



## A3. Work Plan Introduction/Summary

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### Introduction

This Proposal seeks funding to accelerate the Santa Barbara County Integrated Regional Water Management (IRWM) Region's progress toward meeting a core challenge faced by both the region and the state – water supply reliability. With water supply reliability as the focus, this Proposal also delivers multiple benefits to both the regional and state levels. The Proposal remarkably achieves all nine of the Region's IRWM Plan 2013 Objectives. This achievement is not accidental.

The Santa Barbara County IRWM Region has a history of proposing projects backed up by a rigorous project selection process. The process to select projects for this Proposal was conducted over several months by stakeholders from throughout the region. It took pains to evaluate and elevate projects that both meet statewide IRWM Preferences, Statewide Priorities, and Regional Objectives.

The Proposal addresses multiple Program Preferences and Statewide Priorities and includes projects that are both regional and integrated. It includes projects that contribute to CALFED Bay-Delta Program objectives, address disadvantaged communities' (DACs) critical water supply needs, and integrate water resource management with land-use planning. It includes projects that incorporate drought preparedness, the efficient use and reuse of water, climate change actions, expanded environmental stewardship, protection of surface and groundwater quality, and the equitable distribution of benefits (see Table 3.0-1).

The Proposal complements past Santa Barbara County IRWM regional grant applications that have also included many multi-benefit projects. In addition to increasing regional water supply reliability, this Proposal's benefits include the following:

- Expanded development and use of recycled water
- Benefits to two DACs
- Improved water quality
- Protection and recharge of groundwater
- Enhanced wastewater infrastructure efficiency and reliability
- Reduced wastewater discharge to the ocean
- Gains on meeting 20x2020 conservation goals.

## Goals and Objectives

### Regional IRWM Goals and Objectives

The overall goal of the Proposal is to implement multi-benefit projects that augment regional self-sufficiency. The Proposal includes five projects with the first four projects being the subject of this section. The fifth project in the Proposal is a single-purpose grant administration project and therefore is not included in this evaluation. Two out of the first four projects in the Proposal benefit DACs and all meet multiple regional objectives. Detailed descriptions of each of the four projects and how they meet regional IRWM objectives are found following this section. The regional objectives of the Santa Barbara County Region IRWM Plan 2013 are as follows:

- Protect, conserve, and augment water supplies
- Protect, manage, and increase groundwater supplies
- Practice balanced natural resource stewardship
- Protect and improve water quality
- Improve flood management
- Improve emergency preparedness
- Maintain and enhance water and wastewater infrastructure efficiency and reliability
- Address climate change issues
- Ensure equitable distribution of benefits.

Specifically, one project restores recycled water production to 800 acre-feet per year (AFY) with the ability to produce 1,400 AFY by 2035. One project ensures groundwater recharge operations while protecting sensitive natural habitat. Another project replaces the use of groundwater with recycled water. Another project improves operational reliability and treatment performance of a wastewater treatment plant in a DAC, paving the way for future recycled water use.

Table 3.0-1 details which regional objectives are achieved by the projects in this Proposal.

**TABLE 3.0-1**  
 Objectives Achieved by Proposal

									
Project	Protect, conserve, and augment water supplies	Protect, manage, and increase ground-water supplies	Practice balanced natural resource stewardship	Protect and improve water quality	Improve flood management	Improve emergency preparedness	Enhance water and wastewater Infrastructure efficiency and reliability	Address climate change issues	Ensure equitable distribution of benefits
1	✓	✓		✓		✓	✓	✓	
2	✓	✓	✓	✓	✓				✓
3	✓	✓		✓		✓	✓		
4	✓			✓			✓	✓	✓
5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

## Purpose and Need

The purpose of the Proposal is to increase water supply reliability while also achieving multiple objectives, including conserving water, augmenting supplies through increased use of recycled water, managing and increasing groundwater supply and quality, practicing natural resource stewardship, improving water quality, enhancing infrastructure reliability, addressing climate change issues, and equitably distributing benefits to DACs.

Table 3.0-2 details the purpose and need of the first four projects in the Proposal and how each project addresses the IRWM objectives. The Santa Barbara County IRWM Plan 2013 does not identify goals – it uses the term “objective.” Project 5, the administration of the grant, is not included in this table, as its purpose is limited to administration of the grant.

**TABLE 3.0-2**

Proposal Purpose and Need

IRWM Objectives	How the Purpose and Need Address the IRWM Plan’s Objectives
Protect, conserve, and augment water supplies	<ul style="list-style-type: none"> <li>• Project 1 – The purpose of the project is to increase water supply reliability and restore the City’s capacity to serve recycled water and increase recycled water use in the future. The need for Project 1 exists because recycled water treatment facilities at the El Estero Waste Water Treatment Plant (WWTP) have reached the end of their useful life and the City is no longer able to reliably serve recycled water.</li> <li>• Project 2 – The purpose of the project is to allow for much-needed sedimentation management to maintain the continued infiltration of 32,000 AFY of groundwater recharge. The need is the accumulated sediment blocking outfall operations.</li> <li>• Project 3 – The purpose of this project is to provide discharge capacity for the Laguna County Sanitation District and to expand the recycled water distribution system. The Laguna County Sanitation District is in great need of additional discharge capacity, and it is therefore critical to increase the distribution of recycled water to new users.</li> </ul>
Protect, manage, and increase groundwater supplies	<ul style="list-style-type: none"> <li>• Project 1 – The purpose of the project is to increase the use of recycled water. It is needed because recycled water is critical to the City’s water supply, particularly in the context of water supply reliability. The use of recycled water allows the City to build cumulative storage in local surface reservoirs and groundwater.</li> <li>• Project 2 – The purpose is to increase groundwater recharge by removing 9,000 cubic yards of sediment that can block the outlet works. The need is to maximize the reservoir’s contribution to recharge for the Santa Maria Valley.</li> <li>• Project 3 –The purpose of the project is to replace the use of groundwater with recycled water. The need arises because the Laguna County Sanitation District needs to increase discharge capacity and this project provides an annual average of approximately 500,000 gallons per day of discharge capacity. This amount equates to about 537 AFY and offsets existing groundwater extraction of approximately 175 million gallons per year from the basin.</li> </ul>

**TABLE 3.0-2**

Proposal Purpose and Need

IRWM Objectives	How the Purpose and Need Address the IRWM Plan's Objectives
Practice balanced natural resource stewardship	<ul style="list-style-type: none"> <li>Project 2 – The purpose is to protect sensitive habitat from excess sediment. It is needed because sediment that enters the outlet works ultimately flows downstream and damages wetlands that are a habitat for many sensitive species.</li> </ul>
Protect and improve water quality	<ul style="list-style-type: none"> <li>Project 1 – The purpose of the project is to upgrade the existing recycled water filtration process to meet Title 22 Standards and utilize microfiltration technology and reduce wastewater discharge into the ocean.</li> <li>Project 2 – The purpose and need for the project is to improve the operation of the reservoir, supporting its function to replenish the region's groundwater with high quality, natural water, which flushes the groundwater basin.</li> <li>Project 3 – The purpose is to matches water quality to water use. This is needed to meet discharge requirements.</li> <li>Project 4 – The purpose of the project is to improve operational reliability and treatment performance of at this DAC WWTP so that it produces consistent high-quality secondary effluent that is used as spray irrigation on neighboring pastureland.</li> </ul>
Improve flood management	<ul style="list-style-type: none"> <li>Project 2 – The project allows for additional stormwater storage in the reservoir and prevents potential flood damage by allowing for orderly operational release of stormwater.</li> </ul>
Improve emergency preparedness	<ul style="list-style-type: none"> <li>Project 1 – The project increases regional water supply reliability. The use of recycled water allows the City to build cumulative storage in local surface reservoirs (Gibraltar Reservoir and Cachuma Reservoir) and groundwater. By preserving potable water supplies, potential water supply shortages are reduced during extended drought periods, and groundwater basins are protected from overdraft and seawater intrusion.</li> <li>Project 3 – Replaces the use of groundwater with recycled water better preparing the region for an extended drought.</li> </ul>
Maintain and enhance water and wastewater infrastructure efficiency and reliability	<ul style="list-style-type: none"> <li>Project 1 – The purpose of the project is to replace the existing failed tertiary treatment facilities with microfiltration technology to increase supply reliability.</li> <li>Project 3 – The purpose of the project is to enhance the Laguna County Sanitation District's infrastructure by providing discharge capacity and by expanding the recycled water delivery system.</li> <li>Project 4 – The purpose of the project is to enhance the operational reliability and treatment performance of the City's WWTP, extend the useful life of facility, and reduce operational costs by removing the grit in the system, which can be a wear on the equipment.</li> </ul>
Address climate change issues	<ul style="list-style-type: none"> <li>Project 1 – Energy used to produce tertiary recycled water is less than that used to import water from the State Water Project (SWP). Higher groundwater levels will reduce groundwater pumping energy use as the drawdown will be reduced over time. Achieves City's 20x2020 and Urban Water Management Plan (UWMP) goals</li> <li>Project 3 – improves pumping efficiency and reduces energy consumption by 90 kilowatt hours (kWh) per day.</li> <li>Project 4 – improving pumping efficiency and reducing energy consumption by 90 kWh per day.</li> </ul>

**TABLE 3.0-2**

Proposal Purpose and Need

IRWM Objectives	How the Purpose and Need Address the IRWM Plan's Objectives
Ensure equitable distribution of benefits	<ul style="list-style-type: none"> <li>Project 2 – supports DACs in the Santa Maria Valley.</li> <li>Project 4 – will directly benefit the entire DAC City of Guadalupe.</li> </ul>

### Project List

The specific projects in the Proposal are listed in Table 3.0-3 with the project number, project title, implementing agency, project abstract, and current status of the project.

**TABLE 3.0-3**

Summary Information for Proposal Projects

Project No. Project Title Implementing Agency	Project Abstract	Current Status (Design Completion)
<b>Project 1</b> Recycled Water Enhancement Project  <i>CITY OF SANTA BARBARA</i>	Replaces the existing failing tertiary filtration system at the El Estero WWTP, allowing the City of Santa Barbara to restore and improve recycled water service. The existing system has reached the end of its useful life and is not currently operating. The benefits of Project 1 include increasing recycled water use to displace the use of SWP water and groundwater use, improving water quality, increasing groundwater, increasing regional supply reliability, and enhanced wastewater infrastructure efficiency and reliability. Additional benefits include reduced wastewater discharge to the ocean, reduced energy use and avoided greenhouse gas emissions, promotion of recycled water use through school education and tours, and gains toward meeting City of Santa Barbara's 20x2020 conservation goal.	30% (Final design completed by November 2013 )
<b>Project 2</b> Twitchell Reservoir Sediment Management and Groundwater Recharge Project  <i>SANTA MARIA VALLEY WATER CONSERVATION DISTRICT</i>	Increases groundwater recharge, and therefore supplies, and protects natural habitat located downstream by strategically removing 9,000 cubic yards of accumulated sediment in Twitchell Reservoir. Groundwater recharge to the Santa Maria Groundwater Basin benefits two DACs – the Cities of Santa Maria and Guadalupe.	Conceptual design completed January 2013. Final design and specifications completed June 2013.
<b>Project 3</b> Recycled Water Expansion and Golf Course Retrofit Project	Replaces the use of groundwater with recycled water to irrigate the fairways on a public golf course. Project consists of a 2-mile recycled water pipeline extension and retrofit of the Rancho Maria Golf Course's (golf course) irrigation system to provide for the irrigation of	100%

**TABLE 3.0-3**  
Summary Information for Proposal Projects

Project No. Project Title Implementing Agency	Project Abstract	Current Status (Design Completion)
<i>LAGUNA COUNTY SANITATION DISTRICT</i>	all 18 fairways and landscaped areas with recycled water. On-site improvements include installation of a recycled water pump station and storage pond that will serve a dual purpose as a golf course water feature. Benefits include expanding the use of recycled water, reducing the use of potable groundwater, and adding greatly needed discharge capacity for the wastewater treatment plant.	
<b>Project 4</b> Secondary Treatment Reliability Project  <i>CITY OF GUADALUPE</i>	Upgrades the City of Guadalupe WWTP by replacing equipment that is either non-functional or at the end of its useful life. Project 4 consists of the following components: (1) demolition of the existing grit removal equipment and installation of a new grit removal system including the vortex grit propeller, grit pump, and grit classifier; (2) removal and replacement of the existing influent pumps, which are 20 years old and have reached their design capacity; (3) replacement of leaking valves, the rehabilitation of force main piping, and the installation of a new variable frequency drive unit, which will vastly increase energy efficiency and reduce the energy by 90 kWh per day.	100% (Final design and plans and specifications complete)
<b>Project 5</b> Project Administration  <i>CACHUMA RESOURCE CONSERVATION DISTRICT</i>	Includes quarterly progress reports, a final project completion report, and oversight regarding conformance with eligibility requirements and tasks outlined in the grant agreement. The Cachuma Resource Conservation District will be responsible for the overall grant administration on behalf of the four project proponents included in this Proposal.	Ready to proceed

### Integrated Elements of Projects

This section describes the synergies and linkages or integration between Proposal projects that result in added value or require coordinated implementation. Integration can occur in various ways. As an overview, this section highlights the two most prevalent approaches to integrating projects: when projects planned or underway within the region achieve a common objective and when there is coordination between projects within a subregion or region that amplifies the impact of the individual projects. Project 5, the administration of the grant, is not included in this table, as its purpose is limited to grant administration.

### **Projects that Achieve a Common IRWM Objective**

- Protect, conserve, and augment water supplies – Projects 1, 2, and 3 achieve this objective as Projects 1 and 3 augment water supplies with recycled water and Project 2 augments supply by removing sediment so that full recharge may take place in the groundwater basin.
- Protect, manage, and increase groundwater supplies – Projects 1 and 2 both achieve this objective with Project 1 replacing groundwater use with recycled water use and Project 2 assuring full groundwater recharge. Regional stakeholders that include project sponsor for Projects 2, 3, and 4 in this Proposal are working together to study, plan, and improve the quality and quantity of the water in the Santa Maria Groundwater Basin. The Cities of Santa Maria and Guadalupe along with the Laguna County Sanitation District and others have been leading the preparation of a Groundwater Basin Assessment for the Santa Maria Groundwater Basin. The assessment focuses on salt and nutrient loading and provides a summary of basic information relating to sources, transport, and management during the past 20 years.
- Practice balanced natural resource stewardship – Project 2 protects natural habitat in the adjacent acres downstream of Twitchell Reservoir by preventing sediment from flowing downstream and harming natural habitats.
- Protect and improve water quality – Water quality is protected and improved as Project 1 recycles wastewater with full microfiltration, improving the quality of recycled water and discharging less into the Pacific Ocean. Project 2 supports replenishment of the groundwater basin with high quality, natural water. Project 4, a DAC project, improves the quality of treated wastewater for land application.
- Improve flood management – The removal of sediment in Project 2 enhances the flood control capacity by allowing for additional stormwater storage in the Reservoir and preventing potential flood damage by allowing for orderly operational release of stormwater.
- Improve emergency preparedness – Increasing the efficiency and reliability of regional infrastructure enables the region be better prepared for emergencies, specifically prolonged drought. Project 1 provides a drought-proof water supply and contributes to groundwater supplies. Project 3 replaces the use of groundwater with recycled water.
- Maintain and enhance water and wastewater infrastructure efficiency and reliability – the four main projects focus on maintaining and enhancing water and wastewater infrastructure whether it be improving recycled water treatment facilities, extending recycled water distribution systems, improving wastewater treatment facilities, or managing sediment accumulation in a reservoir.

- Address climate change issues – Climate change is addressed by increased recycled water use and improved water storage management. In addition, recycled water use reduces greenhouse gases as less energy is required to produce recycled water than import Delta SWP water.
- Ensure equitable distribution of benefits – Projects 2 and 4 deliver benefits to the DAC of Santa Maria and Guadalupe.

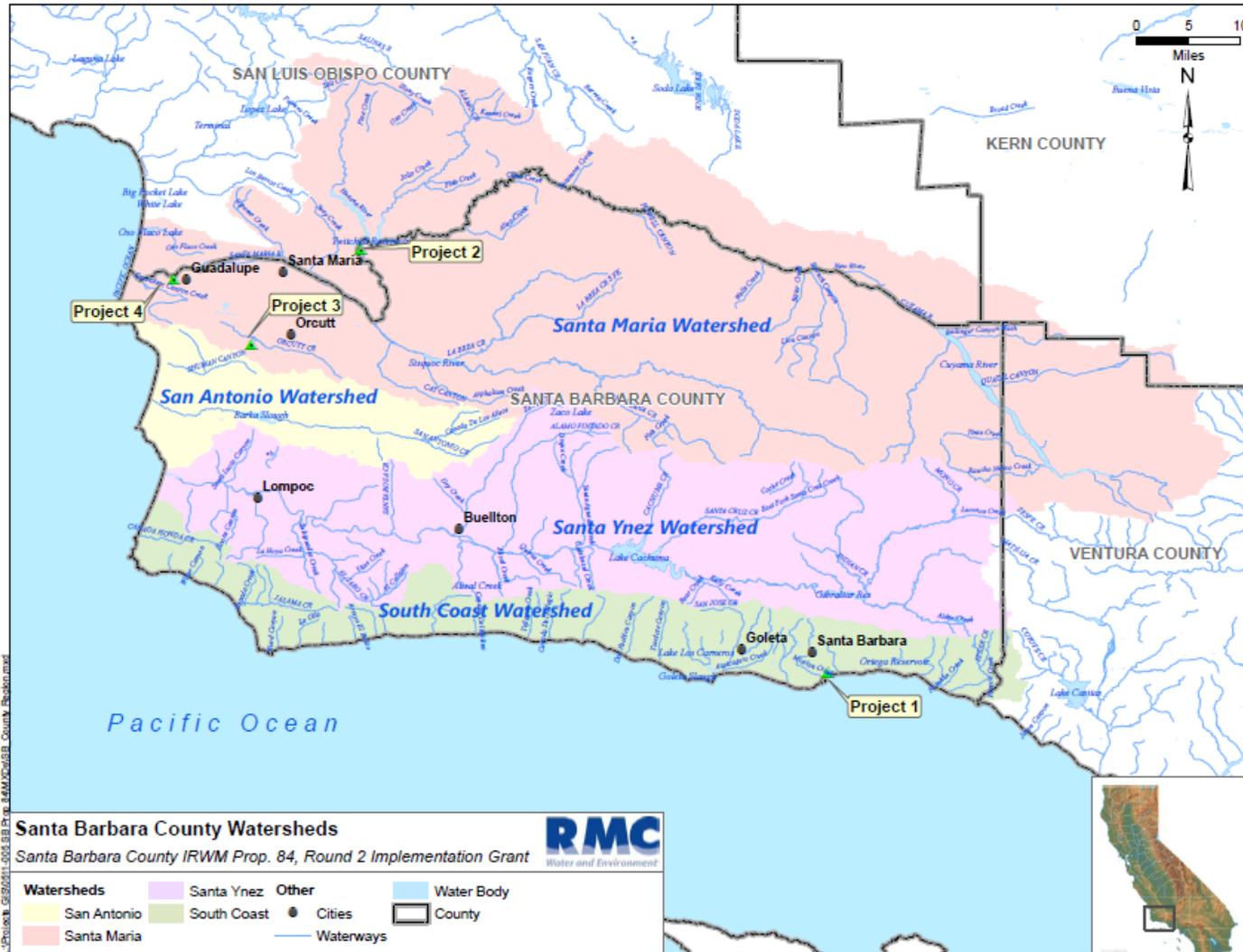
### **Projects that Coordinate within a Subregion or the Region**

- Projects 2, 3, and 4 all benefit the Santa Maria Valley Watershed or sub-region of Santa Barbara County. All three projects seek to enhance infrastructure and protect, manage, and increase groundwater supplies within the Santa Maria Groundwater Basin. All three projects link the City of Santa Maria, City of Guadalupe, Community of Sisquoc, Community of Garey, Community of Nipomo, and numerous rural areas.
- All groundwater users in the Santa Maria Groundwater Basin are working together to study, plan, and improve the quality and quantity of the water in the Basin. The Cities of Santa Maria and Guadalupe, along with the Laguna County Sanitation District and others, have been leading the preparation of a Groundwater Basin Assessment (Assessment) for the Santa Maria Groundwater Basin. The Assessment focuses on salt and nutrient quality in the basin and provides a summary of basic information relating to sources, transport, and management during the past 20 years. Project 2 coordinates with the goals of the Assessment as it enhances groundwater recharge, protects habitat, and indirectly contributes to groundwater quality.
- Project 1 is coordinating its recycled water project with other south coast cities and organizations (Carpinteria, Carpinteria Sanitary District, Goleta, Goleta Sanitary District, Heal the Ocean, and Montecito Water District) that participated in the Santa Barbara County IRWM Plan 2013 – South Coast Recycled Water Development Plan. The goal of the plan was to identify opportunities to increase the use of recycled water with Project 1 recycling over 800 AFY after construction is complete and 1,400 AFY by 2035.
- All projects have been prioritized by and coordinated through the IRWM Plan 2013 project prioritization process. More detail on how projects coordinate with past IRWM projects is contained in the work plans for each individual project.

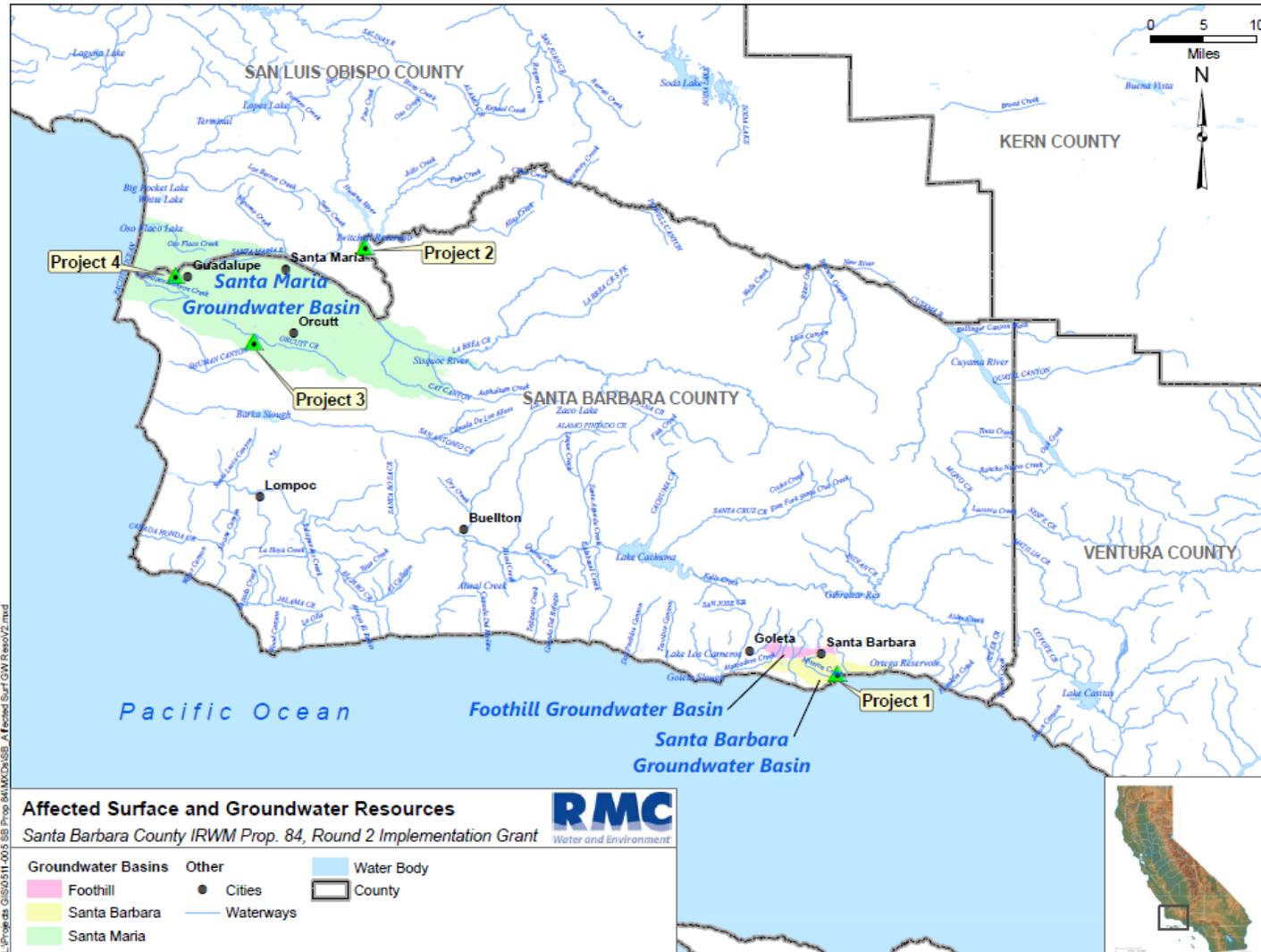
### **Regional Maps**

Regional maps are included in this section. The Santa Barbara County Regional Map with Watersheds and Project Locations is Figure 3.0-1. Regional Map with Affected Water Resources (groundwater and surface water) is Figure 3.0-2, and the Regional Map with Disadvantaged Communities is Figure 3.0-3. A Regional Map with Project Monitoring Locations is included as Figure 3.0-4. Because monitoring locations for Projects 1 and 2 are too numerous to place on the general monitoring location map, we include detailed maps for each project in Figures 3.0-5, 3.0-6 (Project 1), and Figures 3.0-7 and 3.0-8 (Project 2).

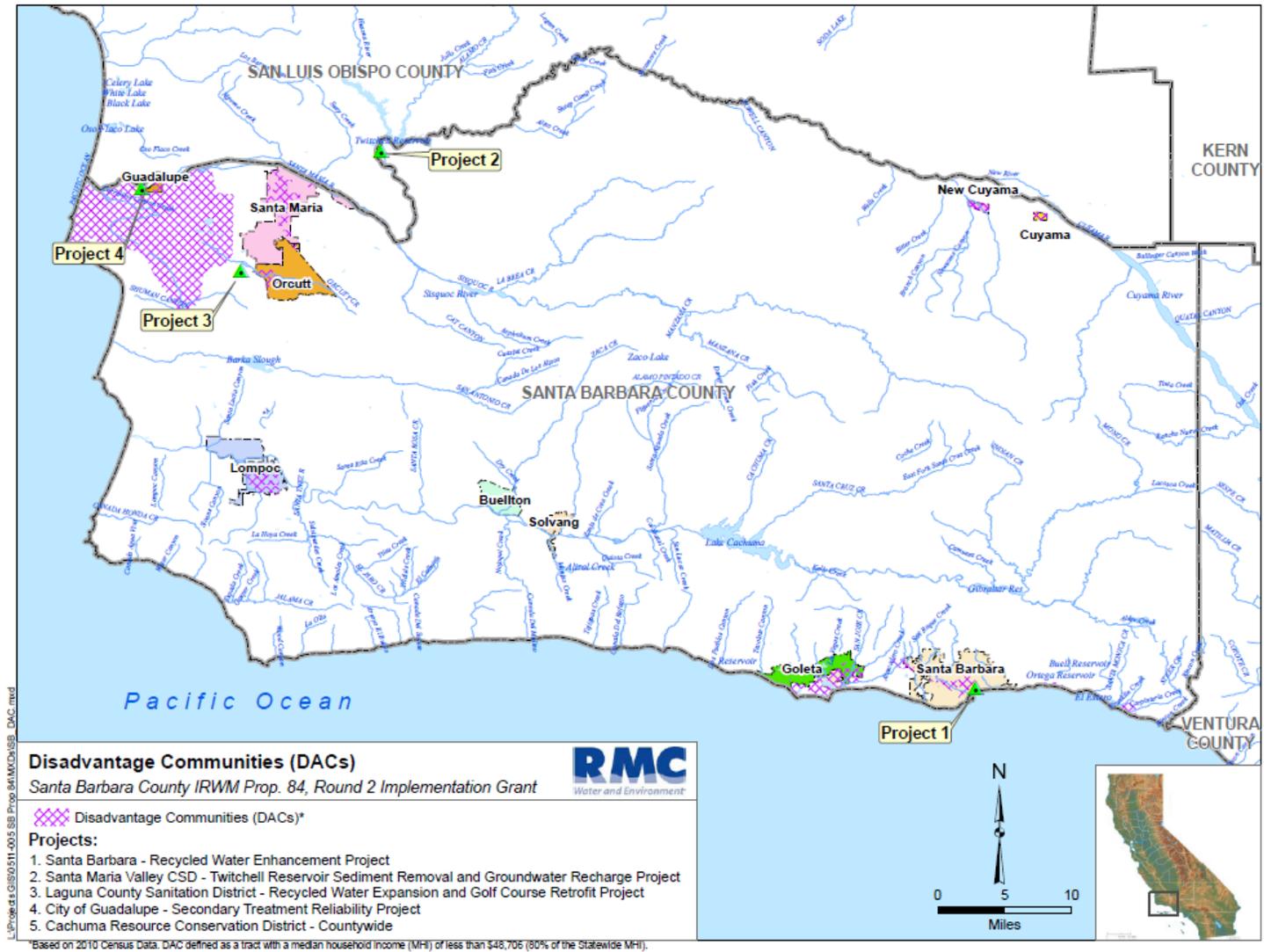
**FIGURE 3.0-1**  
 Santa Barbara County Regional Map with Watersheds and Project Locations



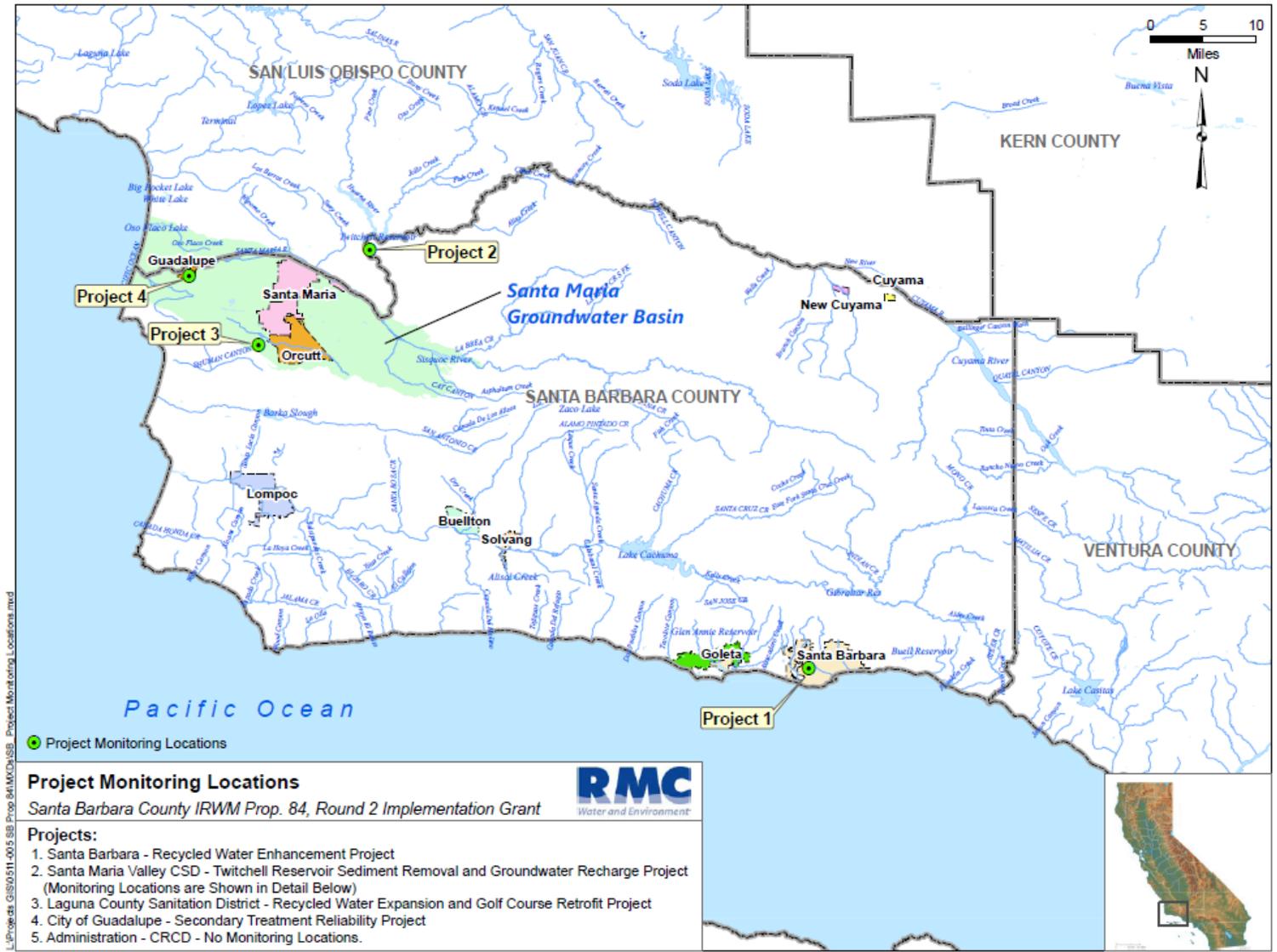
**FIGURE 3.0-2**  
 Regional Map with Affected Water Resources



**FIGURE 3.0-3**  
 Regional Map with Disadvantaged Communities



**FIGURE 3.0-4**  
 Regional Map with Project Monitoring Locations



**FIGURE 3.0-5**

Project 1 Proposed CASGEM Groundwater Level Monitoring Wells in Santa Barbara Groundwater Basin



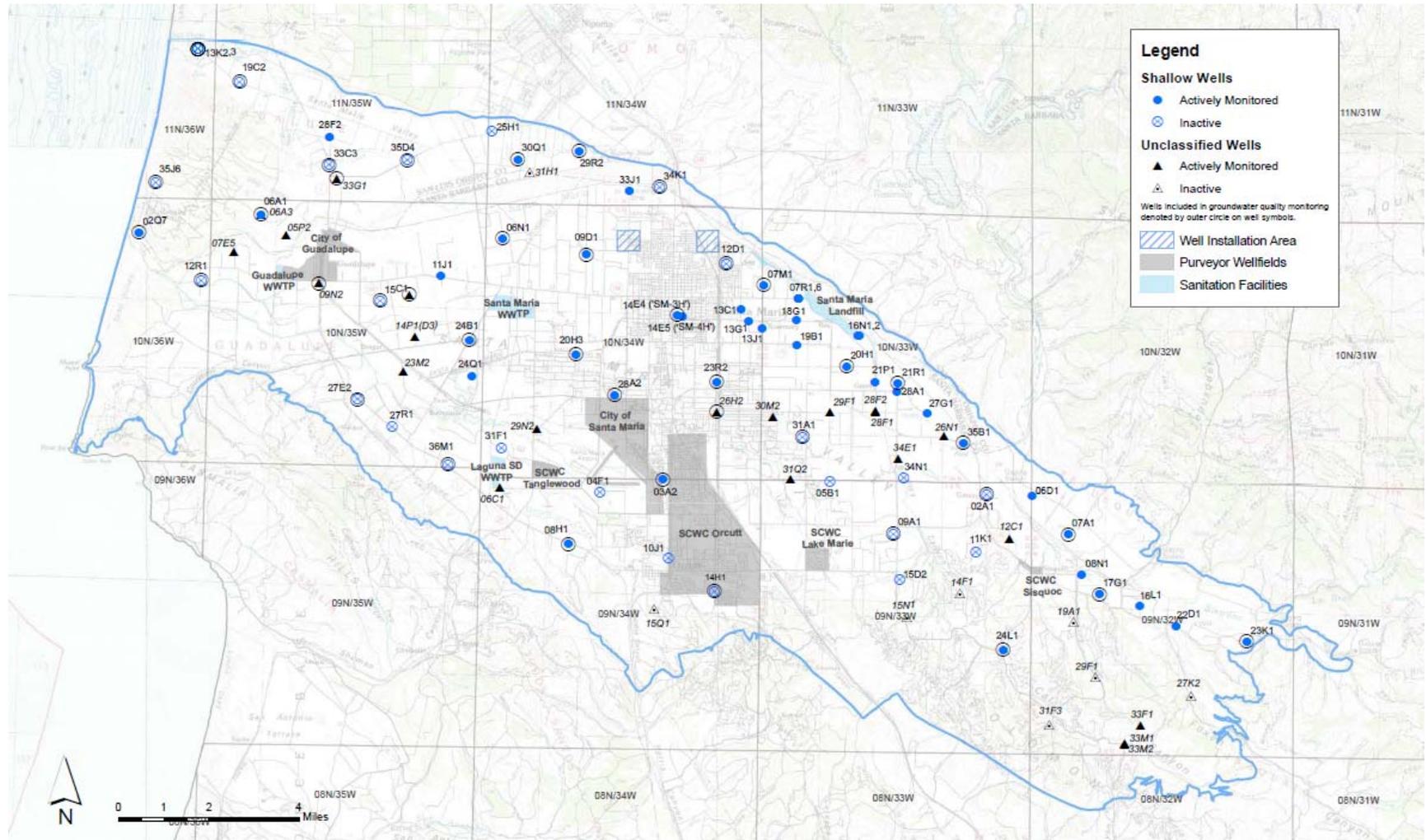
**FIGURE 3.0-6**

Project 1 Proposed CASGEM Groundwater Level Monitoring Wells in Foothill Groundwater Basin



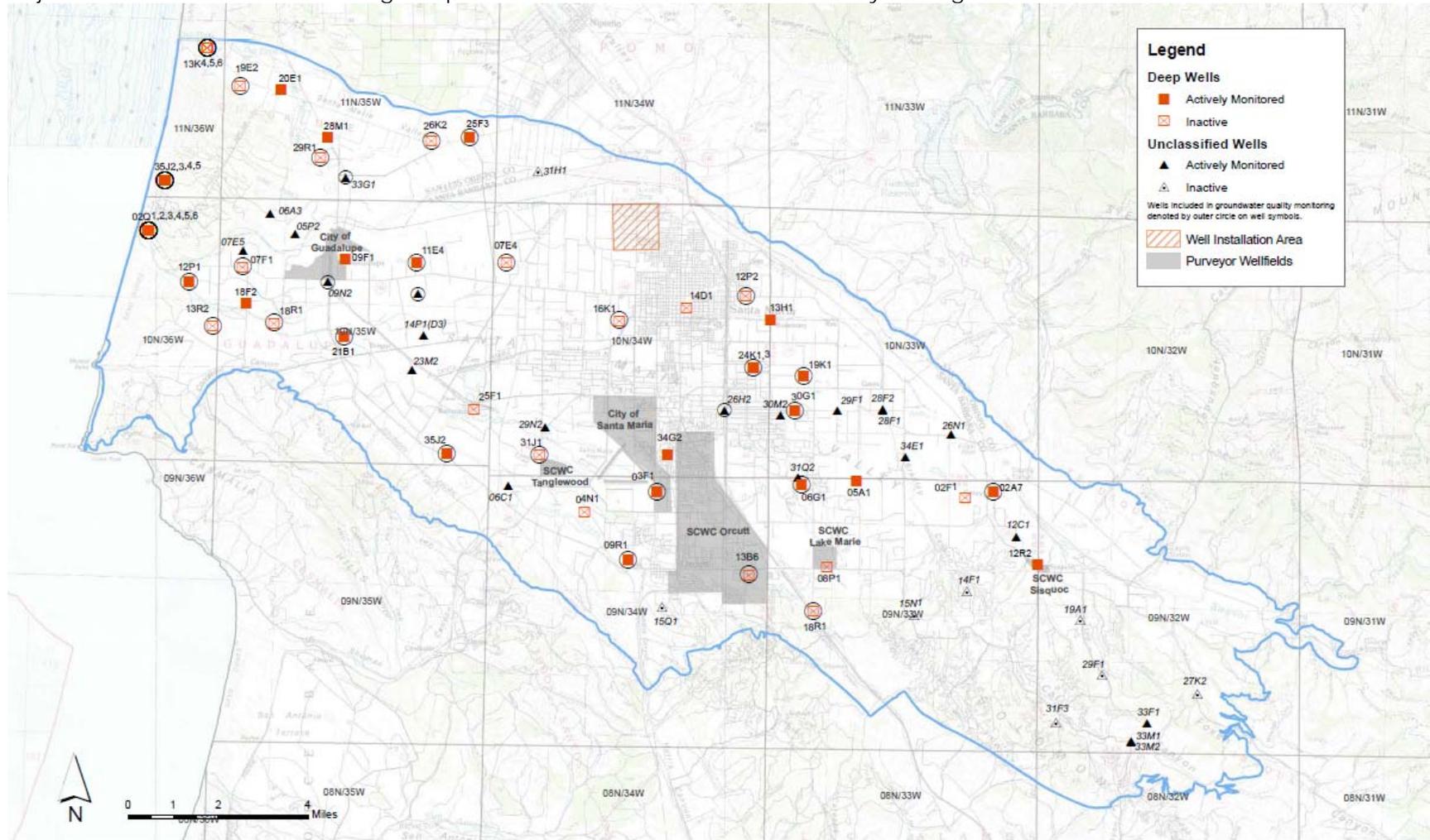
**FIGURE 3.0-7**

Project 2 Well Network for Monitoring Shallow Groundwater In The Santa Maria Valley Management Area



**FIGURE 3.0-8**

Project 2 Well Network for Monitoring Deep Groundwater in the Santa Maria Valley Management Area



## Completed Work

The work that has been completed or is expected to be completed prior to the grant award date is included in Table 3.0-4.

**TABLE 3.0-4**

Completed Work

Project No. Project Title Implementing Agency	Completed Work
<b>Project 1</b> Recycled Water Enhancement Project  <i>CITY OF SANTA BARBARA</i>	Project 1 has completed numerous studies and plans including preliminary 30% design (see Appendix 1-3 for CDM Smith. (February 19, 2013). El Estero WWTP Tertiary Filtration Facility, Engineering Assessment and Preliminary Design Services, Tertiary Filtration Facility Preliminary Design Report. City of Santa Barbara). Financing is in place (Figure 3-10, Attachment 3-1), the project is expected to be exempt from the California Environmental Quality Act (CEQA) and the City will file for a notice of exemption, other miscellaneous permits will be obtained before January 2014, and final design will be completed by November 2014.
<b>Project 2</b> Twitchell Reservoir Sediment Management and Groundwater Recharge Project  <i>SANTA MARIA VALLEY WATER CONSERVATION DISTRICT</i>	Substantial work has been completed on Project 2 including a Reservoir topographic survey and assessment, and Conceptual Design Report. Santa Maria Valley Water Conservation District (SMVWCD) anticipates the following work will be completed by October 1, 2013: a labor compliance contract, a Mitigated Negative Declaration, and the preparation of bid packages. In addition, staff has met with the California Department of Fish and Wildlife on site to familiarize them with the project and the project site.
<b>Project 3</b> Recycled Water Expansion and Golf Course Retrofit Project  <i>LAGUNA COUNTY SANITATION DISTRICT</i>	Laguna County Sanitation District has completed a significant amount of work, including: Recycled Water Market Study (2000) – this study assessed locations nears the wastewater reclamation plant that could utilize recycled water. Sites that were identified included the Ranch Maria Golf Course. Plans, specifications, and cost estimates were prepared in October 2012. These will be used to bid the project for construction. A Mitigated Negative Declaration was prepared for the project and adopted April 6, 2010. A related project to install a 1 MG recycled water storage tank was completed in May 2012. The tank will store recycled water for golf course demand.
<b>Project 4</b> Secondary Treatment Reliability Project  <i>CITY OF GUADALUPE</i>	The Project is entirely ready to proceed with construction. The Project has completed all permit processing, environmental review and certification. Moreover, the Project has completed conceptual plans, technical memoranda (2) and preliminary and final design as well as plans and specifications. Upon award of funding, the Project can be advertised for construction bids.

**TABLE 3.0-4**

Completed Work

Project No. Project Title Implementing Agency	Completed Work
<b>Project 5</b> Project Administration  <i>CACHUMA RESOURCE CONSERVATION DISTRICT</i>	Not applicable

### Existing Data and Studies

The data that has been collected and the studies that have been performed that support the project site location, feasibility, and technical methods is included in Table 3.0-5.

**TABLE 3.0-5**

Existing Data and Studies

Project No. Project Title Implementing Agency	Existing Data and Studies
<b>Project 1</b> Recycled Water Enhancement Project  <i>CITY OF SANTA BARBARA</i>	The 2013 City of Santa Barbara <i>Preliminary Design Report for the Tertiary Filtration Facility at El Estero Wastewater Treatment Plant</i> evaluated several filtration alternatives (Section 1 and Appendix B-3) to replace the existing failed filtration system, and preliminary design for the recommended alternative of microfiltration technology with future sidestream reverse osmosis. In addition, the 2008 City of Santa Barbara Tertiary Filter Rehabilitation Project Technical Memorandum. Pages 5–9 described challenges and limitations of existing filtration system, filter upgrade and demineralization alternatives, and provided recommendations for microfiltration technology with reverse osmosis pending future water resources management decisions.
<b>Project 2</b> Twitchell Reservoir Sediment Management and Groundwater Recharge Project  <i>SANTA MARIA VALLEY WATER CONSERVATION DISTRICT</i>	Project 2 utilizes the Twitchell Project Manual, July 22, 2010, which discusses the history of the reservoir and maintenance and capital projects; provides sedimentation management recommendations for projects that will support the continued success of the facility to maximize recharge to the Santa Maria Management Area.  The Annual Report - Santa Maria Valley Management Area Annual Report of Hydrogeologic Conditions, Water Requirements, Supplies and Disposition – last published in 2012, provides descriptions of previous studies conducted in the Basin. It describes hydrogeologic conditions in the management area historically and through 2011, including groundwater conditions, reservoir operations, and hydrologic and climatic conditions. The report found that the groundwater was the primary water supply in the Basin in 2011 with 105,650 acre-feet.

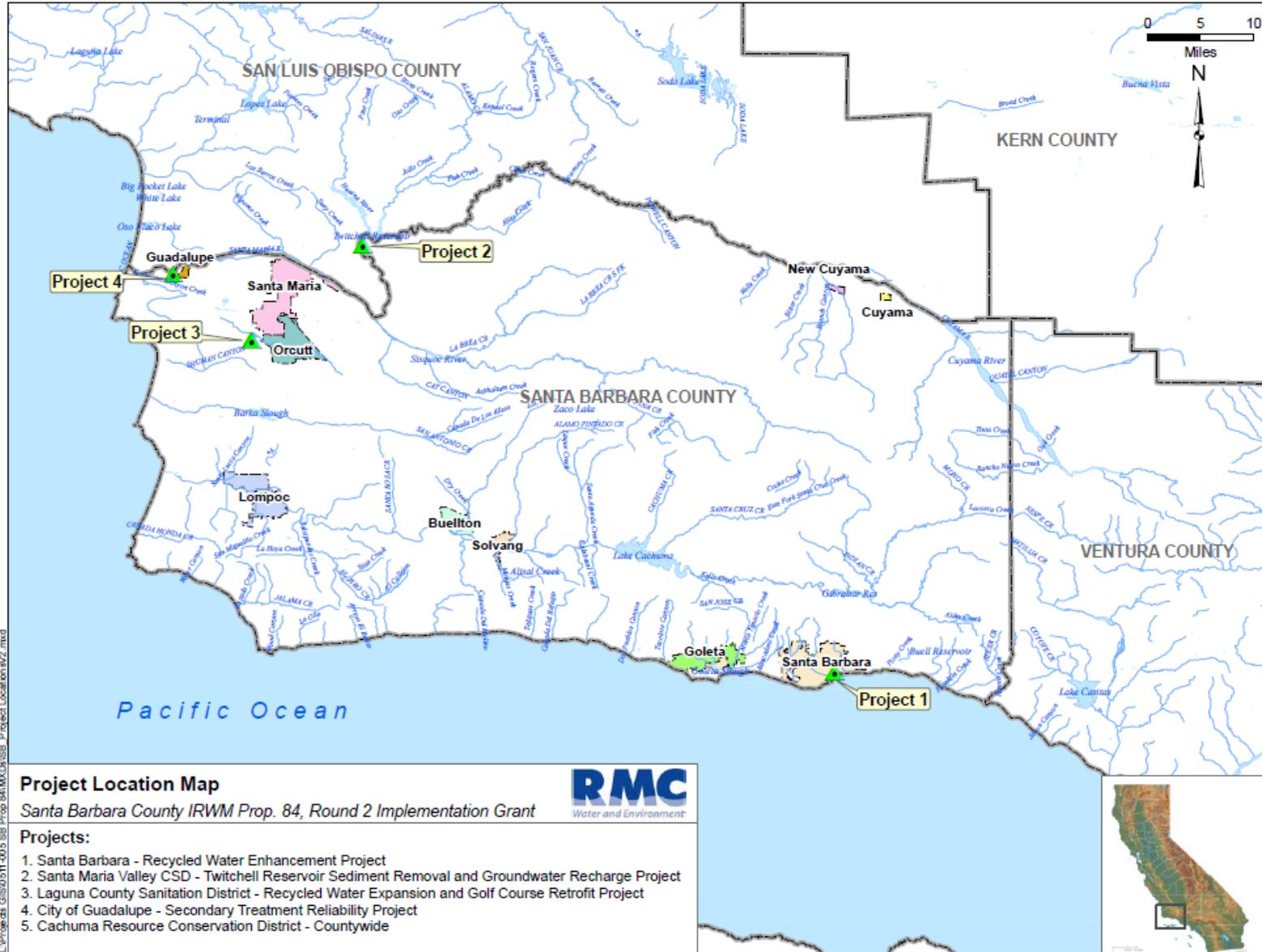
**TABLE 3.0-5**  
Existing Data and Studies

Project No. Project Title Implementing Agency	Existing Data and Studies
<b>Project 3</b> Recycled Water Expansion and Golf Course Retrofit Project  <i>LAGUNA COUNTY SANITATION DISTRICT</i>	Existing data and studies for Project 3 include: <ul style="list-style-type: none"> <li>• Rancho Santa Maria Golf Course Recycled Water System Analysis (2009) – assessed the physical improvements needed to convert the gold course to recycled water.</li> <li>• Recycled Water Agronomic Investigation (2009) – assessed the applicability of recycled water use on specific vegetation, current source water, and landscaping management practices.</li> <li>• Soil and Plant Survey (2010) – Inventoried existing soil conditions and vegetation.</li> <li>• Soil Sampling and Analysis – Collected soil samples for analysis and established baseline conditions.</li> <li>• Adaptive Management Plan (2010) – listed potential issues that may arrive and recommended certain management practices.</li> </ul>
<b>Project 4</b> Secondary Treatment Reliability Project  <i>CITY OF GUADALUPE</i>	Existing data and studies include two technical memoranda, specifically: <ul style="list-style-type: none"> <li>• Dudek Engineering. May 2010. Technical Memorandum 1 – Conceptual Design. City of Guadalupe Wastewater Treatment Plant Improvement Project.</li> <li>• Dudek Engineering. August 2010. Technical Memorandum 2 – Basis of Design (Draft). City of Guadalupe Wastewater Treatment Plant Improvement Project.</li> </ul>
<b>Project 5</b> Project Administration  <i>CACHUMA RESOURCE CONSERVATION DISTRICT</i>	Not applicable

### Project Map

Figure 3.0-9 shows the project geographical locations and the areas surrounding the projects.

**FIGURE 3.0-9**  
 Project Location Map



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## Project Timing and Phasing

The timing and phasing of the Proposal projects is displayed in Table 3.0-6.

**TABLE 3.0-6**

Project Timing and Phasing

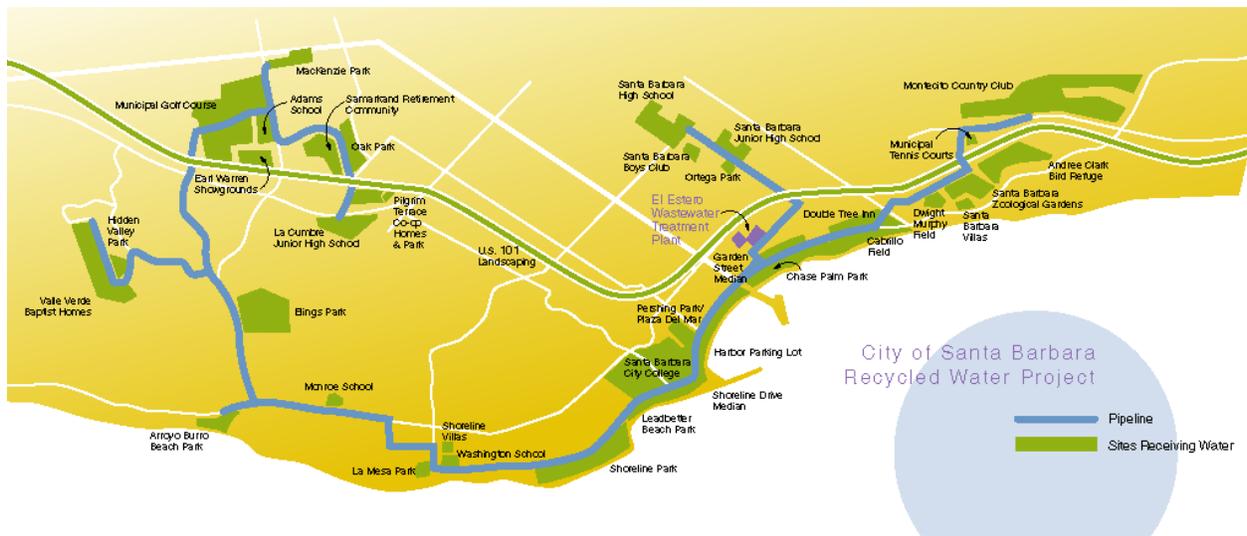
Project No. Project Title Implementing Agency	Timing and Phasing
<b>Project 1</b> Recycled Water Enhancement Project, City of Santa Barbara	The project funding is being requested for the first phase of the project (replacement of existing failed filters with microfiltration technology), and the project can operate on a stand-alone basis if only the first phase is implemented. The next phase, incorporating a sidestream reverse osmosis process to remove total dissolved solids, will be implemented when it is economically feasible.
<b>Project 2</b> Twitchell Reservoir Sediment Management and Groundwater Recharge Project, SMVWCD	The project is not part of a multi-phased project – it is a standalone project that is fully functionally without implementation of subsequent projects.
<b>Project 3</b> Recycled Water Expansion and Golf Course Retrofit Project, Laguna County Sanitation District	The project is not part of a multi-phased project and is fully functional without implementation of any subsequent projects.
<b>Project 4</b> Secondary Treatment Reliability Project, City of Guadalupe	This project is not part of a multi-phased project; it is a standalone project that is fully functional without implementation of subsequent projects. Project construction is anticipated to start in December 2013 and end in May 2015.
<b>Project 5</b> Project Administration, Cachuma Resource Conservation District	This project will begin with the award of the grant and continue approximately six months after the completion of the Proposal projects.

## Project 1: Recycled Water Enhancement Project, City of Santa Barbara

### Project Description

Since 1989, the City of Santa Barbara (City) has been providing recycled water to offset potable water demands. The Recycled Water Enhancement Project (Project 1 or Project) will replace the existing failing tertiary filtration system at the El Estero Wastewater Treatment Plant (El Estero WWTP) with full microfiltration technology allowing the City to restore and improve recycled water service. The tertiary filtration system has not been able to deliver recycled water since May 2012. Existing connected recycled water demands are 800 acre-feet per year (AFY). Recycled water is used to maintain open spaces, including the public golf course, city schools, public parks, medians, highways, and landscaping. Figure 3.1-1, provides a layout of the City of Santa Barbara’s existing recycled water distribution system. The customers identified on the map are connected to recycled water distribution system but are receiving potable water since the plant can no longer deliver recycled water.

**FIGURE 3.1-1**  
City of Santa Barbara Existing Recycled Water System



The City’s existing tertiary treatment facilities are pictured in Figure 3.1-2. Treated water from the facility does not reliably meet Title 22 recycled water quality requirements for turbidity. The Project will significantly reduce the City’s needs to blend recycled water with potable water using new microfiltration technology (at least an 80 percent contribution of recycled water is expected). The potable water not used for blending will be able to accumulate in local groundwater basins or local surface water reservoirs increasing local supply reliability during extended periods of drought.

Once on-line, Project 1 will not only meet existing recycled water demands of 800 AFY but will provide supply capacity to expand the City’s recycled water demands to 1,400 AFY by 2035. The 1,400 AFY by 2035 goal is very realistic and includes current demands, approximately 300 AFY for El Estero process water demands, as well as 300 AFY for additional customer demands that have been identified in several studies [South Coast Recycled Water Development Plan (Draft) (2013), Long-Term Water Supply Plan (2011), and the Carollo Engineers Water Supply Planning Study (2009) Long-Term Water Supply Plan]. Project 1 boosts the Santa Barbara County Region’s (Region’s) ability to achieve the Santa Barbara County Integrated Regional Water Management Plan 2013 (IRWM Plan 2013) recycled water goal of 7,035 AF by 2035.

**FIGURE 3.1-2**

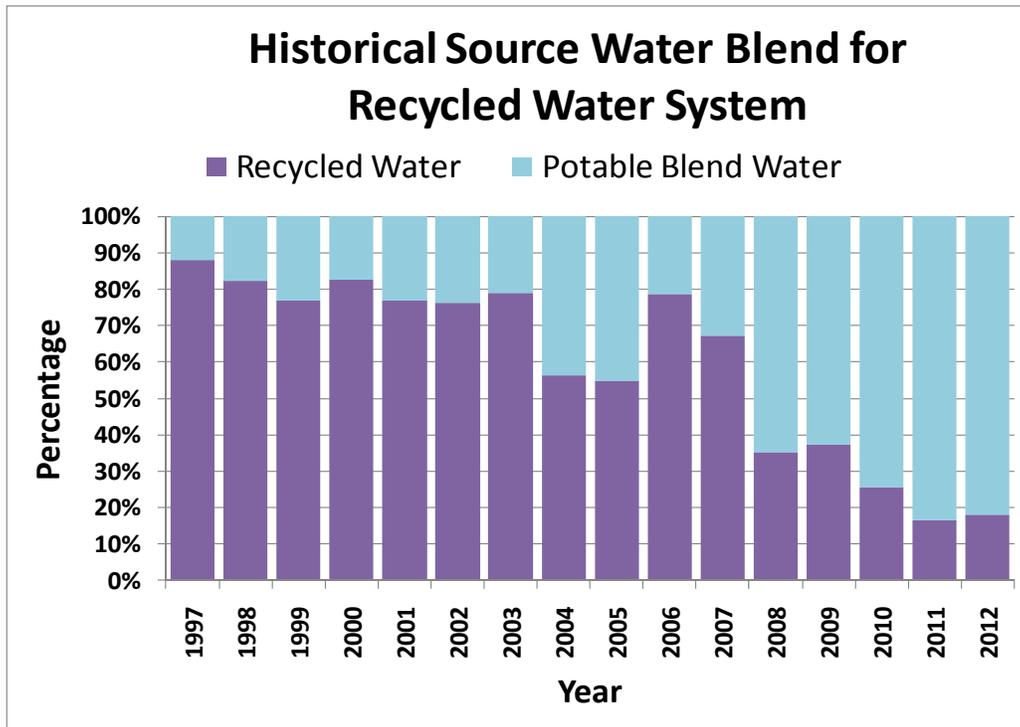
Existing Tertiary Treatment Facility at El Estero WWTP



Project 1 is consistent with the City’s 2011 Long-Term Water Supply Plan and 2010 Urban Water Management Plan, as the use of recycled water serves as a drought buffer and reduces reliance on imported State Water Project (SWP) water. The Project is essential for City of Santa Barbara compliance with the state’s 20x2020 Water Conservation Plan (20x2020) mandates. In addition, it will enhance groundwater supply, reduce ocean wastewater discharge, increase operational efficiency, reduce energy use, and contribute to public outreach and education (further discussed in the subsequent Goals and Objectives section of this attachment).

Figure 3.1-3 shows use of historical recycled water supplies, which are no longer available due to water quality issues. The City currently uses potable water to meet the aforementioned recycled water demands.

**FIGURE 3.1-3**  
 Historical Source Water Blend for the Existing Recycled Water System



### Purpose and Need

The purpose of Project 1 is to increase water supply reliability, restore the City’s capacity to meet existing recycled water demands, and increase recycled water use in the future. The need for Project 1 exists because recycled water treatment facilities at the El Estero WWTP have reached the end of their useful life and the City is no longer able to reliably serve recycled water. Project 1 will install full microfiltration equipment to replace the failing tertiary treatment system.

The City’s available potable water supplies include surface water from local reservoirs (Gibraltar Reservoir and Cachuma Reservoir), groundwater, imported water from the SWP, and alternative water supplies (other imported water or ocean desalination). In addition, the City has a very active water conservation program, which helps to reduce demands during extended drought periods.

Recycled water is critical to the City’s water supply, particularly in the context of water supply reliability. Recycled water is available every year to replace the use of imported water or groundwater. The use of recycled water allows the City to build cumulative storage in local surface reservoirs (Gibraltar Reservoir and Cachuma Reservoir) and groundwater. By preserving potable water supplies, potential water supply shortages are reduced during extended drought periods, and groundwater basins are protected

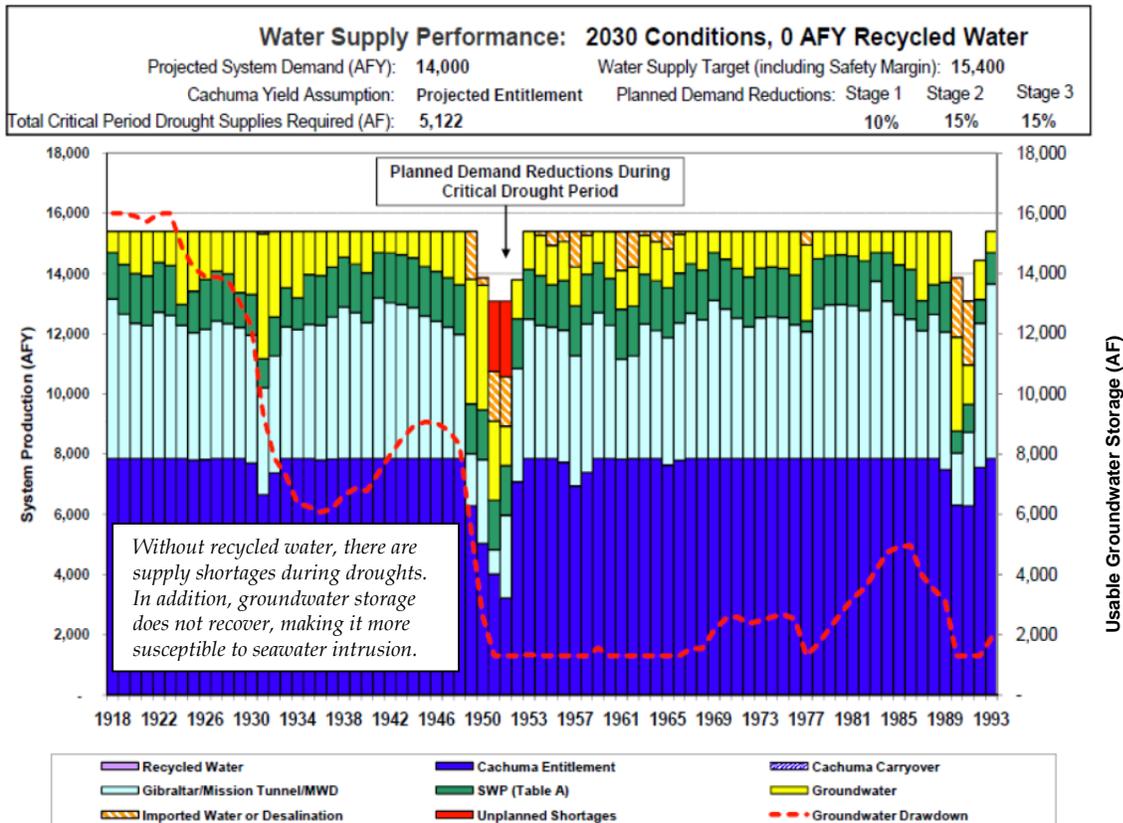
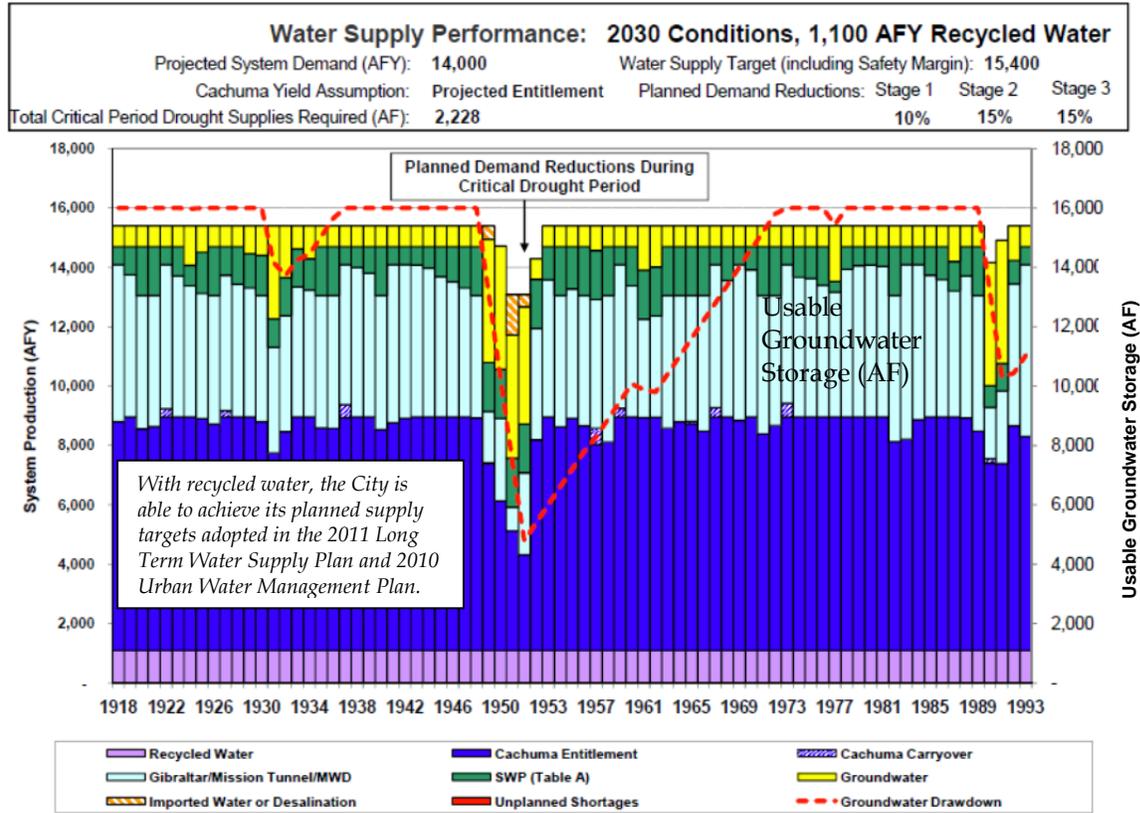
from overdraft and seawater intrusion. To illustrate this point, Figure 3.1-4 presents the City's 2030 supply under various hydrologic conditions for two scenarios:

- *With Recycled Water:* This scenario (top chart in Figure 3.1-4) represents implementation of the proposed project and is consistent with the plans and policies adopted in the City of Santa Barbara's 2011 Long-Term Water Supply Plan and 2010 Urban Water Management Plan.
- *Without Recycled Water:* This scenario (bottom chart in Figure 3.1-4) represents the "status quo" scenario, in which the existing tertiary filtration facilities are not restored, requiring the City to meet existing recycled water demands with potable water supplies.

It is important to understand the following key reliability issues illustrated in Figure 3.1-4:

- *Groundwater Storage:* Refer to the red dashed line for both scenarios. Without the proposed recycled water project (illustrated by the bottom chart in Figure 3.1-4), the City's local groundwater basin storage is drawn down ahead of extended drought periods, making the groundwater basin unavailable as an additional drought supply and susceptible to seawater intrusion. The supply does not recover for decades after drought – virtually eliminating this supply.
- *Supply Shortages:* Refer to the red bars showing "Unplanned Shortages" (illustrated by the bottom chart in Figure 3.1-4). Even with planned demand reductions during drought conditions, the City does not have sufficient supplies to meet demands during drought periods without the proposed recycled water project. This will require the City to pursue more alternative sources of potable water such as imported water or ocean desalination to avoid a water supply and economic crisis.

**FIGURE 3.1-4**  
 Projected 2030 Water Supplies – With and Without Project



## Goals and Objectives

The Project meets four of the nine Santa Barbara County IRWM Plan 2013 Objectives. In the IRWM Plan 2013, only objectives are identified; the term “goal” is not used. Those four objectives are matched with regional IRWM strategies in Table 3.1-1:

- Maintain and enhance water and wastewater infrastructure efficiency and reliability
- Protect, conserve, and augment water supplies
- Protect and improve water quality
- Address climate change issues
- Improve emergency preparedness.

**TABLE 3.1-1**

How Project 1 meets Regional IRWM Objectives (IRWM Plan 2013)

Regional Objectives		How Project meets Objective
	Maintain and enhance water and wastewater infrastructure efficiency and reliability	<ul style="list-style-type: none"> <li>• Replaces the existing failed tertiary treatment facilities with microfiltration technology to increase supply reliability</li> </ul>
	Protect, conserve, and augment water supplies	<ul style="list-style-type: none"> <li>• Restores existing recycled water use of 800 AFY</li> <li>• Helps achieve 20x2020 and UWMP water conservation goals</li> <li>• Augments educational opportunities through City Conservation Program</li> <li>• Enables City to meet regional target to provide 1,400 AFY of recycled water by 2035.</li> </ul>
	Protect and improve water quality	<ul style="list-style-type: none"> <li>• Upgrades recycled water filtration process to meet Title 22 Standards and utilize microfiltration technology</li> <li>• Reduces wastewater discharge into the ocean by producing and using recycled water.</li> </ul>

**TABLE 3.1-1**

How Project 1 meets Regional IRWM Objectives (IRWM Plan 2013)

Regional Objectives		How Project meets Objective
	Improve emergency preparedness	<ul style="list-style-type: none"> <li>The use of recycled water allows project areas to build cumulative storage in local surface reservoirs and groundwater. By preserving potable water supplies, potential water supply shortages are reduced during extended drought periods.</li> </ul>
	Address climate change issues	<ul style="list-style-type: none"> <li>Energy used to produce tertiary recycled water is less than that used to import water from the SWP.</li> <li>Higher groundwater levels will reduce groundwater pumping energy use as the drawdown will be reduced over time.</li> <li>Achieves City's 20x2020 and UWMP goals.</li> </ul>

As mentioned, the proposed Recycled Water Enhancement Project is critical to the City's water supply reliability and achieves multiple regional IRWM Plan 2013 Objectives. The following description provides a more detailed listing of objectives that the Project will achieve for the City, the region, and the state:

- Provide restored and enhanced recycled water supply to meet IRWM Plan 2013 regional targets
- Increase water supply reliability in order to manage conditions of drought, catastrophic emergencies, and climate change
- Improve water quality
- Increase operational efficiency
- Conserve water supply
- Promote education and public outreach through school tour programs
- Protect and enhance local groundwater supply during drought conditions
- Replace deteriorated infrastructure at the end of its useful life cycle
- Reduce wastewater discharge to the ocean
- Reduce energy use and greenhouse gas emissions.



## Integrated Elements of Projects

Project 1 is synergistic with other efforts throughout the Region to augment water supplies through use of recycled water and to increase infrastructure reliability. The Region is actively exploring development and expansion of the use of recycled water through the IRWM Plan 2013's focused South Coast Recycled Water Development Plan (Draft, March 2013). Increasing the City's capacity to serve recycled water is a major goal of this plan.

Project 1 is synergistic with the Recycled Water Expansion and Golf Course Retrofit Project, Laguna County Sanitation District (Project 3) in this proposal. Both projects move the Region toward reaching its goal of recycling a total of 7,035 AFY by 2035. Another synergy exists between this Project and the Secondary Treatment Reliability Project, City of Guadalupe (Project 4) as it too will update infrastructure so that it can reliably deliver secondary treatment services for its customers, which is an important step toward being able to provide recycled water to the area. The City of Guadalupe, a disadvantaged community (DAC), is now conducting a recycled water feasibility study with Proposition 84 Round 1 funding. All projects in this proposal seek to increase supply reliability so that less SWP water will be used in times of drought.. The Project also integrates with state 20x2020 goals and the CALFED Bay-Delta Plan (CALFED) Water Supply Objective, as does Project 3.

This proposal builds upon the projects funded by a Prop 84 Round 1 grant as those projects also are increasing the region's water supply reliability and updating obsolete infrastructure in the following manner:

- The City of Santa Maria Landscape Irrigation Project replaces the use of potable water with lower quality groundwater for use on park landscaping.
- The LEAKWATCH – Radio Water Conservation Metering Program, City of Santa Maria, and the Leak Detection project in the cities of Lompoc, Mission Hills Community Services District (CSD) and Vandenberg Village Community Services District also helps meet the state's 20x2020 goals by conserving water that would be wasted through leaky pipes.
- Recycled Water Feasibility Study. – Once completed, the City of Guadalupe WWTP will have the capacity to move forward with the implementation of the Round 1 funded Recycled Water Feasibility Study. Upgrades to the WWTP were funded by a Proposition 50 grant. This Project completes the upgrades needed for the WWTP.
- The Lompoc Regional Wastewater Reclamation Plant Upgrade Project upgraded outdated infrastructure and improved water quality by advancing the level of treatment.
- The Goleta Sanitary District WWTP Upgrade improved the plant to full secondary treatment capacity.



## Completed Work

A strong technical foundation has been established for Project 1 through the following work, specifically planning and feasibility studies, that has already been completed:

- Water Environment Research Foundation. 2004. *Reduction of Pathogens, Indicator Bacteria, and Alternative Indicators by Wastewater Treatment and Reclamation Processes, Final Report*. Compared the effectiveness of full-scale biological treatment, filtration, and disinfection for removal of bacterial and viral indicators, enteric viruses, and protozoan pathogens.
- Carollo Engineers. July 2008. *El Estero Wastewater Treatment Plant, Tertiary Filter Rehabilitation Project, Final Technical Memorandum*. City of Santa Barbara. Describes challenges and limitations of existing filtration system. Evaluates filter upgrade and demineralization alternatives and provided recommendations for microfiltration technology with reverse osmosis pending future water resources management decisions.
- Carollo Engineers. August 2009. *City of Santa Barbara Water Supply Planning Study, Final*. Assesses the City's existing water supply portfolio and identifies opportunities to increase the reliability of the City's water supplies. Includes a recycled water market assessment and potential recycled water delivery expansion alternatives.
- City of Santa Barbara. June 2011. Addendum June 2012. *Urban Water Management Plan (2010 Update)*. City of Santa Barbara Water Resources Division, Public Works Department. Compares existing and future demands and supplies. Demonstrates the City's planned use of recycled water to meet system demands.
- City of Santa Barbara. June 2011. *Long-Term Water Supply Plan*. City of Santa Barbara Water Resources Division, Public Works Department. Strategic policy document that guides future adaptive water resource management decisions. Demonstrates the City's planned use of recycled water to meet system demands.
- CDM Smith. February 19, 2013. *El Estero Wastewater Treatment Plant Tertiary Filtration Facility, Engineering Assessment and Preliminary Design Services, Tertiary Filtration Facility Preliminary Design Report*. City of Santa Barbara. Involved evaluation of several filtration alternatives to replace the existing failed filtration system, and preliminary design for the recommended alternative of microfiltration technology with future sidestream reverse osmosis.
- *South Coast Recycled Water Development Plan, Draft*. March 2013. Santa Barbara County IRWM Plan 2013. Explores the development and expansion of the use of recycled water through the south coast sub-region of Santa Barbara County.



Work that has not yet been completed, but is expected to be completed by the grant award date includes:

- Final Design Report for the Tertiary Filtration Facility at El Estero Wastewater Treatment Plant. (October 2013).
- Preparation of Bid Specifications, Tertiary Filtration Facility at El Estero Wastewater Treatment Plant. (November 2013).
- Regional Water Quality Control Board (RWQCB) permit amending existing Waste Discharge Requirements (WDR)/Master Reclamation Permit (MRP) to accommodate necessary changes in lieu of a new or substantially revised permit
- Santa Barbara County Air Pollution Control District Permits that may be required for the new chemicals being stored and used as part of the proposed microfiltration system
- City of Santa Barbara Building Permits.

### Existing Data and Studies

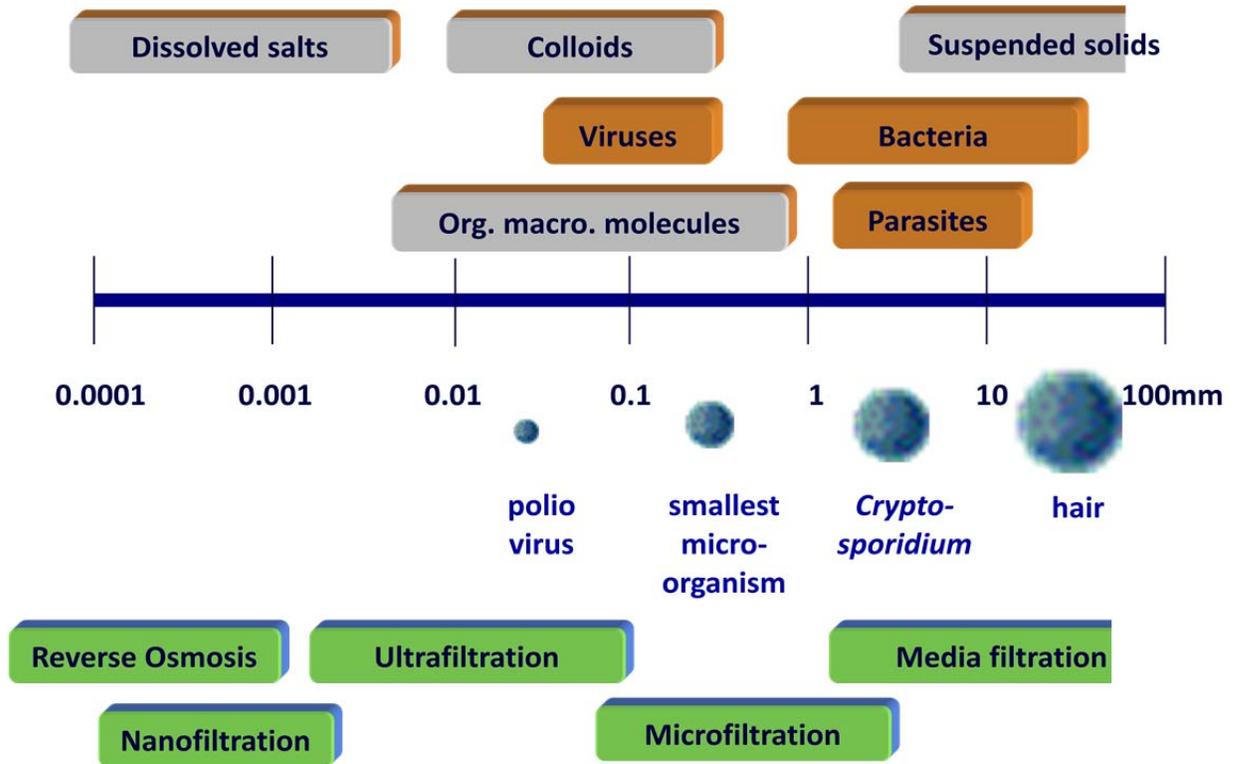
The following section cites data that have been collected and studies that have been performed that supports the project site location, feasibility, and technical methods.

- *2013 City of Santa Barbara Preliminary Design Report for the Tertiary Filtration Facility at El Estero Wastewater Treatment Plant.* The report involved evaluation of several filtration alternatives (Section 1 and Appendix B-3) to replace the existing failed filtration system, and preliminary design for the recommended alternative of microfiltration technology with future sidestream reverse osmosis.
- *2008 City of Santa Barbara Tertiary Filter Rehabilitation Project Technical Memorandum, pp 5-9.* The memorandum describes challenges and limitations of existing filtration system. It evaluates filter upgrade and demineralization alternatives and provides recommendations for microfiltration technology with reverse osmosis pending future water resources management decisions.

To replace the existing failing tertiary filtration system, the 2013 Preliminary Design Report evaluated several filtration technology alternatives with consideration of multiple evaluation criteria (including operation and maintenance, safety, site layout, reduction in turbidity and total dissolved solids (TDS), life-cycle cost, and others). Full microfiltration technology was determined to be the preferred alternative to meet Title 22 recycled water quality standards. Membrane filtration has been successfully employed for several years in the treatment of secondary wastewater effluent.

Microfiltration (MF) technology is a process often associated with the term “membrane filtration”. The membranes provide a physical barrier, resulting in more complete rejection of particles greater than a specified size (on the order of 0.1 micro-meters). Membranes of this kind remove particles down to such small sizes that they both remove pathogens and particles that adversely affect the aesthetic appearance of water.. Refer to Figure 3.1-5 for the contaminant removal capability of microfiltration compared with other filtration technology alternatives.

**FIGURE 3.1-5.**  
 Contaminant Removal Capability of Various Filtration Alternatives



The City has completed preliminary design of the full microfiltration treatment process and final design in underway. Microfiltration will be installed on the same site at the existing filters. The microfiltration units along with chemical storage tanks would be required and can fit in the existing filter footprint. Currently, the City is proposing to construct the microfiltration process, and the reverse osmosis process will be a future enhancement. Refer to Figure 3.1-6 for a conceptual site layout with a future sidestream RO treatment in the existing solids handling building, and Figure 3.1-7 for the process flow diagram.

**FIGURE 3.1-6**  
Conceptual Site Layout for the Proposed Full MF System

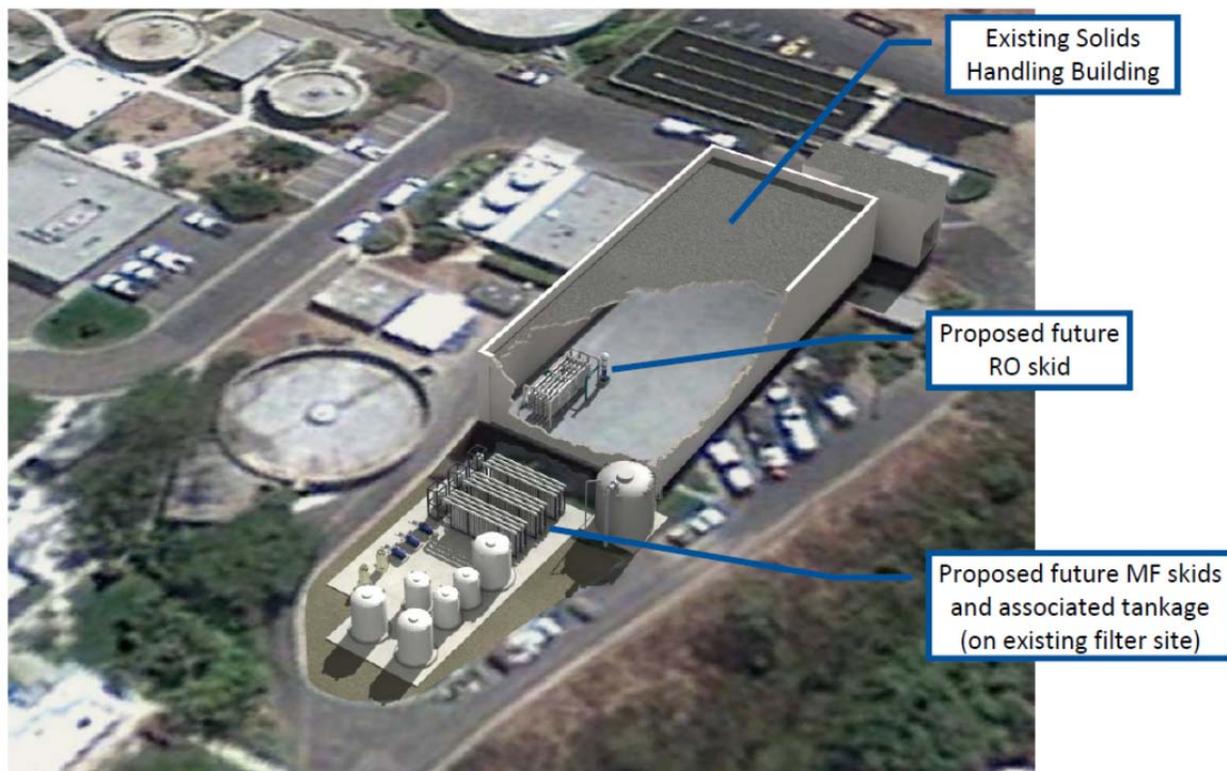
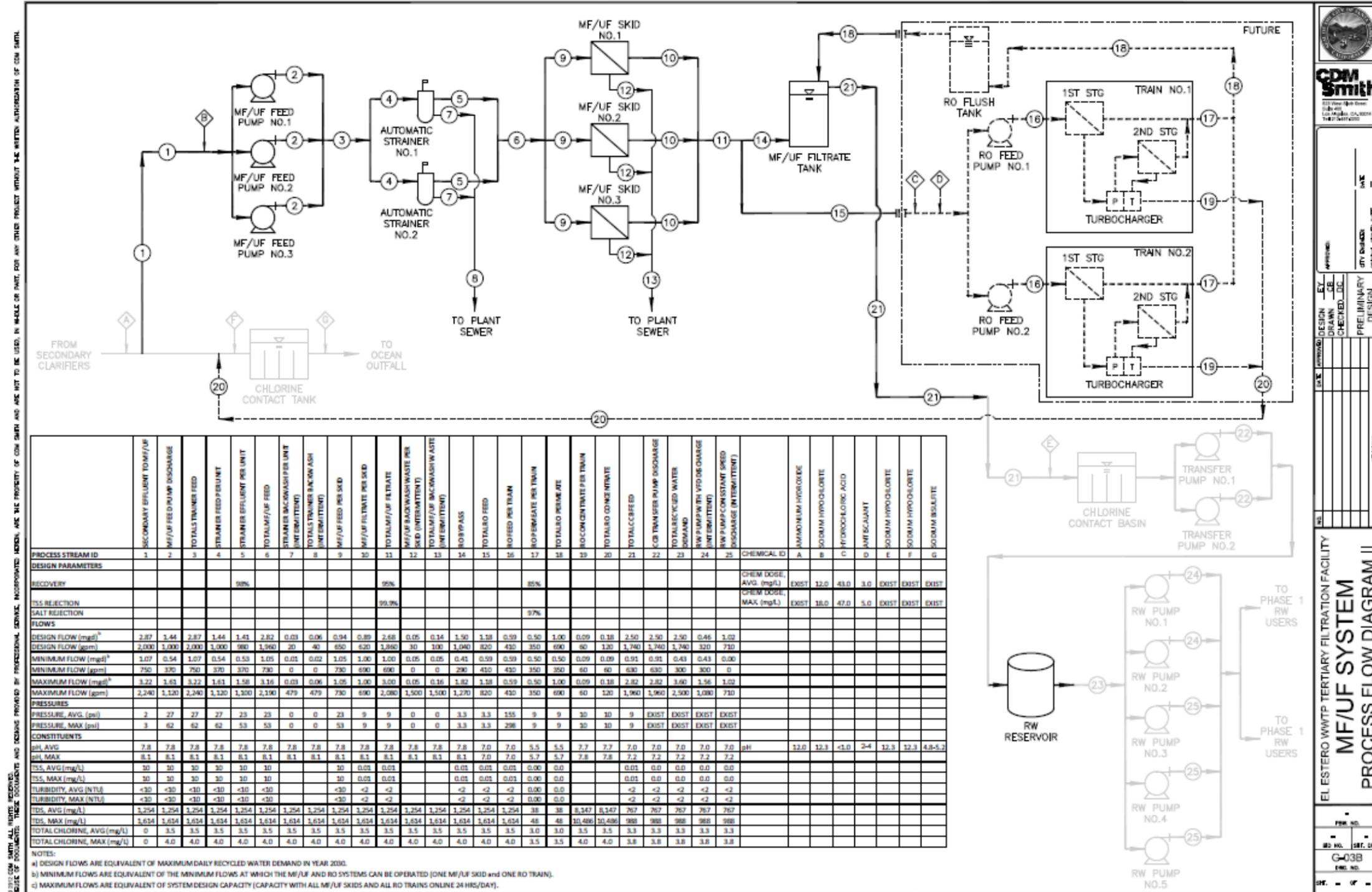


FIGURE 3.1-7  
Process Flow Diagram

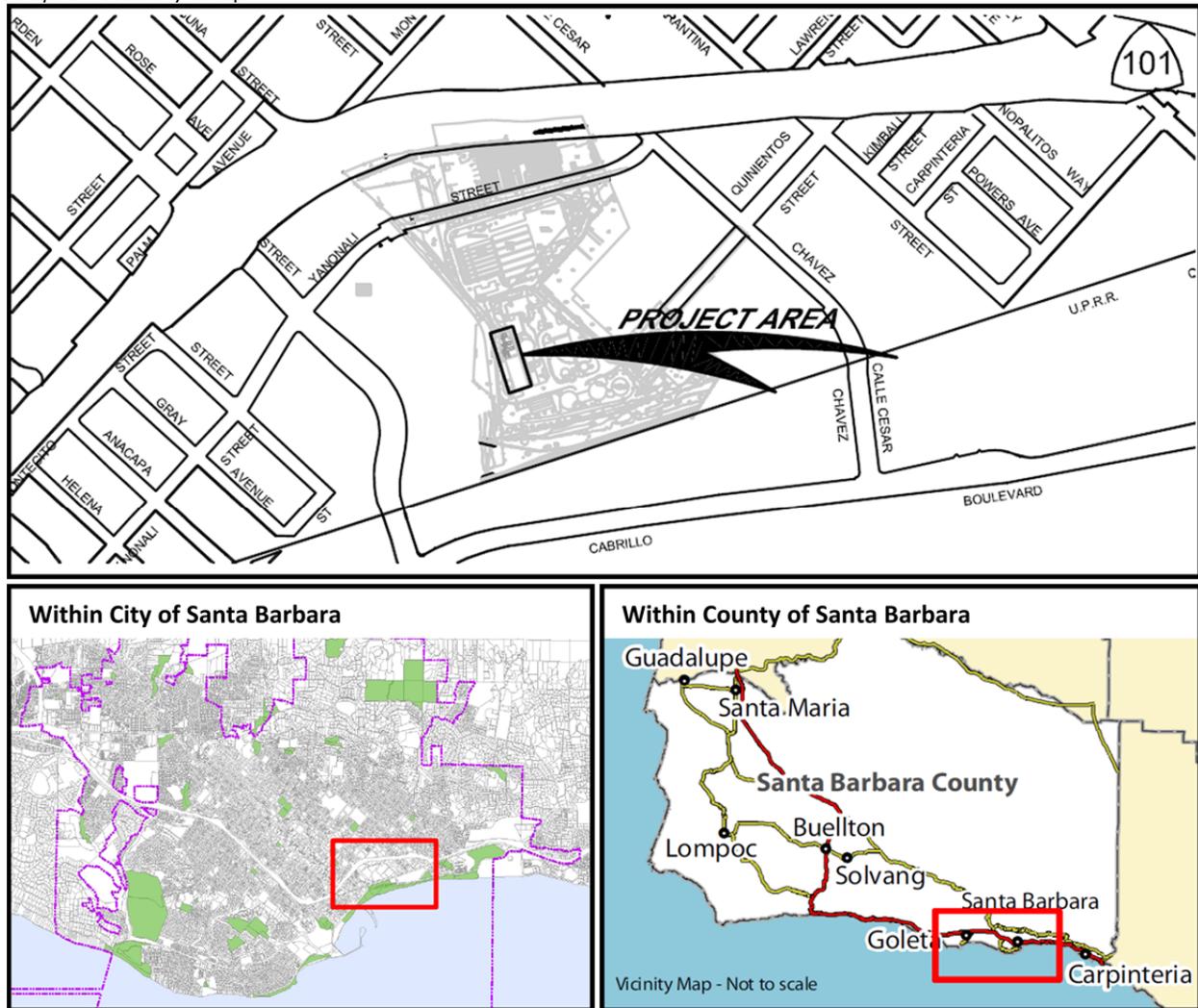


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## Project Map

The following maps (Figure 3.1-8) show the project geographical location within the County of Santa Barbara and within the City of Santa Barbara.

**FIGURE 3.1-8**  
Project Vicinity Map



## Project Timing and Phasing

The proposed Project involves replacement of the existing failing filters with microfiltration technology, which will produce recycled water quality that meets Title 22 standards and will reduce the need for blending with potable water. This microfiltration technology will provide sufficient pretreatment for a future project to enhance water quality with a sidestream reverse osmosis process to remove total dissolved solids.

Funding is being requested for the first phase of the project (replacement of existing failed filters with microfiltration technology), and the project can operate on a stand-alone basis if only the first phase is implemented. The next phase, incorporating a sidestream reverse osmosis process to remove total dissolved solids, will be implemented when it is economically feasible.

### Discussion of Standards

This Project will meet all the following water quality standards, design standards, construction standards, health and safety standards, laboratory analysis, classification methods, and codes:

- Title 22, Division 4 of the California Code of Regulations
- RWQCB Waste Discharge Requirements and master Reclamation Permit
- 2010 California Building Code
- Standard Specifications for Public Works Construction
- City of Santa Barbara Public Works Construction Standard Details, as appropriate
- Santa Barbara County Department of Public Works Transportation Division Engineering Design Standards, as appropriate
- California Department of Transportation (Caltrans) Standard Specifications, Standard Drawings, and Signage Standards, as appropriate
- American Public Works Association (APWA) Standards for Public Works Construction
- American Society of Mechanical Engineers (ASME)
- American Society for Testing and Materials (ASTM)
- American Water Works Association (AWWA)
- American National Standards Institute (ANSI)
- American Concrete Institute (ACI) Building Code Requirements for Structural Concrete (ACI 318-2008/ACI 318R-2008)
- American Society of Civil Engineers (ASCE)
- 29 Code of Federal regulations (CFR) Part 1910, Occupational Safety and Health Standards
- The Aluminum Association. Aluminum Design Manual (ADM-2005)
- American Institute of Steel Construction (AISC) Steel Construction Manual
- Current International Code Council Evaluation Service reports for specific products

- 2008 National Electric Code (NEC)
- National Electrical Safety Code (NESC)
- Occupational Safety and Health Administration (OSHA)
- National Fire Protection Association (NFPA)
- National Electrical Manufacturers Association (NEMA)
- Insulated Cable Engineers Association (ICEA)
- International Society of Automation (ISA)
- Underwriters Laboratories (UL)
- International Electrical Testing Association (NETA)
- International Building Code (IBC)
- International Fire Code (IFC)
- Model National Energy Code for Buildings
- Institute of Electrical and Electronics Engineers (IEEE).

## **Proposed Work**

### **Budget Category (a): Direct Project Administration**

Direct Project Administration includes the tasks of project administration, labor compliance, and reporting. The details of each of those tasks are described in tasks 1, 2, and 3 below.

#### **Task 1: Project Administration**

##### **Subtask 1.1 Project Administration**

The following project administration activities including project administration and the preparation and submittal of quarterly, final, and post-completion reports will be performed by the City of Santa Barbara Public Works Department. The development of financing has already been completed. Over \$2 million has been appropriated in the FY 12 budget (adopted 2011) and \$6.8 million will be approved in June 2013 for the FY 14 budget. The Santa Barbara City Council has approved the Project technology and provided over 50 percent in matching funding so there is great certainty that the Project will move forward.

Task 1: Project Administration

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct. 1, 2013
Development of financing	Fiscal Year 2013 (July 2012 – Feb 2013)	Project is budgeted in the FY 2014 capital improvement fund made available through City water revenues	✓	
Execution of grant contract	After grant award (Fall 2013)	Not started		✓
Quarterly invoices and reports	Quarterly after grant contract execution	Not started		✓

**Deliverables:**

- Interagency agreement for executing grant contract
- Invoices and required information regarding matching funds
- Quarterly, final, and post-completion reports (see Task 3).

**Task 2: Labor Compliance Program**

The City will contract with a Third-Party Labor Compliance Program Administrator to submit an application to the Department of Industrial Relations for a project-specific Labor Compliance Program (LCP). The Third-Party LCP Administrator will assist the City in oversight of contractor compliance with the Code of Federal Regulations. Labor compliance will include, but not be limited to:

- Ensure that all project legal notices contain the proper LCP notifications to bidders; and statement of payment of prevailing wage requirements as stated in Labor Code Section 1771.8 for entities receiving funds from the Department of Water Resources' (DWR's) IRWM Plan Implementation Grant, funded by Proposition 84.
- Provide direction and guidance to bidders in their queries regarding compliance with the LCP, including payment of prevailing wages, identification of labor classifications, and proper completion and submission of forms and notices.
- Collect and record the receipt of weekly Certified Payroll Records Pursuant to Labor Code Sections 1771.5(4), 1776, and California Code of Regulations 16401, 16402, 16403 as well as any applicable federal statutes.
- Conduct random audits of Certified Payroll Records.
- Conduct periodic and routine site visits to physically monitor the Project including noting the number of workers on the site and interview a sufficient

number to ensure that they are receiving the proper prevailing wage rate for the duties performed.

- Investigate all allegations of failure to pay prevailing wage rates and/or worker complaints on the project.
- Engage in all such duties required for those entities receiving funds from the DWR’s IRWM Implementation Grant, funded by Proposition 84.

Task 2: Labor Compliance Program

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct. 1, 2013
Establish Labor Compliance Program and Third-party Labor Compliance Program Administrator	October 2013 – February 2014	Not yet begun		X
Compliance Monitoring Unit	March 2014 - July 2016	Not yet begun		X

**Deliverable:**

- Labor Compliance Program contract
- Approval of certified payrolls
- Report or memorandum showing compliance achieved.

**Task 3: Reporting**

Reporting to demonstrate compliance with grant agreement requirements will be conducted as needed. Quarterly, final, and post-completion reports will be prepared and submitted to DWR, but will be budgeted under Task 1: Project Administration.

Quarterly progress reports will be submitted that provide a brief description of the work performed, accomplishments during the quarter, milestones achieved, monitoring results, invoice projections, description of progress on the plan, any data developed or information gained, any costs incurred, any schedule impacts, and any problems encountered in the performance of the work and methods developed to correct problems. A final report and post-completion report will be submitted.

Task 3: Reporting

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct. 1, 2013
Submittal of Quarterly Progress Reports	Quarterly after contract with state signed (estimated to be November 2013)	Not started		✓
Submittal of Final Report	90 days after project completion (estimated to be October 2016)	Not started		✓
Submittal of Post Completion Reports	90 days after the completion of first year of operation (estimated to be October 2017)	Not started		✓

**Deliverables:**

- Quarterly, final, and post-completion progress reports including monitoring, assessment, and performance for the Project.

**Budget Category (b): Land Purchase/Easement**

Not applicable. The project is replacing an existing City facility on City land (will remain within existing site boundaries). No acquisitions and no rights-of-way will be required.

**Budget Category (c): Planning/Design/Engineering/Environmental Documentation**

Budget Category “c” includes Assessment and Evaluation, Final Design, Environmental Review, and Permitting. Tasks 4, 5, 6, and 7 below provide details for each of these tasks.

**Task 4: Assessment and Evaluation**

Various studies as previously described have been performed to support the science behind and the need for the Project.

- Water Environment Research Foundation. 2004. *Reduction of Pathogens, Indicator Bacteria, and Alternative Indicators by Wastewater Treatment and Reclamation Processes, Final Report*. Compared the effectiveness of full-scale biological treatment, filtration, and disinfection for removal of bacterial and viral indicators, enteric viruses, and protozoan pathogens.
- Carollo Engineers. July 2008. *El Estero Wastewater Treatment Plant, Tertiary Filter Rehabilitation Project, Final Technical Memorandum*. Prepared for the City of Santa Barbara.
- Carollo Engineers. August 2009. *City of Santa Barbara Water Supply Planning Study, Final*.

- City of Santa Barbara. June 2011; Addendum June 2012. *Urban Water Management Plan (Update 2010)*. City of Santa Barbara Water Resources Division.
- City of Santa Barbara. June 14, 2011. *Long-Term Water Supply Plan*. City of Santa Barbara Water Resources Division.
- CDM Smith. February 19, 2013. *El Estero Wastewater Treatment Plant Tertiary Filtration Facility, Engineering Assessment and Preliminary Design Services, Tertiary Filtration Facility Preliminary Design Report*. Prepared for the City of Santa Barbara.
- *South Coast Recycled Water Development Plan, Draft*. March 2013. Santa Barbara County IRWM Plan 2013.

Task 4: Assessment and Evaluation

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct. 1, 2013
Various studies and plans as listed above (completed)	2000 - March 2013	Completed	X	

**Deliverable:**

- Work is complete.

**Task 5: Final Design**

Preliminary design report (30% design) was completed in February 2013. The City has entered into an agreement for contract services to complete final design and support permitting process. Ninety percent (90%) design is expected to be completed by September 2013. Final design and permitting is expected to be complete in November 2013. The Project will be put out to bid for construction in November 2013.

Task 5: Project Design

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct. 1, 2013
Preliminary Design Report (budgeted under Task 4)	February 2013	Completed	X	
90% Design	March 2013 - September 2013	Underway in March 2013		
Final Design	November 2013	Currently finalizing services contract (Agreement expected to be in place March 2013)	X	X

**Deliverable:**

- Final Design Report.

**Task 6: Environmental Documentation**

The project is expected to be exempt from the California Environmental Quality Act (CEQA). The City will file for a Notice of Exemption.

Task 6: Environmental Documentation

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct. 1, 2013
File for CEQA Notice of Exemption	September 2013	In process. Received preliminary determination from City's environmental analyst that the project is categorically exempt.		X

**Deliverable:**

- Copy of environmental documentation filing.

**Task 7: Permitting**

The following permits will be secured during the final design phase of the Project (March 2013 – January 2014).

- Regional Water Quality Control Board (RWQCB) – amend existing Waste Discharge Requirements (WDR)/Master Reclamation Permit (MRP) to accommodate necessary changes in lieu of a new or substantially revised permit
- Santa Barbara County Air Pollution Control District Permits – may be required for the new chemicals being stored and used as part of the proposed microfiltration system
- City of Santa Barbara Building Permits.

In addition, the City will need to submit an Engineering Report to the California Department of Public Health (CDPH) and RWQCB for the use of recycled water for toilet flushing.

The City's Community Development Department will also need to determine whether the Project requires Architectural Board Review for consistency with the City's architectural design guidelines.

The Project does not cause enough change in the discharge of wastewater from the El Estero Wastewater Treatment Plant to the ocean to require notification to the RWQCB to meet National Pollutant Discharge Elimination System (NPDES) requirements.

Task 7: Permitting

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct. 1, 2013
Amend Existing RWQCB WDR/MRP Permit	March 2013 - January 2014	Not yet begun		X
Santa Barbara County Air Pollution Control District Permits	March 2013 - October 2013	Not yet begun		X
Santa Barbara Building Permits	March 2013 - October 2013	Not yet begun		X

**Deliverables:**

- Amended existing RWQCB WDR/ MRP
- Santa Barbara County Air Pollution Control District Permits
- City of Santa Barbara Building Permits.

**Budget Category (d): Construction/Implementation**

**Task 8: Construction Contracting**

Construction contracting will include 1) conducting the bidding process, 2) awarding the contract and issuing the notice to proceed, and 3) maintaining contract escrow bid documents. Conducting the bidding process includes preparation and distribution of bid packages, advertising the contract, distributing bid invitations and instructions, conducting a pre-bid meeting, evaluating bids, and selecting the lowest responsible bidder. Awarding the contract will require City Council approval prior to issuing the notice to proceed. The final activity will be maintaining contract escrow bid documents.

Task 8: Construction Contracting

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct. 1, 2013
Prepare and distribute Bid Packages	October 2013 - November 2013	Not yet begun		X
Advertise contract	November 2013	Not yet begun		X
Distribute bid invitations and issue instructions to potential bidders	November 2013	Not yet begun		X
Conduct pre-bid meeting for prospective contractors and subcontractors	December 2013	Not yet begun		X
Evaluate bids and selection of lowest responsible bidder	January 2014	Not yet begun		X
Confirm that bonding requirements have been met	January 2014	Not yet begun		X

Task 8: Construction Contracting

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct. 1, 2013
Award contract and obtain procurement of services (per City Council Approval)	February 2014	Not yet begun		X
Issue Notice to Proceed	March 2014	Not yet begun		X
Maintain contract escrow bid documents	February 2014- July 2016	Not yet begun		X

**Deliverable:**

- Contracts with contractor.

**Task 9: Construction**

**Mobilization, Site Preparation, Construction, Performance Testing, and Demobilization:**

- Disconnect the existing filter complex from the system (the filter complex is not required for El Estero WWTP operations)
- Use potable water to supply demands in the existing recycled water system
- Groundwater dewatering (periodic)
- Cut, cap, and protect in place the existing filter influent and filter effluent pipelines
- Demolish the existing filter complex down to the foundation slab
- Construct new membrane filtration facility and associated chemical systems.

Performance testing and demobilization will involve connecting to the system for process unit startup and testing of various operating conditions, cleaning procedures, chemical dosage, water quality, pipe pressure testing, etc. A formal testing plan will be prepared as part of the Final Design report. Demobilization involves site cleanup to remove any temporary structures or items used for construction purposes only.

Task 9: Construction

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct. 1, 2013
Mobilization, Site Preparation, Construction, Performance Testing, and Demobilization	May 2014 – July 2016	Not yet begun		X

**Deliverable:**

- Project completion report.

**Budget Category (e): Environmental Compliance/Mitigation/Enhancement**

**Environmental Compliance / Mitigation / Enhancement**

No environmental mitigation or enhancement required.

**Budget Category (f): Construction Administration**

**Task 10: Construction Administration**

The management of the construction contractor includes inspection of work, receipt and recording of as-builts, review of submittals, negotiation and approval of change orders, weekly construction reports, administration of project finances, general administration, and risk management.

Task 10: Construction Administration

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct. 1, 2013
Management of Construction Contractor	March 2014 – July 2016	Not yet begun		X

**Deliverable:**

- Progress Reports and Final Report (both to include results of construction administration tasks).

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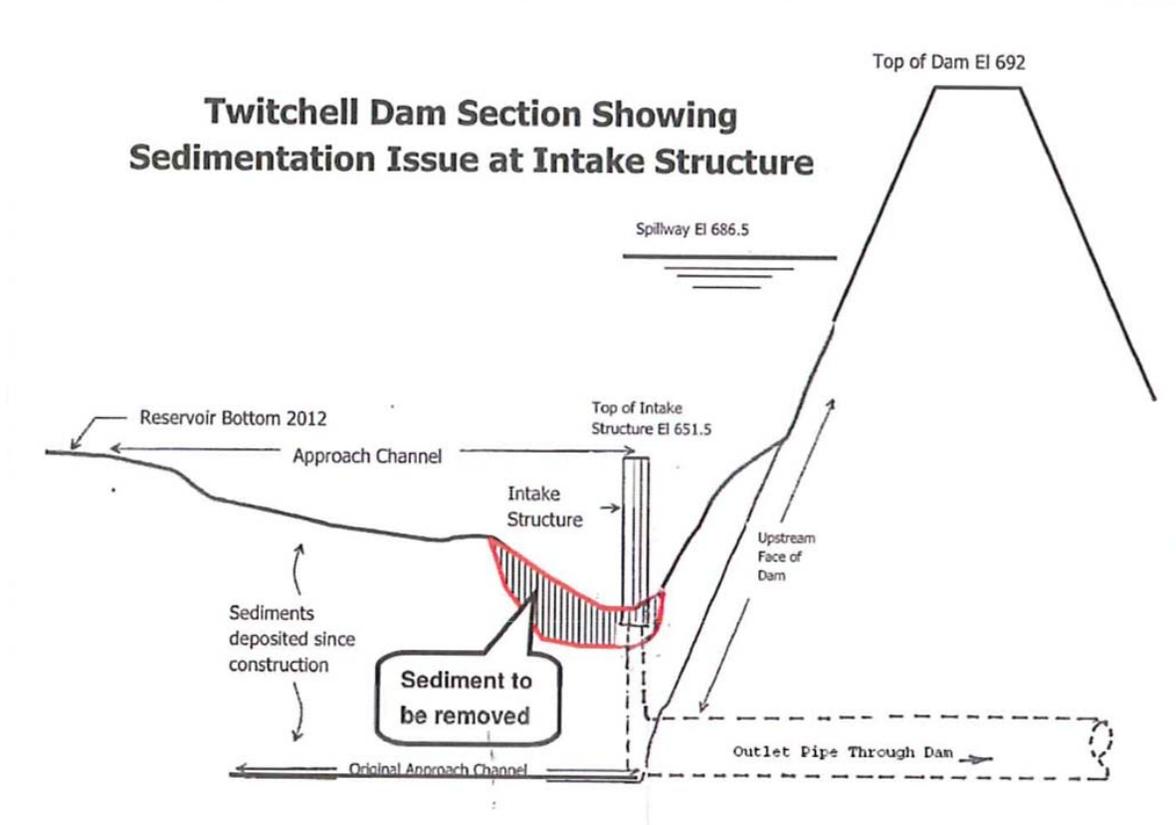
## Project 2: Twitchell Reservoir Sedimentation Management and Groundwater Recharge Project, Santa Maria Valley Water Conservation District

### Project Description

The Twitchell Reservoir Sedimentation Management and Groundwater Recharge Project (Project 2 or Project) consists of the removal of approximately 9,000 cubic yards of sediment that has accumulated in the Twitchell Reservoir (Reservoir). Currently, water from the Reservoir is released through the intake structure of the outlet works to a tunnel under the Twitchell Dam (Dam) and discharges to a stilling basin and the Cuyama River. The Reservoir has experienced significant sediment buildup in the outlet works in the past, and Reservoir operations predict that sediment will continue to impact the tunnel and can disrupt reservoir operations.

The Reservoir produces a 32,000 acre-feet per year of water for recharge into the Santa Maria Groundwater Basin (Basin), calculated in the Development of a Numerical Ground-Water Flow Model and Assessment of Ground-Water Basin Yield report and specified in Santa Maria Valley Water Conservation District v. City of Santa Maria, et al., Stipulation, CV 770214 (Appendix 3-2). However, groundwater recharge is significantly interrupted by sediment buildup. The proposed project will strategically remove sediment from the Reservoir in front of the intake structure of the outlet works, as shown in Figure 3.2-1. This strategy is critical for removing sediment from the Reservoir that enters the outlet works, accumulates in the stilling basin and downstream watercourse, and disrupts recharge operations. With the sediment in the normal watercourse, the river flows will divert from the normal watercourse and sometimes take a path of least resistance over and through vineyards and agricultural properties causing damage. The Project consists of dredging sediment in the Reservoir to reduce disruptions to Reservoir operations and risk associated with groundwater recharge.

**FIGURE 3.2-1**  
Cross-sectional Diagram of Proposed Dredging Removal for Project 2



During the dredging process, a small hydraulic barge will be placed in the Reservoir and a 6- or 8-inch dredge pump will be used in conjunction with a booster pump to lift sediment and dredge water through a pipeline to a stockpile area downstream of the Dam. A maximum of six desilting ponds will be graded within the stockpile area, and water will flow from the highest to the lowest ponds in the desilting process. The stockpile was previously a borrow area for construction material for the Dam and is located outside the 100-year floodplain. This ensures that stockpiled sediment will not reenter the Cuyama River and its associated wetlands downstream. Figure 3.2-2 presents an aerial image of the expected dredging location, the stockpile area, and proposed pipeline route.

**FIGURE 3.2-2**  
Aerial Image of Project 2 Dredging Site



The lead agency for the Project is the Santa Maria Valley Water Conservation District (SMVWCD) and its cooperating partners are the City of Santa Maria, Twitchell Management Authority (TMA), and Santa Barbara County Flood Control and Water Conservation Agency.

### Goals and Objectives

The major goals of the Project are to protect, manage, and maintain groundwater supply in the region by removing accumulated sediment in the Reservoir.

Sediment continues to accumulate in the Reservoir, an important groundwater recharge asset and flood control and management resource for the Basin. As stated, the Project aims to dredge sediment from the Reservoir in an effective and efficient method to maintain its annual groundwater recharge volume of 32,000 acre-feet. As a result, the

Project will benefit the Basin by (1) continuing to protect and maintain its groundwater recharge, (2) preventing sediment from harming natural habitat located downstream of the Dam, (3) improving groundwater quality by recharging natural runoff that is lower in nitrates and total dissolved solids (TDS) than current groundwater qualities, and (4) continuing the Reservoir’s flood control operations.

The 2013 IRWM Plan Update presents several regional objectives. The Project will accomplish several of those objectives, as represented in Table 3.2-1.

**TABLE 3.2-1**

How Project 2 Accomplishes Regional Objectives (IRWM Plan Update 2013)

Regional Objective	How Project Accomplishes Objective
 Protect, conserve, and augment water supplies	The Project will provide much-needed sedimentation management to protect the continued infiltration of 32,000 acre-feet per year of groundwater recharge.
 Protect, manage, and increase groundwater supplies	The Project will improve operational efficiency and increase groundwater supply reliability by removing 9,000 cubic yards of sediment from the Reservoir. Sediment removal will keep the sediment from obstructing flow in the outlet works and allow water to continue to recharge the Basin.
 Practice balanced natural resource stewardship	Sediment that enters the outlet works ultimately flows downstream and damages wetlands that are a habitat for many sensitive species. The Project will prevent excessive sediment from flowing downstream and harming these natural habitats.
 Protect and improve water quality	The Project improves the operation of the Reservoir, supporting its function to replenish the region’s groundwater with high quality, natural water, which improves the Basin’s water quality and helps the Basin meet the Water Quality Objectives in the Water Quality Control Plan for the Central Coastal Basin (Basin Plan).
 Improve flood management	The Project will improve flood management by decreasing the chance o potential flood and sediment damage to downstream vineyards and agricultural properties and allowing for additional stormwater storage in the Reservoir.
 Ensure equitable distribution of benefits	The Project supports disadvantaged communities in Santa Maria.

**Consistency with Basin Plan**

The Project is consistent with the goals of the Water Quality Control Plan for the Central Coastal Basin (Basin Plan) as it does not negatively affect water quality. The objective of the Basin Plan is to show how the quality of the surface and ground waters in the Central Coast Region should be managed to meet the highest water quality standards. Project 2 positively affects water quality by increasing groundwater supply and providing a high quality, natural water to the Basin.

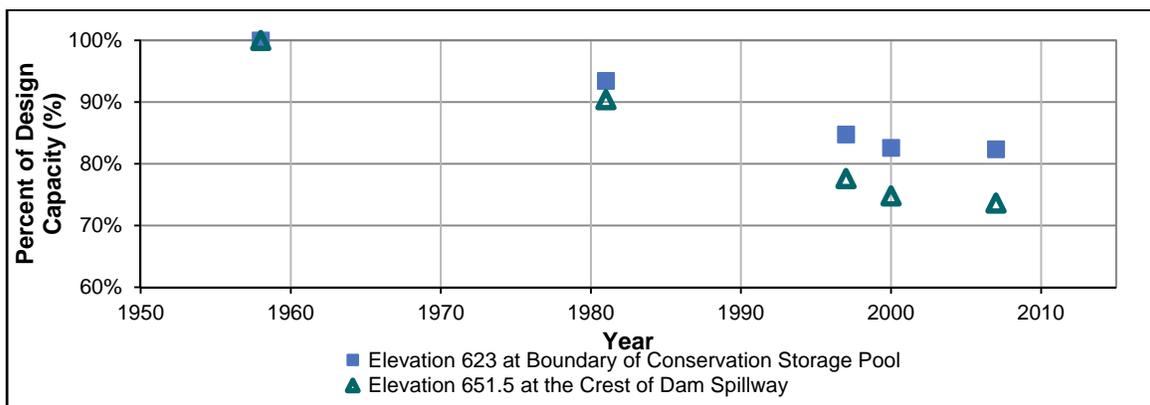
## Purpose and Need

Construction of Twitchell Dam began in July 1956 and was completed in October 1958. The Reservoir and Dam were designed to provide the Santa Maria Valley with flood protection and water conservation. The Dam catches excess rain runoff from the Cuyama watershed (1,600 mi<sup>2</sup>) and stores it in the Reservoir, protecting the valley from winter flooding. Water is slowly released from the Reservoir into the Cuyama River, which flows into the Santa Maria River, which bisects the Basin. The Santa Maria River serves as the main recharge source for the local aquifer and primary water supply. The aquifer provides water for the entire Santa Maria Valley, including the City of Santa Maria, Guadalupe, unincorporated area of Santa Barbara County, and the surrounding agricultural community in Northern Santa Barbara and Southern San Luis Obispo County. The Santa Maria Valley has a population of over 150,000 people and has a very large agricultural industry.

The purpose of the Project is to remove sediment and protect the two major functions of the Reservoir: groundwater recharge reliability and flood control and management. Preventing recharge interferences, such as flow obstruction, would increase groundwater quantity to the disadvantaged communities (DACs) downstream of the dam.

Historically, reservoir capacity has steadily declined due to siltation based on the periodic capacity survey data of the reservoir, as illustrated in Figure 3.2-3. Topographic surveys performed since the design and construction of the Reservoir indicate a 26.3% decrease in 2007 from the original design capacity. Surveys carried out both below the spillway (elevation 651.5) and at the boundary of the conservation storage pool (elevation 623) show how important proactive sedimentation management is to maintain reservoir capacity, and, subsequently, maintain reservoir operations. Detailed data can be found in the *Twitchell Project Manual*, located in Appendix 3-2.

**FIGURE 3.2-3**  
 Historical Reservoir Capacity Decrease



The immense need of the Project is made clear when considering the myriad of probable consequences of the without-project condition (i.e., if sediment dredging does not occur):

- *Decrease in groundwater recharge due to sediment obstruction.* Sediment from the Reservoir can accrue within the outlet works and downstream river channel, which reduces groundwater recharge to the Basin. The Reservoir functions to recharge groundwater in the Basin by releasing stored stormwater into the Cuyama River. The impedance of flow caused by sediment obstruction in the downstream river channel can cause a considerable decrease in the groundwater recharge to the Basin.
- *Decrease in groundwater recharge due to accumulation of sediment in Cuyama and Santa Maria Rivers.* Sediment from the reservoir travels through the outlet works and settles in the Cuyama and Santa Maria Rivers, as shown in the image to the right. This sediment accumulation in the rivers can cause clay settling at the bottom of the rivers and significantly restrict much needed groundwater infiltration into the Basin.
- *Damage to sensitive species habitats.* Sediment accumulation in the Cuyama River can also degrade the natural environment downstream of the dam. In the spring of 2009, sediment built up in and blocked the Cuyama River. This occurrence forced sediment to flow out of the banks of the River and into wetlands that are the breeding sites and critical habitat of the red-legged frog, a federally-listed threatened species. Accessibility to sheltering habitat is essential for the survival of the species within a watershed, and a lack of an appropriate habitat can contribute to limiting population and species distribution.



Sediment can also affect two other species that reside downstream of the Reservoir: the Western pond turtle (shown left) and coast horned lizards, which are both classified as California Species of Special Concern.

Furthermore, stream alteration, which occurred in the past and required a costly emergency sediment excavation project in the river channel, can lead to direct habitat loss for these vulnerable species.



- *Poorer groundwater quality.* A loss in groundwater recharge will degrade groundwater quality in the Basin as natural runoff released from the Reservoir is of higher quality than current Basin conditions.
- *Loss of flood control and management flexibility.* Sediment obstruction of stormwater flow may severely limit flood management flexibility. Sediment obstruction may cause additional water stored in the Reservoir, which increases the change of more frequent ordered releases from the Reservoir, which can increase downstream flooding. Ordered releases may cause considerable downstream flooding. Therefore, sediment removal in the Project will reduce and help avoid the the negative effects of flood waters damaging vineyards and other agricultural areas along the Cuyama River.
- *Need for sediment clean-up projects due to sediment obstruction in the Dam outlet works.* In the past, periodic and emergency projects to remove sediment in the outlet works have been the solutions for sediment management. However, clean-up projects have been costly. For example, a 2010 emergency sediment removal project in the outlet works, downstream stilling basin, and Cuyama River Channel cost \$1,250,000. Implementing this Project may prevent the need for sediment clean-up projects for about 20 years, making the Project beneficial to the region as well.

Therefore, sediment dredging is crucial for future operations of the Reservoir. Without the Project, the Santa Maria Groundwater Basin will likely encounter detrimental consequences and lose the numerous benefits associated with the Reservoir's 32,000 acre-feet of groundwater recharge.

### Integrated Elements of Projects

The Project links the entities that use the Basin for water supply: City of Santa Maria, City of Guadalupe, Community of Sisquoc, Community of Garey, Community of Nipomo, and numerous rural areas.

These cities and communities have listed the Basin as an important source of water in their respective Urban Water Management Plans (UWMPs). There are many involved projects and ongoing efforts to keep this Basin healthy, maintain water quality, and prevent overdraft. Two recently Integrated Regional Water Management (IRWM) funded projects will improve the water quality of the Basin and conserve Basin and State Water Project water. The two projects are the LeakWatch and the Untreated Water Landscape Irrigation Projects, which are being funded by a Proposition 84 IRWM Round 1 Implementation Grant.

All users of the Basin are working together to study, plan, and improve the quality and quantity of the water in the Basin. That would include the Counties of Santa Barbara and San Luis Obispo, Cities of Santa Maria and Guadalupe, Santa Maria Valley Water Conservation District (representing both Northern Santa Barbara and Southern San Luis Obispo County), Twitchell Management Authority, Stipulating Landowners, and all the

unincorporated communities using the water. In addition, the Cities of Santa Maria and Guadalupe and the Laguna County Sanitation District, along with other entities, have been leading the preparation of the *Groundwater Basin Assessment in Support of Salt and Nutrient Management Planning* (Appendix 3-1). The assessment focuses on salts and nutrients and provides a summary of basic information relating to sources, transport, and management during the past 20 years.

The Project demonstrates the region’s commitment to improving water resource management in its disadvantaged communities (DACs) and underscores the active involvement and participation of DACs in the region. It also demonstrates the region’s dedication to supporting DACs and avoiding issues of economic justice.

The Project also provides synergies with other projects in this Application. Project 2 is integrated with the Recycled Water Enhancement Project, City of Santa Barbara (Project 1) as they both strive to improve operational efficiency, improve water quality, and increase water supplies. In addition, both Project 2 and Project 3 (Recycled Water Expansion and Golf Course Retrofit Project, Laguna County Sanitation District) seek to improve the reliability of the groundwater supplies in the Santa Maria Groundwater Basin. Lastly, Project 2 and the Secondary Treatment Reliability Project, City of Guadalupe (Project 4) both aim to improve the Basin’s water quality and operational efficiency and infrastructure.

Together, these projects move the region toward a much-needed increase in water supply reliability and improved water quality in Santa Barbara County.

### Project Maps

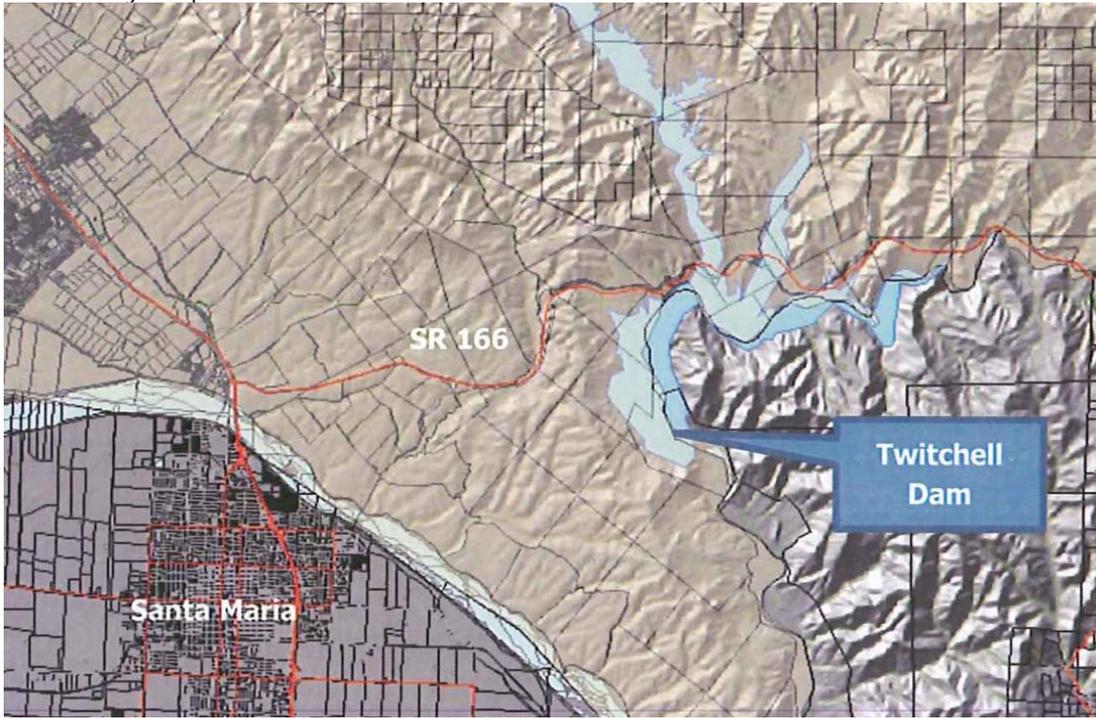
The Reservoir is located in both Santa Barbara and San Luis Obispo Counties, and is located approximately 6 miles northeast from the City of Santa Maria. The dredging portion of the Project will take place just upstream of the Dam (as indicated in Figure 3.2-1) and the drainage pipe and stockpile area will be located downstream of the Dam (as shown in Figure 3.2-2). The latitude of the Project is 34 degrees, 59 minutes, 2.59 seconds N, and longitude is 120 degrees, 19 minutes, 27.78 seconds.

Figure 3.2-2 provides an aerial image of Project 2 Dredging Site. The figure identifies planned locations for the dredging area, dredged pipeline route, sediment stockpile area, and downstream water irrigation areas.

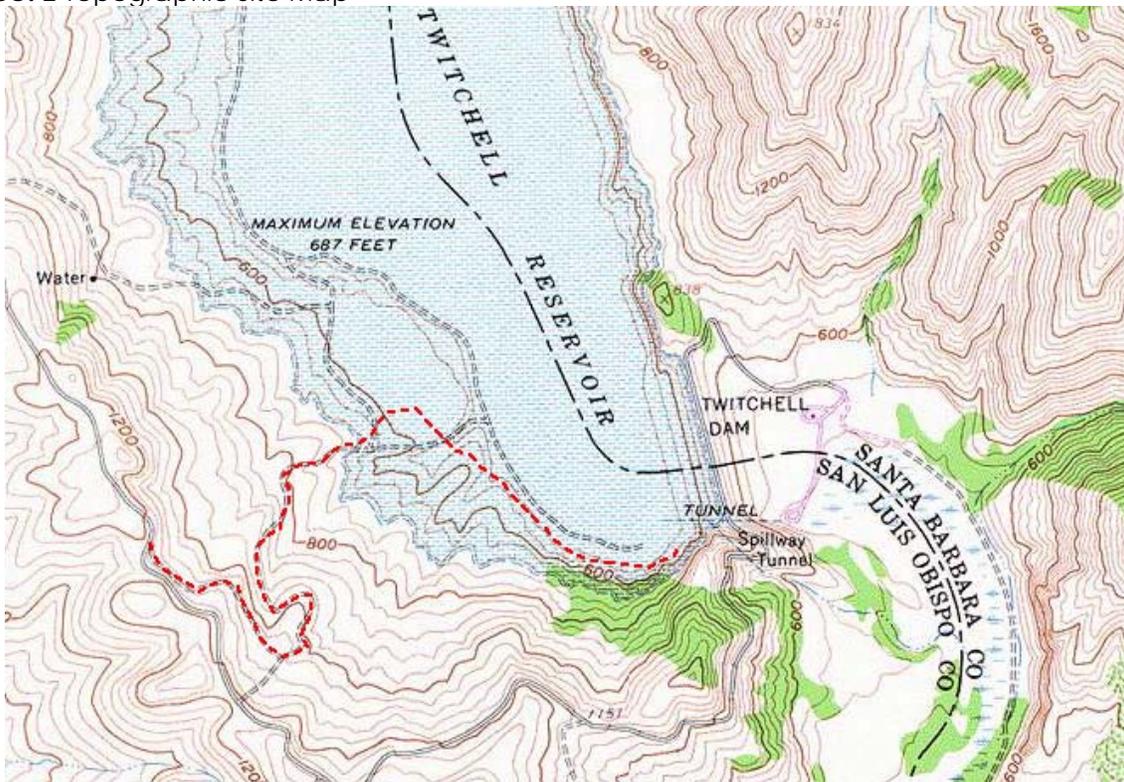
Figure 3.2-4, the Project 2 Vicinity Map, provides the location of the project relative to the City of Santa Maria, the Cuyama River, and State Route 166.

Figure 3.2-5, the Project 2 Topographic Site Map, shows specific site information, including the location of sediment excavation, planned area of sediment stockpile, and access route to the outlet structure and dam.

**FIGURE 3.2-4**  
Project 2 Vicinity Map



**FIGURE 3.2-5**  
Project 2 Topographic Site Map



### Work Completed Prior to October 1, 2013

Substantial work has been completed on this project and SMVWCD anticipates the following work will be completed by October 1, 2013. In addition, SMVWCD staff has met with the California Department of Fish and Wildlife onsite to familiarize them with the project and the project site.

- Contract management with labor compliance contractor
- Reservoir topographic survey and assessment (November 2012 - January 2013)
- Conceptual Design Report (January 2013)
- Mitigated Negative Declaration
- Preparation of Bid Packages.

### Existing Data and Studies

The following technical reports support the Project's feasibility and technical methods. Please refer to Appendix 3-2 for the documents.

- *Twitchell Project Manual, July 22, 2010.* The Twitchell Project Manual discusses the history of the Reservoir and maintenance and capital projects. It also supplements the existing operations and procedures manual for the Reservoir and Dam. The manual provides sedimentation management recommendations for projects that will support the continued success of the facility to maximize recharge to the Santa Maria Management Area. In particular, it includes strategies to mitigate the negative impacts of the increasing sedimentation in the reservoir that is affecting both water conservation capacity and function of the outlet works.
- *Santa Maria Valley Management Area 2011 Annual Report of Hydrogeologic Conditions, Water Requirements, Supplies and Disposition.* This annual report provides descriptions of previous studies conducted in the Basin. It describes hydrogeologic conditions in the management area historically and through 2011, including groundwater conditions, reservoir operations, and hydrologic and climatic conditions. The report found that the groundwater was the primary water supply in the Basin in 2011 with 105,650 acre-feet, and the balance of total water demands was 12,150 acre-feet of imported water from the State Water Project. This confirmed the importance of groundwater supply to the region.
- *Twitchell Reservoir Dredging Project Initial Study, January 15, 2013.* This study gathers preliminary detailed information about Project 2. It includes a project description, site information, environmental setting description, and a checklist to indicate the potential level of project impacts to different resources.

## **Project Timing and Phasing**

The Project is not part of a multi-phased project. It is a standalone project that is fully functional without implementation of subsequent projects.

## **Discussion of Standards**

This Project will meet all the following design standards, construction standards, health and safety standards, laboratory analysis standards, and codes:

- 2010 California Building Code
- American Concrete Institute (ACI) Building Code Requirements for Structural Concrete (ACI 318-2008/ ACI 318R-2008)
- American Institute of Steel Construction (AISC) Steel Construction Manual
- American National Standards Institute (ANSI)
- American Public Works Association (APWA) Standards for Public Works Construction
- American Society for Testing and Materials (ASTM)
- American Water Works Association (AWWA)
- California Department of Transportation (CALTRANS) Standard Specifications, Standard Drawings, and Signage Standards, as appropriate
- Construction Site Best Management Practices Manual
- International Building Code (IBC)
- Occupational Safety and Health Administration (OSHA)
- Standard Specifications for Public Works Construction
- Underwriters Laboratories (UL).

## **Proposed Work**

### **Budget Category (a): Direct Project Administration Costs**

Direct project administration costs include, but are not limited to general project management (e.g., invoice approval, schedule review), project status meetings, preparation of quarterly reports, and regular communication among the four agencies.

#### **Task 1: Project Administration**

Work to be completed as part of Task 1 includes invoice review and payment, budget adjustments, project status meetings, managing project contracts, preparation of this Proposal, and communication among the four agencies and project contractors.

Task 1: Project Administration

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct 1, 2013
Project Administration	June 2012 – March 2014	Not yet begun		✓

**Task 2: Labor Compliance Program**

Task 2 consists of adopting and enforcing a labor compliance program pursuant to California Labor Code §1771 et seq. prior to award of contract for the Project. Legal review of all Project procurement documents is planned to ensure compliance with labor regulatory requirements.

SMVWCD plans to use a third-party’s labor compliance program (LCP). The LCP services will include, at a minimum, monitoring and preparation of summary and status reports; receiving, reviewing, and processing certified payroll reports; conducting interviews; and collecting, reviewing, and processing other data. Annual reports to the Department of Industrial Relations (DIR) will also be prepared and submitted.

Task 2: Labor Compliance Program

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct 1, 2013
Labor Compliance Program Management	September 2013 – February 2014	Not yet begun		✓

**Task 2 Deliverables:**

- Certified Labor Compliance Program
- Agreement with Department of Industrial Relations
- Submission of Final Report on LCP to appropriate state agencies.

**Task 3: Reporting**

Following execution of the grant agreement, quarterly reports will be prepared assessing the progress and accomplishments of the Project. A project completion report will also be prepared at the end of the project, anticipated to be at the end of March 2014. SMVWCD will keep all records and documents pertaining to the project for three years after project completion.

Task 3: Reporting

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct 1, 2013
Submittal of Quarterly Progress Report	September 2013 – March 2014	Not yet begun		✓

**Task 3 Deliverables:**

- Submission of quarterly, annual, and final reports as specified in the grant agreement.

**Budget Category (b): Land Purchase/Easement**

Land and rights-of-way acquisition are not required for the Project. The SMVWCD owns the land that contains the Reservoir, Dam, and associated pipelines, as well as the land downstream of the dam, including the planned stockpile area and water irrigation areas.

**Budget Category (c): Planning/Design/Engineering/Environmental Documentation**

**Task 4: Final Design**

Conceptual design was completed by MNS Engineers, Inc. in January 2013. Final design and specifications are being developed and are planned for completion in June 2013. Final design will include a Grading and Drainage Plan and the design of the stockpile area, drainage pipes, and dredging area. The plans are being designed with input from companies that have experience with freshwater dredging to ensure that the project is designed to the latest and most efficient construction methods.

Task 4: Project Design

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct 1, 2013
Final Design	December 2012 - June 2013	Ongoing	✓	

**Task 4 Deliverable:**

- None (design and specifications planned for completion prior to grant award date)

**Task 5: Environmental Documentation**

An initial study, *Twitchell Reservoir Dredging Project Initial Study* (Appendix 3-2), has been completed and circulated for public review. The Mitigated Negative Declaration (MND), provided in Appendix 3-2, is planned for certification in June 2013. The mitigation measures are as follows:

- Prior to any vegetation removal or other construction activities, a qualified botanist should consult with the project engineer to minimize impacts to any special status plants.
- A pre-construction inspection for the Western pond turtle should be conducted where suitable habitat is present not less than 14 days prior to construction initiation.
- Ground-disturbing activities and pipe installation and removal should be conducted between May 1 and October 31 during dry weather conditions to minimize the potential for encountering the California red-legged frog.
- A pre-construction inspection for active badger dens should be conducted where suitable habitat is present not less than 14 days prior to the initiation of construction.
- A nesting bird and raptor pre-construction survey shall be conducted by a qualified biologist within the disturbance footprint plus a 100-foot buffer no more than two weeks prior to initiation of construction activities.
- All banks for the stockpile areas for dredged material shall be seeded with a native grass mix for erosion control.
- No dredge water or material may be discharged anywhere in the project area except into the adjoining pasture in conformance with approved grading and drainage plans.

Task 5: Environmental Documentation

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct 1, 2013
Final Environmental Certification (Mitigated Negative Declaration)	December 2012 – June 2013	Initial Study circulated for comments	✓	

**Task 5 Deliverable:**

- None (Mitigated Negative Declaration completed prior to grant award date and attached in

**Task 6: Permitting**

SMVWCD does not anticipate any environmental permitting to be required. However, labor time will be spent on discussions with staff from various regulatory agencies. In addition, a Stormwater Pollution Prevention Plan (SWPPP) will be developed during the construction phase (Subtask 8.1) to address the pollutants associated with all construction activities and specify appropriate best management practices (BMPs) to implement.

Task 6: Permitting

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct 1, 2013
Discussions with Regulatory Agencies and SWPPP	December 2012 – June 2013	In process	✓	

**Budget Category (d): Construction Implementation**

**Task 7: Construction Contracting (7/2013 – 1/2014)**

A bid package for bid solicitation will be prepared under this task and will include the final plans and specifications for the Project. The documents will be prepared by MNS Engineers, Inc., who are under contract to SMVWCD. The advertisement for the bid will be overseen by SMVWCD staff and consultants. A pre-bid contractors meeting will be held to review bid requirements with potential bidders.

Bids will be evaluated and the Project awarded to the construction company submitting the most cost-effective bid and meeting the contract requirements. The award will be made within four months of the advertisement of the Project pursuant to state law and established SMVWCD procedures. Insurance and bond paperwork will be handled by SMVWCD Staff and consultants.

SMVWCD anticipates bid package completion in August 2013 and awarding the project in September 2013.

Task 7: Construction Contracting

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct 1, 2013
Contract Administration	July 2013 – January 2014	Not yet begun		✓
Advertise and Bid	July 2013 – August 2013	Not yet begun	✓	
Award Project	September 2013	Not yet begun	✓	

**Task 7 Deliverables:**

- Public Notice to Bidders
- Insurance/bond paperwork, pre-bid contractors meeting agenda, evaluation of bids, contract award
- Notice to Proceed

**Task 8: Construction**

**Subtask 8.1 Mobilization and Site Preparation**

A contractor will transport dredging equipment, booster pumps, piping, and other equipment and materials to approved storage and staging areas. The contractor shall complete a SWPPP and coordinate with utilities and other agencies.

**Subtask 8.2 Project Construction**

The stockpile area will be prepared in accordance with the Grading and Drainage Plan to be completed in Task 4. Piping and booster pumps will be laid out and connected from the dredging area to the stockpile. The contractor will dredge approximately 9,000 cubic yards of sediment from the Reservoir.

**Subtask 8.3 Performance Testing and Demobilization**

The dredged area will be surveyed to ensure the sediment is moved away from the inlet structure and side slopes are laid back at the appropriate angle to prevent the sudden addition of sediment into the inlet structure of the outlet works. The stockpile area will be surveyed before and after the dredging to measure the material dredged and ensure the stockpile conforms to the Grading and Drainage Plan. Demobilization consists of the contractor removing dredging equipment and machinery from the site.

Task 8: Construction

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct 1, 2013
Subtask 8.1 Mobilization and Site Preparation	October 2013	Not yet begun		✓
Subtask 8.2 Project Construction	October 2013 – November 2013	Not yet begun		✓
Subtask 8.3 Performance Testing and Demobilization	December 2013	Not yet begun		✓

**Task 8 Deliverables:**

- Stormwater Pollution Prevention Plan (SWPPP)
- Grading and Drainage Plan
- Survey of dredged area in the Reservoir and stockpile area

**Budget Category (e): Environmental Compliance**

**Task 9: Environmental Compliance / Mitigation / Enhancement (9/2013 – 1/2014)**

Under Task 9, a botanist and a biologist will perform preconstruction surveys of the project site. After the dredging is completed, all stockpile areas with dredge material shall be seeded with a native grass mix for erosion control. The containment banks of the basins and all exposed soil will also be seeded.

Task 9: Environmental Compliance / Mitigation / Enhancement

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct 1, 2013
Environmental Compliance	September 2012 – January 2014	Not yet begun		✓

**Task 9 Deliverables:**

- None

**Budget Category (f) Construction Administration**

**Task 10: Construction Administration (7/2013–1/2014)**

Construction administration work items will be conducted under this task. SMVWCD staff and consultants will complete the work associated with bidding, contracting, construction management services during construction, and inspections during construction.

The construction management team will:

- Monitor and document daily operations including labor and equipment
- Maintain Resident Engineer’s logs
- Ensure that prevailing wages are paid to workers and that the Project complies with labor regulations
- Ensure that the work is constructed in accordance with the plans and specifications
- Recommend approval of monthly progress invoices for payment and recommend approval of extra work

Upon completion of the Project, the checklists and the Resident Engineer’s notebook with all of the documentation of work, materials, payment, and compliance will be turned over to the SMVWCD by the construction management team.

Task 10: Construction Administration

Activity or Deliverable	Schedule	Status	Completion of Task	
			Before Oct 1, 2013	After Oct 1, 2013
Construction Administration	July 2013 – January 2013	Not yet begun		✓

**Task 10 Deliverables:**

- Progress payments, Resident Engineer’s notebook, safety oversight, schedule management, environmental protection during construction, and approval of certified payrolls



## Project 3: Recycled Water Expansion and Golf Course Retrofit Project, Laguna County Sanitation District

### Introduction

#### Project Description

The Laguna County Sanitation District (LCSD) Recycled Water Expansion and Golf Course Retrofit Project (Project 3 or Project) consists of a 2-mile recycled water pipeline extension and retrofit of the Rancho Maria Golf Course's (golf course) irrigation system to provide for the irrigation of all 18 fairways and landscaped areas with recycled water. On-site improvements include installation of a recycled water pump station and storage pond that will serve a dual purpose as a golf course water feature. The golf course greens, with turf that is more susceptible to salinity impacts, will remain irrigated from the golf course well because the salt concentration in the recycled water exceeds what is compatible with the greens. This is the case even though part of the recycled water undergoes salt reduction via the reverse osmosis (RO) process.

The LCSD was formed in December of 1958 as a dependent special district to the County of Santa Barbara (County). At that time, several hundred acres were purchased and converted from farming to beef cattle pasture.

In 1989, the Central Coast Regional Water Quality Control Board (CCRWQCB) adopted its Water Quality Control Plan for the Central Coast Region (Basin Plan). In 1994, the Basin Plan was amended to include objectives for salinity. The local water purveyor's primary supply source is the groundwater, which is very hard. The high water hardness has resulted in a substantial use of water softeners by a significant number of water customers. Water softener discharges coupled with water use roughly doubles the average salt concentration in the wastewater from that of the potable source. Therefore, the reclamation plant was recently improved from disinfected tertiary treatment to include RO for up to 500,000 gallons of the current 2.1 million gallons per day (mgd) processed at the plant. This salt "scalp" accounts for the higher salt concentration water received at the plant resulting from nightly water softener discharge. The brine concentrate from the RO process is disposed of in an Environmental Protection Agency (EPA)-permitted class 1 non-hazardous injection well.

The reclamation plant operates under Waste Discharge Requirements (WDR) and Master Reclamation Permit Order R3-2011-0217 issued by the CCRWQCB. The LCSD distributes recycled water for reuse by local customers as its sole means of effluent discharge and helps to offset both potable groundwater and State Water Project demands. Effluent is treated to disinfected tertiary levels (along with partial RO to reduce salinity levels as discussed above) and is appropriate for uses allowed under Title 22, which includes:

- Edible food crops
- Parks and playgrounds
- School yards
- Residential landscaping
- Unrestricted access golf courses
- Industrial process water
- Any other use not specified in Section 60304 and not prohibited by other sections.

The LCSD is in great need of additional discharge capacity, and it is therefore critical to increase the distribution of recycled water to new users. The benefits of the recent plant upgrade provided new outlets for discharge of the disinfected tertiary recycled water via distribution to off-site users as the mechanism for effluent discharge. A recycled water market study prepared by CH2M HILL in 2000 helped to identify neighboring land uses and potential recycled water use sites. A first phase distribution project was completed with the plant upgrade, which conveys water to agricultural land owned by the Santa Maria Public Airport District. This second phase project is an expansion of services for the distribution of recycled water to the Rancho Maria Golf Course. This golf course comprises approximately 86 acres and uses approximately 175 million gallons of well water per year.

### **Goals and Objectives**

Project 3 has a number of goals including: (1) increasing the reclamation plant's discharge/disposal capacity via expansion of the recycled water distribution systems and use of recycled water in the Santa Maria Valley; (2) matching water quality to use; (3) protecting, conserving, and augmenting water supplies; and (4) protecting, managing, and conserving groundwater supplies. The Project will convert most of the irrigation system from the existing well water to recycled water at the golf course. The specific objectives of the Project are to offset groundwater use from an adjudicated basin, advance state recycled water goals consistent with the State Recycled Water Policy, and provide discharge capacity for the LCSD. See Table 3.3-1 for Project 3 objectives.

**TABLE 3.3-1**

How Project 3 Accomplishes Regional Objectives (Integrated Regional Water Management (IRWM) Plan Update)

Regional Objectives		How the Project is Meeting the Regional Objectives
	Protect, Conserve, and Augment Water Supplies	The Project will provide an annual average of approximately 500,000 gallons per day of discharge capacity. This amount equates to about 537 acre-feet/year (AFY) and offsets existing groundwater extraction from the Santa Maria Groundwater Basin (Basin), which is an adjudicated basin per court stipulation.
	Protect and Improve Water Quality	The Project reduces of wastewater discharge into the ocean through the use of recycled water and matching water quality to water use.
	Maintain and Enhance Water and Wastewater Infrastructure Efficiency and Reliability	The Project enhances the LCSD’s infrastructure by providing discharge capacity and by expanding the recycled water delivery system.
	Protect, Manage, and Conserve Groundwater Supplies	The Project will provide an annual average of approximately 500,000 gallons per day of discharge capacity. This amount equates to about 537 AFY and offsets existing groundwater extraction from the Basin, which is an adjudicated basin per court stipulation.

**Purpose and Need**

**Project Purpose**

The purpose of Project 3 is to provide discharge capacity for the LCSD and to expand the recycled water distribution system.

**Project Need**

The LCSD depends solely on irrigation for disposal of treated wastewater and has always recycled its treated effluent since the original plant was commissioned in 1960. Treatment capacity is rated for 3.7 mgd and must eventually expand to 5.0 mgd to accommodate buildout projections. Storage capacity is currently 300 million gallons and must eventually expand to 500 million gallons to accommodate buildout projections. However, current discharge capacity is approximately 2.4 mgd while the current flow rate is 2.1 mgd. In order to have adequate discharge capacity, the LCSD must add additional user sites. A discharge demand of 75% of discharge capacity is recommended. Because current flow exceeds 75% of the discharge capacity and because flow increases are anticipated due to planned development in the Orcutt and unincorporated Santa Maria areas, the extension of recycled water services to sites capable of using significant amounts of recycled water is required.

The Rancho Maria Golf Course is not within the service territory of local water purveyors and is solely dependent on groundwater. The golf course is located in the

proximity and southeast of the LCSD’s wastewater reclamation plant. Project 3 adds the golf course as a recycled water user site by extending the distribution system to the golf course from a tee in the existing recycled water pipeline at the intersection of Dutard Road and Black Road. The Project includes a storage tank (recently installed) at the plant and conversion of the golf course irrigation system. Golf course fairways will use recycled water while the existing well will be used for irrigating the greens and tee areas as well as a supplemental supply. The Project will provide a drought resistant water supply, reduce dependency on groundwater, and contribute towards the State of California’s goals for providing recycled water supply.

### **Integrated Elements of Projects**

The Project links the entities that use the Basin groundwater, including:

- City of Santa Maria
- City of Guadalupe
- Community of Sisquoc
- Community of Garey
- Community of Nipomo
- Numerous rural and agricultural area pumpers.

As discussed above, all users of the Basin are working together to study, plan, and improve the quality and quantity of the water in the Basin. The cities of Santa Maria and Guadalupe along with the LCSD and others have been leading the preparation of a Groundwater Basin Assessment (Assessment) for the Basin. The Assessment focuses on salt and nutrient quality in the Basin and provides a summary of basic information relating to sources, transport, and management during the past 20 years.

Project 3 provides synergies with the City of Santa Barbara’s Recycled Water Enhancement Project (Project 1), which will improve operational efficiency, improve water quality and assist in the regional goal of offsetting the importation of potable State Water Project water. The Project also assists in drought planning and drought preparedness, which are important targets in the IRWM region. Both projects move the Santa Barbara County Integrated Regional Water Management (IRWM) Region toward the Santa Barbara IRWM overall goal of increasing recycled water usage to 7,035 AFY by 2035.

Project 3 is integrated with the Santa Maria Valley Water Conservation District’s (SMVWCD) Twitchell Reservoir Sediment Management and Groundwater Recharge Project (Project 2), which will improve water quality and groundwater recharge in the Basin. Project 3 is also integrated with the City of Guadalupe’s Secondary Treatment Reliability Project (Project 4), which will improve operational efficiency and

infrastructure, as well as improve the water quality of the percolation water into the impacted shallow aquifers of the Basin.

### **Project Maps**

The series of figures below give context to the Project.

Figure 3.3-1 is an aerial photo of the Wastewater Treatment Plant (WWTP) site.

**FIGURE 3.3-1**

Project 3 WWTP Site Map



Figure 3.3-2 is an aerial photo of the golf course site.

**FIGURE 3.3-2**  
Project 3 Rancho Maria Golf Course Aerial

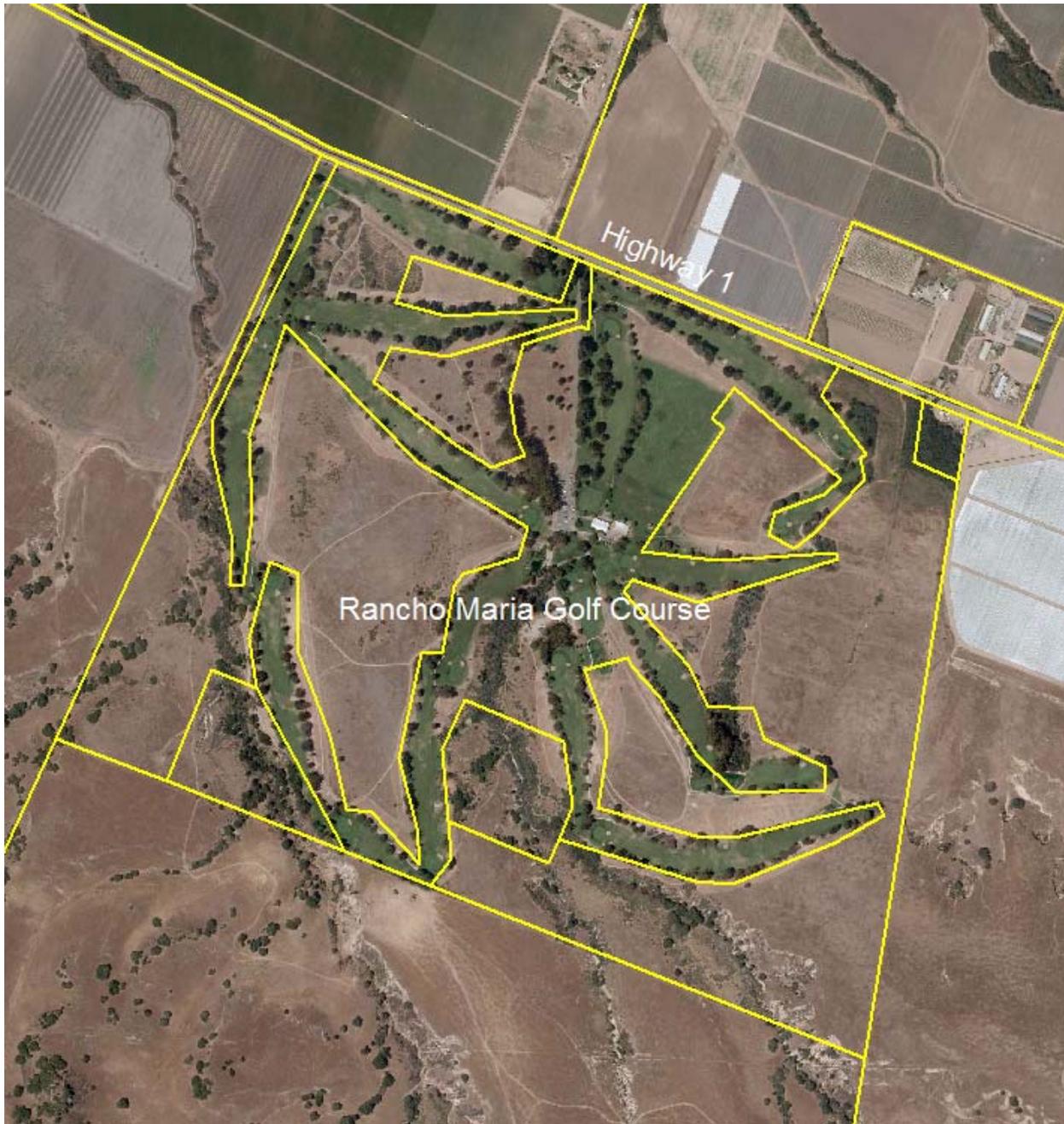
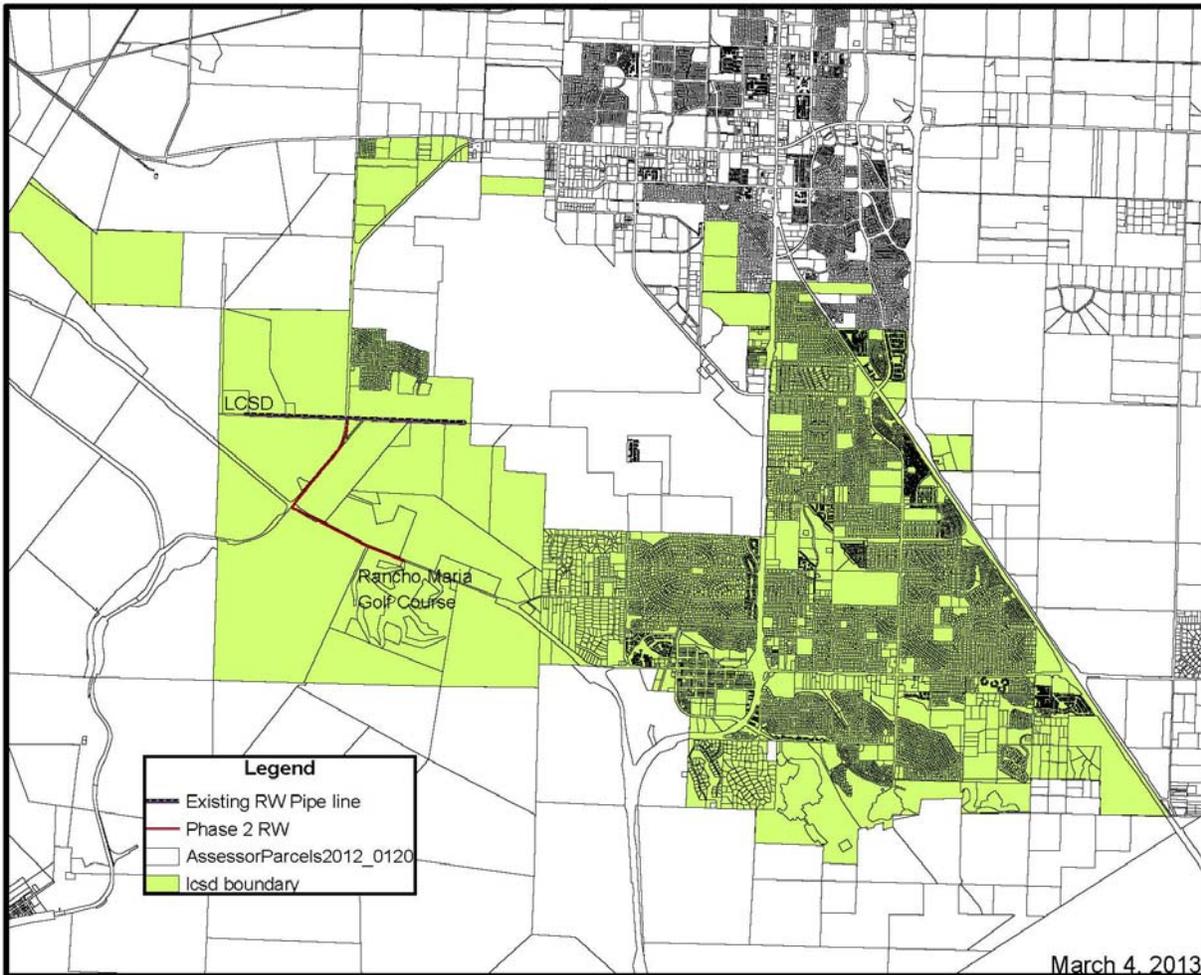


Figure 3.3-3 shows the irrigation distribution on the Rancho Maria Project site and Figure 3.3-4 shows the irrigation plan for the golf course site.

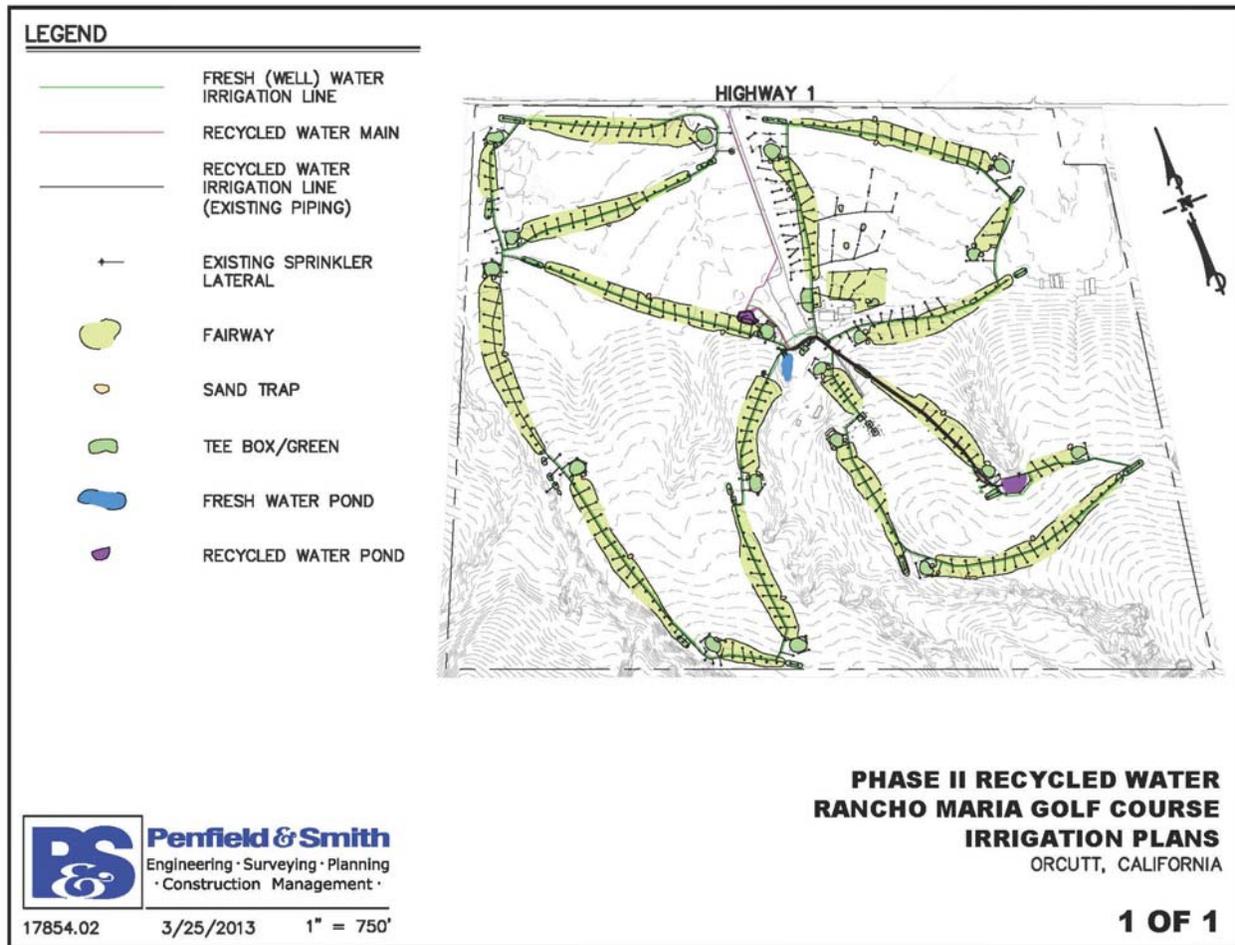
**FIGURE 3.3-3**

Project 3 Proposed Water Line from the Laguna County Sanitation District to the Rancho Maria Golf Course

## Proposed Recycled Water Line for Rancho Maria Golf Course



**FIGURE 3.3-4**  
Project 3 Irrigation Plan for the Project



### **Work Completed Prior to October 1, 2013**

LCSD has completed a significant amount of work, which laid the foundation for the development of this Project. The most relevant are listed below:

- The Recycled Water Market Study (2000) assessed locations near the wastewater reclamation plant to identify sites that could utilize recycled water. Sites that were identified included the Rancho Maria Gold Course.
- Plans, specifications, and cost estimates were prepared in October 2012. These will be used to bid the Project for construction.
- A Mitigated Negative Declaration (MND) was prepared for the Project and adopted April 6, 2010.
- A related project to install a 1-million-gallon recycled water storage tank was completed in May 2012. The tank will store recycled water for golf course demand.

### **Existing Data and Studies**

The Project is based upon a series of thorough and well-researched documents. The list of these is provided below:

- The Rancho Maria Golf Course Recycled Water System Analysis (2009) assessed the physical improvements needed to convert the golf course to recycled water.
- The Recycled Water Agronomic Investigation (2009) assessed the applicability of recycled water use on specific vegetation, current source water, and landscaping management practices.
- The Soil and Plant Survey (2010) inventoried existing soil conditions and vegetation.
- The Soil Sampling and Analysis collected soil samples for analysis and established baseline conditions.
- The Adaptive Management Plan (2010) listed potential issues that may arrive and recommended certain management practices.

### **Project Timing and Phasing**

This Project is not part of a multiphase project. It is a stand-alone project that is fully functional without implementation of subsequent projects. Project construction is anticipated to start in September 2013 and end in May 2014.

### **Project Standards**

The Project will conform to the following set of standards:

- Waste Discharge Requirements and Master Recycling Permit Order R3-2011-0217
- Title 17 of the California Code of Regulations

- Title 22 of the California Code of Regulations
- California Water Code, Division 7 – Water Quality
- California Health and Safety Code, Division 104 – Environmental Health Services
- Caltrans Standard Specifications 2006
- Construction Standards Institute – technical specifications
- Occupational Safety & Health Administration – trench construction, construction safety
- Encroachment permit conditions (state and County)
- American Water Works Association – valves
- American Society of Sanitary Engineering – backflow prevention
- American Society for Testing and Materials – pipe and materials
- Manufacturers Standardization Society of the Valves and Fittings Industry – valves
- Foundation for Cross-Connection Control and Hydraulic Research – cross connections

## Proposed Work

### A. Direct Project Administration

#### Task 1: Project Administration

The LCSD is the lead agency and the sole participant for the Project. The project administration for Project 3 will be carried out by the LCSD. The Project will conform to all grant agreement requirements, including submittal of the quarterly progress reports and the final project reports as well as the project completion report, the project monitoring report, and any annual project performance reports that may be required once the Project is completed.

Task 1: Project Administration

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept. 2013	After Sept. 2013
Execute sub-grant agreement with CRCDD	Upon award		X In or before September 2013	
Prepare quarterly progress reports and invoice packages for DWR reimbursement	Upon award		X	
Review and approve project completion report in conformance with grant agreement requirements	At the completion of the project	Not yet begun		X

## **Task 2: Labor Compliance**

The LCSD is a dependent district to the County of Santa Barbara. Formal contracts such as this one must adhere to state prevailing wage and contractual law pursuant to the Labor Code, Government Code, and Public Contract Code. The County Public Works Department has a Labor Compliance Program (LCP) in place, and the County will contract with an entity to provide labor compliance surveys and documentation for the Project. Specifically, the Project will be bid as a prevailing wage project. The construction management firm selected for the Project will be required to implement the labor compliance program for the Project including submitting an application to the Department of Industrial Relations for a project-specific LCP. The construction contractor will assist the LCSD in oversight of contractor compliance with the Code of Federal Regulations. Labor compliance will include, but not be limited to:

- Ensuring that all project legal notices contain the proper LCP notifications to bidders, and statement of payment of prevailing wage requirements as stated in Labor Code Section 1771.8 for entities receiving funds from the Department of Water Resources' (DWR's) IRWM Round 2 Implementation Grant funded by Proposition 84
- Providing direction and guidance to bidders in their queries regarding compliance with the LCP, including payment of prevailing wages, identification of labor classifications, and proper completion and submission of forms and notices
- Collecting and recording the receipt of weekly Certified Payroll Records Pursuant to Labor Code Sections 1771.5(4), 1776, and California Code of Regulations 16401, 16402, 16403 as well as any applicable federal statutes
- Conducting random audits of Certified Payroll Records
- Conducting periodic and routine site visits to physically monitor the Project, note the number of workers on the site, and interview a sufficient number to ensure that they are receiving the proper prevailing wage rate for the duties performed
- Investigating all allegations of failure to pay prevailing wage rates and/or worker complaints per project
- Attending and participating in on-site or other meetings, as requested
- Engaging in all such duties required for those entities receiving funds from the DWR's IRWM Round 2 Implementation Grant funded by Proposition 84.

Task 2: Labor Compliance Program

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept. 2013	After Sept. 2013
Resident engineer reviews certified payroll with monthly progress payment requests			X	X

**Task 3: Reporting**

The resident engineer will provide monthly status reports to the LCSD along with progress payment requests and work reports. As indicated in Task 1, Project Administration, quarterly progress reports will be prepared and submitted for the Project.

Task 3: Reporting

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept. 2013	After Sept. 2013
Resident engineer to provide monthly status reports along with progress payment/work reports	Monthly		X	X

**B. Land Purchase Easement (if applicable)**

**B. Land Purchase Easement**

The Project does not require any easement or land purchases.

**C. Planning/Design/Engineering/Environmental Documentation**

**Task 4: Assessment and Evaluation**

Assessments and evaluation of the Project have been completed via several previous efforts which include the analyses and studies below:

- The Rancho Maria Golf Course Recycled Water System Analysis (2009) assessed the physical improvements needed to convert the golf course to recycled water.
- The Recycled Water Agronomic Investigation (2009) assessed the applicability of recycled water use on specific vegetation, current source water, and landscaping management practices.
- The Soil and Plant Survey (2010) inventoried existing soils conditions and vegetation.

- The Soil Sampling and Analysis collected soil samples for analysis and established baseline conditions.
- The Adaptive Management Plan (2010) listed potential issues that may arrive and recommended certain management practices.

### Task 5: Project Design

Prior to September 2013, the entire construction bid package, including final design plans and specifications, will be completed.

Task 5: Project Design

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept. 2013	After Sept. 2013
Complete bid package			X	

### Task 6: Environmental Documentation

An MND was prepared for the Project and approved in April 2010.

Task 6: Environmental Documentation

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept. 2013	After Sept. 2013
MND	Completed 2010		X	

### Task 7: Permitting

The Project requires encroachment permits from the County and Caltrans. Consultation with USFWS and CDFW is necessary for consideration of incidental take permits to safeguard endangered species. LCSD staff will coordinate with the aforementioned resource agencies and work with them to obtain permits.

Task 7: Permitting

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept. 2013	After Sept. 2013
Caltrans encroachment permit	Upon award	Not yet begun	X	
County encroachment permit	Upon award	Not yet begun	X	
USFWS Consultation	Upon award	Not yet begun	X	

Task 7: Permitting

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept. 2013	After Sept. 2013
CDFW Consultation	Upon award	Not yet begun	X	
National Pollutant Discharge Elimination System (NPDES) Stormwater	Upon award	Not yet begun	X	

**D. Construction/Implementation**

**Task 8: Construction Contracting**

Design documents for the Project are almost complete. Upon receipt of permits and environmental consultation conditions with the USFWS and CDFW, the LCSD Board will authorize documents to be released for bid, and these will be advertised. The Construction Bid will be open for 30 days, and then all bid proposals will be evaluated. Upon evaluation of the lowest responsive bidder, the recommendation of award will then be brought to the LCSD Board for action and the award of a contract will be made. A Notice to Award and a Notice to Proceed will then follow and conclude the formal construction contracting.

Task 8: Construction Contracting

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept. 2013	After Sept. 2013
Preparation of bid package	Upon award and receipt of permits – estimate Sept. 2013		X	

**Task 9: Construction**

Upon award, the contractor has approximately 1 to 2 weeks to provide signed contracts, insurance documentation, and payment and performance bonds. Equipment and material submittals will be due for submittal, review, and approval for items such as pumps, motors, pipe, pavement, etc.

**Subtask Descriptions**

*Subtask 9.1 Mobilization and Site Preparation:* The contractor will be expected to mobilize and set up a yard by April 2014.

*Subtask 9.2 Project Construction:* Because endangered species issues will likely require that work be conducted during the dry season, major construction is anticipated to be

limited between April and October 2014. Work on the golf course site is expected to begin at the same time as the pipeline.

*Subtask 9.3 Performance Testing and Demobilization:* Testing of pumps, motors, pipeline, etc. is required before acceptance, notice of completion filing, and Board acceptance of the Statement of Final Quantities.

Task 9: Construction

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept. 2013	After Sept. 2013
<b>Subtask 9.1 Mobilization and Site Preparation</b>				
Award contract	Sept. 2013			
<b>Subtask 9.2 Project Construction</b>				
Begin	Oct. 2013		X	
End	April 2014			X
<b>Subtask 9.3 Performance Testing and Demobilization</b>				
Testing	April 2014			
Acceptance	May 2014			

**E. Environmental Compliance/Mitigation/Enhancement**

**Task 10: Environmental Compliance/Mitigation/Enhancement**

As discussed earlier, consultation with USFWS and CDFW is required to address safeguards for the California red-legged frog (CRLF; *Rana draytonii*) and California tiger salamander (CTS; *Ambystoma californiense*) species. Construction of the pipeline will be in improved road surfaces (paved and graded shoulder). Work on the golf course is in existing improved fairways, greens, and other landscaped areas. Therefore, construction measures to avoid take are proposed such as on-site biologist inspection, preconstruction site surveys, overnight ground closure, dry season work, etc.

Because the pipeline and golf course retrofit are located within habitat range of the CTS and CRLF, the USFWS and CDFW may further require additional compensatory mitigation before issuing incidental take permits. Both species and in particular, CTS, have the potential for impacts from the Project due to the dispersal of breeding ponds in the Project vicinity. Because construction activities are in existing roadways, shoulders, landscaped, and improved areas, the impacts to potential habitat area is considered temporary. Consultation with the USFWS and the CDFW will determine to what extant compensatory mitigation will be required, but it is believed that temporary impacts can be mitigated by purchasing mitigation credits at a mitigation bank currently being created by private interests. This process involves both agencies approving a habitat conservation plan in order to issue incidental take permits and

could take 1 to 2 years. These costs are unknown but would be based on the number of temporarily impacted acres.

**F. Construction Administration**

**Task 11: Construction Administration (Management)**

Construction management is expected to be performed by a consultant. The management of the construction contractor includes inspection of work, receipt of as-builts (record drawings), negotiation and approval of change orders, weekly construction reports, administration of project finances, administration, and risk management. Approval of equipment and material submittals will be performed by the engineering design firm.

Task 11: Construction Administration

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept. 2013	After Sept. 2013
Board contract for consultant	Sept. 2013		X In or before September 2013	



## Project 4: Secondary Treatment Reliability Project, City of Guadalupe

### Introduction

#### Project Description

The City of Guadalupe’s Secondary Treatment Reliability Project (Project 4 or Project) will upgrade the Guadalupe Wastewater Treatment Plant (WWTP) by replacing equipment that is either non-functional or at the end of its useful life. Project 4 consists of the following components: (1) demolition of the existing grit removal equipment and installation of a new grit removal system, including the vortex grit propeller, grit pump, and grit classifier; (2) removal and replacement of the existing influent pumps, which are 20 years old and have reached their design capacity; and (3) replacement of leaking valves, the rehabilitation of force main piping, and the installation of a new variable-frequency drive unit on pump number three, which will vastly increase energy efficiency and reduce the energy by 90 kilowatt-hours (kW/h) per day.

The WWTP was first constructed in the 1960s to serve the City of Guadalupe and since that time has gone through multiple renovations and upgrades. The original design included headworks, aerator, two clarifiers, digester, sludge-drying beds, and holding ponds. In 1979, various facilities were refurbished and upgraded, along with the demolition of the aerator and construction of new headworks and lagoons, spray irrigation distribution system, and off-site holding ponds. A plant upgrade in 1992 included new headworks, Pista® grit removal system, new sludge-drying beds, irrigation pump station, and spray irrigation distribution system across the Santa Maria River. In 2004, the aerated lagoons were converted to an advanced integrated pond system, and in 2011, the WWTP was upgraded with a Biolac system, which has greatly increased the quality of wastewater effluent and improved operation of the plant.

A summary of these renovations and upgrades is included in Figure 3.4-1.

**FIGURE 3.4-1**

Plant Upgrades

Year	Plant Upgrades
1960s (Original)	Headworks, aerator, two clarifiers, digester, sludge-drying beds, and holding ponds.
1979	Demolition of the aerator; new headworks, lagoons, off-site holding ponds, and spray irrigation distribution system.
1992	New headworks, grit removal system, new sludge-drying beds, irrigation pump station, and spray irrigation distribution system.
2004	Aerated lagoons were converted to an advanced integrated pond system.
2011	New Biolac system.
Future	Upgrade and replacement of the spray irrigation distribution system; tertiary treatment and recycled water distribution system.

In summary, Project 4 directly ensures the reliability and efficiency of the WWTP. By removing grit from the treatment process, wear and abrasion on mechanical equipment and the biological treatment system is substantially reduced. The removal of grit from wastewater ensures that the appropriate volume for biological treatment is maintained. Replacement of the obsolete influent pumping system, which has a variable speed drive, with a new pump will improve reliability, increase electrical efficiency, and reduce greenhouse gas emissions.

Figure 3.4-1 illustrates the existing condition of the grit removal system at the WWTP and Figure 3.4-2 contains two process diagrams: one that demonstrates the existing condition and the resulting condition once the Project is implemented.

The Project has completed the California Environmental Quality Act (CEQA) review process and is fully permitted. The design of the Project is 100% complete.

### **Goals and Objectives**

Project 4 has a number of goals that benefit the community as well as the overall Santa Barbara Integrated Regional Water Management (IRWM) region. The Project's specific goals are:

1. Improving operational reliability and treatment performance of the WWTP by producing consistent high-quality secondary effluent (reclaimed water) for the irrigation of neighboring pastureland and incidental percolation
2. Extending the useful life of the WWTP and reducing the maintenance demands of the existing facilities
3. Reducing the operational costs in the WWTP overall.

Project 4 will install upgraded influent pumps, which will improve pumping efficiency and result in a reduction of 90 kW/h per day.

Figures 3.4-3A and 3.4-3B clearly demonstrate the energy efficiency of the Project as a result of the improvements.

The Project will install a grit removal system, which will eliminate the accumulation of grit in the biological treatment system as well as eliminate the abrasion in the piping, pumps, and aeration system, thereby increasing their useful life and decreasing maintenance requirements. The Project will also dramatically decrease the risk of process upsets, operation instability, and equipment failures and result in a consistently higher quality effluent from the facility.

FIGURE 3.4-1  
Condition of Existing Grit Removal System

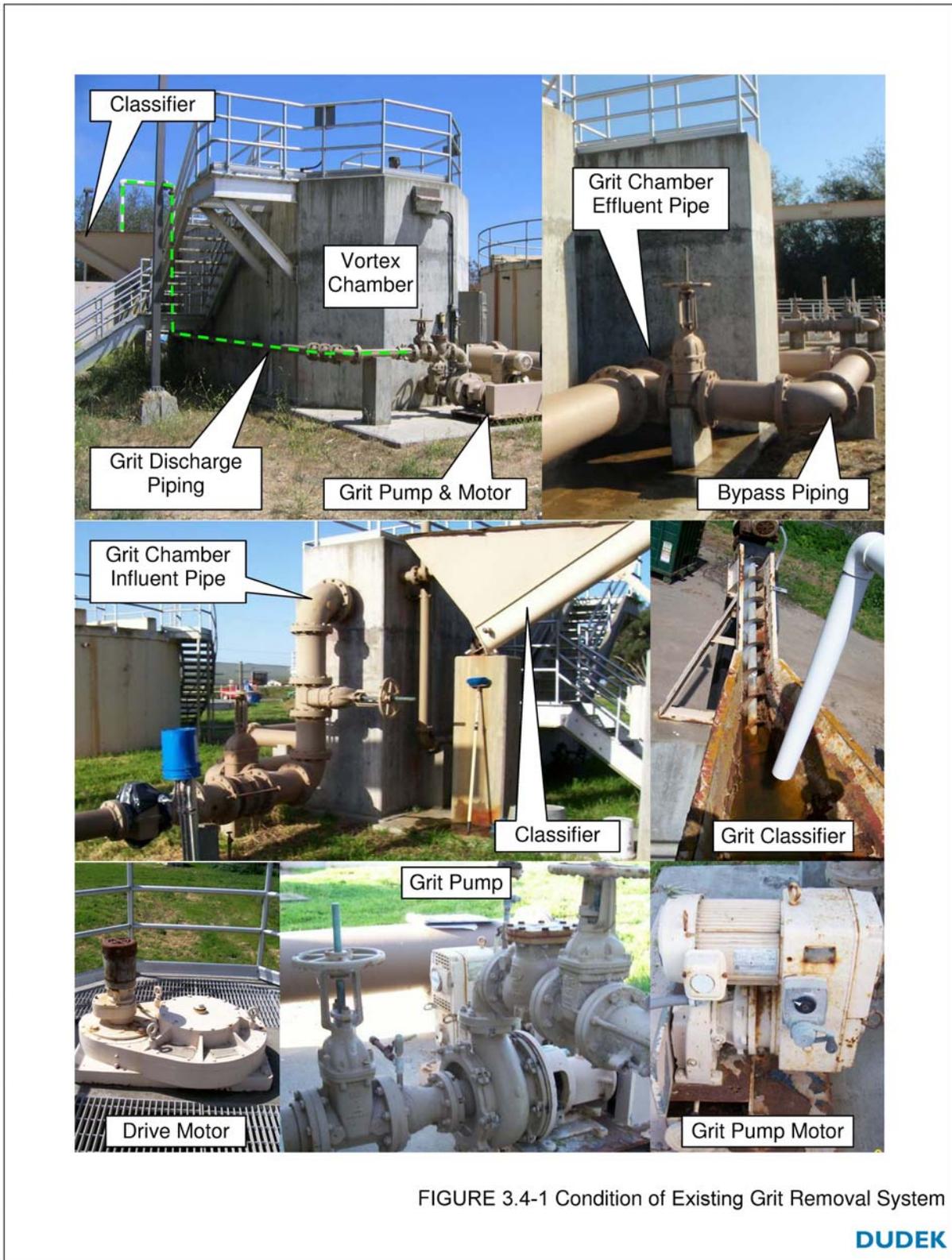
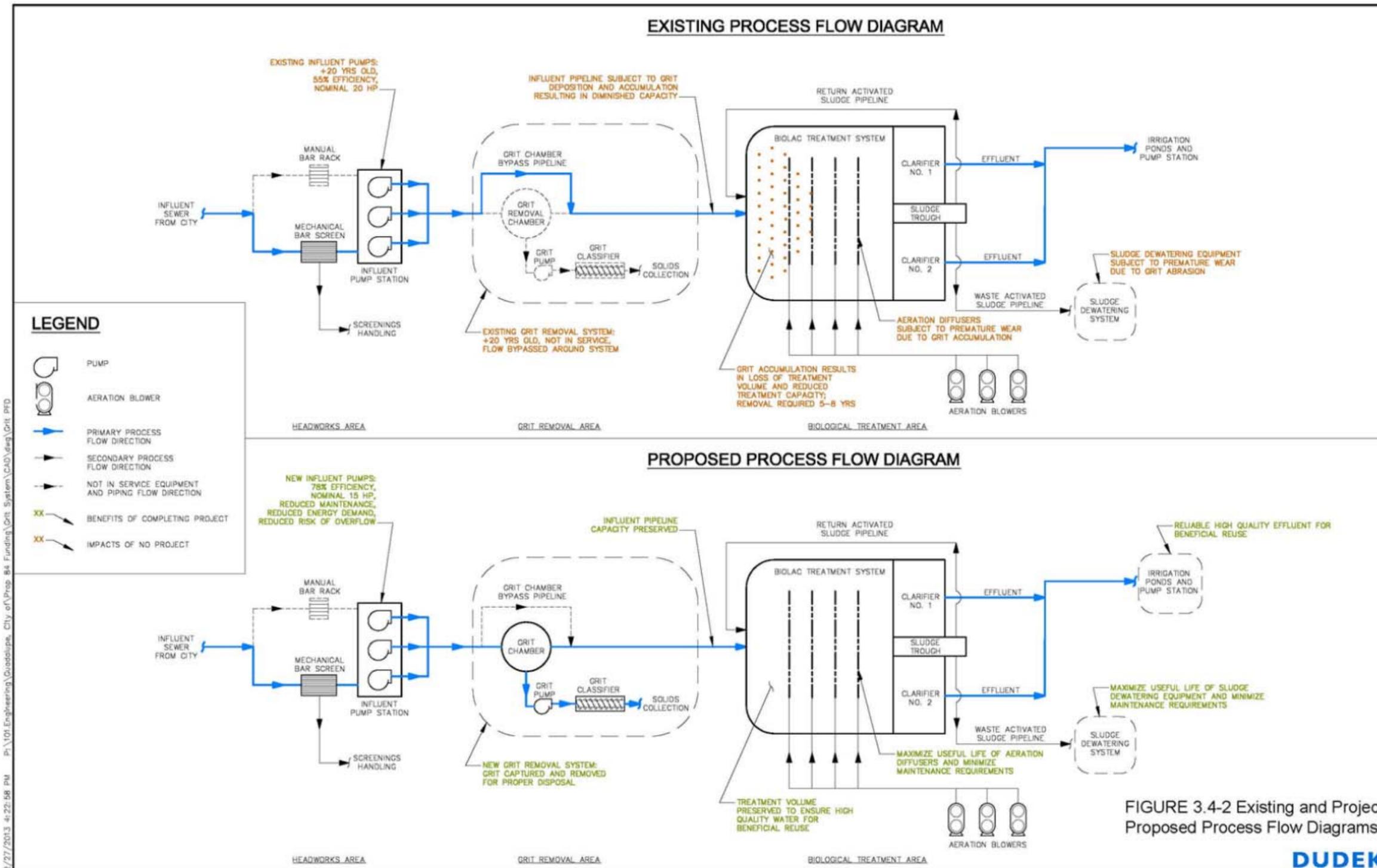


FIGURE 3.4-1 Condition of Existing Grit Removal System

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FIGURE 3.4-2  
Existing and Project Proposed Process Flow Diagrams



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FIGURE 3.4-3A  
 Existing Pump Curves

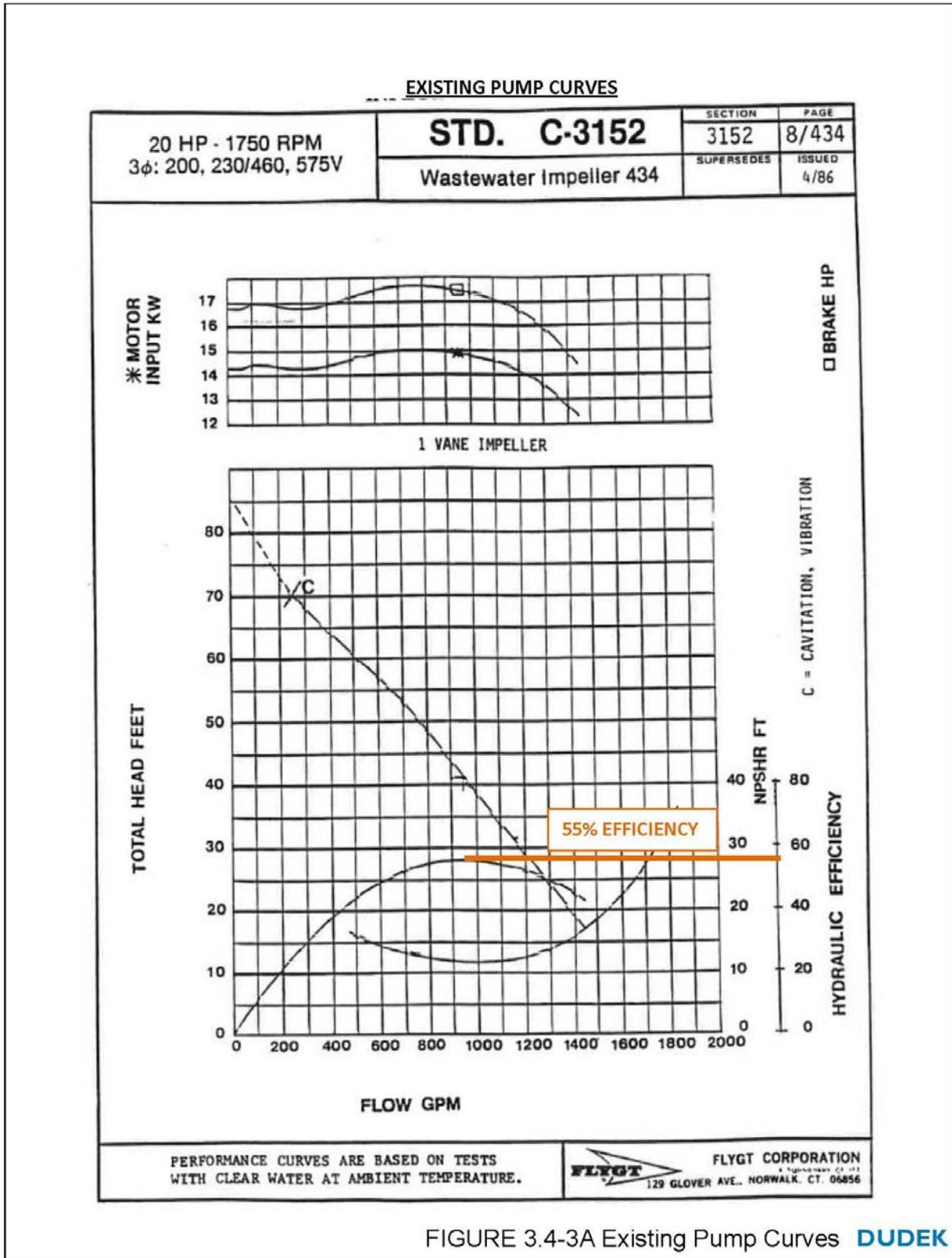


FIGURE 3.4-3A Existing Pump Curves **DUDEK**

FIGURE 3.4-3B  
Proposed Pump Curves

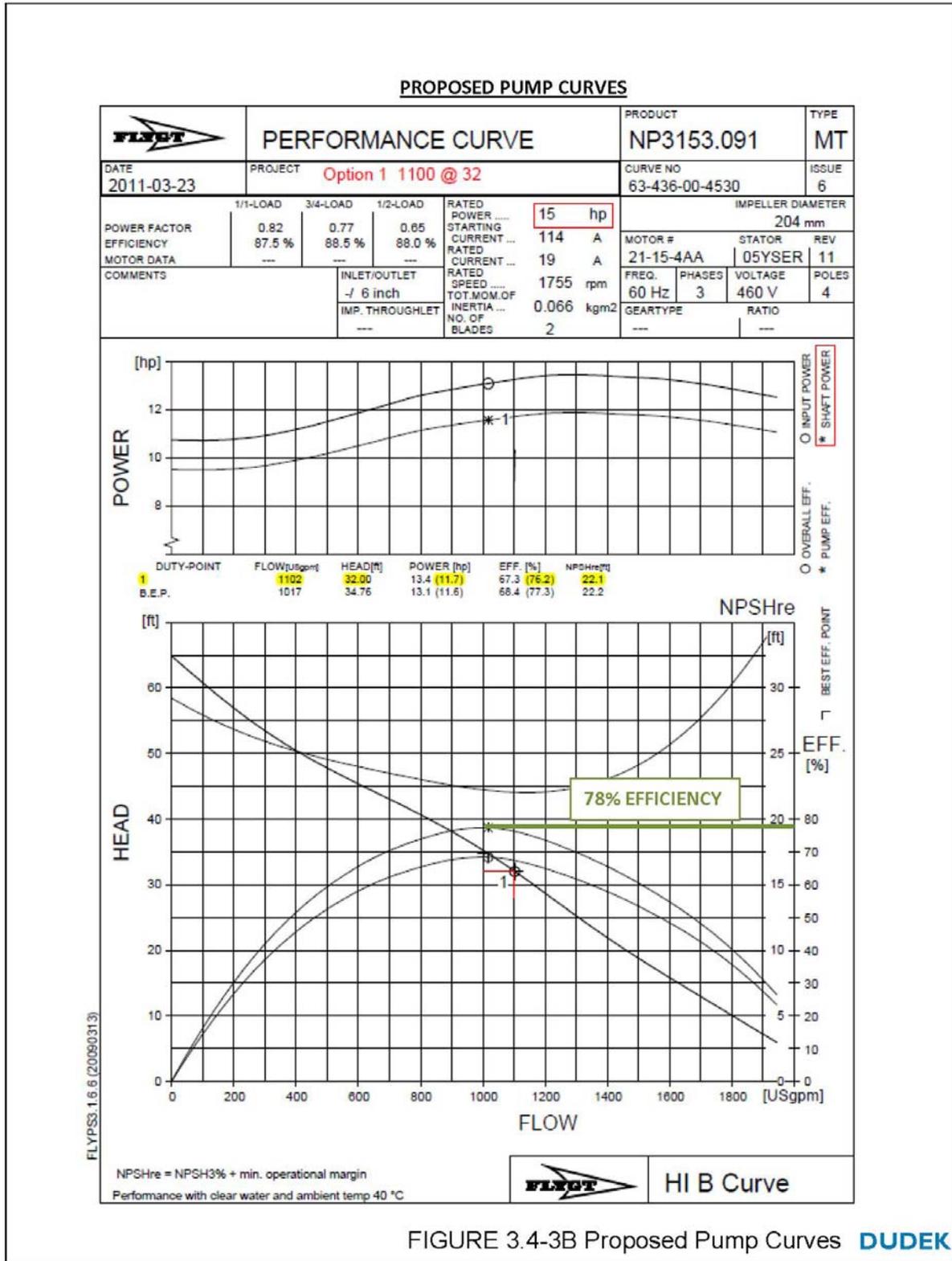


FIGURE 3.4-3B Proposed Pump Curves **DUDEK**

As summarized in Figure 3.4-2, the Project accomplishes four of the nine regional objectives in the Santa Barbara IRWM Plan (2013).

**FIGURE 3.4-2**  
How Project 4 Accomplishes Regional Objectives (IRWM Plan Update)

Regional Objectives	How the Project Accomplishes Objective
 Protect and Improve Water Quality	The installation of improved influent pumps and a grit removal system will improve the reliability of the treatment system and result in consistent attainment of waste discharge requirements
 Maintain and Enhance Water and Wastewater Infrastructure Efficiency and Reliability	<p>The Project improvements will enhance the operational reliability and treatment performance of the City’s WWTP; extend the useful life of the facility; and reduce operational costs by removing the grit in the system, which can wear down equipment. These improvements will increase the WWTP’s efficiency and reliability.</p> <p>In addition, the Project will improve pumping efficiency and reduce energy consumption by 90 kW/h per day.</p>
 Address Climate Change	The Project will address climate change by improving pumping efficiency and reducing energy consumption by 90 kW/h per day.
 Ensure Equitable Distribution of Resources	The Project will directly benefit the entire City of Guadalupe, which is a disadvantaged community (DAC).

**Purpose and Need**

**Project Purpose**

The purpose of the Project is to improve operational reliability and treatment performance of the WWTP so that it consistently produces high-quality secondary effluent. The secondary effluent from the WWTP is spray irrigated on neighboring pastureland and offsets a need for irrigation. Project 4 extends the useful life of the WWTP by reducing the maintenance demands of the existing facilities and reducing the operational costs of the WWTP. Project 4 also brings the City one step closer in the long list of completed projects to the potential eventual upgrade of facilities to full tertiary treatment, which is a goal that the City has spent significant time and effort investigating and working towards. Through Project 4, the production of consistently high-quality effluent brings the City much closer to this goal and also improves the quality of water percolating into the groundwater basin.

The Santa Maria Groundwater Basin is not only an adjudicated basin, but also suffers from nitrate issues. The Cities of Guadalupe and Santa Maria have been working with a number of different entities, including Laguna County Sanitation District, the Grower-Shipper Association of San Luis Obispo and Santa Barbara Counties, the Central Coast Regional Water Quality Control Board (CCRWQCB), Golden State Water Company, and other private stakeholders and agricultural interests to develop a Groundwater Assessment of the Santa Maria Groundwater Basin in order to strategically come up with solutions for the management of salts and nutrients. The Groundwater Assessment

of the Santa Maria Groundwater Basin is currently out for public review and comment. The public comment period will end on April 1, 2013, and then after a period of comment review and revision, the Final Groundwater Assessment of the Santa Maria Groundwater Basin will be produced. It will then be up to the City of Guadalupe to develop a Salt and Nutrient Management Plan. Hence, the City is quite focused on not only alleviating the problems that impact the Basin but has been proactive about pursuing them.

#### **Project Need**

The City's WWTP effluent is discharged by spray irrigation to adjacent pastureland that bounds the Santa Maria River. This discharge is regulated under a Waste Discharge Requirement (WDR) permit issued by the CCRWQCB. The Project components improve the performance and reliability of the existing WWTP and thus reinforce the consistent and sustainable production of high-quality effluent.

The City of Guadalupe provides its residents potable water service and wastewater service. The City's potable water sources include groundwater and State Water Project (SWP) water. Approximately one-third of the potable water demand is provided by SWP water and two-thirds of the demand is met by a deep aquifer well. The City was previously pumping not only from the deep aquifer well but also from a shallow groundwater well. However, the shallower groundwater well has been shut down due to the high level of nitrates in the basin and cannot re-open until there has been an appreciable increase in shallow groundwater quality.

This Project will produce a consistently higher quality of water that will infiltrate into the groundwater basin. Moreover, the improvements to the WWTP and the production of consistently higher water quality are all steps toward the potential eventual upgrade of the WWTP to produce recycled water. Over the past 8 years, the City has pursued a path of obtaining funding, upgrading treatment processes, improving water quality, and investigating the use of reclaimed water for the community. The City is currently preparing a recycled water feasibility study that will be an important planning document and tool to inform the City in the next steps toward reclaimed water use and distribution.

FIGURE 3.4-4  
WWTP, Irrigation Areas

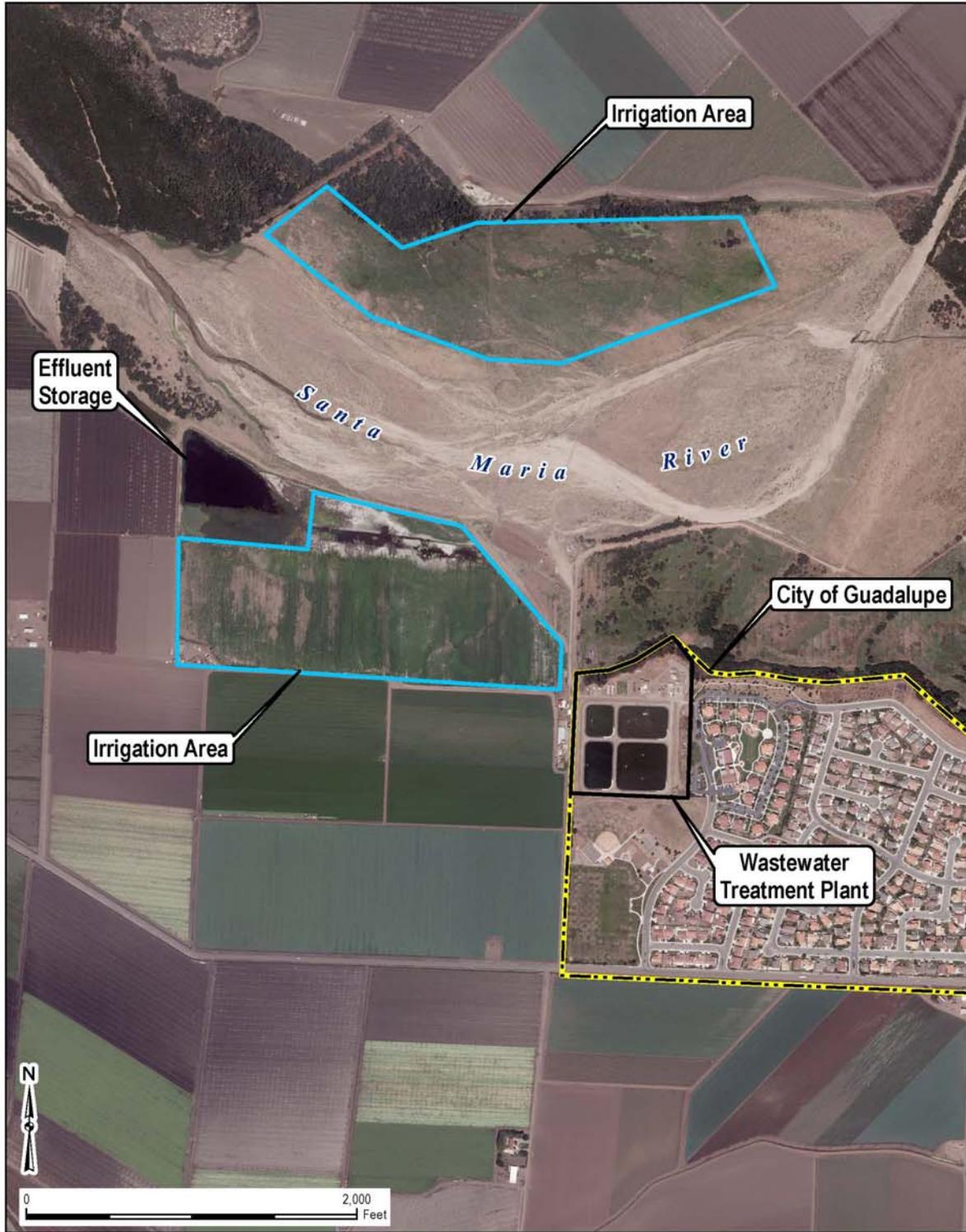


FIGURE 3.4-4  
WWTP, Irrigation Areas  
City of Guadalupe Waste Water Treatment Plant

### **Integrated Elements of Projects**

The Project links the entities that use the Santa Maria Valley Groundwater Basin, including:

- City of Santa Maria
- City of Guadalupe
- Community of Sisquoc
- Community of Garey
- Community of Nipomo
- Numerous rural areas.

There are many projects and efforts involved to keep this basin healthy and prevent overdraft. Two recent IRWM funded projects have been initiated to improve the quality of the basin water and conserve basin and SWP water.

As discussed, all users of the Santa Maria Groundwater Basin are working together to study, plan, and improve the quality and quantity of water in the basin. The Cities of Santa Maria and Guadalupe, along with the Laguna Sanitation District, have partnered with others to prepare a Groundwater Basin Assessment for the Santa Maria Groundwater Basin. The Assessment focuses on salt and nutrients and provides a summary of basic information relating to sources, transport, and management during the past 20 years.

This Project demonstrates the region's commitment to improving water resource management in its DACs and underscores the active involvement and participation of DACs in the region. It also demonstrates the region's dedication to supporting DACs and avoiding issues of economic justice.

The Project provides synergies with all of the other water supply projects in this application. Project 4 integrates with the City of Santa Barbara's Recycled Water Enhancement Project (Project 1), which will improve operational efficiency, improve water quality, assist in offsetting the importation of state water and in drought planning and preparedness, as well as providing progress toward the Santa Barbara region's overall goal of increasing recycled water usage by 7,035 acre-feet per year (AFY) by 2035.

Project 4 is integrated with the Santa Maria Valley Water Conservation District's (SMVWCD's) Twitchell Reservoir Sediment Management and Groundwater Recharge Project (Project 2), which will improve water quality and groundwater recharge in the Santa Maria Groundwater Basin, and the Laguna County Sanitation District's Rancho Maria Golf Course Recycled Water Retrofit Project (Project 3), which will improve operational efficiency and infrastructure as well as offset groundwater usage in the Santa Maria Groundwater Basin.

## Project Maps

The following set of figures (Figures 3.4-5 through 3.4-8) provide the overall geographical context of the Project within the IRWM region and an understanding of the Project site within the City of Guadalupe.

## Work Completed Prior to October 1, 2013

The Project is entirely ready to proceed with construction. The Project has completed all permit processing, environmental review, and certification. Moreover, the Project has completed conceptual plans, technical memoranda (Memoranda 1 and 2, see below), and preliminary and final design as well as plans and specifications. Upon award of funding, the Project can be advertised for construction bids.

## Existing Data and Studies

The following technical memoranda were completed for the Project and are attached to this application in Appendix 3-4.:

- Technical Memorandum 1 – Conceptual Design Report
- Technical Memorandum 2 – Basis of Design.

## Project Timing and Phasing

This Project is not part of a multi-phased project; it is a standalone project that is fully functional without implementation of subsequent projects. Project construction is anticipated to start in December 2013 and end in May 2015.

## Discussion of Standards

The Project will adhere to the following set of standards:

- Standard specification of Public Works Construction (2009)
- Occupational and Safety Health Administration standards
- Uniform Building Code standards
- American National Standard Institute
- State Water Resources Control Board requirements
- Construction Site Best Management Practices
- American Water Works Association standards
- City of Guadalupe Public Works standards.

FIGURE 3.4-5  
Project Vicinity Map

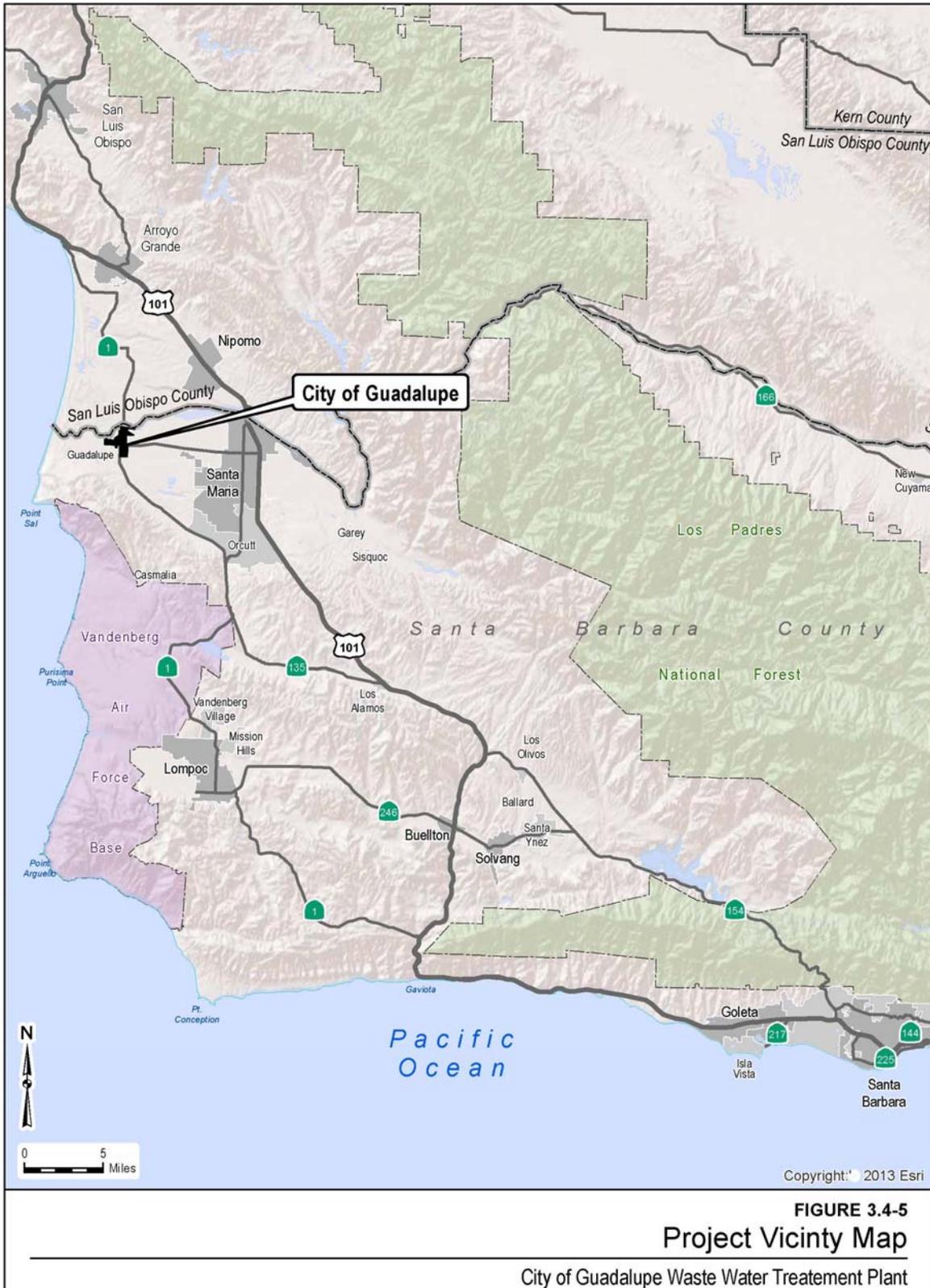
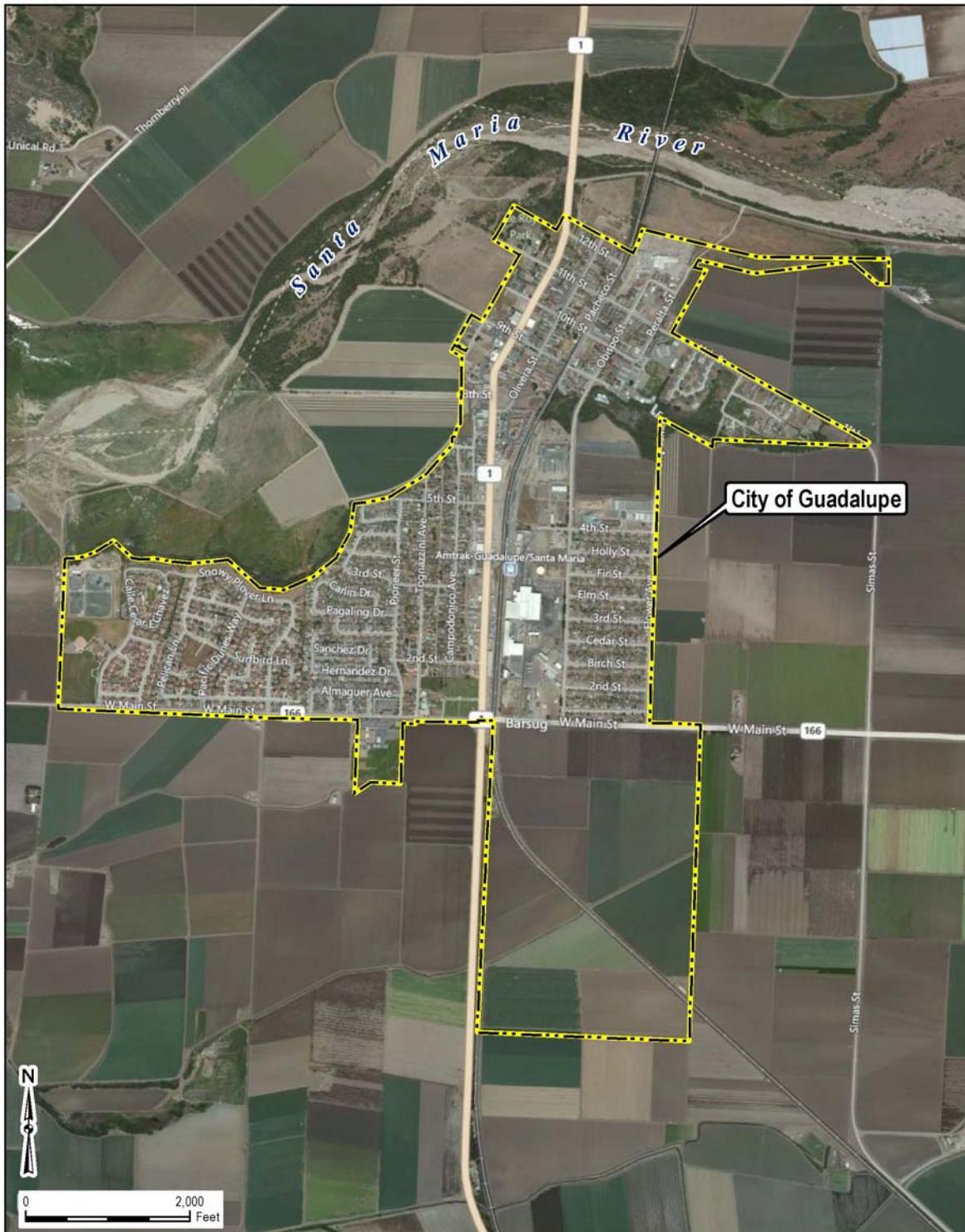


FIGURE 3.4-6  
City of Guadalupe Boundary



**FIGURE 3.4-6**  
**City of Guadalupe Boundary**  
City of Guadalupe Waste Water Treatment Plant

FIGURE 3.4-7  
WWTP Project Site in the Citywide Context



Figure 3.4-7  
WWTP Project Site in the Citywide Context

City of Guadalupe Waste Water Treatment Plant

**FIGURE 3.4-8**  
City of Guadalupe WWTP Facility Features



**FIGURE 3.4-8**  
**City of Guadalupe WWTP Facility Features**

City of Guadalupe Waste Water Treatment Plant

## Proposed Work

### A. Direct Project Administration

#### Task 1: Direct Project Administration

The direct Project administration consists of all work associated with conformance with the grant agreement, including project invoicing, preparation of quarterly progress reports and ongoing grant eligibility, well as review of the consultant’s labor compliance conformance documentation. In addition, grant administration includes keeping other City staff and City Council apprised of the Project’s progress. Upon completion of the Project, the administration includes preparation and submittal of the Project completion report in conformance to grant agreement requirements and the submittal of all Project monitoring reports as necessary.

#### TASK 1

##### Direct Project Administration

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept 2013	After Sept 2013
Execute CRCD sub-grant agreement				X
Ongoing grant and project management	October 2013	Not yet begun		X
Review and approval of vendor invoices associated with the project	Ongoing until project completion	Not yet begun		X
Review and approval of invoices, backup documentation, and preparation of quarterly progress reports for grant reimbursement	Quarterly after the execution of the grant agreement	Not yet begun		X
Prepare project completion report in conformance with grant agreement requirements	At the completion of the project	Not yet begun		X

#### Task 2: Labor Compliance Program

The Project will be bid as a prevailing wage project. The construction management firm selected for the Project will be required to implement the labor compliance program for the Project, including submitting an application to the Department of Industrial Relations for a Project-specific Labor Compliance Program (LCP). The construction contractor will assist the City in oversight of contractor compliance with the Code of Federal Regulations. Labor compliance will include but not be limited to the following:

- Ensure that all project legal notices contain the proper LCP notifications to bidders and statement of payment of prevailing wage requirements as stated in Labor Code Section 1771.8 for entities receiving funds from the Department of Water Resources (DWR's) IRWM Round 2 Implementation Grant funded by Proposition 84

- Provide direction and guidance to bidders in their queries regarding compliance with the LCP, including payment of prevailing wages, identification of labor classifications, and proper completion and submission of forms and notices
- Collect and record the receipt of weekly Certified Payroll Records Pursuant to Labor Code Sections 1771.5(4), 1776, and California Code of Regulations 16401, 16402, 16403 as well as any applicable federal statutes
- Conduct random audits of Certified Payroll Records
- Conduct periodic and routine site visits to physically monitor the Project. Note the number of workers on the site and interview a sufficient number to ensure that they are receiving the proper prevailing wage rate for the duties performed
- Investigate all allegations of failure to pay prevailing wage rates and/or worker complaints per project
- Attend and participate in on-site or other meetings, as requested by the City of Guadalupe
- Engage in all such duties required for those entities receiving funds from the DWR's IRWM Round 2 Implementation Grant funded by Proposition 84.

Task 2: Labor Compliance Program

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept 2013	After Sept 2013
Conformance to LCP	Ongoing after the project commences	Not yet begun		X
Submittal of certified payrolls with invoices	Quarterly after the execution of the grant agreement	Not yet begun		X

**Task 3: Reporting**

As discussed in Task 1 above, the Project will conform to all grant agreement requirements, including the quarterly progress reports and the final Project reports as well as the Project completion report, the Project monitoring report, and any annual Project performance reports that may be required. It is also anticipated the construction management firm contracted for the Project will complete progress and Project reports for the City Engineer. These will be included as supplemental reports to materials submitted for DWR review.

Task 3: Reporting

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept 2013	After Sept 2013
CM preparation of progress reports	Monthly	Not yet begun		X
City Engineer review of Project progress reports	Monthly	Not yet begun		X

**B. Land Purchase/Easement**

There are no easements or land purchases associated with this Project. Project 4 is located on the existing WWTP site, which is owned by the City.

**C. Planning/Design/Engineering/Environmental Documentation**

**Task 4: Assessment and Evaluation**

Several studies and other work have been completed for the Project, including the preparation of reports and technical memoranda that are listed below:

- Technical Memorandum No. 1: *Conceptual Design Report*, Dudek Engineering, May 2010, which presents a preliminary planning analysis of the design for the upgrade to the treatment plant
- Technical Memorandum No. 2: *Basis for Design*, Dudek Engineering, September 2010, which presents the design criteria, confirms the process selection, and highlights specific design details
- Engineer’s Report: Accompanies the application/report of Waste Discharge to the U.S. Environmental Protection Agency (EPA), pursuant to the California Water Code Section 13260. This report details the plant upgrades, methods of treatment, discharge of waste, and disposal for the plant
- Categorical Exemption prepared for the Project in 2010 and submitted to the Santa Barbara County Clerk of the Board

The Project has an approved Coastal Development Permit (CDP) from the California Coastal Commission and an approved Conditional Use Permit from the City of Guadalupe.

Task 4: Assessment and Evaluation

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept 2013	After Sept 2013
Conceptual planning, technical memoranda, preliminary design	Completed: October 2011	Completed	X	

**Task 5: Project Design**

There are no tasks associated with this item. The Project design and engineering was completed in 2011.

Task 5: Project Design

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept 2013	After Sept 2013
Preparation of final design: plans, specifications, and estimates	Completed: July 2011	Complete	X	

**Task 6: Environmental Documentation**

A Categorical Exemption was prepared for the Project and completed on October 21, 2010. The Categorical Exemption was submitted to and received by the Santa Barbara County Clerk of the Board.

Task 6: Environmental Documentation

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept 2013	After Sept 2013
Categorical Exemption CEQA Guidelines, Section 15061 (b)(3)	October 21, 2010	Completed	X	

**Task 7: Permitting**

All permits for the Project have been obtained. The Project has an approved CDP from the California Coastal Commission and an approved Conditional Use Permit from the City of Guadalupe.

The WWTP operates under CCRWQCB WDR Order No. R3-2005-0015. No other permits are required for the Project.

Task 7: Permitting

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept 2013	After Sept 2013
CDP	Received	Current	X	
Conditional Use Permit (City of Guadalupe)	Received	Current	X	
CCRWQCB WDR permit	Current	Current	X	

**Task 8: Construction Contracting**

No work has yet begun on the construction contracting. This task will commence once funding is obtained. The sub-tasks that are included in this category are as follows:

- Preparation of bid documents
- Secure the City Council’s permission to advertise for bids
- Advertise for construction bids for 45 calendar days
- Open bids and analyze the contractor’s qualifications
- City Council award to the lowest responsible bidder
- Execution of the contract documents
- Issuance of a Notice to Proceed.

Task 8: Construction Contracting

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept 2013	After Sept 2013
Prepare bid documents	December 2013	Not yet begun		X
Secure the City Council's permission to advertise for bids	January 2014	Not yet begun		X
Advertise for construction bids for 45 calendar days	February to March 2014	Not yet begun		X
Open bids and analyze the contractors qualifications	April 2014	Not yet begun		X
City Council award to the lowest responsible bidder	May 2014	Not yet begun		X
Execute of the contract documents	June 2014	Not yet begun		X
Issue a Notice to Proceed	July 2014	Not yet begun		X

## D. Construction/Implementation

### Task 9: Construction Contracting

This task includes furnishing and installing the influent pumps and grit removal facilities at the WWTP. Mobilization and site preparation, Project construction, and performance testing and demobilization are all sub-tasks.

Mobilization of the site includes ordering equipment, submitting shop drawings, preparing piping, electrical and foundation components in readiness for the delivery of equipment for the Project. Upon delivery of the equipment, the contractor will commence with construction, which includes mounting and installing the equipment. Performance testing and demobilization includes testing the new equipment, decommissioning and demolishing existing equipment as needed, submittal of as-builts, and notice of Project completion.

Task 9: Construction

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept 2013	After Sept 2013
<b>Subtask 9.1 Mobilization and Site Preparation</b>				
Temporary Field Office and Utilities	August 2014	Not yet begun		X
Bonds & Insurance, 3%	August 2014	Not yet begun		X
Site Examination, Temporary Security, Contractor Staging and Laydown, Etc.	August 2014	Not yet begun		X
Submittals (Schedule of Values, Schedules, Technical Material Deliverables, Etc.)	August 2014	Not yet begun		X
Mobilize equipment	August 2014	Not yet begun		X
<b>Subtask 9.2 Project Construction</b>				
Influent Forcemain Modifications	February 2015	Not yet begun		X
Influent Pumps	February 2015	Not yet begun		X
Grit System	February 2015	Not yet begun		X
Grit Forcemains	December 2014	Not yet begun		X
Grit Equipment Foundations	December 2014	Not yet begun		X
Electrical for the Grit System	November 2014	Not yet begun		X
Painting and Coating	March 2015	Not yet begun		X
<b>Subtask 9.3 Performance Testing and Demobilization</b>				
Testing and Demobilization	May 2015	Not yet begun		X

**E. Environmental Compliance/Mitigation/Enhancement**

**Task 10: Environmental Compliance/Mitigation/Enhancement**

A Categorical Exemption was prepared for the Project and completed on October 21, 2010. The Categorical Exemption was submitted to and received by the Santa Barbara County Clerk of the Board. There are no mitigation measures or enhancement requirements associated with Project 4.

Task 10: Environmental Compliance / Mitigation / Enhancement

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept 2013	After Sept 2013
There is no environmental compliance, mitigation, or enhancement required	N/A	N/A	N/A	N/A

**F. Construction Administration**

**Task 11: Construction Administration (Management)**

Construction management and administration includes compliance with the design and construction documents and grant requirements. Construction management will be provided by a third-party contractor that will coordinate the with the design engineer, oversee the schedule, conduct inspections, process monthly progress payments, conduct labor compliance and complete labor compliance reporting, coordinate as-built drawing preparation, and see the Project through completion.

Task 11: Construction Administration (Management)

Activity or Deliverable	Schedule	Status	Completion of Task (check appropriate column)	
			Before Sept 2013	After Sept 2013
Contractor and design engineer coordination, scheduling oversight, inspection, processing monthly progress payments, coordination of as-built drawings, coordination of final Project and grant close out	August 2014 to July 2015	Not yet begun		X



## Project 5: Grant Administration, Cachuma Resource Conservation District

### Introduction

The Cachuma Resource Conservation District (CRCD) is the grantee for the Santa Barbara County Proposition 84 Integrated Regional Water Management (IRWM) Round 2 application and as such will be the entity responsible for the grant administration for any grant funds that are received from the Department of Water Resources (DWR) as a result of this grant proposal. Therefore, the CRCD will carry out all requirements and tasks related to the executed grant agreement, including meeting ongoing eligibility requirements, preparing overall summary invoice packages on behalf of the four project proponents included in the grant agreement for DWR reimbursement requests, including summary progress reports for the grant, and completion of the grant completion report.

### Project Description

The CRCD will be responsible for the overall grant administration on behalf of the four project proponents included in this Proposal. The tasks and descriptions for Project 5, Grant Administration including the preparation and execution of sub-grant agreements for each Project. Administration of the DWR Proposition 84 Implementation Grant will follow all the terms and requirements of the grant agreement between DWR and CRCD. CRCD will provide DWR with quarterly progress reports for each project and an overall progress report on the grant administration. Eligibility for reimbursement through the grant requires conformance with tasks as outlined in the grant agreement. As such, CRCD will ensure that continuing eligibility is maintained by coordinating with sub-grantees/project proponents on the following conformance related issues for continuing eligibility.

CRCD will ensure that once a project is complete that the proponent prepares and submits to CRCD a completion report in accordance with DWR specifications. CRCD will in turn submit these for approval to DWR. The project completion report will also include, if applicable, certification of final project by a registered civil engineer, consistent Standard Condition D-15, "Final Inspections and Certification of Registered Civil Engineer."

Upon completion of all projects under the grant agreement, CRCD will prepare and submit a Grant Completion Report to DWR within 90 calendar days of submitting the Project Completion Report for the final project, with specific components included as outlined below. The Grant Completion Report will include the actual reimbursement status, a brief description of each project completed, and a summary of the overall accomplishments associated with the IRWM Implementation Grant, including how the projects have furthered the goals of the IRWM Plan. It will draw largely on the progress

reports, but will provide DWR with a complete overview of the projects, discuss any changes and/or modifications and provide a comparison to the projects/plans as originally scoped and discussed in the grant application. It is understood that final reimbursement funds for the last project to be completed as part of this grant agreement will not be disbursed until the Grant Completion Report is submitted to and approved by the state, and as such, CRCDC will ensure this task is completed in a timely manner.