Sustainability Plan Progress Report

An Update on Implementation of the

Goleta Water District Sustainability Plan





District Mission

To provide an adequate supply of quality water at the most reasonable cost to the present and future customers within the Goleta Water District.



ACKNOWLEDGEMENTS

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42 **LOOKING AHEAD**

Sustainability is commonly defined as the responsible management of economic, environmental and social resources to meet the needs of present and future generations.



INTRODUCTION AND BACKGROUND

A sustainable approach to service delivery is a fundamental component of upholding the Goleta Water District (District) mission to provide quality water at reasonable costs for present and future customers. Recognizing this, the Board of Directors adopted the District's first Sustainability Plan on June 12, 2012. This Sustainability Plan Progress Report (Progress Report) details District efforts to implement the Plan, including an update on the specific initiatives in the Plan, identification of opportunities to adjust priorities, as well as a description of planned initiatives for 2015-16. Strong emphasis is placed on making infrastructure and programmatic investments that support sustainable water service delivery to the community well into the future.



Lake Cachuma, normally the District's primary water supply source, is currently at only 26% of capacity due to the historic state-wide drought.



Due to the historic lack of rainfall and record low snowpack, on January 17, 2014, California Governor Jerry Brown declared a state of emergency caused by drought, and asked all Californians to reduce their water use. The District Board of Directors declared a Stage I Water Shortage Emergency in March of 2014, Stage II in September, 2014, and Stage III in May, 2015.

Four years of below average rainfall have resulted in the worst drought in the recorded history of California and the Goleta Valley. As of July 2015, Lake Cachuma is below 26% capacity, and for the first time in the Lake's 60-year history the District anticipates receiving a zero percent allocation from the United States Bureau of Reclamation for Water Year 2015-16. The Goleta Groundwater Basin has always been an important component of the District's water supply portfolio, but absent substantial rainfall, beginning in fall of 2015 the basin will serve as the primary source of water for District customers. Even with some Lake Cachuma water carried over from the previous year, and State Water Project Water, the groundwater basin is the key to continuing to meet the essential water needs of the Goleta Valley now and into the future.

As a provider of a lifeline resource, the District plays an essential role in maintaining a functional community. The delivery of safe, reliable water supplies is critical to supporting public health and safety, such as local hospitals and medical centers, the local fire suppression system, and drinking and domestic water for local residents.

To adapt to changes in its water supply portfolio, the District is implementing proactive supply and demand management practices that will help mitigate the effect of the drought on the local community, economy, and environment. This includes the continuation of conservation outreach, education, rebates, and new tools to help all District customers conserve water. In response to the Governor's call to implement conservation pricing, the District completed a Cost of Service Study and implemented a new rate structure and a temporary drought surcharge (effective July 1, 2015). The temporary drought surcharge will cover the increased costs of delivering water during a drought, and make up for lost revenue due to increased conservation. The new tiered rates also send a price signal to encourage conservation. Finally, even as the District implements infrastructure improvements necessary to deliver groundwater to customers, there are opportunities to minimize the increased energy needs associated with groundwater pumping and distribution, which are detailed in this report.

A number of the pre-existing and new initiatives contained in this report strengthen the resiliency of the water supply system, ensuring the District can protect and sustain the Goleta Valley's water supplies during times of drought, and for current and future generations.

Sustainability Plan Overview

The Sustainability Plan includes three fundamental components:

- Guiding Principles,
- District Initiatives, and
- Periodic Progress Reports

As a management system, these components inform decisions and establish a feedback loop that helps ensure investments in the water system and operations benefit both current and future customers.

Guiding Principles

The Sustainability Plan Guiding Principles align the District's mission and activities as a public water utility with the economic, environmental, and social benefits resulting from initiatives included in the Plan. The Guiding Principles assist the District in considering the full range of costs and benefits of actions authorized by the District's Fiscal Year Budget and the Infrastructure Improvement Plan, as well as ongoing District management practices. As a result, the principles provide a basis for evaluating and prioritizing initiatives undertaken by the District.

Economic Principle: Enhanced value creation for District customers

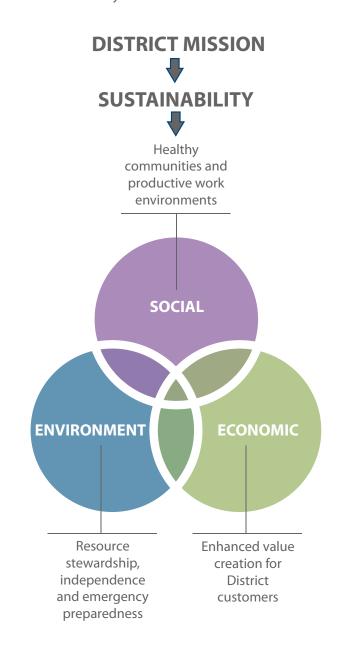
The District's water service delivery and daily decision-making will consider sustainable approaches that create value for District customers now and into the future. In doing so, strategic infrastructure investments, cost-effective business operations and water supply management will help ensure the highest level of reliable service for District customers.

Environment Principle: Resource stewardship, independence and emergency preparedness

The District will understand the resources it uses and manages. This will position the District for greater independence and emergency preparedness by mitigating reliance on uncontrollable inputs including electricity, natural gas and gasoline. Additionally, sustainability actions will help the District plan for and adapt to impacts related to climate change, weather variability, and regulations on water suppliers.

Social Principle: Healthy communities and productive work environments

The District will support healthy communities through the provision of quality water to the public and a governance structure that supports civic involvement and public transparency. Additionally, daily actions and work environments will consider the enhancement, productivity, and safety of the District workforce while making positive contributions to the well-being of the community in which it operates.



Initiatives

Initiatives are the specific projects and programs the District implements to achieve the outcomes and benefits described by the Guiding Principles. Accordingly, a strong emphasis is placed on infrastructure and programmatic investments that support the District's ability to provide reliable, cost-effective service well into the future. In addition, the implementation of many of the following initiatives is critical for ensuring adequate water supplies are available for all District customers during this historic drought. Initiatives are organized by categories of District service delivery to highlight the traditional aspects of operating a public water utility. In this way, the Plan is scalable and replicable, providing a model that may be adopted by other utilities. Service delivery categories include:

Category #1: Customer Service and Business Operations

Category #2: Administration Buildings and Fleet Management

Category #3: Water Supply, Treatment and Distribution System Investment







Progress Report: Purpose and Approach

The Sustainability Plan was designed as an active, adaptable management tool, capable of adjusting to changing conditions and new information related to the District's service delivery environment. To do this, existing initiatives are tracked and evaluated based on previously established targets or goals. Updates or adaptive responses are incorporated as appropriate. This approach allows the District to identify incremental adjustments that may be needed through the course of project management, and adapt plans and projects where needed.

Given that many initiatives in the Sustainability Plan anticipate multi-year project schedules, this Progress Report does not attempt to "grade" or "rate" District accomplishments, as doing so may present an incomplete review of the results associated with projects that have not reached completion. Where adjustments or new initiatives are needed, this Progress Report recommends related actions. Progress in implementing these new initiatives, as well as the status of current initiatives that are underway or ongoing, will be included in subsequent Sustainability Plan Progress Reports.

For purposes of this progress report, a four point scale (1-4) was established to gauge the status of initiatives included in the Sustainability Plan and subsequent Progress Reports, as illustrated below.

1	Planning	Project scope, work plan, and schedule under development	
2	Implementation Underway	Work on initiative is in progress	
3	Initiative Delayed or Deferred	Work on initiative has been slowed down or postponed	
4	Initiative Complete	Initiative is complete and is now in maintenance phase	

Sustainability Plan Progress Report: 2013-2015

The progress described in the following sections is organized by the three service delivery categories described throughout this report: 1) Customer Service and Business Operations, 2) Administration Buildings and Fleet Management, and 3) Water Supply, Treatment, and Distribution System Investment. As reflected in the graph below, the District has made steady progress on initiatives across all categories. Overall, 33 of the 43 initiatives included in the Sustainability Plan and subsequent Progress Report have been completed or are underway. In some cases, regulatory requirements, or critical projects such as unscheduled infrastructure repairs and drought related activities, have necessitated rescheduling of Sustainability Plan Initiatives. Ten of the 43 initiatives have been delayed or deferred due to the drought and the resulting shift in operational priorities. Such adjustments do not diminish the importance of these initiatives: rather, they reflect the fact that some reprioritization is necessary to ensure the continued delivery of quality water to District customers, especially during the current Board-declared water shortage emergency. Delayed and deferred initiatives are identified in the respective service delivery category section in which they were originally categorized.

The following table provides a summary of the status of Sustainability Initiatives included in the Sustainability Plan and 2012-13 Sustainability Plan Progress Report.



Waterwise District Edible Demonstration Garden with blooming drought tolerant sunflower.

Progress of Goleta Water District Sustainability Initiatives

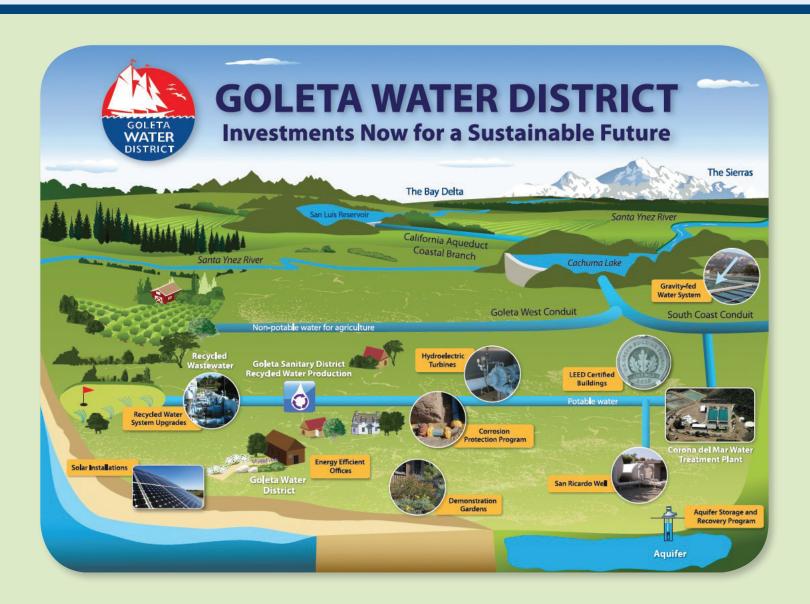
The bar graph below provides a snapshot of the number of Goleta Water District Sustainability Plan initiatives in each stage of progress.

Pre-existing Initiative Implementation Progress Status Overview



District Sustainability Highlights

- In early 2015, the Water System Evaluation (Initiative 3.13) revealed 39 leaks throughout the distribution system, saving approximately 70 acre feet of water per year. That's enough water to serve about 150 Goleta households annually!
- Employee sick leave hours taken has decreased by 40% since adoption of the Sustainability Plan in 2012.
- District customers have reduced water use by approximately 15% since declaration of a Stage I Water Shortage in March 2014. That amounts to approximately 2,000 acre feet, or 652 million gallons of water saved.
- The District received a Goleta Valley Beautiful Award in the category of Neighborhood Enhancement for the San Ricardo Well Site in the Spring of 2014 (Initiative 3.11).



Progress Report Summary

Service Delivery Category #1 – Customer Service and Business Operations

REF	PRE-EXISTING INITIATIVES	STATUS
1.1	Integrated Regional Water Management Planning (IRWMP)	Complete
1.2	Conservation	Complete
1.3*	Electronic Billing System	Complete
1.4	Emergency Response Plan Update	Complete
1.5	Workplace Safety Program Update	Complete
1.6	Drought and Water Shortage Contingency Plan	Complete
1.7	Vendor Management	Complete
1.8	Technology Improvement and Integration	Underway
1.9	Alternative Revenue Sources	Underway
1.10	Introduction of Lifeline Discount Program	Deferred
1.11	Tiered Rate Update	Complete
1.12	Community Demonstration Garden Outreach	Underway
1.13	Salt & Nutrient Management Plan Scoping	Complete
1.14	Asset Management System – Phase I	Delayed
1.15	Coordinated Energy Management	Deferred

REF	NEW INITIATIVES	STATUS
1.16	Groundwater Management Plan Update	Planning
1.17	Water Supply Management Plan Update	Planning
1.18	Urban Water Management Plan Update	Planning
1.19	Drought Outreach Plan	Underway
1.20	Sustainable Groundwater Management Act Implementation	Underway
1.21	Groundwater Model	Underway
1.22	Agricultural Water Efficiency Action Plan	Planning
1.23	Conservation Incentive Programs	Underway

Service Delivery Category #2 – Administration Buildings and Fleet Management

REF	PRE-EXISTING INITIATIVES	STATUS
2.1*	Community Demonstration Garden Restoration and Enhancement	Complete
2.2	Renewable Energy (Solar) Feasibility and Permitting	Delayed
2.3	Green Business Certification	Delayed
2.4	Building Envelope Improvements	Delayed
2.5	Fleet and Construction Equipment Replacement Program	Underway
2.6	Field Operations	Underway
2.7	Fleet Replacement Study	Complete
2.8	Edible Garden Project	Complete
2.9	Lighting Upgrades at Administrative HQ – Phase I	Complete
2.10	Solar Trellis System at Admin HQ – Phase I	Delayed
2.11	Storm Water Runoff Improvements Study	Complete

^{*} Information on this initiative can be found in the 2012-2013 Sustainability Plan Progress Report.

REF	NEW INITIATIVES	STATUS
2.12	Leaking Underground Fuel Tank Closure	Complete
2.13	Stormwater Headquarters Improvements/Master Plan (Phase I)	Planning
2.14	Board Room Remodel	Underway
2.15	Recycled Water Hauling Program	Planning

Service Delivery Category #3 – Water Supply, Treatment and Distribution System Investment

REF	PRE-EXISTING INITIATIVES	STATUS
3.1	Hydroelectric Generator Installations	Complete
3.2	Recycled Water System Booster Station Electrical Upgrades	Complete
3.3*	San Ricardo Well Rehabilitation	Complete
3.4	WTP Sustainable Wastewater Disposal and Irrigation Study	Complete
3.5	Grant Application Readiness	Underway
3.6	Goleta Beach Recycled Waterline Relocation	Deferred
3.7	Infrastructure Improvement Program Evaluation Criteria	Complete
3.8	Corrosion Protection Program	Underway
3.9	Neighborhood Compatibility of District Facilities	Underway
3.10	Meter Replacement Program	Underway
3.11	San Ricardo Well Site Enhancement	Complete
3.12	Arc Flash and Electrical Upgrades	Complete
3.13	Water System Evaluation and Submetering Program – Phase I	Underway
3.14	Van Horne Reservoir Slope Protection Evaluation	Complete
3.15	Corona Del Mar WTP Infrastructure Improvement Construction	Underway
3.16	Hydroelectric Turbine Installation at Patterson Reservoir	Delayed
3.17	Goleta Water District – City of Santa Barbara Interconnect	Deferred

REF	NEW INITIATIVES	STATUS
3.18	San Antonio Well Rehabilitation Project	Underway
3.19	Berkeley Well Rehabilitation Project	Underway
3.20	Shirrell Well Rehabilitation Project	Underway
3.21	Oak Grove Well #2 Rehabilitation Project	Underway
3.22	SB Corporation Well Rehabilitation Project	Underway
3.23	Recycled Water Pump Replacement (Hollister)	Complete
3.24	Emergency Pump Project (Patterson and Edison)	Complete
3.25	Airport Area New Well Project	Planning
3.26	Transmission Main Area New Well Project	Planning
3.27	Monitoring Wells	Planning
3.28	Injection Wells	Planning

^{*} Information on this initiative can be found in the 2012-2013 Sustainability Plan Progress Report.

Service Delivery Category #1

Customer Service and Business Operations

Including sustainability considerations in the administrative policies of the District enhances the safety, well-being and productivity of the workforce, as well as customer relations. Investments in this service delivery category focus on management practices, risk mitigation, information technology and personnel development to guide day-to-day decision-making. Progress made during the reporting period on the Customer Service and Business Operations initiatives identified in the Sustainability Plan is summarized below.

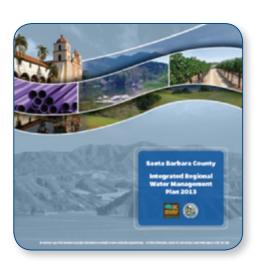
Summary of Progress and Results

Integrated Regional Water Management Planning (Initiative 1.1)

GOAL: Participation in Plan development.

Complete

The District has played a pivotal and active role in the planning process related to updating the 2013 Integrated Regional Water Management Plan (IRWMP). The IRWMP provides a cooperative plan for water resource management that enhances regional self-reliance, and achieves social, environmental and economic objectives. In collaboration with the County of Santa Barbara, the District and approximately 30 other cooperating partners updated the Santa Barbara Countywide IRWMP over a two-year period. The plan was submitted by the County to the State in March 2014, and was adopted by the District Board on June 10, 2014. The plan was officially approved by the State on May 15, 2014. Approval of the IRWMP by the State helps maintain regional eligibility and competitiveness for State grant funding.



Conservation (Initiative 1.2)

GOAL: Complete Conservation Optimization Study.

Complete

The Conservation Optimization Study was completed in June 2013 and provides a tool for identifying customer conservation incentive programs that would achieve the level of savings needed during the ongoing drought.

The Study provides three distinct conservation program packages with a range of potential measures that could be implemented to meet State conservation requirements, and District efficiency, sustainability, and customer service priorities. The measures promote cost-effective, innovative emerging technologies and practices and proven conservation measures. The document serves as an objective technical report evaluating the District's conservation efforts, identifying options that ensure the District cost-effectively meets regulatory requirements, and positioning the District for potential Conservation Plan and program updates for customers.

* Electronic Billing System (Initiative 1.3)

Complete

This project was completed in 2012 and was included in the 2012-2013 Sustainability Progress Report.

Emergency Response Plan Update (Initiative 1.4)

GOAL: Complete Emergency Response Plan Update.

Complete

The Comprehensive Emergency Response Plan (CERP) supports social sustainability by effectively providing for the rapid notification and explanation of conditions to responders and populations at risk, while also guiding all District staff in gathering data to responsibly manage and control emergency incidents. The plan was completed in July, 2014. The District's CERP incorporated revisions to the original Emergency Response Plan and is designed to work in conjunction with Santa Barbara County's and the State of California's Emergency Response Plans. The plan outlines different triggers and response actions to all types of emergency incidents both related to District and public emergencies, allowing for proactive risk mitigation and enhanced emergency preparedness.

Workplace Safety Program Update (Initiative 1.5)

GOAL: Complete Workplace Safety Program Update.

Complete

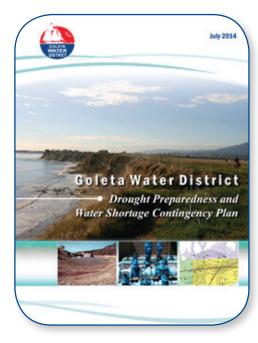
The District's Workplace Safety Program (WSP) was updated in April, 2013. The WSP Update supports a healthy work environment (social sustainability) by identifying potential workplace hazards, correcting hazardous conditions or practices as they occur, and creating an organized approach to employee accident prevention. The WSP allows the District to achieve the greatest practical degree of freedom from accidents to ensure that every employee is provided safe and healthy working conditions, free from recognized hazards. A forty percent reduction in employee sick time taken compared to 2012 is illustrative of the District's efforts to ensure a safe, healthy work environment. This initiative also incorporated updates to the Safety Data Sheets system and the Code of Safe Practices to be aligned with the California Occupational Safety and Health Administration Injury and Illness Prevention Program. In November, 2014, District staff were trained on the updated WSP to ensure District-wide understanding and application.

Drought and Water Shortage Contingency Plan (Initiative 1.6)

GOAL: Complete a Drought and Water Shortage Contingency Plan.

Complete

Adopted by the Board on July 8, 2014, the Drought Preparedness and Water Shortage Contingency Plan (Drought Plan) provides an action plan for responding to various degrees of water shortage, from operational actions to demand reduction measures. It is designed to identify and quickly respond to water shortages in a manner that provides for public health and safety while minimizing impacts to the community. The fivestage approach described in the Drought Plan provides different levels of response for a water shortage event ranging from a 10% supply deficiency to a 50% or greater deficiency. Defining drought stages allows the District to craft a progressive response to worsening drought conditions, with each stage "triggering" different specific actions. The Plan enhances the District's emergency preparedness and response strategy, and its development and adoption by the Board of Directors was timely given the existing drought conditions. At the time this Progress Report was prepared (Summer 2015), the District is in a Stage III Water Shortage and is aggressively implementing the Stage III actions outlined in the Plan.



Vendor Management (Initiative 1.7)

GOAL: Establish sustainable procurement criteria.

Complete

As part of its commitment to sustainability, the District created a new administrative division dedicated to procurement and contract management, with environmental standards added to the vendor review process. While continuing to hold vendors to cost and quality standards, this additional component ensures District sustainability principles are upheld by its vendors, and can be traced through the supply chain. These changes ensure sustainable procurement criteria remain an integral and ongoing component of the District's relationships with outside vendors.

Technology Improvement and Integration (Initiative 1.8)

GOAL: Update various District software and hardware systems.

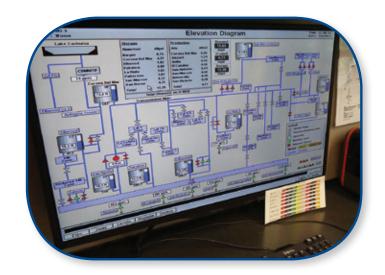
Underway

This project addresses the need to update various District software and hardware systems so that District staff has the tools necessary to maintain and operate the District's water system as efficiently and cost effectively as possible. By updating software on an annual basis, the business operations systems remain responsive, intuitive, and user friendly. Maintenance of accurate facility records, billing, and customer information within various computer systems is also vital to the efficient operation of the District's water system and customer service functions by supporting the District in collecting and tracking revenue, managing asset records, operating at industry standards, and accounting for expenditures appropriately.

Since 2013, the following technology updates have been implemented:

- An interactive voice recognition (IVR) system has been installed to automate the District's phone system and provide callers with basic information and customer service options before being transferred to a representative. In addition to meeting customer needs more effectively, IVR increases staff efficiency by freeing up time from answering, screening, and transferring District phone calls;
- Updates to the accounting system were implemented, including a software update and the development of a data warehouse to store customer water usage data and billing information; and
- Attribute data updates were made to approximately 50 valves in the geographic information system (GIS) database, and six new development projects were added to the GIS. The District is currently replacing its GIS server and migrating data to a new, more robust system that can be accessed and updated in the field.

Utilization of the latest technology produces operational savings by allowing employees to work at a high rate of productivity and efficiency and minimize the hours of work needed for routine tasks. Updates to the District's software and hardware systems will continue to be performed as needed.



Alternative Revenue Sources (Initiative 1.9)

GOAL: Research, identify and pursue financing for sustainability initiatives and related capital planning goals.

Underway

In order to fund sustainability initiatives, the District actively pursues grant opportunities on an ongoing basis. Grant activity during the reporting period included the submission of applications for:

- USBR Water SMART Water and Energy Efficiency Grant -
 - The District submitted an application for a Distribution System Metering and Pump Upgrade Project that would save water and increase operational efficiencies.
 - State Department of Water Resources Water Energy Grant Program The District submitted an application for a Smart Landscape Rebate Program to provide additional funds for expanding its existing program that is oversubscribed due to the drought.
- State Department of Water Resources Water Energy Grant Program -
 - The District submitted an application for a Smart Landscape Rebate Program to provide additional funds for expanding its existing program that is oversubscribed due to the drought.

The District is also pursuing potential grant funding opportunities through Proposition 1, a \$7.5 billion bond measure passed by state voters in 2014. Proposition 1 provides funds for investments in water projects and programs as part of a statewide, comprehensive water plan for California. Seeking alternative revenue sources will help offset costs to the District of pursuing and implementing planned initiatives and infrastructure projects, with a focus on projects that make the most efficient use of recycled water and expanding conservation programming.

Tiered Rate Update (Initiative 1.11)

GOAL: Update tiered rates to drive water conservation.

Complete

Promoting conservation to ensure sufficient water to meet public health and safety needs is critical as the drought persists. In response to the Governor's call for agencies to implement tiered pricing, and industry best practices, the District adopted new tiered water rates under a Cost of Service Study in Spring of 2015. Due to the increasing costs associated with delivering and supplying water during a drought, the District also implemented a temporary drought surcharge on each unit of water consumed to ensure the District continues to have sufficient operating capital to cover the increased costs associated with the drought. The temporary drought surcharge is tied to the severity of the drought. Both tiered rates and the surcharge send a price signal to customers, and are anticipated to result in increased conservation now and into the future.

Community Demonstration Garden Outreach (Initiative 1.12)

GOAL: Conduct garden-focused public outreach.

Underway

To help customers create beautiful gardens that conserve water, the District hosts the Demonstration Gardens on the grounds of the Administrative Headquarters. The District is implementing an Outreach Plan which will feature the development, production, and implementation of a variety of new communication materials to support customers conserving water in their own homes and gardens. Materials include a branding and identity system for the gardens to help customers identify plants, enhanced signage and illustrative maps, new brochures, and increased publicity. In addition, the Plan will create a dedicated website subsection for the gardens, with links to subpages for each of the seven garden types featuring plant lists and illustrated maps. The gardens support the District's Smart Landscape Rebate Program by demonstrating eligible plantings and irrigation technology. This project was delayed due to the drought, but will be completed in fall of 2015.

Salt and Nutrient Management Plan Scoping (Initiative 1.13)

GOAL: Complete scoping study.

Complete

The District Fiscal Year 2013-14 Budget included a Salt and Nutrient Management Plan (SNMP) Scoping Study as a key initiative to support water supply reliability and sustainability, and maintain compliance with State Law. Scoping work included performing an exhaustive review of the 2009 Recycled Water Policy, consulting with staff of the Central Coast Regional Water Quality Control Board (Regional Board), and speaking with firms that have expertise in salt and nutrient management planning. The scoping study, presented to the District's Water Management and Long Range Planning Committee in February 2014, determined the District is largely in compliance with the intent of the policy through its Groundwater Management Plan (GWMP) and other foundational water resource planning documents. The GWMP for the Goleta Groundwater Basin is scheduled to undergo a comprehensive update in fiscal year 2015-16 (Initiative1.16). This update provides an opportunity to integrate the remaining salt and nutrient planning requirements into the GWMP itself to avoid redundancy in planning documents. In the interim, with the support and approval of the Regional Board, the existing GWMP will serve as a functionally equivalent document that meets the intent of the Recycled Water Policy SNMP requirements.

Initiatives Delayed or Deferred

Introduction of a Lifeline Discount Program (Initiative 1.10)

GOAL: Deliver potential water service discounts to economically disadvantaged customers.

Deferred

Due to legal restrictions under proposition 218, the District would need to identify an alternative source of revenue to fund the program, which is not currently feasible. The District may reconsider this initiative in the future.

Asset Management Implementation Plan and Pilot Study of the Recycled Water System - Phase I (Initiative 1.14)

GOAL: Complete initial AM system assessment.

Delayed

The Goleta Water District owns and operates an expansive portfolio of infrastructure and other assets that are critical to providing reliable water service to customers. Planning, managing and accounting for full life cycle infrastructure expenditures reduces costs to current and future customers by reducing risk of failure while determining the most efficient approach for asset improvement and replacement.

Phase I of the project consists of a Pilot Study of the Recycled Water Distribution System. The Pilot Study will provide an inventory of assets, a framework for future data collection, and a basis for budgeting and programming of future maintenance and replacement activities. This study will provide an opportunity to test asset management methodologies and approaches, and will include recommendations for implementing future AM studies on the potable system. This project has been delayed due to the drought.



Coordinated Energy Management (Initiative 1.15)

GOAL: Implement an Energy Management Program.

Deferred

Aside from an energy audit of the District Administrative Headquarters conducted in December 2013 (see page 22 of this report for details), this initiative has been deferred as activities associated with the drought and water supply have been prioritized over the Energy Management program. However, energy management is becoming more critical due to new Time of Use electricity rates and an increase in groundwater pumping during drought, resulting in heavy electricity usage. For example, current year-over-year electricity costs have increased by 76% in FY 2013-14, and by 44% in FY 2014-15; related costs have increased by 41% and 32%, respectively. While the District tracks its energy usage and costs and uses this information in its decision-making and every-day operations, full implementation of this initiative will include utilization of software and management practices that facilitate accurate data tracking, monitoring of energy usage, and other performance metrics, more efficiently and effectively.

Service Delivery Category # 2

Administration Buildings and Fleet Management

Incorporating sustainability considerations in the management of administration facilities at the District Headquarters and water treatment plant, as well as fleet management, provides opportunities for reductions in energy usage and operational costs, and creates a healthy workplaces for District employees. Specific projects include optimization of field operations, building envelope retrofits, renewable energy installations, and replacement of standard-engine fleet vehicles with gas-electric hybrids. Progress made during the reporting period on Administration Buildings and Fleet Management initiatives identified in the Sustainability Plan is summarized below.

Summary of Progress and Results

* Community Demonstration Garden Restoration and Enhancement (Initiative 2.1)

Complete

This project was completed in 2012 and was included in the 2012-2013 Sustainability Progress Report.

Fleet and Construction Equipment Replacement Program (Initiative 2.5)

GOAL: Improve the sustainability of the District fleet and construction equipment.

Underway

The Replacement Program improves fleet and equipment sustainability, increases productivity, and keeps pace with new environmental technologies and regulatory requirements. To maintain District field operations, aging heavy equipment and vehicles are periodically replaced to reduce operational costs and ensure that failing equipment does not jeopardize employee or public safety. The Replacement Program has been updated to incorporate factors for the prioritization of vehicles and heavy equipment for replacement. In 2011, the District retrofitted all diesel trucks in its fleet with particulate filters to meet the California Air Recourse Board (CARB) regulations, and moving forward all fleet vehicles will be replaced by 2023 that have model year engines older than 2010. This includes three large service trucks, three dump trucks, and the water truck. Overall, the District has identified ten vehicles that have been prioritized for replacement based on their age, mileage, usage tasks, maintenance issue history, reliability, and overall condition. In addition, CARB regulations require off road diesel equipment such as backhoes and other heavy equipment that operate in California to be upgraded to reduce emissions. Large construction equipment is needed to repair and replace the District's aging infrastructure system and respond to emergencies. As such, the District will replace a number of backhoes by 2023. Replacement of heavy equipment targets one piece of equipment per year, based on age, condition, and the intended use. The overall project has been included in the 2015-20 IIP and is on track for competition ahead of the pending regulatory deadlines.

Field Operations (Initiative 2.6)

GOAL: Identify optimal routes to minimize miles traveled, and expand the use of electronic devices and technology in the field.

Underway

The use of technology to optimize field work yields higher productivity and efficiency for District staff and allows the District to respond to operational needs. The District installed Global Positioning Systems in all District vehicles to improve field response times to emergencies and leaks, while also reducing operational costs and use of fuel. Some of the field staff has also incorporated smart phone technology for quicker communication and data retrieval. Looking ahead, the District plans to update the work order system to eliminate paper work orders utilizing new technology to increase efficiency.

Fleet Replacement Study (Initiative 2.7)

GOAL: Complete study and identify opportunities for incorporating gas-electric hybrids and bio-fuel vehicles into the District fleet.

Complete

The District's study of its existing fleet resulted in plans to replace ten utility/meter shop vehicles that are older than 12 years and have accumulated more than 100,000 miles. These vehicles have been prioritized based on their age, mileage, usage tasks, maintenance issue history, reliability, and overall condition. The vehicles will be replaced with fuel efficient, hybrid engine vehicles, or electric small trucks to lessen the usage of fossil fuels while carrying out required District activities.

Edible Garden Project (Initiative 2.8)

GOAL: Install an edible demonstration garden at the District Administrative Headquarters.

Complete

Installation of the newest component of the District's Demonstration Gardens, the Edible Garden, was completed in June 2013. The new garden illustrates how edible landscaping can be water-efficient, beautiful, and provide sustainable local food options. Located on the grounds of the District Administrative Headquarters, the Edible Garden replicates a typical residential yard, and provides onsite examples of low-maintenance plants that are easy to grow, well-suited for our local climate, and delicious. Garden features include permaculture examples, a sustainable drainage and rain catchment system, and creative and affordable irrigation techniques.

BEFORE





AFTER





Lighting Upgrades at Administrative HQ - Phase I (Initiative 2.9)

GOAL: Install the first phase of lighting upgrades at the District's Administrative Headquarters by December 2013.

Complete

A lighting survey report completed in 2012 and an energy audit completed in 2013 identified and recommended several improvements to lighting in and around the buildings that would increase energy efficiency, reduce energy costs, improve design, and comply with industry standards. Progress on this initiative has included lighting upgrades in the Operations Department and Board of Directors Hearing Room (BDHR).

Phase 2 of the lighting upgrades at the District Headquarters is not yet scheduled but is included in the District's 2015-2020 Infrastructure Improvement Plan. The upgrades include adding lighting to unlit areas, surrounding gardens, and pedestrian walkways, and installation of motion sensors and intuitive



controls to increase functionality and lighting efficiency. In addition to reducing energy use, these upgrades will generate cost savings over time due to the improved energy efficiency of the lighting.

Storm Water Runoff Improvements Study (Initiative 2.11)

GOAL: Identify and design storm water runoff improvements at the District's Administrative Headquarters.

Complete

The Storm Water Headquarters Master Plan includes ten improvements intended to slow, detain, and infiltrate storm water runoff leaving District property to reduce the impact on neighboring creeks, groundwater, and the ocean. These improvements follow the requirements of Santa Barbara County's Low Impact Development Guide and ensure District compliance with the new State Storm Water Industrial General Permit. Projects are divided into four phases and prioritized to meet near-term regulatory compliance requirements. Since October, 2014, phase one has involved the installation of a media flume filter and oil-absorbent socks at two storm water discharge points to treat oil and sediment pollution on site. Preliminary designs are currently being drafted for



the relocation of the bulk material storage area and the installation of a bioretention basin to complete phase two. The third and fourth phases will focus on parking lot permeable paving, installation of parking lot modular wetlands, and an Operations Yard storm water infiltration system. Implementation of these improvements is included in this report as a Planned Initiative (2.12).

Initiatives Delayed or Deferred

Renewable Energy (Solar) Feasibility and Permitting (Initiative 2.2)

GOAL: Complete an initial study of renewable energy installation options by August 2013.

Delayed

This initiative evaluates District-owned properties for solar installation feasibility. While this initiative is delayed due to the drought, progress to date includes identification of two properties for solar installations, which were subsequently identified as distinct initiatives in the 2012-13 Sustainability Plan Progress Report:

- Solar Trellis System at Administrative Headquarters (Initiative 2.10). At the CDMWTP, solar can also serve a dual purpose by generating energy and covering the settling basins, which would then limit algae growth decreasing the cost of operation. An energy audit conducted by Southern California Edison in 2013 also identified several roof areas of the administration buildings that could house solar panels. This project includes installation, as well as a comprehensive solar assessment that will identify the optimum installation
 - site(s), types and sizes of solar systems, as well as rebates and incentive opportunities currently available to provide financial support for the projects. The District will continue to seek out renewable energy installation options and make transitions/upgrades into the future as funds allow, with the goal of offsetting traditional use of non-renewable energy sources.
- San Ricardo Well site (solar panels were a component of Initiative 3.11, San Ricardo Well Site Enhancement). The solar system at San Ricardo was commissioned in Spring of 2015 and is currently in operation.



Green Business Certification (Initiative 2.3)

GOAL: Achieve certification as a Santa Barbara County Green Business.

Delayed

The District currently implements 75% (25 of the 35) of the measures required for Green Business Certification and continues to work towards full implementation of the remaining ten measures. One potential obstacle to achieving certification is the requirement to eliminate all irrigation by planting native and very low water use plants. While nearly all landscape at District facilities is waterwise, the District maintains an extensive Demonstration Garden at its Administrative Headquarters, which includes eight different garden types, from desert to traditional to edible. Irrigation of the gardens is required to maintain the health and appearance of the gardens so they can continue to serve as a community resource. The District will work with the Green Business Program administrators to overcome this barrier and achieve compliance with all required measures; however; implementation of this initiative is delayed and will be continued once the drought and related activities have concluded.

Building Envelope Improvements (Initiative 2.4)

GOAL: Create healthy work environments while reducing energy use and operational costs.

Delayed

The District will continues to identify and pursue opportunities to improve the energy efficiency and general sustainability of the administrative offices. Shifting priorities resulting from the drought have delayed the implementation of this initiative, however, building improvements have been implemented during the reporting period, including:

- HVAC Duct Cleaning The duct system at the District Administrative Headquarters underwent a thorough cleaning early 2015. Duct cleaning draws out any potential contaminants (dust, pollen, bacteria, etc.), ensuring healthy work environments for District staff and visitors.
- Energy Audit At the request of the District, Southern California Edison (SCE) performed an energy assessment in 2013 to identify energy efficiency and demand response opportunities, as well as address self-generation options at the District Administration Headquarters Building. Electricity and natural gas consumption were analyzed, and energy efficiency recommendations identified areas for potential savings within District buildings, equipment, and operations. SCE made specific recommendations on lighting, lighting control, office equipment, and HVAC system management. In response, a number of recommended projects were included in the Appendix of the Infrastructure Improvement Plan and various recommended upgrades were carried out at the District Headquarters building, including the installation of LED lights in the newly remodeled Board Room (see Initiative 2.13).



ADA Accessibility Improvements – The District is continually seeking opportunities to make its facilities more accessible to all customers and to stay in compliance with and exceed the expectations of the American Disability Act (ADA). In 2012, the District installed an automated door at the Administration Headquarters building, and updated the parking lot configuration to provide more ADA accessible parking spaces.



Solar Trellis System at Administrative HQ – Phase I (Initiative 2.10)

GOAL: Commence work on first phase of Solar Trellis.

Deferred

A solar trellis system installation at District Administrative Headquarters would provide protection for District vehicles and equipment, helping to extend their useful life by reducing wear and tear while offsetting energy use and related expenses. The project has been deferred due to the drought, but will be pursued when resources are available.



Service Delivery Category #3

Water Supply, Treatment and Distribution System Investment

The natural topography and gravity-fed distribution system provide unique opportunities for investment in technology within the system that produce energy, such as hydroelectric generators, while improving and rehabilitating the built infrastructure already in place to improve overall system performance. Additionally, as the District increases reliance on the groundwater basin as supplies shift, the need to offset energy usage increases. Planning, managing and accounting for full life cycle infrastructure expenditures will pay-off over time by resulting in reduced costs to the District and its current and future customers. Progress made in this category during the reporting period is summarized below.

Summary of Progress and Results

Hydroelectric Generator Installations (Initiative 3.1)

GOAL: Replace Van Horne Hydroelectric generator and complete feasibility study.

Complete

The District's out-of-service hydroelectric power generating turbine at the Van Horne Reservoir has been replaced, connection piping installed, and the necessary wiring upgrades have been completed. Southern California Edison certified and commissioned the new facility in spring of 2015. The facility is capable of producing over 520 Megawatt hours of clean energy (which equates to 20% of the District's annual energy usage when wells are running), and eliminating 320 metric tons of carbon emissions per year. However, due to the drought and reduced flows from Lake Cachuma, the facility is running at reduced capacity. Once lake levels return to normal and water pressure through the Van Horne Hydroelectric facility is fully restored, the District will be able to realize the full potential of the facility.



Recycled Water System Booster Station Electrical Upgrades (Initiative 3.2)

GOAL: Complete electrical upgrades.

Complete

This project has expanded from its original scope of upgrading four pumps to include the fifth and final pump at the Goleta Sanitary District booster station. Improvements to the four pumps included in the original Sustainability Initiative were completed in the spring of 2013, including replacement of four variable frequency drives (VFDs) and outdated support equipment. In the wake of the current drought and elevated importance of and demand on the recycled water "drought proof" source of supply, the District upgraded the fifth and final pump at the booster station. The fifth pump - a smaller pump used only during periods of low demand - was rebuilt for the first time since it was originally installed in the mid-1990s. Upgrades to the fifth pump were completed in early 2015 and produces multiple sustainability benefits, including increased system reliability and operational flexibility, while also reducing energy use and associated operational costs through the use of efficient equipment.

Water Treatment Plant Sustainable Wastewater Disposal and Irrigation Study (Initiative 3.4)

GOAL: Utilize recycled water for irrigation at the Corona del Mar Water Treatment Plant.

Complete

The Sustainable Wastewater Disposal Study for Corona Del Mar Water Treatment Plant was completed in April, 2014. The study evaluated the current treatment and collection of sanitary and laboratory wastewater, and storm water runoff that is currently collected and treated onsite to be utilized for groundwater recharge and landscape irrigation. Wastewater is currently being used for subsurface irrigation of some landscaping, however, California Department of Public Health regulations prohibit the use of recycled water irrigation within 150 feet of a potable water supply. Therefore, the District cannot use the wastewater to irrigate landscaping within this space. The recommended alternative is to install a subsurface, drip irrigation and percolation system in a lawn turf area over an abandoned Leach Field on the property. This will provide a small green belt area and beneficially use the nutrients in the wastewater.

Grant Application Readiness (Initiative 3.5)

GOAL: Ensure readiness for potential grant funding by completing analytical studies necessary to compete for grant funding for smart infrastructure projects.

Underway

Grant funding that is frequently made available through various local, state and federal agencies has the potential to offset costs of planned infrastructure investment, studies, and projects. Staff continues to undertake activities needed to maintain readiness for grant applications, including:

- Hydroelectricity Engineering Study Outlines various potential locations for new hydroelectric turbine installations throughout the District's distribution system.
- Sustainable Wastewater Disposal Study A geotechnical analysis and a review of landscape architecture, wastewater treatment, and the storm drain system yielded various recommended projects to improve environmental sustainability at the water treatment plant that could be funded through grant programs.
- Various studies regarding District wells, including rehabilitation of existing wells, improved treatment systems at well sites, and identification of properties for and feasibility of drilling new wells.

Infrastructure Improvement Program Evaluation Criteria (Initiative 3.7)

GOAL: Develop sustainability / energy efficiency scoring criteria for use in evaluating IIP projects.

Complete

The Board adopted a new 5-year Infrastructure Improvement Plan (2015-2020 IIP) in spring of 2015. A number of projects that were not necessary to meet regulatory or critical needs were included in the appendix based on their ability to generate revenue through the production of sustainable energy. The economic feasibility of each potential project will be determined as grants and other sources of funding become available.

Corrosion Protection Program (Initiative 3.8)

GOAL: Protect steel distribution waterline from corrosion damage.

Underway

Soon after the United States Bureau of Reclamation (USBR) completed construction of the District's pipeline network approximately 60 years ago, the District began to experience failures in the steel pipelines due to external corrosion. There are approximately 125 miles of steel pipeline comprising 50% of the District's distribution system, and serving approximately 8,000 customers. The District uses Cathodic Protection (CP) to control the corrosion of metal piping If the CP system is not properly monitored, maintained, and upgraded, the cost of repairing and replacing the District's steel piping system will increase. Accordingly, this project maintains and upgrades the District's CP system in order to maintain an effective distribution system that provides regular and consistent water service to the District's customers. This project is ongoing.

Neighborhood Compatibility of District Facilities (Initiative 3.9)

GOAL: Improve aesthetics of District facilities.

Underway

The District is considering the addition of sustainable features at 20 District facilities located in residential areas. These include waterwise landscape, permeable hardscapes, and solar energy systems. Prioritization factors will be developed to determine projects and scheduling appropriate for each site. Proximity to residential neighborhoods, property size, existing landscaping, and ability to incorporate renewable energy will be reviewed. Ultimately, these upgrades will improve neighborhood appearance and increase the security of District assets by making them less noticeable to the public. Notably, the District's San Ricardo Well Site Enhancement Project was completed in 2014, and significantly improved the appearance of that facility. Additionally, the District continues to perform annual fire mitigation work to reduce brush and the risk of fire around District facilities.



Meter Replacement Program (Initiative 3.10)

GOAL: Replace 530 meters annually.

Underway

The District's previous meter replacement program replaced failed meters with like-kind meters on an as-needed basis. In 2014, 290 meters were replaced. At this replacement rate, it would take approximately 55 years to replace all District meters. In the interim, approximately three to five percent of District meters were under-registering water usage, resulting in lost revenue to the District and unaccounted for water use.

In February 2014, the District Board voted to expedite the meter replacement program under a two phase approach.

- Phase I Large Meter Replacement. Initiated in February 2015, approximately 750 existing two to six inch mechanical meters have been replaced with new electronic meters. Large meters account for 52% of total District water consumption, but only 6% of all meters. The new electronic meters detect both high and low flow water use, and will more accurately calculate water use.
- Phase II In order to conserve water, the Board included a small meter replacement program to replace the remaining 16,000 meters with new electronic meters. Replacement is scheduled to begin in FY 2015-16 and continue through FY 2016-17. Phase II is estimated to save 350 AF of water each year, or 7,000 AF over the life of the meters.

The ongoing Meter Replacement Program may generate additional revenue in the amount of \$800,000 to \$1.3 million per year due to current under-registering of water usage by aged meters, and provides an opportunity to upgrade meters and keep pace with technological advancements and associated industry best-practices. More accurate water metering aids in more precise analysis of District demand and water supply projections, leading to responsible resource management for present and future generations.





San Ricardo Well Site Enhancement (Initiative 3.11)

GOAL: Complete the planned site improvements.

Complete

Part of a larger initiative included in the Sustainability Plan (Neighborhood Compatibility of District Facilities, 3.9), this project installed architectural improvements, water efficient landscaping, and a solar energy system at the newly upgraded San Ricardo Well site. The site serves as a model for site enhancements at other District facilities that will result in reduced long-term energy use and associated operational costs, as well as improved neighborhood aesthetics and facility protection. The San Ricardo Well Site Enhancement was completed in the Spring of 2014 and subsequently received a Goleta Valley Beautiful Award in the category of Neighborhood Enhancement.

BEFORE





AFTER





Arc Flash and Electrical Upgrades (Initiative 3.12)

GOAL: Perform improvements by March 2014 and continue to implement electrical upgrades on an ongoing basis.

Complete

The District maintains and replaces electrical equipment as needed to meet all current electrical code requirements and ensure a safe work environment for employees by reducing exposure to arc flash instances. This initiative included the completion of electrical upgrades at 21 district facilities to meet the National Fire Protection Association (NFPA) standards for electrical safety. The upgrades also ensure the necessary power is available to operate a host of mechanical and electrical equipment located throughout the District's distribution system.

Water System Evaluation and Submetering Program – Phase I (Initiative 3.13)

GOAL: Complete an evaluation of the distribution system and first phase of submeter installations.

Underway

A Leak Detection Survey completed in early 2015 involved the inspection of all pipelines, valves, hydrants, services, and meters to determine approximately 7,500 listening points for monitoring and leak detection throughout the District distribution system. In total, the survey revealed 31 distribution leaks and eight customer leaks, resulting in an annual water savings of approximately 70 acre-feet per year. District operators have been promptly repairing and replacing leaking infrastructure as they are identified to reduce system water loss, particularly in the wake of the current water shortage due to the drought. Notably, the District also notifies customers with identified leaks, offers water audits, conservation programs, and tools to assist customers in reducing their water use.

Submeter installations that improve water planning and reduce unaccounted for water use and water loss are also currently underway. Progress to date includes the installation of four submeters at Patterson Pump Station, Edison Pump Station, the Willow Glenn Interconnect, and the Paseo Cameo Pressure Zone. The District plans to connect the new meters to its Supervisory Control and Data Acquisition (SCADA) system, which will allow staff to read meter from District offices, increasing water leak response times, while also aiding in planning for emergency scenarios.

Van Horne Reservoir Slope Protection Evaluation (Initiative 3.14)

GOAL: Complete diagnostic evaluation.

Complete

District engineers completed an assessment of the Van Horne Reservoir slope and found no structural issues. The District intends to reconstruct a portion of the manufactured fill slope on the westerly side of the reservoir and replace approximately 400 linear feet of reservoir access road. These safety improvements at the Van Horne Reservoir will increase the long-term sustainability of the reservoir as a significant area of water storage, while also ensuring employee safety.

Corona Del Mar Water Treatment Plant Infrastructure Improvement Construction (Initiative 3.15)

GOAL: Commence construction on improvements and complete project in 2015.

Underway

A Process Design Study was performed for the Corona Del Mar Water Treatment Plant in December, 2013 to review existing data, and evaluate conditions and treatment process efficiency. The study yielded specific recommendations to the backwash recovery system, filter performance and replacement schedule, and the solids handling system. Improvements to date have included:

- Filter media at the water treatment plant was replaced in August, 2014 which increased efficiency and reliability of treatment facilities, as well as sustaining consistent water quality.
- A baffle wall was installed at the backwash basin in early 2015, which increases the operational efficiency of the facility and improves the quality and utilization of the water that is recycled and returned to the headworks of the water treatment plant.
- The existing sand underneath one of two sludge drying beds was removed and replenished to increase efficiency of water percolation and long-term sustainability of the sludge drying bed.

Additional improvements planned to commence in Fiscal Year 2016 include the construction of a third sludge drying bed at the CDMWTP. The additional sludge drying bed will increase the efficiency of the natural sludge handling and drying process utilized by the District, which uses the sun and air to remove water from the sludge leftover from the organic filtration process in water treatment. Avoiding the use of mechanical equipment for this process helps avoid costly energy use while also allowing for groundwater recharge.

Initiatives Delayed or Deferred

Goleta Beach Recycled Waterline Relocation (Initiative 3.6)

GOAL: Commence work to relocate the Goleta Beach recycled waterline.

Deferred

On May 13, 2015, the CA Coastal Commission approved a 20-year conditional permit to keep the Goleta Beach rock revetment in place to protect park facilities and utilities, including the District's Recycled Waterline, from erosion. As a result, relocation of the pipe is not necessary at this time so the project will be deferred indefinitely.

Hydroelectric Turbine Installation at Patterson Reservoir (Initiative 3.16)

GOAL: Design, permit and purchase necessary equipment for hydroelectric turbine installation.

Delayed

The electricity generated from this facility could result in up to \$95,000 per year of additional revenue depending on the type of system selected. The additional revenue would help support District operations and offset increasing energy costs, while assisting in the overall goals of the District to reduce carbon emissions. However, due to reduced flows this project will move forward when the drought subsides or when grant funding is made available.

Goleta Water District – City of Santa Barbara Interconnect (Initiative 3.17)

GOAL: Construct interconnect.

Deferred

This project is an important regional collaboration and would be particularly competitive for state grant funding under the Integrated Regional Water Management Program. It involves the construction of a new connection (interconnect) between the water distribution systems of the Goleta Water District and the City of Santa Barbara, and is needed so neighboring agencies can provide mutual assistance to one another in the event of an emergency such as a transmission line failure, earthquake, wildfire, or for a planned system shut down for repairs or maintenance.

This project will move forward if/when grant funds are identified and secured.

New Sustainability Initiatives

An important component of the ongoing implementation of the Sustainability Plan is the annual identification of new or refined initiatives to help address goals identified in the Sustainability Guiding Principles. In coordination with the annual development of the District Budget and the 2015 update of the 5-year Infrastructure Improvement Plan, the District identified 24 new Sustainability Initiatives that align with the Sustainability Guiding Principles by considering the social and environmental impacts of projects that also make economic sense and enhance value creation for customers. Focus has been placed on initiatives that ensure continued water delivery as the reliability of surface water supplies has declined statewide, and the District water supply portfolio increasingly shifts to groundwater. For example, the planned rehabilitation of five District wells in FY 2015-16 will provide greater redundancy and supply reliability if a well needs to be taken offline for service, or in the event of an unexpected emergency. Maintenance and replacement of aging distribution equipment is needed to ensure system reliability during the drought, enhance energy efficiency, and minimize water loss due to distribution line leaks and breaks.

A Focus on Water Supply, Treatment, and **Distribution System Investments**

Four years of severe drought have fundamentally changed how the District's water supply portfolio is managed. Groundwater has replaced Lake Cachuma as the primary source of supply as lake levels have dropped, and the District's annual operating cost and energy use to extract water from the basin has increased proportionally to the amount of water needed from the wells to balance the overall supply with customer demand.

The growing importance of the Goleta Basin in meeting customer water needs necessitates significant investment in the District's wells and distribution system. The District's water treatment and distribution system were designed for use under normal conditions when local supplies from Lake Cachuma and the Goleta Groundwater Basin constitute the bulk of the District water supply portfolio, with imported supplies from the SWP and recycled water rounding out the balance. Unlike water from Lake Cachuma, which flows downhill and is a gravity-fed system, groundwater must be pumped through 19 pressure zones within the District distribution system, and even uphill to many customers.

Increased groundwater production and the energy and infrastructure needed to distribute it throughout the system have the potential to increase costs and greenhouse gas (GHG) emissions. These initiatives and infrastructure improvements present a challenge but also an opportunity to implement projects with efficiencies that can provide long-term cost, energy, and emissions savings.

As groundwater constitutes an increasingly critical part of the District's water supply portfolio, upgrading and retrofitting the water supply, treatment and distribution systems is crucial to ensure reliable service for customers, and efficient operation.

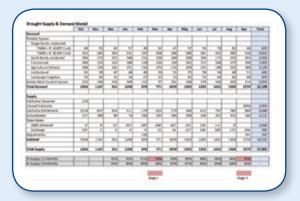
Service Delivery Category # 1: New Initiatives

Customer Service and Business Operations

Drought Supply & Demand Model (Initiative 1.16)

GOAL: Create and maintain a water supply and demand model to project the potential for and severity of shortages in District water supply.

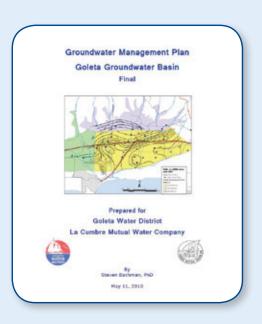
In times of drought, or if a water supply shortage is imminent, the District utilizes a water supply and demand model to determine the potential for a supply shortage early in the planning process. In late 2012, the District began maintaining a detailed model that utilizes supply and demand inputs to 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 for 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 on a regular basis with actual customer demand data, and to reflect changes in the delivery timing or quantity of water supplies.



Groundwater Management Plan Update (Initiative 1.17)

GOAL: Update the 2010 Groundwater Management Plan.

Planning for the development of the Groundwater Management Plan Update is currently underway. The plan enhances the District's ability to manage its groundwater supply effectively and sustainably while also meeting state groundwater planning requirements and maintaining District eligibility for State grant funding. The updated Plan will reiterate current adjudication and voter-approved initiatives governing groundwater management, while addressing groundwater quality, adopting updated Basin Management Objectives, outlining new management strategies for the basin, and recommending future tasks and timelines. Additionally, the new Salt and Nutrient Management planning requirements will be addressed in the updated Plan to meet state regulatory requirements. The Plan update is scheduled to be completed in 2016.



Water Supply Management Plan Update (Initiative 1.18)

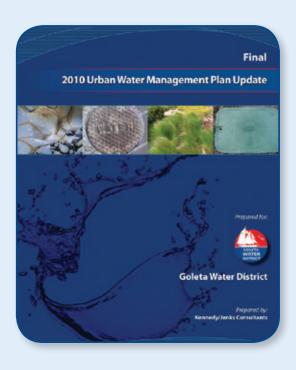
GOAL: Update the 2011 Water Supply Management Plan.

The District will update the current Water Supply Management Plan (WSMP) to adequately plan for District water needs now and into the future. The Plan formulates a water supply strategy that prioritizes use of the District's various sources of supply, evaluates their reliability, and develops drought scenarios for current and future demand. The update builds on the Groundwater Management Plan by including other sources of supply in the District's water portfolio. The WSMP update is scheduled to be completed in 2016.

Urban Water Management Plan Update (Initiative 1.19)

GOAL: Update the 2010 Urban Water Management Plan.

The Urban Water Management Plan (UWMP) is a planning tool required by the State that generally discloses the actions of water management agencies. It provides managers and the public with a broad perspective on a number of water supply and demand issues, and provides a framework for potential action. Updating the UWMP is an important sustainability initiative as maintenance of a long-term, general planning document is necessary for ensuring a sustainable water supply. Every five years, water suppliers such as the District are required to update the UWMP. As such, an update is scheduled for completion by July 2016, and will be submitted to the California State Department of Water Resources.



Drought Outreach Plan (Initiative 1.20)

GOAL: Implement a Drought Outreach Plan to guide public outreach activities during a declared water shortage.

To ensure customer awareness of water shortage conditions and maximize conservation efforts, any declaration of a water shortage (Stage I-V) is coupled with an aggressive public outreach campaign. The California Department of Water Resources (DWR) estimates that public information campaigns alone can reduce demand in the range of 5 to 20 percent, depending on the level of time, money, and effort invested by an agency. Accordingly, the District's outreach plan is updated and expanded with each water shortage stage escalation. The District relied solely on outreach and public education to achieve demand reductions during the Stage I Water Shortage declared by the District Board in March of 2014, and saw an 8% reduction in demand during the duration of Stage I. The District's Board-adopted Drought Preparedness and Water Shortage Contingency Plan guides the preparation and implementation of outreach activities during any given water shortage stage.



The Drought Outreach Plan is a critical component of the District's overall water shortage planning strategy. Public education and outreach enhances civic engagement in water-related efforts and activities, and supports the District's response strategy during a drought. The outreach plan will continue to be implemented during the ongoing water shortage.

Sustainable Groundwater Management Act Implementation (Initiative 1.21)

GOAL: Comply with California's new Sustainable Groundwater Management Act.

On September 16, 2014, the Governor of California adopted the Sustainable Groundwater Management Act (SGMA). For the first time in California history, SGMA empowers local agencies to adopt groundwater management plans that are tailored to the resources and needs of their communities. Specifically, the legislation creates a framework for sustainable, local groundwater management by recognizing that groundwater management in California is best accomplished locally. Under the new legislation, local bodies will be given power to assess the conditions of their local groundwater basins and take the necessary steps to bring those basins into balance where needed.

In an effort to ensure the ongoing sustainable management of the Goleta Groundwater Basin in full compliance with the SGMA, the District is actively reviewing the new legislation to assess the planning and related activities that will be necessary in the coming decade. This Initiative further supports the long term sustainability and reliability of local groundwater supplies available to serve the needs of the Goleta Valley. The model update is expected to be completed by April 2016.

Groundwater Model (Initiative 1.22)

GOAL: Complete an update and training on the Goleta Groundwater Basin Numerical Model.

The District's Goleta Groundwater Basin Numerical Model (Model) was created in 2007 to be a data repository for modeling and monitoring data, and a platform capable of producing reports about historical data and the wells to interested parties as required by the Wright Judgment and SAFE Ordinance. In 2014, the District updated the Model to reflect current conditions and to run different weather and pumping scenarios enabling predicted groundwater level drawdowns and recovery timelines. Moving forward, the District plans to use the Model to determine the most eligible sites for new production, injection and monitoring wells to increase the long-term sustainability of the aguifer. A Training Manual for the Model will be created to ensure District staff can routinely update and run scenarios independently on a permanent basis and to be aids in responsible resource management planning. The model update is expected to be completed by April 2016.

Agriculture Water Efficiency Action Plan (Initiative 1.23)

GOAL: Distribute surveys to agricultural water users in the District service area and develop a strategic agricultural water use efficiency action plan by Spring 2018.

The District will participate in a program led by the Cachuma Resource Conservation District (CRCD) that seeks to increase water use efficiency among agricultural customers. Funded in part by a grant provided through the California Agricultural Water Use Efficiency Program, the project involves distributing a survey to local farmers to assess the existing participation level and implementation barriers to efficient water management practices on farms in the District service area. Information provided by growers will inform the development of a ten-year action plan for improved agricultural water use efficiency. The ultimate goal of the project is to reduce water needed for agricultural irrigation and position the region for future funding opportunities to achieve on-farm water use efficiency. The project will also help the District design and target its conservation and rebate programs and produce the highest water conservation results most effectively, while helping customers reduce operational costs attributable to water use.



Conservation Incentive Programs (Initiative 1.24)

GOAL: Continue to implement a suite of conservation incentive programs to promote water conservation by District customers.

As part of the District's Drought Outreach Program, a variety of rebate programs were developed in 2014 and 2015 to provide customers incentives to conserve water. Programs included:

- Smart Landscape Rebate Program (SLRP) Approved in October, 2014, SLRP is aimed at reducing water use in residential and commercial landscapes through various replacements and upgrades. Qualifying materials eligible for the rebate include low water use plants, permeable landscaping, artificial turf, drip conversion, pool covers, and laundry-to-landscape systems.
- Water Saving Devices Distribution Program The District distributes free water saving devices to customers in order to increase District-wide water use efficiency. Devices include garden hose nozzles with automatic shutoff capability, bathroom faucet aerators, showerheads, showerhead shut-off valves, toilet leak food coloring test tablets, toilet flappers, and rain sensors.
- Water Saving Incentive Program (WSIP) This program is intended to serve as a collaborative effort between Goleta Water District and large customers to improve water use efficiency. The program provides rebates for installation of specific water saving materials to each customer site, enabling commercial and agricultural customers to achieve water efficiency through individualized projects.
- Cash for Crops Program To help agricultural customers reduce water use, this incentive-based program offers rebates for temporarily taking permanent crops out of production where deemed appropriate by the customer. Agricultural water use represents one third of customer water usage in the District, and has increase by 15% during the current drought, presenting an obstacle to meeting District-wide conservation targets and state mandates.









Service Delivery Category # 2 – New Initiatives

Administration Buildings and Fleet Management

Leaking Underground Fuel Tank (LUFT) Closure (Initiative 2.12)

GOAL: Complete the required activities to remediate and close out the leaking underground fuel tanks at the District operations yard.

In 1970, underground fuel tanks were installed in the Operations Yard of the District Headquarters. By 1988 all leaking underground fuel tanks were removed and the District began proactively conducting environmental remediation activities at District Headquarters. Activities have included the installation of 21 groundwater monitoring wells to ensure safe and clean water supplies, 17 soil borings to collect soil samples, installation of soil vapor probes that extract vapor from the soil for the purpose of monitoring soil conditions, and excavation of 8,500 cubic yards of soil to depths 28 feet below ground. In June, 2014, a Groundwater Monitoring and Soil Vapor Survey Report of the site granted the District the ability to pursue a "low-threat closure" based on recent analytical results meeting water quality requirements with no further environmental remediation needed. Since then, the District has successfully abandoned remaining groundwater monitoring wells and subsequently submitted final site closure documents to the Santa Barbara County Public Health Department.



Storm Water Headquarters Improvements/ Master Plan (Phase I) (Initiative 2.13)

GOAL: Carry out the implementation of improvements to storm water management at the District Administrative Headquarters.

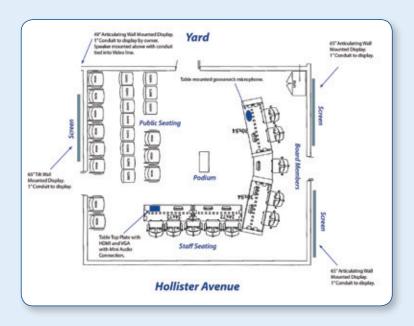
The State Water Resources Control Board's (SWRCB) new Industrial General Permit (IGP) regulations for regulating storm water discharge became effective on July 1, 2015. To comply with these regulations and help manage storm water in accordance with the Federal Clean Water Act and the EPA's National Pollutant Discharge Elimination System (NPDES) requirements, the District has created the Storm Water Headquarters Master Plan. The Plan includes four phases for carrying out the implementation of conceptual designs that are intended to slow, detain, or infiltrate storm water runoff before leaving District property to reduce the impact on neighboring creeks, groundwater, and the ocean. Additionally, these designs ensure that the District complies with annual reporting, as well as meets District goals outlined in the original Board adopted Sustainability plan. This project will recur annually starting in FY 2015-16.



Board Room Remodel (Initiative 2.14)

GOAL: Remodel the Board of Directors Hearing Room.

The Board of Directors Hearing Room (BDHR), located at the District Headquarters at 4699 Hollister Avenue in Goleta, was remodeled in spring of 2015 to enhance its serviceability as a public meeting facility. The remodel included an improved room layout and upgrades to the interior walls, replacement of the carpet, worn furniture and audio/visual equipment. Sustainable and recycled content materials were used for the carpet, chairs, and desk, and the paint was no VOC. Energy efficient LED lighting was installed.



Recycled Water Hauling Program (Initiative 2.15)

GOAL: Implement a Recycled Water Hauling Program.

Recycled water is an important element of the District's supply portfolio, especially during a times drought. The District currently delivers approximately 1,000 AF of recycled water to customers annually, offsetting potable water demand. Working in collaboration with Goleta Sanitary District (GSD), the District has developed a limited Recycled Water Hauling Program (RWHP) to offset potable water demand during the current drought. The RWHP will be made available to interested parties within and outside of the District service area where recycled water is otherwise not available. The program boundaries for delivery are Refugio Beach to the west, Carpinteria to the east, and the base of the Santa Ynez mountains to the north. Deliveries are made by a District water truck, capable of hauling between 2,000-4,000 gallons of recycled water. The Recycled Water Hauling Program was approved in October 2014.



Service Delivery Category #3 – New Initiatives

Water Supply, Treatment and Distribution System Investment

San Antonio Well Rehabilitation Project (Initiative 3.18)

GOAL: Upgrade and retrofit the aged San Antonio Well infrastructure.

The second largest producing well in the District, San Antonio, was constructed in 1973 to produce 700 gallons per minute (gpm) or 1130 AFY, but its productivity declined to 550 gpm as the infrastructure aged over time. During the first phase of the project, the well casing was cleaned and a new pump and motor were installed in Spring of 2015. Consequently, the well production was reestablished to the original capacity of 700 gpm. The next phase of the project will focus on upgrading and expanding the capacity of the onsite treatment facility. Increased operational flexibility will be enhanced via integration into the Supervisory Control and Data Acquisition (SCADA) system, allowing for remote monitoring of system conditions. This SCADA integration will save staff travel time currently required for field monitoring and reduce associated carbon emissions. Maintaining a high groundwater pumping capacity is important for water supply reliability and sustaining water supplies during periods of drought and other water shortages.



Berkeley Well Rehabilitation Project (Initiative 3.19)

GOAL: Rehabilitate Berkeley Well #2 to its maximum production capacity.

The District's Berkeley Well #2 is the largest groundwater well among four currently non-active "small" supplemental production wells owned and operated by the District. Designed to produce 440 gpm, its production capacity had declined to 300 gpm when it last operated in 1991. Rehabilitation of Berkeley Well #2 to its maximum production capacity will help bolster the District's groundwater production capacity, which is particularly important when the District relies heavily on groundwater supplies, such as during the current drought and other emergency supply interruptions. The project increases operational flexibility to access and manage the District's groundwater supply while supporting greater District independence and emergency preparedness. Mechanical cleaning and a pump test were completed to develop the well for rehabilitation.

Shirrell Well Rehabilitation Project (Initiative 3.20)

GOAL: Rehabilitate the Shirrell Well to its maximum production capacity.

The Shirrell Well was constructed in 1979, with an original production capacity of 200 gpm (about 300 AFY). After being out of service since the 1990s, the District initiated the initial phase of the well rehabilitation project to produce additional water for use during the current drought and as a supplementary emergency backup supply in the future. Mechanical cleaning of the well and a pump test were completed in spring 2015. The next task includes water quality evaluation, well pump and motor installation, and upgrade or replacement of the existing onsite treatment facility if needed. This project also provides increased operational flexibility to access and manage the District's groundwater supply when other wells are down for periodic maintenance.

Oak Grove Well #2 Rehabilitation Project (Initiative 3.21)

GOAL: Rehabilitate the Oak Grove Well #2 to maximize its production capacity.

Oak Grove Well #2 was constructed in 1983 and originally designed to pump 190 gpm, but has been out of service since the 1990s. The District is rehabilitating the well for use during the current drought and as a supplementary emergency backup supply in the future. Oak Grove Well #2 is unique in that it can provide water directly to the County Government complex, with existing valving in the distribution system. Due to the close proximity of the well to the customer, Oak Grove #2 could function independent of the rest of the distribution system and continue to provide water to the County under emergency conditions. This capability is critical due to the number of persons housed at the facility requiring operational sanitation facilities. This project also provides increased operational flexibility to access and manage the District's groundwater supply when other wells are down for periodic maintenance. Mechanical cleaning and a pump test were completed to develop the well for rehabilitation.

Santa Barbara Corporation (SB Corp) Well Rehabilitation Project (Initiative 3.22)

GOAL: Rehabilitate the SB Corp Well to maximize its production capacity.

SB Corp Well was constructed in 1979. The historical productivity of the well is reported as 100 gpm (160 AFY). The SB Corp Well was last operated in 1992 and produced a total of 60 AF within that year. The District is rehabilitating the well for use during the current drought and as a supplementary emergency backup supply in the future. The well is anticipated to reliably produce over 100 AFY. This project provides increased operational flexibility to access and manage the District's groundwater supply when other wells are down for periodic maintenance. SB Corp Well can provide water on an ongoing basis and during emergencies to Cottage Hospital, and is critical for maintaining water service for health and public safety. The first phase of the well rehabilitation project included mechanical cleaning and a pump test.

Hollister Recycled Water Pump Replacement (Hollister) (Initiative 3.23)

GOAL: Replace three recycled water pumps and motors at the Hollister Booster Station.

The three recycled water pumps and motors at the Hollister Booster Station were past their expected service life. Pump replacements were required since the maximum number of times the pumps and motors can be rebuilt has been exceeded. These pumps and motors are critical to providing adequate recycled water pressure to the Sandpiper Golf Course and the Bacara Resort so that their irrigation systems can operate properly. The replacements reduced power requirements, minimized electrical usage, and reduced maintenance costs while providing reliable water supply at varying flow rates to all recycled water customers. This initiative was completed in FY 2014-15.

Emergency Pump Project (Patterson and Edison) (Initiative 3.24)

GOAL: Replace four existing pumps and motors and add a fifth pump at the Patterson and Edison Emergency Pump Stations.

The Emergency Pump Stations provide backup water supply to the higher elevations of the District's distribution system during interruptions of the normal water supply. As groundwater use is increased to offset reduced supplies from Lake Cachuma during the drought, the stations are increasingly necessary to deliver well water across the 19 pressure zones and move water to higher elevations. This project replaced existing pumps and motors with more efficient and reliable equipment. The project was completed in FY 2014-15.

New Wells

As the District increasingly relies upon groundwater supplies, especially during periods of drought, strategic investment in the District's wells and related distribution system components ensures that production capacity can meet customer demand into the future. A well siting study is currently underway to determine the location and viability of maximizing groundwater extraction while minimizing well development costs. The construction of two new wells will enhance the District's pumping capacity to increase reliable supplies of potable water, and facilitate extraction of water from the Goleta Groundwater Basin during potential emergencies and periods of drought. Collectively, the new wells will be designed to extract approximately 1,440 acre feet per year of groundwater, which is an approximately 25% increase in current District groundwater production capacity.

Airport Area New Well Project (Initiative 3.25)

GOAL: Complete siting study and begin the Airport Area New Well Project.

This project will identify a property site and install a new production well in the vicinity of the Santa Barbara airport. The well is anticipated to operate at 500 gallons per minute (gpm), providing an additional 720 AF per year. This initiative has an expected completion date of FY 2018-19.

Transmission Main Area New Well Project (Initiative 3.26)

GOAL: Complete siting study and begin the Transmission Main Area New Well Project.

This project will identify a property site and install a new production well along the District's transmission main. The well is anticipated to operate at 500 gpm, providing an additional 720 AF per year. The project is expected to be completed in FY 2018-19.

Monitoring Wells (Initiative 3.27)

GOAL: Identify and add ten new monitoring well sites within the Goleta Central Sub-Basin.

This project would provide the District with ten new monitoring well sites within the Goleta Central Sub-Basin for the purpose of obtaining more accurate data on groundwater levels within the basin. More monitoring points will account for any abnormally high or low spots when forecasting aquifer use or injection. As groundwater comprises an increasingly significant portion of the District water supply portfolio, adding new monitoring wells will provide the District with the information necessary for use in strategic planning to increase the long-term sustainability of the Goleta Groundwater Basin into the future. The new monitoring wells are expected to be added by FY 2019-20.

Injection Wells (Initiative 3.28)

GOAL: Add injection wells to increase groundwater replenishment rates.

As part of the District's Aguifer Storage and Recovery (ASR) program and groundwater management plan, water is injected back into the basin when available during wet years. The District's current injection capacity is approximately 2.9 million gallons per day (MGD), or 10 AF per day (AFD). Additional injection wells will increase replenishment rates for the Goleta Groundwater Basin, and promote the long-term sustainability of the basin and groundwater supplies for future generations. Project design will begin in FY 2015-16 with an expected project completion date of FY 2019-20.



LOOKING AHEAD

The Sustainability Plan is a living document, and its ability to remain adaptable and adjustable is important as the future of District water supplies is uncertain due to drought conditions and impending climate change. As illustrated throughout this Sustainability Progress Report, the District is making significant efforts to preserve natural resources and engage the community while maximizing financial performance to keep costs low for customers. This is particularly important during periods of water stress, during which the District must be strategically adaptive in order to adjust to major changes in the water supply portfolio and customer demand.

Ongoing monitoring of the progress of these initiatives will continue so the District can effectively adjust its approach as needed, and report on Sustainability Plan implementation results and benefits to the community. Through continued strategic planning, investments and implementation of best practices, the District will continue to foster a model operation for sustainable service today and well into the future.













