067,071**	**$22,922,908**	**$23,348,139**

Source: Five Year Financial Plan Projection, Scenario 4, Table 12. CDM 2011.

Any decrease in water sales results in a corresponding reduction of revenue. 2013-14 revenues from single-family customers are anticipated (assuming no drought-related reductions) to result in over $9 million in revenue (Table 6-3). Reduced sales to single-family residential customers in response to drought conditions will erode this revenue. Table 6-4 provides an estimate of impacts to revenue based on FY 2013-14 commodity rates, GWD current rate structure, and assuming a similar customer mix as year 2013. These estimates are for planning purposes only, but illustrate the potential magnitude of fiscal impacts if no revenue mitigation measures are implemented. Revenue may be reduced by approximately $3.6 million in a Stage I water shortage, but could be reduced by nearly $10 million in a Stage V water shortage.

Table 6-4
Estimated Revenue Impacts for Various Water Shortage Stages
(Assuming Customer Conservation Goals Met)

	Stage I	Stage II	Stage III	Stage IV	Stage V
Associated Reduction in Water Sales	15%	25%	35%	45%	50%+
Urban	($3,450)	($5,020)	($6,020)	($7,510)	($8,070)
Single Family (~50% of Urban Demand)	($2,370)	($2,840)	($3,570)	($4,400)	($4,670)
Multi-family (~20% of Urban Demand)	($380)	($760)	($650)	($800)	($850)
Commercial (~23% of Urban Demand)	($440)	($1,090)	($1,520)	($1,960)	($2,180)
Institutional (~7% of Urban Demand)	($260)	($330)	($280)	($350)	($370)
Agricultural (potable water)	$0	($150)	($390)	($580)	($730)
Recreation (Potable Irrigation)	($210)	($340)	($520)	($620)	($690)
Recycled Water	$0	$0	$0	$0	$0
Agriculture (raw water)	$0	($90)	($240)	($360)	($450)
Change in Revenue for Each Stage	**($3,660)**	**($5,600)**	**($7,170)**	**($9,070)**	**($9,940)**

6.2 Planning for Drought Impact on Finances

If a water shortage is anticipated or underway, GWD will evaluate the anticipated impacts to its operating costs as well as water sales revenues, as outlined in Table 6-5. The magnitude of financial impacts will vary based on the extent and duration of drought, but for conservative planning purposes, GWD will anticipate that overall costs will go up and overall revenues down.

Table 6-5
Potential Changes in Costs during Water Shortage Stages

	Water Shortage Stage				
	I	*II*	*III*	*IV*	*V*
Increased Costs:					
Water Purchases		✓	✓	✓	✓
Capital Projects to Improve Water Supply		✓	✓	✓	✓
Increased O&M Expenses from Change in Water Supply Mix (e.g., increased pumping costs)	✓	✓	✓	✓	✓
Additional Rebates and Conservation Actions	✓	✓	✓	✓	✓
Increased Communications Costs (e.g., advertising)	✓	✓	✓	✓	✓
Increased Staffing		✓	✓	✓	✓
Decreased Costs:					
Decreased O&M due to less water treatment and delivery	✓	✓	✓	✓	✓
Decreased Revenues:					
Decreased sales to Single Family customers	✓	✓	✓	✓	✓
Decreased sales to Multi-Family customers	✓	✓	✓	✓	✓
Decreased sales to Commercial customers	✓	✓	✓	✓	✓
Decreased sales to Institutional customers	✓	✓	✓	✓	✓
Decreased sales to Agricultural customers			✓	✓	✓

6.2.1 Water Rates

Proposition 218, *The Right to Vote on Taxes Act*, was passed by California voters in 1996. Proposition 218 has substantive and procedural requirements for fees related to "Property-Related Services". Under case law (*Bighorn-Desert Water Agency v. Verjil (2006) 39 Cal.4th 205, 212*), water service is a property related service. Any proposed changes to District rates and charges related to drought must undergo thorough legal review for compliance with the provisions of Proposition 218.

The substantive requirements of Proposition 218 are:

- Revenues cannot exceed the funds required to provide the property related service.
- Revenues cannot be used for any other purpose.
- The amount of the fee cannot exceed the proportional cost of the service attributable to the parcel.

The procedural steps to revise water rates compliant with Proposition 218 are:

- Determine the cost for providing different customer types water service.
- Propose rates to cover those costs.
- Send all customers of record a notice of the proposed rates and the procedure for protesting the proposed rates.
- Hold a public hearing.
- Solicit and tabulate protests to the proposed rates.

If a majority of protest is not received, then the rates can go into effect.

GWD undertook a rate setting process in 2011, which took approximately eight months. There is no clear exemption from the substantive and procedural requirements of Proposition 218 during an emergency, including drought.

Revising overall water rates is not a quick means to compensate for fiscal impact during drought, but it may be possible to impose drought surcharge in a relatively short timeframe (see below). The District would consider a rate revision over a multi-year drought, in the event a particular supply source is disrupted for an extended period, or to avoid implementing a water rationing/allocation program. Drought rates could be used to drive conservation and serve as a disincentive for high water use. The District will work with a financial consultant and legal counsel as needed to ensure development of drought rates complies with the requirements of Proposition 218.

6.2.2 Drought Surcharge

During the 2014 drought, many California water agencies are considering adding a drought surcharge to customer water bills. Rather than revising the overall water rates, these agencies are estimating just the cost of responding to the drought (e.g., cost of well deepening, cost of additional groundwater pumping, cost of additional conservation programs, cost of enforcement). The cost of the drought response is then applied as a surcharge to existing water bills until such time as the drought ends. A drought surcharge can be fixed (e.g., $5.00 per account), or variable where there is an additional increment of charge for each unit of water used. The drought surcharge is still subject to Proposition 218 requirements, but the analysis only needs to focus on specific limited costs. Documentation of anticipated costs and a transparent and well-explained record of the analysis and rate decisions is critical to establishing a drought surcharge in compliance with the provisions of Proposition 218.

6.2.3 Penalties

Penalties for exceeding water allocations, such as those described in Section 5 of this document, are not subject to Proposition 218. Penalties differ from water rates in that rates are meant to generate revenue while penalties are meant to encourage a change in customer behavior. Penalties result in limited and unpredictable revenues, and are therefore not a true mechanism to reduce the fiscal impact of a drought, but rather a function to drive customer conservation.

Penalties would apply in situations involving violation of water restrictions if, after warning is provided, a violation continued by a customer, with the penalty increasing with subsequent violations. The City of Santa Cruz used a four tier penalty structure in their 2009 Water Shortage

Contingency Plan ranging from $100 for the first violation to $1000 for the 4th violation, and recommended that additional, higher fees also be established and applied to large users willfully violating water restrictions. Below is the basic framework through which a penalty system would be implemented.

- First violation – customer notification and education.
- Second violation – customer receives written citation.
- Third and subsequent violation – The District may impose a penalty fee (fine) and may install a flow-restrictor on the service. If a flow-restrictor is installed, the violator pays the cost of the installation and removal of the device.[6] Any willful violation occurring subsequent to the issuance of the second written warning constitutes a misdemeanor and may be referred to the Santa Barbara County District Attorney's office for prosecution. In addition, Code Section 6.20.110 provides for a fine in the amount of $500 (this is the current charge, and is subject to change) and disconnection of water service. If water service is disconnected, it will be restored only upon payment of the turn-on charge set by the Board of Directors in addition to resolving any other outstanding requirements of the District rules and regulations, as provided for by District Code Section 6.28.100.

6.2.4 Reserve Funds

On April 12, 2011 the GWD Board of Directors adopted the below policy for reserve funds following an extensive review of District finances:

> "It is the policy of the District that the deposits and investments of the District safeguard the principal and maintain the liquidity needs of the District, providing the District with both (i) an unrestricted contingency reserve of $4 million (or such larger amount deemed by the General Manager to be necessary to meet significant unexpected capital project requirements) and (ii) working cash equivalent to one month of operations and maintenance expenditures."

The reserve funds could be used to compensate for decreased revenues during a drought; however there could be scenarios in which the reserve fund may be insufficient (i.e., extended droughts). In these scenarios, the District will need to revise water rates or impose a surcharge to cover drought-related operational costs. Alternatively, the District could consider establishing an additional reserve dedicated to rate stabilization during water shortages.

[6] A flow restrictor would function to limit water flow, thereby reducing water consumption by the customer.

Section 7: References

7.1 Section 2 References

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7.4 Section 6 References

City of Santa Cruz. 2009. Water Shortage Contingency Plan. March.

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Appendix A

SAFE Ordinance

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FULL TEXT OF MEASURE J94
GOLETA WATER DISTRICT

AN AMENDMENT TO THE SAFE WATER SUPPLIES ORDINANCE

THE PEOPLE OF THE GOLETA WATER DISTRICT, COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA, DO ORDAIN AND ENACT THE FOLLOWING ORDINANCE WHICH SHALL BE AN AMENDMENT TO THE SAFE WATER SUPPLIES ORDINANCE:

RECITALS:
WHEREAS, the voters of the Goleta Water District ("District") enacted the SAFE Water Supplies Ordinance ("SAFE") in June 1991 authorizing the participation by the District in the State Water Project and providing for the bond financing to develop the Project Facilities necessary for delivery of that water to the District; and

WHEREAS, the District is now a member of the Central Coast Water Authority, the members of which are cooperating collectively to develop the Project Facilities which are now under construction; and

WHEREAS, SAFE provides for the creation of a Drought Buffer of water stored in the Goleta groundwater basin to protect against future drought emergencies and a Water Supply Distribution Plan to protect the District's water supplies against new demands until deliveries from the State Water Project are available; and

WHEREAS, this proposed amendment to SAFE maintains all the provisions regarding the protection of water supplies provided by the Drought Buffer and the Water Supply Distribution Plan; and

WHEREAS, pursuant to provisions of the judgment in the lawsuit known as Wright v. Goleta Water District, the District is required to develop a Water Plan to provide the necessary water supplies to achieve a balance between supply and demand for water within the District. The District's Water Plan is based on continuing to use the maximum amount of water available from the Cachuma Project; prudent management of the Goleta groundwater basin; use of the newly constructed wastewater reclamation project to replace existing use of potable water for turf irrigation; a continuing water conservation planning effort; participation in the State Water Project; and the necessary level of commitment to a desalinated seawater project. As a result of the long-term water supply deficit in the District, the District has been operating under a water connection moratorium for over twenty years. Once fully implemented the District's Water Plan should provide adequate supplies to meet long-term water demand in the District; and

WHEREAS, the forty year water service contract with the United States Bureau of Reclamation for delivery of water from the Cachuma Project will expire in May 1995. Negotiations are currently under way to renew that contract. The Bureau of Reclamation has required that the Cachuma Project be subjected to an environmental review process which is now being undertaken. It appears likely that the District's yield from the Cachuma Project after contract renewal will be less than the current yield as a result of the dedication of water for environmental enhancement purposes on the lower Santa Ynez River; and

WHEREAS, the Southern California Water Company is a Santa Barbara County water purveyor which currently holds rights to an entitlement to 3,000 acre feet per year of water from the State Water Project and has given notice of its intent to sell 2,500 acre feet of that entitlement. The Goleta Water District has identified itself as a potential purchaser of the entitlement. It is the intent of this Ordinance to authorize the acquisition and use of that entitlement; and

WHEREAS, the District estimates the annual cost of the Southern California Water Company entitlement to be $500 per acre foot of water delivered to the District. The entitlement acquisition is intended to reduce the long-term costs of water to the District and its customers in that alternative supplies that would be available, and necessary to meet the District's long-term demand would be more expensive than the water available from Southern California Water Company. The District's cost analysis of the acquisition is available at the District office.

NOW, THEREFORE, THE FOLLOWING ORDINANCE IS ENACTED INTO LAW:

1. The District is authorized to acquire an additional entitlement to the State Water Project in an amount of up to 2,500 acre feet per year, which is currently available from the Southern California Water Company. This entitlement will supplement the 4,500 acre feet per year authorized by the voters in originally adopting the SAFE Water Supplies Ordinance. This authorization shall provide for the payment of all costs of the acquisition and use of any additional entitlement acquired. Due to the controversy concerning the physical ability of the State Water Project to deliver its full contractual commitments, the District shall plan for the delivery of 3,800 acre feet per year of water as the amount of firm average long-term yield. The District's total State Water Project entitlement includes the basic entitlement of 4,500 acre feet per year, the District's share of the drought buffer held by the Central Coast Water Authority and the entitlement acquired pursuant to this authorization. Any excess water actually delivered over 3,800 acre feet per year shall be stored in the Goleta groundwater Central basin until the basin is replenished to its 1972 level, for use during drought conditions.

2. Enactment of this Ordinance shall comply with all applicable law, including the California Environmental Quality Act.

3. If adopted, this Ordinance shall be an amendment to the SAFE Water Supplies Ordinance adopted by the electorate in June, 1991, which amended and superseded the Responsible Water Policy Ordinance,

originally adopted by the electorate in 1973. Paragraph 1 of this Ordinance shall amend and fully supersede paragraph 6 of the SAFE Water Supplies Ordinance. All other provisions of the SAFE Ordinance shall remain in full force and effect. If adopted, this Ordinance may not be modified except pursuant to a vote of the electorate of the District.

4. This Ordinance shall be liberally construed and applied in order to fully promote its underlying purposes. If any word, sentence, paragraph or section of this Ordinance is determined to be unenforceable by a court of law, it is the intention of the District that the remainder of the Ordinance shall be enforced.

FULL TEXT OF MEASURE H91
GOLETA WATER DISTRICT
Ordinance 91-01
SAFE WATER SUPPLIES ORDINANCE

THE PEOPLE OF THE GOLETA WATER DISTRICT, COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA, DO ORDAIN AND ENACT THE FOLLOWING ORDINANCE WHICH SHALL BE KNOWN AS THE *SAFE WATER SUPPLIES ORDINANCE*:

RECITALS:

Whereas, the Goleta Water District ("District") faces a significant shortage of water to meet current long-term water demands of its customers as determined by the State Department of Water Resources and the Santa Barbara County Flood Control and Water Conservation District in their 1985 Santa Barbara County Water Project Alternatives study; and

Whereas, a drought emergency was declared in Santa Barbara County in 1990 following four years of below normal precipitation within Santa Barbara County and, in the future, the District will continue to be subject to recurring drought cycles which will threaten the ability of the District to meet the health and safety needs of its customers unless new and diversified, long term water projects are developed; and

Whereas, the District relies exclusively on local water supplies to meet its current water demand, which supplies originate entirely within Santa Barbara County and which supplies are all subject to the same climatic conditions; and

Whereas, in the absence of a system limiting the District's authority to provide new and/or additional water service connections without first mandating groundwater storage of water in wet years for use in dry years (a "drought buffer program") District customers may face severe water shortage in the future; and

Whereas on October 1, 1990 the Board of Directors of the Goleta Water District adopted a Water Supply Management Plan which includes use of water supplies from both a desalting plant and the State of Water Project; and;

Whereas, the District is a party to an agreement with the Santa Barbara County Flood Control and Water Conservation District entitled "Water Supply Retention Agreement" dated December 11, 1984 which it executed on June 28, 1986 (the "WSRA") entitling the District to 4,500 acre feet per year from the State Water Project, and has executed amendments thereto; and

Whereas, the District is also a party to a "Contract for Preliminary Studies for Financial Feasibility, Preliminary Design and Environmental Review Under State Water Supply Contract" (the "Design and EIR Agreement") dated June 2, 1986 but did not identify itself as a proposed participant in the preliminary studies in response to the "Notice of Intent to Request Preliminary Studies" for the Coastal Branch and the Mission Hills Extension of the California Aqueduct given by the city of Santa Maria on or about May 24, 1986; and

Whereas, the WSRA and its amendments and the Design and EIR Agreement contain the ways and means to provide for a long term solution to the existing drought emergency and to the ongoing water shortage within the County of Santa Barbara; and

Whereas, the District has a duty to provide a permanent, reliable water supply to its residents.

NOW, THEREFORE, THE FOLLOWING ORDINANCE IS ENACTED INTO LAW:

I Drought Buffer

1. In each year, commencing in the first year the State Water Project makes deliveries to the District, the District shall, after providing service to its existing customers, commit at least 2,000 acre feet of its water supply (the "Annual Storage Contribution") to the Goleta Central Basin either by direct injection or by reduction in groundwater pumping. The water so stored in the Central Basin shall constitute the District's "Drought Buffer".

2. The Drought Buffer may be pumped and distributed by the District only to existing customers and only in the event that a drought on the South Coast causes a reduction in the District's annual deliveries from Lake Cachuma. The Drought Buffer cannot, under any circumstances, be used by the District as a supplemental water supply to serve new or additional demands for water within the District.

3. Unless and until the Central Basin water level rises to 100% of its 1972 levels, the District shall be required to make its Annual Buffer Commitment. Thereafter, for so long as the District maintains the Central Basin at or above 1972 levels, the District may utilize the yield of the Central Basin to lower the cost of water service to existing customers.

II Water Supply Distribution Plan

4. The District shall be forbidden from providing new or additional potable water service connections to any property not previously served by the District until all of the following conditions are met:

a. District is receiving 100% of its deliveries normally allowed from the Cachuma Project;

b. The District has met its legal obligations required by the judgment in Wright v Goleta Water District;

c. Water rationing by the District is eliminated;

d. The District has met its obligation to make its Annual Storage Commitment to the Drought Buffer.

5. For each year in which the conditions of paragraph 4, have been met, the District shall be authorized to release 1% of its total potable water supply to new or additional service connections and if such new releases are authorized, the District shall permanently increase the size of the Annual Storage Commitment made to the Drought Buffer by 2/3 of the amount of any release for new or additional uses so that safe water supplies in times of drought shall not be endangered by any new or additional demands.

III State Water Supply

6. Due to controversy concerning the physical ability of the State Water Project to deliver its full contractual commitments, District shall plan for delivery of only 2,500 acre feet per year as the amount of the firm new yield from the State Water Project. Any excess water actually delivered shall be stored in the Goleta Groundwater basin for use in drought.

7. The District shall immediately either (a) give Notice of its Intention to Request Construction of

Described Project Facilities under the State Water Contract, as provided for in Section 5(a)(1) of the WSRA or (b) respond to any such notice previously given by any other Contractor as provided for in Section 5(a)(2) of the WSRA that it wishes to participate in the described project.

8. The Project Facilities to be constructed pursuant to the Notice of Intention shall be the Mission Hills and Santa Ynez Extensions of the Coastal Branch of the California Aqueduct and required water treatment facilities and other appurtenant facilities (herein the "Project Facilities").

9. The District agrees, pursuant to section Section 5(a)(2) of the WSRA, that the time for determination of participation and sizing of the Project Facilities may be any date on or after September 1, 1992 agreeable to the other participants.

10. The District shall, in the shortest time lawfully possible, exercise all of its rights and fulfill all of its obligations under the WSRA, including the payment of any monies required thereunder.

11. The District shall file a Late Request to Amend, pursuant to Secton 3(f) of the Design and EIR Agreement, and agrees to pay its proportionate share of all costs required by said Section 3(f) and any amounts required under Section 3(g) of said Design and EIR Agreement.

12. The District, or the Santa Barbara Water Purveyors Agency, or any other joint powers agency of which the District is a member or may become a member for such purposes, may issue revenue bonds ("bonds") from time to time in an amount not to exceed Forty-Two Million Dollars ($42,000,000.00) to provide funds to finance the District's pro rata share of the costs and expenses under the WSRA and the Design and EIR Agreement. Said bonds shall be used for the purposes of constructing the Project Facilities, including without limitation, any and all necessary facilities required for the delivery of State Project Water pursuant to the WSRA to the District through the Coastal Branch of the California Aqueduct, including any and all expenses incidental thereto or connected therewith, and shall include, without limitation, the cost of acquiring rights of way, the cost of constructing and/or acquiring all buildings, equipment and related personal and real property required to complete the Project Facilities, and the engineering, environmental review, inspection, legal and fiscal agent's fees, costs incurred by the District or joint powers agency in connection with the issuance and sale of such bonds, and reserve fund and bond interest estimated to accrue during the construction period and for a period of not to exceed twelve (12) months after completion of construction, such bonds to be payable from the District's water revenues, to bear interest at a rate or rates not to exceed the legal maximum from time to time, and to mature in not more than forty (40) years from the date of issuance.

13. This Ordinance shall be submitted to a vote of the people of the District in compliance with the requirements of Section 5(a)(4)(1) of the WSRA and pursuant to Elections Code Section 5201.

14. All actions taken pursuant to this Ordinance shall be in compliance with all local, state and federal environmental protection laws. Nothing in the Ordinance shall be construed to require such compliance prior to the election provided for herein.

15. This Ordinance shall be liberally construed and applied in order to fully promote its underlying purposes. If any word, sentence, paragraph or section of this Ordinance is determined to be unenforceable by a court law, it is the intention of the District that the remainder of the Ordinance shall be enforced.

16. If adopted, this ordinance shall be an amendment to the Responsible Water Policy Ordinance adopted by the people in May, 1973, and may not be modified except pursuant to the vote of the electorate of the District. To the extent that the provisions of this ordinance conflict with that ordinance or any prior ordinance or measure previously enacted by the District or the voters of the District, the provisions of this ordinance shall control. To the extent that the provisions of this Ordinance conflict with any other ordinance or measure adopted at the same election, the ordinance or measure receiving the highest number of affirmative votes shall control.

17. Nothing herein is intended to affect the rights of any parties nor the obligations of the District pursuant to the judgment in the action know as Wright v Goleta Water District, Santa Barbara Superior Court Case No. SM57969.

18. This ordinance shall take effect immediately upon being approved by a majority vote of the votes cast at the election.

Appendix B

Draft Water Shortage Ordinance

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EXAMPLE ORDINANCE

DRAFT WATER SHORTAGE CONTINGENCY ORDINANCE AS REQUIRED TO BE INCLUDED IN THE CONTINGENCY PLAN PER CA WATER CODE §10632(a)(8).

NOT BEING CONSIDERED FOR ADOPTION AT THIS TIME. ACTUAL ORDINANCE TO BE PRESENTED AT TIME OF OF CONSIDERATION OF WATER SHORTAGE STAGE DECLARATION.

ORDINANCE NO. 2014-

AN ORDINANCE OF THE GOLETA WATER DISTRICT BOARD OF DIRECTORS ESTABLISHING RULES AND REGULATIONS FOR IMPLEMENTING WATER WASTE PROHIBITIONS AND ESTABLISHING PENALTIES FOR VIOLATIONS THEREOF

FINDINGS

WHEREAS, California Water Code Section 350 provides that the Board of Directors has the authority to declare a water shortage emergency condition. California Water Code Section 353 enables the Board of Directors to adopt regulations and restrictions to conserve the water supply for the greatest public benefit; and

WHEREAS, This Board has conducted a noticed public meeting on {INSERT DATE} to determine whether a drought induced water shortage emergency exists and, if so, what regulations should now be adopted in response to that shortage.; and

WHEREAS, This Board finds that the demand for water by District customers can be met so long as the actual consumption of water remains at a level close to that experienced during {INSERT YEAR}. If, instead, water consumption now returns to the unrestricted level of use that existed before the current drought began, the District will face a substantial shortage; and

WHEREAS, to avoid a shortage, this Board adopts the following regulations, and finds that the regulations set forth herein are necessary and proper to protect the water supply for human consumption, sanitation, and fire protection during the duration of the shortage.

NOW THEREFORE BE IT ORDAINED BY THE BOARD OF DIRECTORS OF THE GOLETA WATER DISTRICT:

Section 1: Definitions.
The following terms are defined for the purposes of the ordinance:

a. "Agricultural water user" or "Agricultural" means water use for the growing of food crops, livestock, and ornamental landscape plants.

b. “Agricultural Residential water user” or “Ag Residential” means water use for the growing of food crops, livestock, and ornamental landscape plants on a property that also includes residential properties with potable water demand for domestic purposes.
c. “Commercial water user” or “Commercial” means any water user whose purpose is to provide or distribute a product or service, such as hotels, restaurants, office buildings, commercial businesses or other places of commerce. A “Commercial” water user does not include multi-family residences, agricultural users, or customers that fall within the industrial or institutional classifications. Within the Goleta Water District all schools, except the University of California at Santa Barbara, are characterized as “Commercial”.
d. "Customer" means a person receiving water from the water distribution system of the District
e. "District" means Goleta Water District.
f. "General Manager" means the general manager of the District, or the Manager's designate.
g. “Institutional water user” or “Institutional” refers to the University of California at Santa Barbara.
h. “Landscape Irrigation water use” or “Landscape Irrigation” means water used for maintaining outdoor areas of golf courses, community parks, business parks, and common areas in homeowner associations. “Landscape Irrigation” customers have a dedicated outdoor use meter.
i. "Multiple family residential" which consists of water service to land improved with structures designed to serve as a residence f or more than a single family.
j. “Recycled Water use” means use of wastewater after treated to specific standards. Recycled water is primarily used outdoors for landscape irrigation including common areas in homeowner associations, school grounds, and golf courses. Customers include University of California Santa Barbara, school districts, golf courses, resorts, businesses, and municipalities. “Recycled Water” differs from “Landscape Irrigation” in that “Recycled Water” users and accounts receive treated wastewater and “Landscape Irrigation” customers receive potable and raw water.
k. "Seasonally adjusted average annual usage" means the amount of water delivered to each customer's property during the bimonthly period's from {INSERT 5-YEAR PERIOD}.
l. “Single family residential" which consists of water service to land improved with structures designed to serve as a residence for a single family.

m. "Stage I Shortage" when water supply is 85 to 90% of normal for the next twelve months or is insufficient to provide 80% of normal deliveries for the next 24 months.
n. "Stage II Shortage" when water supply is 75 to 85 percent of normal for the next twelve months or is insufficient to provide 75% of normal deliveries for the next 24 months.
o. "Stage III Shortage" when water supply is 65 to 75% of normal for the next twelve months or is insufficient to provide 65% of normal deliveries for the next 24 months.
p. "Stage IV Shortage" when water supply is 55 to 65% of normal for the next twelve months or is insufficient to provide 55% of normal deliveries for the next 24 months.
q. "Stage V Shortage", when water supply is less than 55% of normal for the next twelve months or is insufficient to provide 50% of normal deliveries for the next 24 months.

Section 2: Water Use Restrictions and Limitations.

a. No customer shall waste water. As used herein, the term "waste" means:
    1. Use of potable water to irrigate grass, lawns, ground-cover, shrubbery, crops, vegetation, and trees between the hours of 10:00 A.M. and 4:00 P.M. or in such a manner as to result in runoff for more than five 5 minutes;
    2. Use of potable water to wash sidewalks, walkways, driveways, parking lots, open ground or other hard surfaced areas by direct application,
    3. Allowing potable water to escape from breaks within the customer's plumbing system for more than 48 hours after the customer is notified or discovers the break.
b. During a Stage II water shortage, the following additional restrictions are in effect:
    1. Landscape watering is limited to two (2) times per week. Odd numbered residential addresses may water only on Saturdays and Tuesdays; even numbered residential addresses can water Sundays and Wednesdays. Commercial, public, and institutional customers can water Mondays and Fridays. This provision does not apply to agricultural customers.
    2. Potable water cannot be used to maintain fountains, reflection ponds and decorative water features for aesthetic or scenic purposes except where necessary to support aquatic life.
    3. Potable water cannot be used to wash down buildings, dwellings, or other structures, except for window washing and preparation of surfaces for painting or for sale.

4. Potable water cannot be used to wash vehicles and boats except at commercial car washing facilities, or by use of a bucket and/or hose equipped with a shutoff nozzle.
5. The draining and refilling of swimming pools is prohibited, unless specifically authorized by the District.

c. During a Stage III or higher water shortage the following additional restrictions are in effect:
   1. Irrigation between the hours of 9:00 A.M. and 9:00 P.M. is prohibited.

d. During a Stage IV or higher water shortage the following additional restrictions are in effect:
   1. Landscape watering is limited to one (1) time per week. Odd numbered residential addresses can water only on Saturdays; even numbered residential addresses can water Sundays. Commercial, public, and institutional customers can water Tuesdays. Hourly restrictions set forth in subsection c.1. above continue to apply on authorized watering days. This provision does not apply to agricultural customers.
   2. The use of sprinklers is prohibited, except by use of a drip irrigation system or similar low-volume, non-spray irrigation equipment.
   3. Potable water cannot be used to irrigate turf/lawn.
   4. Potable water cannot be used to irrigate golf courses, with the exception of putting greens and tees.
   5. Potable water cannot be used to irrigate median strips.
   6. Potable water cannot be used to fill new swimming pools, spas, hot tubs, or the draining and refilling of existing pools.
   7. Potable water cannot be used for on-site vehicle washing, including company fleets and dealer lots, unless specifically authorized in writing by the District.

e. During a Stage V water shortage the following additional restrictions are in effect:
   1. All outdoor irrigation with potable water is prohibited (gray water and recycled water may be used).
   2. Potable water cannot be used for recreational purposes.
   3. Public pools must be closed.

Section 3: Enforcement.

a. Any person, firm, partnership, association, corporation, political entity, or other Goleta Water District customer violating any provision of the water use restrictions and limitations may be assessed an administrative penalty.
b. The purpose of the administrative penalties assessed pursuant to this Section is to assure future chapter compliance by the cited customer through the

imposition of increasingly significant penalties so as to create a disincentive to commit future violations.

c. In addition to any other penalty permitted by law, the following administrative penalties shall apply to violations of water use restrictions and violations established herein.

First Violation:	The District shall issue a written warning.
Second Violation:	The District shall issue a written citation.
Third Violation:	A fine of ${ }. Written notice shall be given to the owner. The fine will be billed to the customer on the regular monthly water bill. At the General Manager's discretion, GWD may install a flow restrictor or discontinue service.
Subsequent Violations:	A fine of ${ }. Written notice shall be given to the owner. The fine will be billed to the customer on the regular monthly water bill. At the General Manager's discretion, GWD may install a flow restrictor or discontinue service.
Failure to pay fines:	The District may install a flow restrictor or discontinue water service to any customer who fails to pay fines billed on the regular monthly water bill. Service will be restored upon full payment of all outstanding balances and reconnection charges. The charge for installation and removal of the flow restrictor or reconnection and restoration of normal service shall be ${ }.
Flow Restrictors/ Discontinuation of Service:	Repeated violations (i.e., more than two violations) of the mandatory conservation measures and water use restrictions adopted by the Board of Directors during the water shortage emergency condition shall be subject to, at the General Manager's discretion (a) installation of a flow restrictor or (b) discontinuation of service. The District will send "Notice of Repeat Violation" for repeated violations. The water customer shall have ten (10) days to enter into a "Water Use Agreement" with the District. The "Water Use Agreement" shall specify specific mandatory use restriction and retrofits that must be implemented by the customer within thirty (30) days. Failure to enter into this agreement within ten (10) days after receipt of the "Notice of Repeat Violation" will result in

installation of the flow restrictor or discontinuance of water service. The General Manager or designee may restore normal service under a "Water Use Agreement" between the customer and the District. Flow restrictors will not be used where fire suppression sprinklers are on the same line as water provided for domestic purposes.

Willful Violations: Any willful violation occurring subsequent to the issuance of the second violation constitutes a misdemeanor and may, at the General Manager's discretion, be referred to the Santa Barbara County District Attorney.

d. Cost of Flow Restrictors/Discontinuation of Service: A person or entity that violates this chapter is responsible for payment of charges for installing and/or removing any flow restricting device and for disconnecting and/or reconnecting service in accordance with the District's Schedule of Miscellaneous Fees and Charges then in effect. The charge for installing and/or removing any flow restricting device must be paid before the device is removed. Nonpayment will be subject to the same remedies as nonpayment of basic water rates.

Section 4: Appeals.

a. Any person who wishes to an administrative penalty shall do so in writing by using the forms provided by the District and submitted to the General Manager, or the Manager's designee.
b. If the General Manager and the applicant are unable to reach accord, then the appeal shall be heard by the Water Management and Long-Range Planning Committee of the Board of Directors with a recommendation for approval or denial.
c. All appeals shall be reported monthly to the Board of Directors.

Section 5: Rule Making.

The General Manager shall present periodic reports to the Board as necessary concerning the effectiveness of this ordinance. Said Reports shall review the nature and scope of appeals and exceptions. Any proposal to change the meaning of this ordinance shall be adopted by the Board by ordinance following a duly-noticed public hearing.

Section 6: Urgency.

This ordinance is an urgency ordinance. It is necessary that the regulations set forth in this ordinance be adopted as forth herein in order to protect the supply of water for human consumption, sanitation and fire protection.

PASSED AND ADOPTED by the Board of Directors of the Goleta Water District this {insert date} day of {insert month and year} by the following roll call vote:

AYE:
NAY
ABSENT
ABSTAIN

ATTEST:

_____	_____
JOHN MCINNES	WILLIAM C ROSEN, PRESIDENT
DISTRICT SECRETARY	BOARD OF DIRECTORS