



## A15. IRWM Plan – Reduce Delta Water Dependence

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### Introduction

The Santa Barbara Countywide Integrated Regional Water Management Plan (IRWM Plan) was developed by 28 public agencies and community based organizations known locally as the Cooperating Partners (or Regional Water Management Group [RWMG]) and formally adopted in 2007. Some urban areas within the region rely on State Water Project (SWP) supplies to meet a portion of their demand; therefore, the region is eligible for augmented funding in this grant process. However, cost and other factors continue to lead local interests to develop and implement programs that emphasize efficient water use and full utilization of local supplies, including water reuse.

### Commitment to Reduce Dependence

The region has a long-standing commitment to efficient water use, full utilization and development of local supplies, and environmental protection that will result in reduced dependence on water exported from the San Joaquin-Sacramento River Delta (Delta) system. The commitment to reducing dependence is reflected in the IRWM Plan (2007) and the 2010 Biennial Review of the IRWM Plan. The submitted “Application for Proposition 84 Planning Grant Round 1” funding provides assurances that the revised plan will continue to help reduce dependence on the Delta. Relevant excerpts from all three sources that refer to reduced dependence on the Delta are included in this attachment.

### Use of Delta Water in IRWM Region

Santa Barbara County (through the Santa Barbara County Flood Control and Water Conservation District) executed a contract with the Department of Water Resources (DWR) to participate in the SWP in 1963. In the early 1990s, facilities were constructed to distribute the County’s allotment to participating water purveyors. Delivery of SWP supplies to Santa Barbara County began in 1997. The Central Coast Water Authority (CCWA) now provides contract management and operates the Coastal Branch on behalf of Santa Barbara County and the CCWA member purveyors. Current purveyor allotments are shown in Exhibit 15-1.

**EXHIBIT 15-1**

State Water Project Table A Amounts in Santa Barbara County

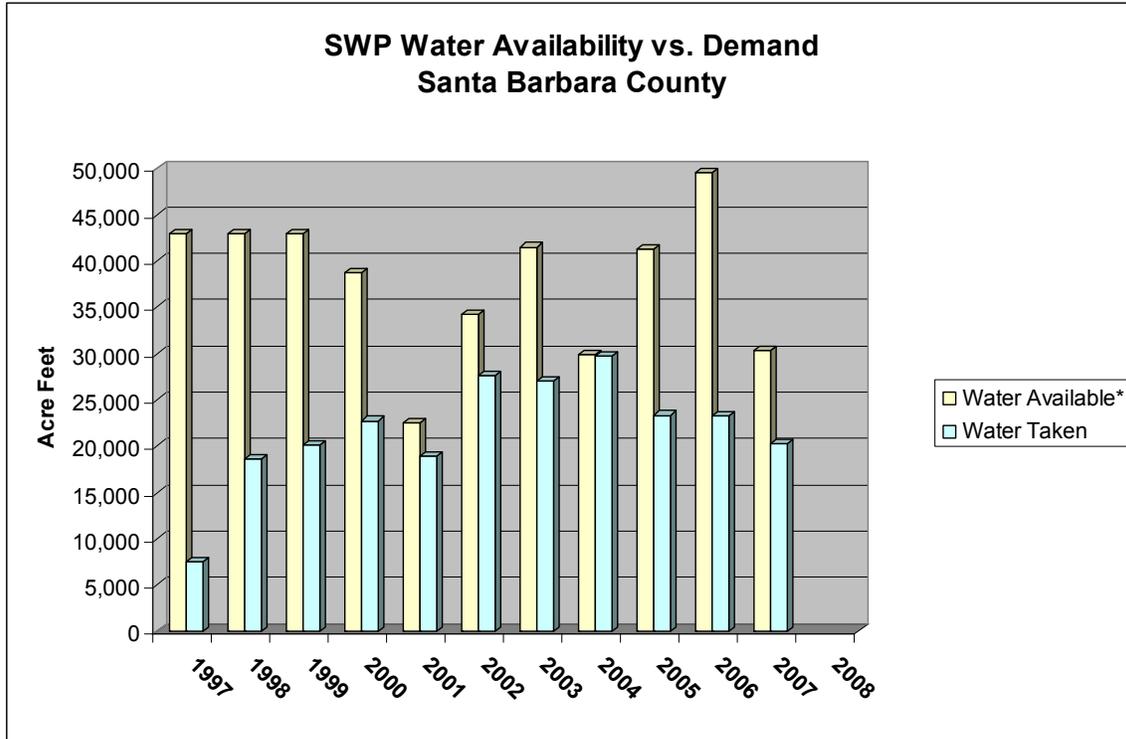
| State Water Project Participant   | Table A Amount (AFY) |
|---|----------------------|
| Carpinteria Valley Water District (includes Summerland)                 | 2,000                |
| City of Buellton  | 578                  |
| City of Guadalupe   | 550                  |
| City of Santa Barbara   | 3,000                |
| City of Santa Maria   | 16,200               |
| Golden State Water Company (Orcutt area)                                | 500                  |
| Goleta Water District   | 4,500                |
| La Cumbre Mutual Water Company  | 1,000                |
| Montecito Water District  | 3,000                |
| Morehart Land Company   | 200                  |
| Santa Barbara Research Center   | 50                   |
| Santa Ynez River Water Conservation District Improvement District No. 1 | 500                  |
| City of Solvang   | 1,550                |
| Vandenberg Air Force Base   | 5,500                |
| <b>Total</b>  | <b>39,078</b>        |
| AFY = acre-feet per year  |                      |
| Source: SBCWA, 2000   |                      |

All SWP water in the Coastal Branch is delivered as urban supply. Exhibit 15- 2 shows the history of SWP deliveries to Santa Barbara County. SWP deliveries are used by some purveyors as their primary water supply (with groundwater as backup), while others use their more diversified local sources first and SWP water to augment supplies depending on conditions. The IRWM Plan provides a complete discussion of each water purveyor’s supplies in Section 4.4 and 4.5.

**EXHIBIT 15-2**

Deliveries taken by CCWA for Santa Barbara area interests in AFY, (From CCWA, 2010)

| 2000   | 2001   | 2002   | 2003   | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 22,741 | 18,945 | 27,600 | 26,970 | 29,705 | 23,343 | 23,275 | 27,740 | 18,391 | 15,452 |



**Summary**

Water efficiency, water recycling, and conjunctive use all play a prominent role in regional water planning and the increased emphasis on regional self-sufficiency. These topics are included in the IRWM Plan (Sections 4.5.4 and 4.5.5). The implementation of these types of projects demonstrates the region’s commitment to reducing dependence on water supplied from the Delta.

In the past century, Santa Barbara has undergone water shortages as its population and water use has increased. As water use has increased, several major water supply projects have been developed and are now used conjunctively with groundwater. However, supplies have not always kept up with demand, particularly during prolonged droughts in 1945 to 1951 and in 1986 to 1991. As a result, efficient use of water has been a way of life in the region for decades.

To support existing purveyor programs during the last prolonged drought, the Santa Barbara County Water Agency (SBCWA) established a regional water efficiency program (RWEF) in 1990. Through RWEF, SBCWA coordinates cooperative water conservation efforts among purveyors and promotes the efficient use of urban and agricultural water supplies countywide (Additional information available at

[sbwater.org](http://sbwater.org)). Currently, the County, CCWA, and many purveyors receiving SWP allotments are members of California Urban Water Conservation Council (CUWCC) and have aggressive water use efficiency programs. This commitment is manifest in the three water use efficiency and conjunctive use projects that were selected from the 2007 IRWM Plan and implemented with Proposition 50 (Prop 50) project funding. In addition, three water use efficiency projects and two projects to enhance local water reuse are included in this Santa Barbara County Region Prop 84 IRWM Implementation Grant Application – Round 1(Proposal).

## IRWM Plan

### 2007 IRWM Plan

In the 2007 IRWM Plan, the “Regionwide Water Management System” was identified as one of three main regionwide issues, specifically “[w]ater supply reliability needs to be increased given limited and variable water supplies and periodic droughts” (IRWM Plan Section 7.1.2). The IRWM Plan identified several objectives including those relevant to increasing water supply reliability and management of SWP supplies (IRWM Plan, Section 7.2):

- **Water Supply** – *Protect, conserve, and augment water supplies*
  - *Improve water supply reliability*
  - *Improve system flexibility and efficiency*
  - *Enhance local water supplies through groundwater recharge projects, conjunctive use of water supplies, water recycling, water conservation, water transfers, and precipitation enhancement*
  - *Meet demands*
  - *Optimize existing storage capacity*
  - *Capture and manage runoff*
  - *Match water quality to water use*
- **Groundwater Management** – *Protect current and future groundwater supplies*
  - *Promote sustainable groundwater use*
  - *Utilize conjunctive use*
  - *Implement groundwater banking*
  - *Protect and improve groundwater quality*
  - *Implement groundwater recharge projects*
- **Water Quality** – *Protect and improve groundwater, freshwater, brackish water, ocean water, and drinking water quality*

- *Meet current and future state and federal water quality standards*
- *Improve the quality of urban runoff, storm water, and wastewater*
- *Utilize seawater desalination as appropriate*
- *Protect public and aquatic ecosystem health*

Implementation of these portions of the IRWM Plan are assisting the region to move toward reducing dependence on the Delta for water supply by increasing reliability of local water sources, using local supplies in periods of decreased SWP availability, and planning for additional local supplies such as recycled water. To meet these objectives, the Plan identified several short-term priorities including:

*Increase water supply reliability by developing new water sources; maximizing the efficient use of existing sources, including recycled water used for landscaping, irrigation, industrial and commercial purposes, desalinated water, conservation, and groundwater treatment; and strategically restoring or replacing water infrastructure. (IRWM Plan Section 7.3.1)*

These priorities were reflected in projects funded and implemented through Prop 50 (Round 2) grants, specifically:

- Cachuma Operations and Maintenance Board, South Coast Conduit Upper Reach Reliability Pipeline
- Carpinteria Valley Water District, Central Zone Pipeline Improvements and Demonstration ASR Well
- Goleta Water District, ASR San Ricardo Well Rehabilitation Project
- Laguna County Sanitation District, Recycled Water System Improvement Project

### **Development of 2010 Biennial Review of IRWM Plan**

The Cooperating Partners (RWGMG) began a Biennial Review of the 2007 IRWM Plan objectives and identification of high-priority projects in September 2009. The Biennial Review has been approved by the RWGMG and is now a part of the IRWM Plan. The Biennial Review process, completed in June 2010, resulted in a restatement of several key objectives and an increased emphasis on the efficient use and management of water including:

- ***Reduce Water Demand*** – Increase water reuse and water conservation measures to increase and extend existing water supplies
- ***Improve Operational Efficiency*** – Improve operational efficiency, transfers, and supply reliability
- ***Increase Water Supply*** – Increase water supply in the least costly, most efficient, and most reliable manner

- **Increase Water Supply** – Improve management of groundwater basins through conjunctive use.

The restated objectives were used to identify and evaluate projects for inclusion in the Round 1 Proposition 84 Grant Application. Of the seven projects contained in this Round 1 Implementation Grant application, six involve water use efficiency or increased water reuse in SWP service areas. The projects within SWP service areas are:

- City of Guadalupe, Water Reuse Study
- City of Santa Maria, LeakWatch Project
- City of Santa Maria, Untreated Water Landscape Irrigation Project
- CCWA, Water Supply Reliability and Infrastructure Improvement Project
- City of Goleta, San Jose Creek Capacity Improvement and Fish Passage Project
- Goleta Sanitary District, Wastewater Treatment Plant Upgrade
- The project outside the SWP service area would improve water use efficiency in three urban areas in the lower Santa Ynez River Basin. That project is the Lompoc Valley Leak Detection and Repair Project proposed by City of Lompoc, Mission Hills Community Services District (MHCSD), and Vandenberg Village Community Services District (VVCSD)

### **Assurances Regarding the IRWM Plan Update**

The Santa Barbara IRWM Region has demonstrated a commitment to improved water use efficiency and effective management of local supplies, which is an essential step to reducing SWP water from the Bay-Delta. Pursuant to a memorandum of understanding (MOU) approved in March 2010, the Cooperating Partners applied for a Round 1 Planning Grant (“Application for Proposition 84 Planning Grant Round 1”) in September 2010 to update the IRWM Plan, which would include focused efforts to:

- Develop a plan to increase water reuse in the South Coast area of Santa Barbara County
- Develop a salt/nutrient management plan for the Santa Maria Groundwater Basin

The detailed scopes of these efforts comprise Tasks 6.1 and 6.2 of Attachment 3, Detailed Work Plan, of the Planning Grant application. In addition, according to the scope of work developed by the Cooperating Partners, the revised plan would continue development of improved conjunctive use, water use efficiency, and stormwater runoff control. All these efforts would increase the availability and reliability of local water supplies and would reduce the region’s dependence on water supplies from the San Joaquin/Sacramento River Delta. Therefore, the Santa Barbara County Areawide IRWM Region is eligible for augmented funding from the Round 1 Proposition 84 (Prop 84) Implementation Grant Process.

## Excerpts that Support Reduction of Dependence on Delta Water Supply

The following are excerpts from the IRWM Plan (2007) and the Biennial Review (2010) referenced in the preceding text that document the regional efforts to reduce dependence on the Delta for imported water supply.

### IRWM Plan Excerpts

#### Statement from Attachment 15 of this Application

*Water efficiency, water recycling and conjunctive use all play a prominent role in regional water planning and the increased emphasis on regional self-sufficiency. These sections are included in the IRWM Plan (Sections 4.5.4 and 4.5.5).*

*To support existing purveyor programs during the last prolonged drought, the County Water Agency established a regional water efficiency program in 1990. Currently the County, CCWA and many purveyors receiving SWP allotments are members of California Urban Water Conservation Council (CUWCC) and have aggressive water use efficiency programs.*

#### Text from 2007 IRWM Plan

##### 4.5.4 Water Conservation

Water conservation addresses the “demand side” of water management, and thereby constitutes an important part of stretching the county’s water supplies. Through water conservation programs implemented at the regional and water purveyor level, additional water supplies become available for use within the county, reducing pressures on other water resources. Water conservation activities occur countywide through the Regional Water Efficiency Program (RWEP), in which water purveyors work cooperatively to implement conservation in the areas of residential, commercial, agricultural, and landscape programs. Additionally, regional education and public information programs help change

behavior to decrease water use. Regional programs have been in place since 1990 and are staffed and funded by a multiagency team of conservation staff from the Santa Barbara County Water Agency and local water purveyors. Water purveyors also implement individual programs of particular interest within their service areas. Programs are discussed in greater detail in Section 5. Water savings through conservation programs are calculated on an annual basis by those agencies who are members of the California Urban Water Conservation Council. Council Signatories, who have committed to best management practices for water conservation by signing the Council Memorandum of Understanding, plus the conservation activities of nonmembers in the County, have resulted in the conservation of 86,660 AF during the period from 1991 to 2006. Not all water purveyors report their savings and therefore, savings may be significantly higher.

#### Statement from Attachment 15 of this Application

In the IRWM Plan, the “Regionwide Water Management System” was identified as one of three main regionwide issues, specifically “[w]ater supply reliability needs to be increased given limited and variable water supplies and periodic droughts” (IRWM Plan Section 7.1.2).

## Text from 2007 IRWM Plan

### 7.1.2 Regionwide Issues

The regionwide issues are consistent with the initiatives for ensuring reliable water supplies identified in the California Department of Water Resources (DWR) *California Water Plan 2005*; that is, implementing integrated regional water management and improving areawide water management systems.

The following describes those issues that are considered most critical to the entire region.

- **Emergency Response.** Water supplies or water quality could prove to be inadequate during emergencies. The ability to provide water service during severe emergencies (for example, earthquake, large wildfire, or extreme drought) may be reduced through damage to infrastructure or a shortage of supplies in a given area, resulting in potential adverse health and safety impacts.
- **Regionwide Water Management System.** Numerous challenges are inherent in managing a complex, integrated, regional water supply system that moves water from one end of the region to the other in order to meet community needs. Water supply reliability needs to be increased given limited and variable water supplies and periodic droughts.
- **Water Quality Standards.** Water management entities responsible for ensuring acceptable water quality for both public health protection and environmental stewardship must comply with increasingly stringent state and federal water quality requirements, including those for impaired water bodies, while also respecting property rights.

## Statement from this Attachment

The IRWM Plan identified several objectives including those relevant to increasing water supply reliability and management of SWP supplies (IRWM Plan, Section 7.2):

## Text from 2007 IRWM Plan

### 7.2 IRWMP Objectives

The IRMWP objectives described below were adopted by the Cooperating Partners and reflect those four minimally required by the state: water supply, groundwater management, ecosystem restoration, and water quality. These objectives were refined to more specifically describe how the objectives should be met in light of regional issues. The four mandatory objectives also were augmented by the Cooperating Partners to reflect regional needs. Emergency preparedness was added to reflect ongoing risks to the county from droughts, other water shortages, and emergencies such as earthquakes, floods, and fires. The Cooperating Partners' interest in emergency response also has been heightened by awareness of the Hurricane Katrina experience in New Orleans. Infrastructure efficiency and reliability also was added to address the need for the replacement and rehabilitation of water and wastewater infrastructure to increase its reliability and use water resources more efficiently. Such activities are essential to the delivery of adequate water and wastewater services within the county and often result in benefits to areas targeted by the state, including water supply, groundwater management, ecosystem restoration, and water quality. For example, distribution system upgrades can both improve water quality and reduce water loss, and thus the need for imported water supplies. This objective also is consistent with the California Water Plan Update 2005, which lists maintaining and improving statewide water management systems, including improving aging facilities, as one of the state's key initiatives.

The following are the regional objectives developed for this IRWMP; those with asterisks are required by the state. Emergency preparedness and infrastructure efficiency and reliability are objectives that were developed to reflect regional needs.

#### *Water Supply\**

Protect, conserve, and augment water supplies.

- Improve water supply reliability
- Improve system flexibility and efficiency
- Enhance local water supplies through groundwater recharge projects, conjunctive use of water supplies, water recycling, water conservation, water transfers, and precipitation enhancement
- Meet demands

- Optimize existing storage capacity
- Capture and manage runoff
- Match water quality to water use
- Desalinate seawater and brackish groundwater for reuse
- Ensure fire protection capacity
- Support appropriate recreational activities

#### *Groundwater Management\**

Protect current and future groundwater supplies.

- Promote sustainable groundwater use
- Utilize conjunctive use
- Implement groundwater banking
- Protect and improve groundwater quality
- Implement groundwater recharge projects

#### *Water Quality\**

Protect and improve groundwater, freshwater, brackish water, ocean water, and drinking water quality.

- Meet current and future state and federal water quality standards
- Improve the quality of urban runoff, storm water, and wastewater
- Reduce erosion and sedimentation
- Utilize seawater desalination as appropriate
- Protect public and aquatic ecosystem health
- Support appropriate recreational activities

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### Statement from this Attachment

Implementation of these portions of the IRWM Plan are assisting the region move toward reducing dependence on the Delta for water supply by increasing reliability of local water sources, using local supplies in periods of decreased SWP availability, and planning for additional local supplies such as recycled water. To meet these objectives, the Plan identified several short-term priorities including:

*Increase water supply reliability by developing new water sources; maximizing the efficient use of existing sources, including recycled water used for landscaping, irrigation, industrial and commercial purposes, desalinated water, conservation, and groundwater treatment; and strategically restoring or replacing water infrastructure. (IRWM Plan Section 7.3.1)*

## Text from 2007 IRWM Plan

### 7.3.1 Short-term Priorities (5 years)

- Protect public safety by reducing the potential for flooding in strategic areas through infrastructure improvements such as levee reinforcement, channel modifications, floodplain restoration, and increasing reservoir storage capacity.
- Increase water supply reliability by developing new water sources; maximizing the efficient use of existing sources, including recycled water used for landscaping, irrigation, industrial and commercial purposes, desalinated water, conservation, and groundwater treatment; and strategically restoring or replacing water infrastructure.
- Strategically restore and replace wastewater infrastructure to improve wastewater quality, limit the potential for adverse impacts to water quality and sensitive environmental areas through accidental releases, increase wastewater management efficiency, and meet regulatory requirements.
- Ensure the adequacy of water and wastewater facilities in disadvantaged communities (Guadalupe, Cuyama, and Casmalia).
- Improve surface and ocean water quality and reduce beach closures by replacing septic systems with sanitary sewer connections, ensuring the integrity of wastewater collection systems near the ocean and surface water bodies, improving the quality of urban runoff, reducing the amount of urban runoff that enters the ocean and surface water bodies, and developing public education programs to increase awareness of the measures individuals can take to improve water quality.
- Further define sources of groundwater contamination and develop strategies to prevent groundwater contamination and improve groundwater quality in areas with known contamination.
- Protect, restore, and enhance ecological processes in aquatic areas through water quality improvements; public education; restoration efforts, including removal of invasive species; and improved steelhead passage on strategic creeks.
- Ensure the adequacy of water supplies during droughts and emergencies such as fires, floods, and earthquakes through strategic replacement and rehabilitation of critical infrastructure.
- Develop programs and policies to increase groundwater recharge or decrease groundwater use, especially in overdrafted groundwater basins.
- Encourage cooperation in beginning to develop groundwater banking programs.

## Biennial Review – IRWM Plan (2010)

### Statement from this Attachment

The Cooperating Partners began a Biennial Review of the 2007 IRWM Plan objectives and identification of high-priority projects in September 2009. The Biennial Review has been approved by the RWMG and is now a part of the IRWM Plan. The Biennial Review process, completed in June 2010, resulted in a restatement of several key objectives and an increased emphasis on the efficient use and management of water including:

## Text from 2007 IRWM Plan

As a result of the biennial review, the Region identified the following objectives:

- Increase water use efficiency including water reuse and water conservation measures to increase and extend existing water supplies.
- Improve operational efficiency, transfers, and supply reliability
- Increase water supply in the least costly, most efficient, and most reliable manner
- Improve management of groundwater basins through conjunctive use
- Improve flood management to protect people, property, and ecosystems
- Improve water quality
- Improve quality of groundwater, stormwater runoff, agricultural water runoff, and treated water discharges to regional water bodies
- Improve water management to protect and restore ecosystems and wildlife habitat

## Statement from this Attachment

The restated objectives were used to identify and evaluate projects for inclusion in this Prop 84 IRWM Implementation Grant application. Of the seven projects contained in this Proposal, six involve water use efficiency or increased water reuse in SWP service areas. The projects within SWP service areas are:

### Text from 2007 IRWM Plan

Further, the biennial review process included 78 new projects in the IRWM Plan, seven of which were selected for inclusion in the implementation grant application projects based on their ranking with the established selection criteria and alignment with the Region 's objectives and DWR's Prop 84 program preferences.

The selected projects for the Implementation Grant application include:

- I. City of Santa Maria's Untreated Water Landscape Irrigation Project – Extends an existing groundwater landscape irrigation system from the City's Civic Center area to facilities with landscaped area, including Allen Hancock College, Miller Elementary school, Santa Maria High school, Santa Maria Fairpark & Adam Basin. The project allows for water use efficiency while enhancing water management efforts through delivery systems that utilize an abundant groundwater resource from the Santa Maria groundwater basin. The irrigation system consists of several old production water wells that were removed from domestic supply due to high nitrate concentrations. The wells will be rehabilitated & put into service to water turf & other landscapes through a piping system that is isolated

from the domestic supply piping. The efficient match of water resources to water use augments drought preparedness efforts within the region. Further, water reliability is strengthened by decreasing the burden on State Water Project water.

2. City of Santa Maria's LeakWatch – Allows the City to complete the installation of a water meter system which reads water use data in real time. With the LeakWatch system, real-time data is broken down to show usage by hour, which could indicate a water leak or over use if there is 24-hour activity. The system includes base stations, converted water meter registers, transmitters & associated software. Data provided by the fixed-base system is used to detect leaks & assist customers in making better decisions regarding water usage. The project estimates 250 AFY of conservation in the domestic water supply. The project will also assist with water shortage contingency planning by allowing the City to track hourly water use to assure that customers are abiding by restrictions on water use or schedules.
3. City of Guadalupe's Recycled Water Feasibility Study – The study will include a market assessment & identification of required recycled water distribution facilities as well as a cost/benefit analysis to evaluate the feasibility of supplying recycled water to the City of Guadalupe & surrounding property owners, all of whom are dependent on groundwater. The market assessment will identify potential recycled water customers, both within & adjacent to the City's boundaries & match recycled supply to potential demand. Potential customers include existing sports parks, community parks, schools, cemeteries, produce packing plants & agricultural areas. Delivery of recycled water to agricultural customers outside the service area will be evaluated differently due to the impact on overall revenues. Once reuse categories are prioritized & sets of potential customers are identified, distribution system alternatives will be explored to maximize recycled water use with the lowest capital O&M costs. The economic of recycled water distribution systems are such that larger demand will dictate the alignments of backbone pipeline routes. After alternative alignments are identified for up to three different customer sets, the required pipelines pump stations & storage reservoirs can be sited. The study will also discuss the feasibility, limitations & potential water quality impacts or groundwater recharge & compare the potential benefits with the delivery of recycled water to existing potable water customers.
4. Lompoc Valley Regional Leak Detection Program – The project is collaboration between the City of Lompoc, the Mission Hills CSD & the Vandenberg Village

CSD to complete a leak detection audit of the water distribution systems of the 3 utilities & develop & implement a 5-year plan for the repair and/or replacement of leaky water services & mains. Leak detection reports will be reviewed to determine which sections of distribution systems show the highest percentage of system leaks. A plan will be prepared for leak repair, targeting the areas with the highest percentage of leaks for sequencing of repairs.

5. Central Coast Water Authority's Pipeline Erosion Damage Repair Project – The CCWA owns & operates a pipeline that delivers water from the Santa Ynez Pumping Plant located in the Santa Ynez Valley to Lake Cachuma. There are 2 locations along the pipeline where there is exposure due to erosion of overlying soils caused by high flow releases from Bradbury Dam or high flow storm events & associated flow of water over the pipeline's alignment. These types of pipeline exposures place the pipeline at risk for failure because the exposed pipe has lost the structural confinement of backfill, an important strengthening component of the pipeline & because the exposed pipeline will bridge & obstruct water flow, which will subject the pipeline to strong external forces arising from the impact of high flow water. The project will implement both interim & long term fixes to protect the sections of the exposed pipe from further damage. The pipeline was originally constructed in the 1960's for the purposes of delivering water from Lake Cachuma to the Santa Ynez Valley. CCWA acquired the pipeline in the mid-1990's to complete its water conveyance system for its southern Santa Barbara County participants. The pipeline is comprised of a nominal 30" diameter pipe, 12 miles long & is either cement mortar line/coal tar enamel coated steel pipe or modified pre-stressed concrete cylinder pipe. The Santa Ynez Pumping Plant will discharge water into the pipeline at flow rates as high as 10,000 gpm, with a shutoff head of 376'.
  
6. Goleta Sanitary District's Wastewater Treatment Plant Upgrade – Upgrading the existing wastewater treatment facilities in order to be able to treat 100% of the wastewater from Goleta Valley to a full secondary treatment level. The current facilities have a design flow of 9 MGD & can treat 100% of flow to the primary level, but only 4.38 MGD can be treated to the secondary standards. The project will need to increase the capacity of the secondary treatment structures without increasing the overall capacity of the treatment plant. Construction will include a new biofilter, an aeration basin, two new secondary sedimentation tanks & the conversion of an existing stabilization basin into a flow equalization basin.