

ATTACHMENT 3

WORK PLAN **PROJECT OVERVIEW**

INTRODUCTION

The Santa Margarita Water District (“SMWD”), in partnership with the County of Orange (“County”) and Ranch Mission Viejo, LLC (“RMV”), is proposing to construct the Ortega Reservoir Project (“Project”) in the South Orange County Watershed Management Area (“WMA”).

The Project is to construct a 5,300 acre-foot (“af”) recycled water storage reservoir which will provide seasonal storage for the SMWD existing and proposed recycled water system within the southerly portion of the District. Importantly, the Project will also efficiently divert flood and drainage waters and pump them into the Reservoir. The Project would also involve a 156-foot-high main dam, proposed west of the Reservoir, and a saddle dam, proposed to the north. Both would be zonal earthfill dams, and materials for the dams will come from the Project site. The Project will also receive tertiary treated sewage water acceptable for landscape irrigation. As such, the Project will be providing flood control and water supply benefits to the region, as required by the Proposition 1E Stormwater Flood Management Grant Program.

Water supplies will be provided by expansion of the Chiquita Water Reclamation Plant (“CWRP”) and may be supplemented by other potential non-domestic water supply sources. The proposed Project also includes the water supply facilities required to provide recycled water from the CWRP to the Reservoir. These facilities include a pump station at the CWRP and transmission main from the CWRP to the Reservoir. The Reservoir Project is currently included as a “covered activity” in the Southern Subregion Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan (NCCP/MSAA/HCP) and Joint Environmental Impact Report/Environmental Impact Statement (EIR/EIS) which were approved in late 2006.

Proposal Goals and Objectives

The Project is included in the 2012 New Project List element of the South Orange County IRWM Plan Update and is consistent with the established goals for “Total Watershed Efficiency” and objectives for Sewage and Flood Management, Water Supply, Groundwater Management, Aquatic Ecosystems and Watershed Management, Water Conservation, Water Quality, and Information Management. The Project’s consistency is discussed in further detail under the subsequent Purpose and Need section. The Project’s Goals and Objectives are listed below:

Goals:

- Storm water diversion to enhance downstream wetlands and riparian habitat.
- Collection system to capture and harvest drainage flows for recycled water use in the Chiquita Water Reclamation Plant and elsewhere.
- Receipt of tertiary treated sewage water acceptable for landscape irrigation.

Objectives:

- Recycle water for seasonal regional water conservation for existing and proposed recycled water system within the southerly portion of the SMWD service area.
- Water harvesting and recycling for irrigation use.

The Project is proposed to have a maximum water storage capacity of 5,300 af at the maximum operating water surface of 580 feet. The storage capacity would provide the minimum required seasonal storage with additional capacity for other purposes such as flood control. The typical operating range would be from 540 to 580 feet above mean sea level (“msl”), where approximately 2,900-4,900 af would regularly be stored.

RELEVANCE TO REGION**Regional Purpose and Need**

Located along the scenic and temperate southern coast of California, South Orange County is rich with history. Legacies passed on from native societies, once expansive cattle ranches, and twentieth century entrepreneurial farmers remain a part of the area’s culture today. From the landmark Mission San Juan Capistrano near the stunning western coastline to the Cleveland National Forest in the east, South Orange County continues to be a destination known for beauty and a high quality of life.

Water is the key element for sustaining County and South Orange County economies that allow the region to thrive. Planning and investments to carry the region through the next 25-year planning horizon are critical and are central to preserving the quality of life and planning for water and natural resources.

Controlling urban runoff and improving the water quality in streams and along the beaches is a key goal for the region. Water quality improvement efforts over the last decade have resulted in significant improvements in coastal water quality along the County beaches. The “Heal the Bay” 20th Annual Report (2010) states that the County grades for year-round dry weather were among the best on record and well above the state average. Coastal and surface water quality remains an important component of the region’s IRWM planning.

Basin Plan

The Project is located in the South Orange County Watershed Management Area (“WMA”), which includes the area that encompasses the San Juan Hydrologic Unity (“SJHU”) in South Orange County, California, as defined in the Water Quality Control Plan of the San Diego Basin (“Basin Plan”). The SJHU is a collection of coastal watersheds that covers 496 square miles in San Diego, Orange, and Riverside counties. The SJHU is naturally divided by major water bodies and represents an important water resource in one of the most arid regions of the nation. It is comprised of six major watersheds: 1) Laguna Coastal Streams, 2) Aliso Creek, 3) Dana Point Coastal Streams (Salt Creek), 4) San Juan Creek, 5) San Clemente Coastal Streams, and 6) San Mateo Creek, and two groundwater basins: 1) San Juan Valley Groundwater Basin and 2) San Mateo Groundwater Basin. The proposed Project is located in the San Juan Creek Watershed, as shown in Figure 1 herein. Figure 1 shows the Regional Watersheds within the South Orange County Watershed Management Area, as well as the adjacent Watershed

Management Areas that South Orange County WMA coordinates with to ensure interregional management and efficiency. Figure 3 shows the regional groundwater basins, including the San Juan Creek Groundwater Basin, and Figure 4 shows the regional surface waters throughout the SJHU, San Juan Creek Watershed, San Juan Creek, and tributaries.

Although a small portion (7.2%) of the SJHU is developed, most of this development is concentrated within the north-western portion of the SJHU. The undeveloped portion, the Southern and interior portions, occupies 91.8% of the SJHU. Agricultural land use occupies less than 1% of the land. A very large and mostly undeveloped portion of the watershed is encompassed by the Camp Pendleton Marine Corps Base in northern San Diego County. Other large areas of open space are found within the Cleveland National Forest. Caltrans is another major landowner, and it has jurisdiction over the major freeways that traverse the watershed.

San Juan Creek Watershed

The San Juan Creek Watershed is the largest watershed in the South Orange County WMA. The approximately 173 square mile watershed includes portions of the cities of Dana Point, Laguna Hills, Laguna Niguel, Mission Viejo, Rancho Santa Margarita, San Juan Capistrano, and unincorporated areas within the County. The Arroyo Trabuco and Oso Creeks are smaller tributaries. A small western portion of the San Juan Creek Watershed extends into Riverside County. The Creek ultimately discharges into the Pacific Ocean at Doheny Beach in the City of Dana Point.

San Juan Creek falls under the Mission Viejo subunit of the San Juan Hydrologic Basin (designated Hydrologic Sub Area 1.21-1.28). The Basin Plan lists Cañada Gobernadora Creek as a small tributary to San Juan Creek as receiving waters. The following existing beneficial uses are designated in the Basin Plan for San Juan Creek and Cañada Gobernadora: agricultural supply; industrial; contact water recreation; non-contact water recreation; warm freshwater habitat; cold freshwater habitat; and wildlife habitat. The following designations apply to the mouth of San Juan Creek at the Pacific Ocean: rare, threatened, or endangered species; non-contact water recreation; marine habitat; migratory habitat; shellfish habitat; and wildlife habitat. The proposed Project would greatly assist in protecting the beneficial uses of the San Juan Creek Watershed.

The South Orange County water supply originates predominately from imported sources, making the region subject to conditions and agencies outside of the region. The South Orange County Integrated Regional Water Management Plan (“IRWM Plan”) is aimed at diversifying water sources by developing a variety of local opportunities to decrease the reliance on imported sources. For example, the local San Juan Valley Groundwater Basin has been the subject of multiple management programs for treating existing brackish waters and managing wet year supplies for use during dry year conditions; South Orange County is a leader in implementing water recycling projects turning wastewater into a resource; urban water reuse projects are being developed to help reduce runoff and utilize local resources; and water conservation projects have been a standard for many years including recent programs using weather-based irrigation controllers and low impact development techniques of turf removal and native vegetation planting. Fiscal resources are also needed to improve the water quality in the local streams to protect the beneficial uses that are listed for these water bodies, and to increase, where possible, local supply through water reclamation, conservation, flood management, stormwater capture/treatment, and groundwater/seawater desalination.

IRWM Plan Consistency

The South Orange County IRWM Plan established regional water management strategies to meet stated objectives. The IRWM Plan also includes a list of approved and prioritized projects to meet those objectives. Significantly, the proposed Project helps meet the goals and objectives of the South Orange County WMA IRWM Plan to enhance water quality and stormwater systems.

Adopted IRWM Plan Goals:

The South Orange County IRWM Plan established goals and objectives. The Project within this Proposal (i) is consistent with the adopted IRWM Plan, (ii) went through the IRWM Project review process, and (iii) provides a means to meet the IRWM Plan goals and objectives. The table below includes the Adopted IRWM Plan Goals:

<p><i>IRWM Plan Goals</i></p> <p>Water Supply</p> <ul style="list-style-type: none"> » Reduce reliance on imported water » Improve water reliability » Increase local water supply » Provide new and reliable sources for recycled water uses » Convey the most recycled water to the most customers for the least cost » Provide a new source for basin recharge » Divert, capture, and treat urban runoff for reuse
<p>Water Quality</p> <ul style="list-style-type: none"> » Maximize the infiltration of runoff in landscape areas » Reduce nuisance runoff » Reduce water currently being discharged to the ocean through recycling and re-use » Reduce non-point source pollution loads » Filter storm water flows to remove gross pollutants » Improve surface water quality throughout the seven regional watersheds to reduce pollutants and assist in meeting the goals of Bacteria TMDL for Beaches and Creeks of the Region
<p>Water Conservation</p> <ul style="list-style-type: none"> » Water conservation through a controlled and efficient irrigation system design
<p>Aquatic Ecosystems and Watershed Management</p> <ul style="list-style-type: none"> » Protect beneficial uses » Protect and improve ecological resource areas, creeks, and the coastline » Environmental restoration » Provide for fish passage » Reduce excess erosion of the coastal bluff area in Laguna Beach » Reduce the amount of days the beach is posted » Reduce bacteria loading to the Region's beaches and creeks from the seven watersheds of the Region to comply with the Bacteria TMDL for Beaches and Creeks of the Region

Sewage and Flood Management

- » Divert non-storm runoff
- » Increase capacity at wastewater treatment plants
- » Reduce the amount of secondary treated effluent going into the ocean
- » Improve ocean water quality
- » Protect existing utilities in Aliso Creek

Adopted IRWM Plan Objectives

In order to address the major water challenges within the region, key objectives were compiled in the following categories:

1. Water Supply ("WS")
2. Groundwater Management ("GM")
3. Aquatic Ecosystems and Watershed Management ("AE")
4. Water Conservation ("WC")
5. Water Quality ("WQ")
6. Sewage and Flood Management ("SF")
7. Information Management ("IF")

The Project meets the adopted South Orange County IRWM Plan goals and objectives, as described below:

- ✓ Water Supply ("WS") - Water recycling and harvesting for regional water conservation (for SMWD water supplies to the Chiquita Water Reclamation Plant and elsewhere).
- ✓ Groundwater Management ("GM") - Potential for ground water recharge.
- ✓ Aquatic Ecosystems and Watershed Management ("AE") - Reduction in hydrologic conditions for erosion control stabilization and reduction of sediment degradation from the County's unincorporated communities.
- ✓ Water Conservation ("WC") - Water recycling and harvesting for regional water conservation (for SMWD water supplies to the Chiquita Water Reclamation Plant and elsewhere).
- ✓ Sewage and Flood Management ("SF") - Reduction in hydrologic conditions for erosion control stabilization and reduction of sediment degradation from the County's unincorporated communities.

Project Need

The Project is located in Verdugo Canyon, approximately 0.5 mile south of Ortega Highway and 4.5 miles east of Antonio Parkway. West of the Project site, across Ortega Highway, is the Tree of Life Nursery and Caspers Park Road, which provides access to the Ronald W. Caspers Wilderness Park. The Project is located in the impact area of the Ranch Plan Planned Community's Planning Area 4.

Access to the Project site is provided off an existing private ranch road. An easement has been granted to property owners east of the Project site allowing use of the private ranch road to access to homes located east of the Project site.

In addition to the development of the dams and Reservoir, Project elements would be constructed off site. Specifically, pipelines would be extended from the Chiquita Water Reclamation Plant ("CWRP") to the Reservoir, and a pump station would be constructed adjacent to the Ortega sewer lift station at 31653 Ortega Highway in San Juan Capistrano. The CWRP is located in Chiquita Canyon, approximately 1.5 miles north of Ortega Highway and 1 mile east of Antonio Parkway.

The Project site is located along the southwestern flank of the Santa Ana Mountains in the Peninsular Ranges of Southern California. This area is underlain by post-early Cretaceous age sedimentary rock. The drainage system in this area of the Santa Ana Mountains is the San Juan Creek Watershed. San Juan Creek and its tributaries flow southwesterly for about 30 miles from the crest of the Santa Ana Mountains to the Pacific Ocean at Doheny State Beach in Dana Point. San Juan Creek is located approximately ¾ mile west of the Reservoir site. Based on two borings conducted for this Project, groundwater was encountered at a depth of 58 feet below ground surface (bgs) to 67 feet bgs. In both borings, groundwater was encountered at an elevation of 413 feet above msl.

Historic RMV accounts document excessive surface and groundwater. Ongoing water quality monitoring associated with the San Juan Creek Watershed/Western San Mateo Creek Watershed Special Area Management Plan ("SAMP") and Southern Subregion Natural Communities Conservation Plan ("NCCP") has documented the degraded water quality of both urban runoff and storm flows.

The region has developed a two-prong approach to managing the runoff. Agencies in South Orange County have increased efforts to limit urban runoff through education and participation in programs to reduce urban runoff and promotion of weather-based irrigation controller programs. Furthermore, the water agencies encourage conservation through education programs, including, but not limited to, landscape certification, promotion of water awareness, and tiered rate structures. However, additional efforts are required to make structural improvements in the system to reduce peaks, control stormwater flows, and control pollution such as the Project. Since 1979, SMWD has been diverting urban run-off in the San Juan Creek Watershed at the Upper Oso Barrier for beneficial use. **This model is proposed in Ortega Reservoir to reduce the storm peak flow and encourage re-use of the foreign developed water.**

Limited positive changes to the existing conditions have occurred through education of homeowner associations and golf courses on proper irrigation management and pesticide use. Therefore, the Project is proposed as a management measure to meet the goals and objectives of the Watershed Management Initiative and the recommendations contained in the Southern NCCP Guidelines and SAMP Planning Principles.

Successful implementation of the Project is anticipated for attenuation of storm flows and capture of non-storm flows, reduction of erosion and sedimentation, improvement of water quality, and removal of excess surface and groundwater for non-potable purpose.

The following describes the Need for each Project Component:

1. Water Supply ("WS"): The Reservoir will capture dry weather flow for water supply. Many municipal and industrial water systems pump raw water directly from rivers and lakes.

2. Water Conservation ("WC"): Water recycling and harvesting for regional water conservation (for SMWD water supplies to the CWRP and elsewhere).
3. Sewage and Flood Management ("SF"): The Project will reduce peak flows for a portion of the 25 to 100 year storm events, given the size constraints.

The Project is located on property which has been subject to extensive, multiple-agency planning and permitting efforts. Three (3) separate and independent planning programs were initiated to evaluate the most appropriate uses for the property in light of the natural resources on site. These planning programs include (1) the County of Orange General Plan Amendment and Zone Change (the "Ranch Plan"); (2) the Southern Subregion NCCP/MCAA/HCP; and (3) the U.S. Army Corps of Engineers ("USACE") Special Area Management Plan ("SAMP"). SMWD was a participant in this process through the development of the Plan of Works for the area to ensure that adequate provisions for water resources would be available and that any impacts associated with implementation of those improvements were addressed. The proposed Project was a component of these extensive planning efforts.

Project Parameters – Reservoir

The Reservoir is proposed to have a total water storage capacity of 5,300 af at a maximum operating water surface of 580 feet. The storage capacity would provide the minimum required seasonal storage with additional capacity for other purposes. The typical operating range would be from 540 to 580 feet above msl, where approximately 2,900-4,900 af would be stored.

The Exhibits found in **Att3_SWF_WorkPlan_2 of 2** show the layout of the dam and Reservoir and identify the key cut and fill areas. The earthen dams would be constructed of soil generally obtained from within the Project limits from an area located immediately upstream of the Main Dam. The total cut, which includes the excavation for the main dam, saddle dam, spillway and stilling structure, inlet/outlet structure, inlet/outlet pipeline, emergency Reservoir drain, Reservoir grading, Ranch Access Road, and Saddle Dam Access Road, would total approximately 2.1 million cubic yards ("mcy"). The cut nearly balances with the fill total; however, some import of material would be required to ensure the material meets the design requirements. This is especially applicable to materials required for the sand filter and gravel drain. The imported material would be provided by the local quarry located within a mile of the site or from sources in the City of Corona.

Project Parameters – Main Dam and Saddle Dam

A 156-foot-high main dam is proposed west of the Reservoir and a saddle dam is proposed to the north. Both would be zonal earthfill dams. **Att3_SWF_WorkPlan_2 of 2** depicts the structural zones of the main dam and saddle dam as well as the materials that would be used for each zone. Materials for the dams would come from either required excavations or the area within the Reservoir. This material would consist largely of alluvium and would be a source of core material as well as Reservoir fills. Although the selected core material would be selected for its low permeability, a cutoff wall would be provided at the base of the core to increase the seepage path and reduce seepage. Plastic concrete would be used for backfill.

The core would be flanked upstream and downstream with shell zones comprised of weathered rock. Borrowed materials for the dam shells would primarily come from two (2) ridgelines located immediately upstream of the dam embankment and which would be excavated to depths up to 100 feet below existing grade. The upper five (5) feet of material would be used in one of the fill areas, and the underlying material (comprised of sedimentary bedrock) would be used core material provided that it meets the gradation for core material. A chimney drain and blanket drain comprised of sand and gravel would be located downstream of the core and overlying the downstream foundation. The borrow material would be required to have high

quality rock that meets requirements for concrete aggregate and riprap as well as gradation requirements.

The upstream face of the main dam and the saddle dam would be the less weathered rock material with higher rock content and coarse grained, maximum particle size. These areas would be protected from wave action through the placement of riprap. The foundations for the entire footprints of both the main dam and the saddle dam would consist of rock; all alluvium, colluvium, completely weathered bedrock, and bedrock with abundant root mass would be removed from the dam foundations. Excavation would vary from depths of approximately five (5) feet to twenty (20) feet, depending on the proposed overlying feature.

Instrumentation would be installed in the dam embankments and foundations for both the main dam and saddle dam. This instrumentation would evaluate the behavior of the dams during construction and whether constructed conditions are consistent with the design assumptions. During long-term operation of the dam, instrumentation data would be used to monitor the performance of the dam.

Project Parameters – Inlet/Outlet Structure

The inlet/outlet structure would be constructed of a 36-inch circular cement- and mortar-lined and coated steel pipe with a concrete encasement. This structure would be located in rock upstream of the right abutment of the main dam. The inlet tower would be connected to the 36-inch pipeline beneath the dam and would connect to the SMWD water distribution system. An emergency outlet valve would be provided downstream of the dam, as shown on Att3_SWF_WorkPlan_2 of 2, Exhibit 3. In the event of an emergency, the outlet valve would have sufficient capacity to evacuate the Reservoir quickly per Division of Safety of Dams (“DSOD”) guidelines at an average rate of 51 cubic feet per second (“cfs”) from Elevation 580 to 568 feet and at 22 cfs from Elevation 580 to 460 feet. The 36-inch outlet pipeline is proposed to bifurcate downstream of the dam with one leg connecting to the SMWD water distribution system and the other connecting to the emergency release outlet works. The outlet works would be constructed of a 36-inch butterfly valve and an 18-inch fixed cone valve, both of which would discharge to a stilling basin. The DSOD requires that all dams within its jurisdiction be capable of adequately passing a selected design flood. Therefore, a spillway is proposed based on the probable maximum flood. The spillway channel would include a ten-foot overflow weir. A rectangular channel would be located downstream of the weir and would have a ten-foot bottom width and height varying from five to ten feet.

Project Parameters – Relocated Ranch Road and Dam Access Road

The Project would include relocating the existing Ranch Road that provides access from Ortega Highway through the bottom of the canyon to residences northeast of the Project site. The relocated Ranch Road would be constructed with six inches of gravel overlaying native soil. To avoid drainage and resultant erosion over the existing and proposed slope, the proposed road would slope down toward the hill, and a two-foot wide gravel-lined swale would be located along the inside edge of the roadway. Guardrails are proposed along all outward curves. In addition to providing access to residences northeast of the Project site, this road would also be classified as a Fire Access Road and has been designed in compliance with the Orange County Fire Authority’s Fire design requirements.

The Project would also include construction of access roads to the Main Dam, Outlet Works, and Saddle Dam. The Dam Access Road is proposed as a gravel road; however, it would have a paved section consisting of three (3) inches of asphalt concrete over six (6) inches of aggregate base.

Project Parameters – Water Supply Facilities

Construction of the Ortega Reservoir would require modifications to the proposed pipeline and pump station designed to serve SMWD's non-domestic water system. Recycled water is currently pumped from the CWRP to the District's Talega Reservoir. As part of the Project and due to the difference in elevation between the two (2) reservoirs, the existing Talega Valley Pump Station (located at the CWRP) would be modified to deliver water to the proposed Ortega Reservoir (580 feet above msl) rather than the Talega Reservoir (780 feet above msl). A new, shorter pipeline would be constructed to deliver reclaimed water to the Ortega Reservoir. Due to the shorter transmission pipeline (reduced from 50,000 feet to 31,000 feet), head losses would be reduced from 220 feet to 100 feet.

The Project proposes both interim and ultimate improvements for the transmission of water to the Ortega Reservoir. Ultimately, a 30-inch diameter non-domestic water line, which would convey water to and from Ortega Reservoir, would be constructed within the proposed Cow Camp Road. Other pipelines would also be installed as part of the Ranch Plan project to distribute non-domestic water from the CWRP and the Reservoir through new 30- and 36-inch pipelines. However, it is assumed that the Reservoir would be operational prior to the development of Cow Camp Road; therefore, an interim delivery system is proposed as part of this project to convey water to and from the Ortega Reservoir.

Two pipeline alignments have been identified and evaluated. The interim pipeline will be sized at a 16-inch diameter to match the SMWD's existing 16-inch diameter non-domestic water pipeline. Both options would extend approximately 15,000 feet and would connect to the existing 16-inch pipeline near Cristianitos Road. Pipeline Alignment A trends north of the heaviest concentration of businesses in the area and is furthest from San Juan Creek. It is entirely located in unimproved and ranch roadways. Pipeline Alignment B goes through the area of heaviest business occupancy; its alignment has approximately 4,500 feet of pipeline installed in paved roads, although these roads are not standard paved roads. This alignment is often very close to the 100-year floodplain, but furthest from the planned development. An advantage is that this alignment could be unaffected by the planned development and could remain permanently to serve Talega's ultimate demand flow. Both pipeline alignment options follow a common alignment from the edge of agricultural fields approximately 1.3 miles east of Cristianitos Road. The pipelines would cross under San Juan Creek; would extend along the perimeter of the RJO Horse Ranch and the Tree of Life Nursery; would cross under Ortega Highway; and would extend up Verdugo Canyon to the Reservoir site. There are two possible crossovers identified between the Pipeline A and B alignments that can be utilized if, for some reason, it is not feasible to construct continuously in either Pipeline A or B alignments. The incorporation of one cross-over could add 500 to 1,000 feet to the overall pipeline length. Please see the Exhibits included in Att3_SWF_WorkPlan_2 of 2 for more information.

Once the water is delivered to the Ortega Reservoir, a new pump station would be required to pump water from the Ortega Reservoir 580 zone to the Talega Reservoir 714 zone. This would require pumping water through approximately 2,500 feet of 36-inch pipe; 16,000 feet of 16-inch pipe; another 25,000 feet of 16-inch pipe; and 3,500 feet of 12-inch pipe. The new pump station is proposed adjacent to the Ortega sewer lift station at 31653 Ortega Highway within a 45-foot by 40-foot building containing the pump room, an electrical/control room, a utility meter room, an air compressor room, and a utility/restroom. A new 15,000-foot pipeline is proposed to convey water from the existing 16-inch pipe to the proposed Ortega Reservoir and from the Reservoir back to the distribution pipeline.

Project Parameters – Water Quality

The Ortega Reservoir is proposed to operate at a full pool elevation of 580 feet and, as previously discussed, is expected to store approximately 5,300 af of reclaimed water. During the summer months (from April through September), approximately 5 mgd (2,977 af) of water would be withdrawn, which would reduce the surface elevation from 580 feet at the beginning of the summer months to 540 feet at the end of summer. During the winter months (October through March), approximately 7 mgd (4,077 af) of water will be added to the Reservoir, which would raise the surface elevation from 540 feet in the beginning of the winter months to 580 feet at the end of winter. This refill water would be supplied from the Chiquita Water Reclamation Plant, urban runoff, and surplus potable water. In sum, the typical operating range will hold 2,900 af of storage (with a capacity in later years of 4,900 af). Additionally, there would be a surplus of approximately 2 mgd between anticipated summer withdrawal and winter storage; this would total approximately 848 af in surplus non-domestic water. During initial fill of the Reservoir, this surplus would be required to accommodate loading. **During subsequent operational years, the surplus may be sold to other water districts.**

Additionally, approximately ten (10) years following Project completion, excess capacity (up to the 5,300 AF maximum) can be used to serve reclaimed water to additional communities where SMWD has never had the ability previously, e.g. City of Rancho Santa Margarita (in SMWD's Sphere of Influence). This available capacity has been discounted appropriately to reflect the associated future benefits of the additional 2,000 af of capacity. This reclaimed water can be used to serve future development, existing development, golf courses, growing cities in one of the State's fastest growing regions, and unincorporated communities in the County.

The Ortega Reservoir may be subject to a variety of water quality issues. These issues may include sedimentation; high levels of salinity and total dissolved solids ("TDS"); degradation of dissolved oxygen concentrations; and fecal coliform bacteria. All of these issues may impact water quality and odor. Additionally, the presence of chlorophyll and suspended particles has the potential to reduce the water's clarity or turbidity.

However, in order to address these potential water quality and odor issues, several systems are proposed.

- ✓ A regular Reservoir water quality monitoring program would be implemented to determine if bacteria levels exceed the limits for non-potable water supplies. In the event that elevated bacteria concentrations are observed and exceed the limits for non-potable water supplies, hydrogen peroxide would be added at the discharge. In addition to working as a disinfectant, the installation of a hydrogen peroxide injection system on the Reservoir outlet would also treat potential smell and appearance issues.
- ✓ Water quality monitoring shall be performed monthly when the Reservoir is not stratified and shall be performed weekly during the periods when the Reservoir is thermally stratified. Once the Reservoir is operational, storm water related sediment shall be controlled using on-site sediment traps or biofiltration systems.
- ✓ In order to prevent the accumulation of salts, water in the Reservoir would be periodically discharged and followed by replenishment water with lower TDS concentrations. This would be accomplished through normal seasonal withdrawals and replenishment discussed previously. Additionally, approximately 400 af would be needed to replace water loss from evaporation and 450 af would be needed to annually circulate through the Reservoir for salinity control once the Reservoir is full.

- ✓ The presence of excessive algae populations and increases in TDS are two main issues of concern with daily Reservoir operations. Increased water temperature and excess nutrient cycling influences that concentration of algae in a Reservoir. As the algae ultimately die back and sedimentation occurs, a decline in dissolved oxygen occurs. This natural phenomenon can result in odors and complaints from surrounding communities. Similarly, if water does not circulate and does not volumetrically turn over by use, a Reservoir can experience an increase in TDS, resulting in negative interactions with the soils and plant material. Additionally, low dissolved oxygen levels in the Reservoir have the potential to create odors from gases released from anaerobic sediments. Risks of low dissolved oxygen levels are greatest in the summer months when water temperatures and biological activity are highest. In order to address these issues, a deep water aeration/oxygenation system is proposed, using on-site oxygen generation and dispersion through a speece cone or direct injection. This system would be located near the intake structure and would allow for direct injection at different locations within the Reservoir as needed.

Project Parameters – Construction Staging

Project staging would involve a sequencing of construction activities to minimize disturbance to the local residences and environment. The first stage would involve development and construction of the relocated Ranch Road in order to facilitate access by the local residences further up the valley and to provide access for the construction staff and equipment for later construction. The second stage would involve clearing the Reservoir and dam footprint of all trees and brush to provide access and to facilitate earthmoving. The third stage would be to place sediment and prevent materials from moving into the downstream areas. The fourth stage of construction would involve beginning embankment dam construction. The dam construction would begin by excavating all of the alluvium beneath the footprint of the dam and stockpiling the alluvium upstream in the north arm of the Reservoir. The laydown areas just downstream of the proposed dam would be leveled and prepared for stockpiling with processed materials and temporary construction facilities. The fifth stage would be to excavate the dam foundation into the rock for both the core and shell zones. The cut-off trench would be excavated and backfilled with plastic concrete and the embankment fill construction would begin. The core materials would be obtained from the stockpiled alluvium, and the shell materials would come from the upstream rock borrow areas.

Project Parameters – Earth Disturbance

As discussed previously, the total cut – which includes excavation for the main dam, the saddle dam, the spillway and stilling structure, the inlet/outlet structure, the inlet/outlet pipeline, the emergency Reservoir drain, the Reservoir grading, the Ranch Access Road, and the Saddle Dam Access Road – would total approximately 2.1 mcy. Although some fill would be imported, the cut nearly balances with the fill total. The required alluvium excavation is 322,500 cy, and the required core material quantity is 210,800 cy. Normally 150 percent of the required embankment fill is desirable for safe quantity availability; therefore, the volume of excavated alluvium would be appropriate since excavation of the alluvium would be required for stability of the dam. The major quantity required for the main dam would be the shell material, which would require 1,356,300 cy of rock and granular materials. This material would be obtained immediately upstream of the main dam and would be excavated and moved to the embankment. Further, using this location for the main dam shell borrow would enhance the shape of the Reservoir by minimizing the narrow reaches of the Reservoir and eliminating dead zones where water circulation would be difficult. The filter and drain material would require 37,700 cy of hard rock processed materials, which would be imported from local processing

facilities. Depending on the quality of the deeper rock excavated in the upstream borrow area, the upstream slope protection riprap quantity of 34,600 cy may also have to be imported; further investigation would be required to determine the adequacy of the deeper rock formations. Thus, the local required excavations will be economically utilized and borrow areas will be located to develop the most cost-effective Project.

Project List

The table below provides detail on the proposed Project, including the name, an abstract, current status and implementing agency.

Proposed Project	Implementing Agency	Project Abstract	Status of Implementation / Percent Completion of Design
Ortega Reservoir Project	Santa Margarita Water District	<p>The Project is to construct a 5,300 acre-foot recycled water storage reservoir which will provide seasonal storage for the SMWD existing and proposed recycled water system within the southerly portion of the District. The Project is proposed to provide seasonal storage for SMWD’s existing and proposed recycled water system within the southerly portion of the SMWD service area in Orange County. Importantly, the Project will also efficiently divert flood and drainage waters and pump them into the Reservoir. The Project would also involve a 156-foot-high main dam, proposed west of the Reservoir, and a saddle dam, proposed to the north. Both would be zonal earthfill dams, and materials for the dams will come from the Project site. The Project will also receive tertiary treated sewage water acceptable for landscape irrigation. As such, the Project will be providing flood control and water supply benefits to the region. Water supplies will be provided by expansion of the Chiquita Water Reclamation Plant (“CWRP”) and may be supplemented by other potential non-domestic water supply sources. The proposed Project also includes the water supply facilities required to provide recycled water from the CWRP to the Reservoir. These facilities include a pump station at the CWRP and transmission main from the CWRP to the Reservoir.</p>	<ul style="list-style-type: none"> - The Reservoir Project is currently included as a “covered activity” in the Southern Subregion Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan (NCCP/MSAA/HCP) and Joint Environmental Impact Report/ Environmental Impact Statement (EIR/EIS).which were approved in late 2006. -CEQA filed November 8, 2004 as part of programmatic Ranch Plan EIR (#589) approved by the County of Orange. -The USFWS distributed the Final EIS for public review on November 13, 2006. The Implementation Agreement (IA) was signed by the Participating Landowners (i.e., the County, RMV, and SMWD) in December 2006. The USFWS issued a Record of Decision, signed the IA, and approved the Southern HCP on January 10, 2007 (1-6-07-F-812.8). - Concept design has been conditionally approved by the County, July 2012. - If additional funding is secured, design could be completed within 9 months and construction within 12 to 18 months.

Integrated Elements of Projects

The South Orange County WMA considered the Project for its multiple benefits, diversity of participants, regional impact, and synergies or linkages to other projects. The Project contains multiple elements, which result in tremendous added value for the WMA.

The proposed Project demonstrates an integrated project implementation approach, which provides greater value as a regional planning tool and offers greater advantages than individual efforts due to its ability to create project linkages, incorporate multiple strategies, and leverage agency resources. Notably, the Project is included in the greater Rancho Mission Viejo Plan ("Ranch Plan") as a key component to water quality protection and habitat preservation.

The Ranch Plan

The Project is included in and supported by the Ranch Plan, which is a comprehensive community plan for Rancho Mission Viejo ("RMV"). Beginning in 1991, detailed scientific studies have been conducted in partnership with state and federal wildlife agencies and shaped by public input for the Ranch Plan. RMV created a balanced plan for the remaining 23,000 acres based on these studies.

RMV's comprehensive approach to open space preservation and land use planning is founded on more than 13 years of scientific data collected via two fundamental processes: NCCP/HCP and SAMP/MSA.

NCCP/HCP

In 1991, RMV entered into a process with the U.S. Fish and Wildlife Service, California Department of Fish and Game and the County of Orange to study and inventory ranch land containing native habitat of threatened and endangered species. Today this scientific study is known as the Southern Subregion Natural Communities Conservation Plan/Habitat Conservation Plan ("NCCP/HCP").

SAMP/MSAA

In 1999, the scope of biological study on the Ranch was expanded to include a U.S. Army Corps of Engineers' program to preserve and enhance wetlands, manage water runoff, and protect the water quality in the San Juan Creek and San Mateo Creek watersheds. Today, this watershed study is known as the Special Area Management Plan/Master Streambed Alteration Agreement ("SAMP/MSAA").

Both study programs serve as logical, science-based environmental blueprints for establishing the Ranch Plan as the best framework for protecting sensitive habitat by preserving and managing RMV's ranch and lease lands.

In August 2005, a settlement regarding the Ranch Plan was reached with five conservation organizations to increase the protected open space and habitat from 66 percent to almost 75 percent, decrease development area on the Ranch by 25 percent, help ensure the protection of key watersheds, and retain the family's cattle ranching and farming operations. In 2007, the U.S. Fish & Wildlife Service added the Ranch's open space to its 32,818-acre Habitat Conservation Plan.

The SDRWQCB, USFWS, ACOE, and RMV have described the baseline biology, geomorphology and hydrology, and water quality in FEIR 584 and 589, the Final Environmental Impact Statement for the Habitat Conservation Plan (“HCP”) and the Final Environmental Impact Report of the Special Area Management Plan (“SAMP”). Through implementation of adaptive management, the Ranch Plan seeks to maintain the net habitat values of RMV and the larger ecosystem. There are three inter-related plans/programs that form the core of the Adaptive Management Plan for the Ranch Plan: 1) The Habitat Reserve Monitoring and Management Program (“HRMP”), 2) The Stream Monitoring Plan, and 3) the Water Quality Management Plan (“WQMP”). The Ortega Reservoir Project links to this Adaptive Management System.

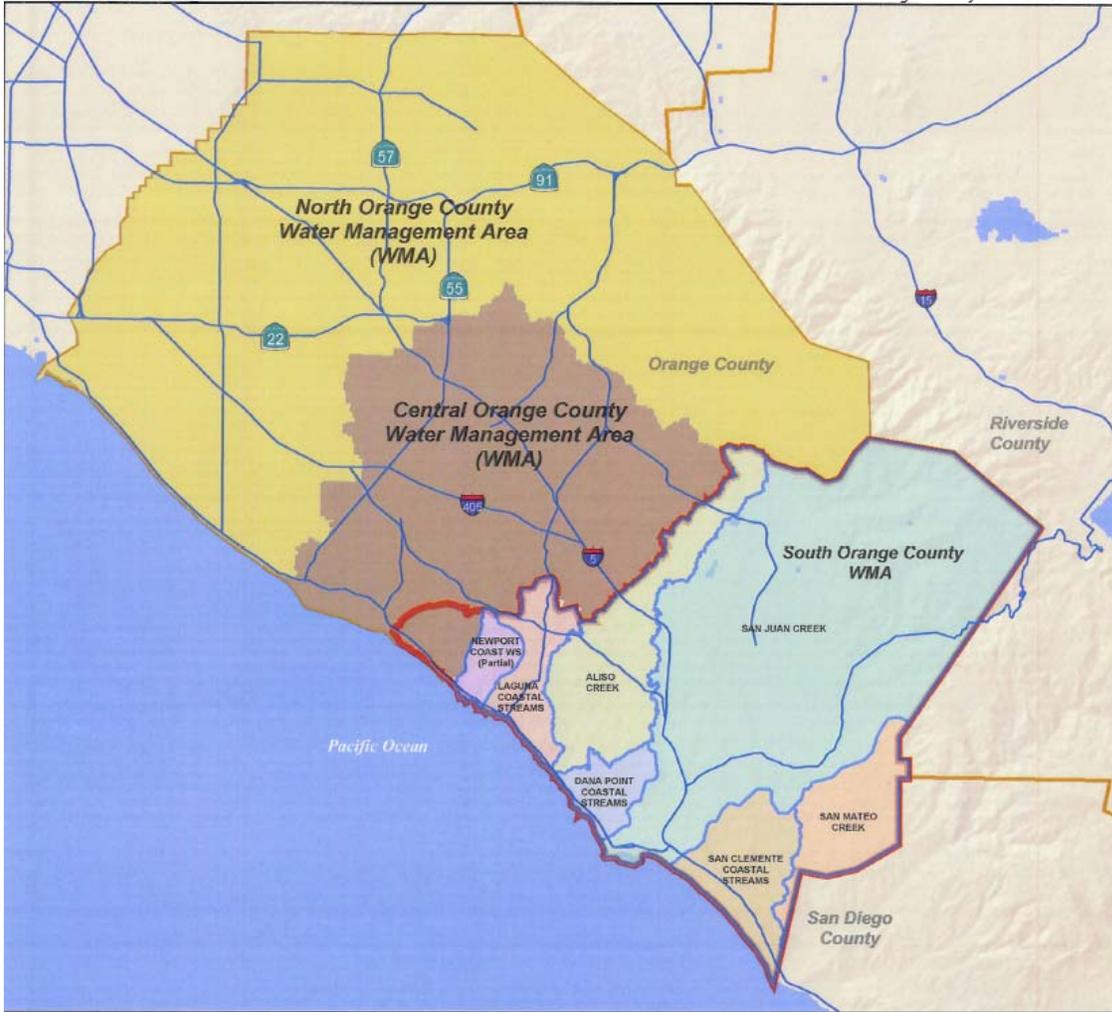
The HRMP will monitor and manage biological resources within the Ranch Plan area, including the Project. Annual compliance and effectiveness reports are currently written and provided to USFWS, ACOE and CDFG. The Stream Monitoring Plan will monitor and manage erosion and stream stability of major tributaries with the Ranch Plan including the Project, as described in the San Juan Creek Watershed Stream Monitoring Program, prepared by PACE, dated March 2008.

The Project requires coordination among Santa Margarita Water District, the County of Orange, Orange County Parks, RMV, the San Juan Basin Authority, USFWS, ACOE, and CDFG. Tremendous added value is realized from this collaborative and coordinated effort in the implementation of the combined Project, where one implementing agency could not accomplish all the Project components.

Regional Maps

Regional Maps are included in Figures 1, 3, and 4 and additional maps are included in the following Attachment:

- Att3_SWF_WorkPlan_2 of 2 – Maps from the Ortega Reservoir Preliminary Design Report, prepared by PACE, under contract for SMWD and RMV.



Legend

WATERSHED MANAGEMENT AREAS

- CENTRAL
- NORTH
- South OC WMA-Boundary
- County Boundaries

WATERSHED

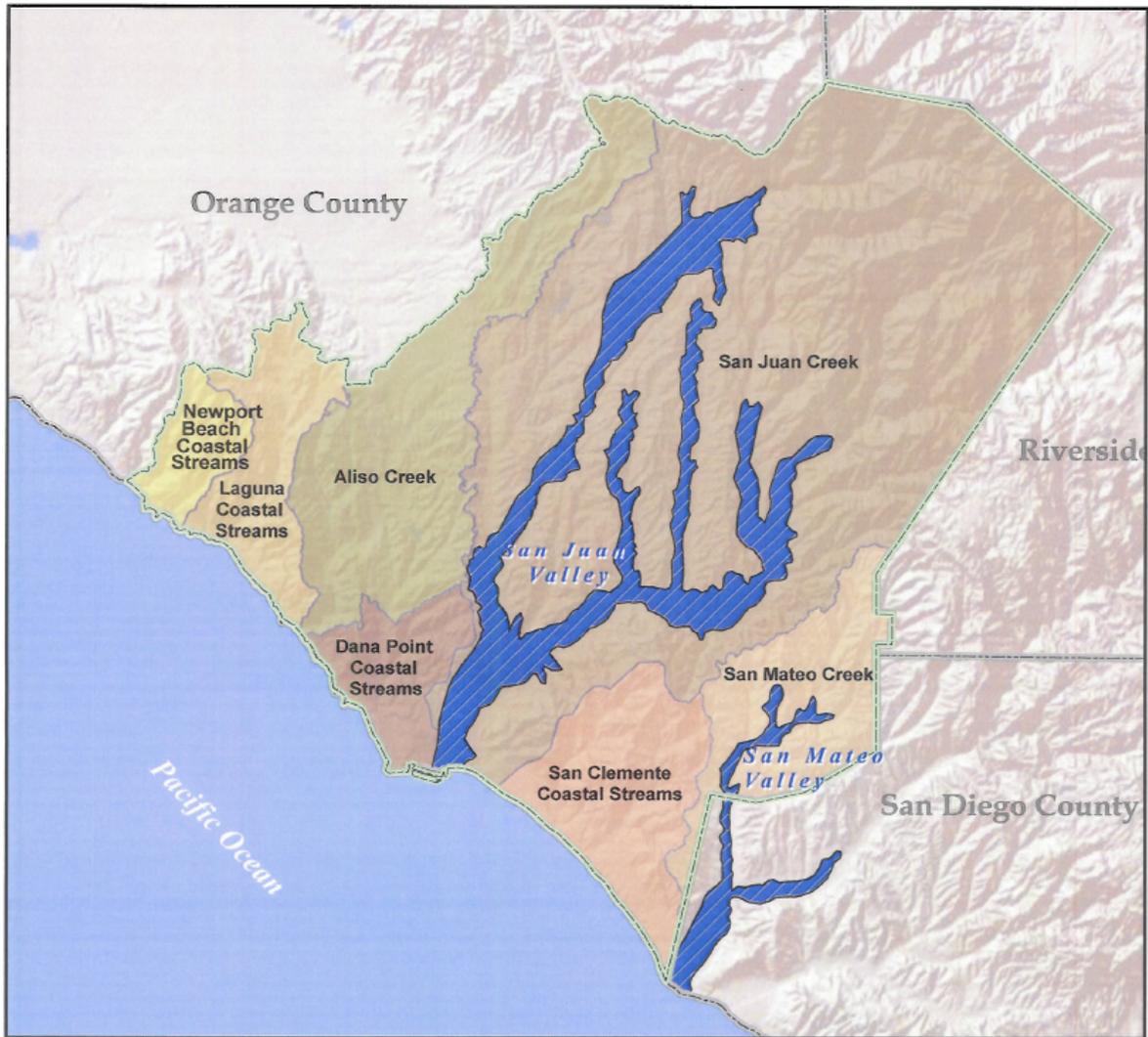
- Aliso Creek
- Laguna Canyon Channel
- Los Trancos/Muddy Creek
- Prima Deshecha/Secunda Deshecha
- Salt Creek
- San Juan Creek
- San Mateo Creek



South Orange County
 Integrated Regional Watershed
 Management Program

**Regional Map
 Watershed
 Management
 Areas and Watersheds
 Figure 1**



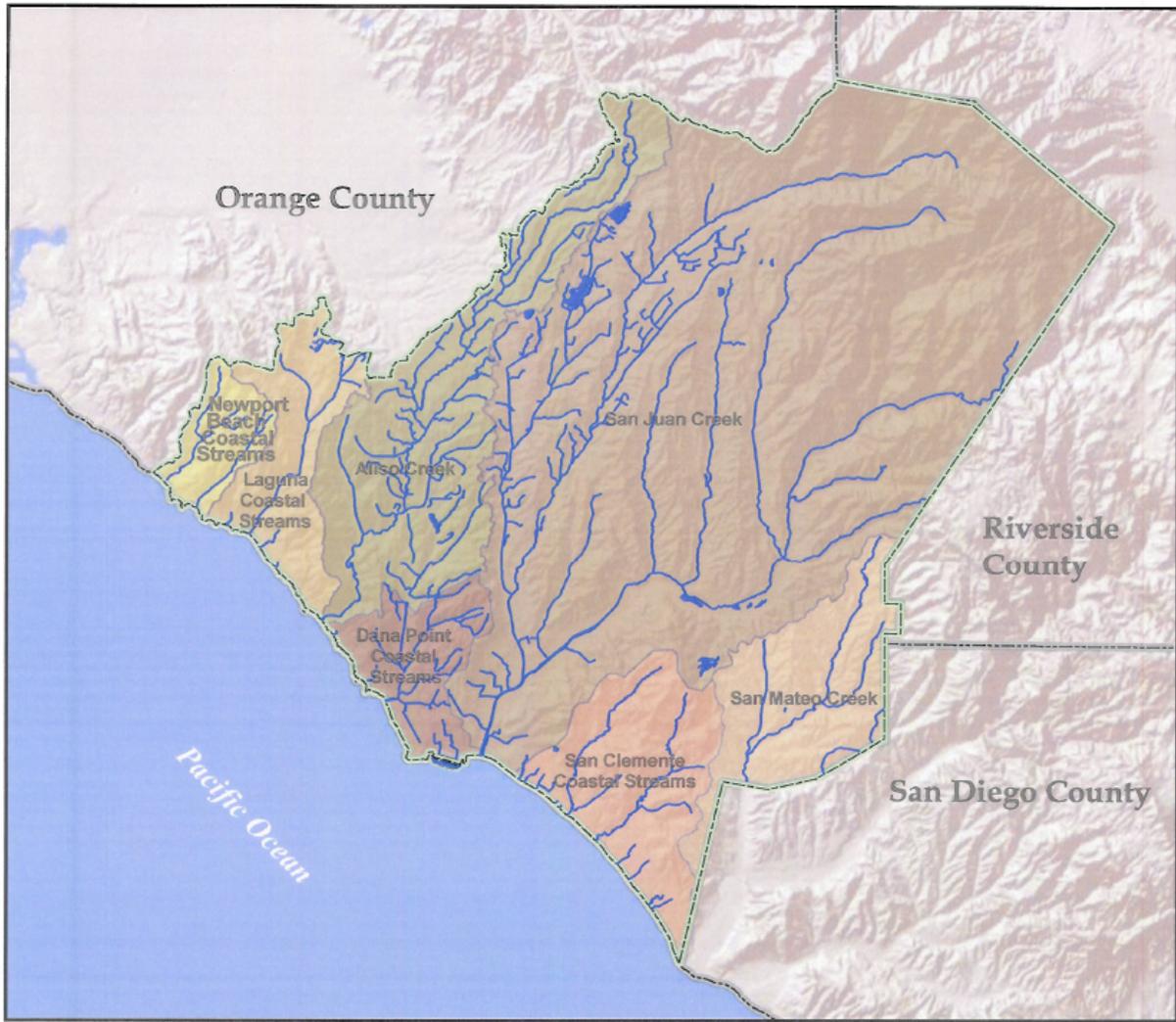


South Orange County
 Integrated Regional Watershed
 Management Program

Regional Map Groundwater Basins

Figure 3





Legend

	County boundary		Watersheds
	South OC WMA Boundary		Aliso Creek
	Surface Water Body		Dana Point Coastal Streams
			Laguna Coastal Streams
			Newport Beach Coastal Streams
			San Clemente Coastal Streams
			San Juan Creek
			San Mateo Creek



South Orange County
 Integrated Regional Watershed
 Management Program

**Regional Map
 Surface Water Bodies
 Figure 4**



EXISTING DOCUMENTS AND COMPLETED WORK**Project Work Completed/Expected to be Complete Before August 1, 2013**

Out of the Tasks Listed under the subsequent Section, Work Plan of Remaining Tasks for Completion, the following work has been completed or is expected to be completed before the grant award date on August 1, 2013.

- **Task 6: The Preliminary Design Report (“PDR”):** The PDR for the project was previously completed. The PDR finalizes the design concept, preliminary geotechnical work, and an updated cost estimate for the project.

Existing Data and Studies/Scientific and Technical Merit

Numerous studies have been conducted for the Ortega Reservoir including regional hydrology, geotechnical studies, field topography, and preliminary engineering design report. The following lists reports, studies, and planning documents relevant to the Project:

1. Runoff Management Plan (“ROMP”) for San Juan Creek Watershed, prepared by PACE, to be approved Summer 2013.
2. Updated Rancho Mission Viejo Runoff Management Plan – Planning Level Regional Detention Basin Strategy – 100-year Urbanized Peak Flow-rate Attenuation Analysis, prepared by PACE, under contract for RMV, dated June 2009.
3. Watershed Hydrology Analysis, Impacts Analysis, and Planning Level Mitigation Study, prepared by PACE, under contract for RMV, dated April 2009.
4. San Juan Creek Watershed Stream Monitoring Program, prepared by PACE, dated March 2008.
5. Implementation Agreement for the Southern Orange County Subregion Natural Community Conservation Plan / Master Streambed Alternation Agreement / Habitat Conservation Plan, Dan Ferons of SMWD, Staff Report January 23, 2006.
6. Special Area Management Plan Environmental Impact Statement (SAMP EIS), U.S. Army Corps of Engineers, November 2005.
7. Final Environmental Impact Report No. 589, General Plan Amendment/Zone Change, The Ranch Plan, approved by County of Orange November 8, 2004.
8. Start at the Source, Design Guidance Manual for Stormwater Quality Protection, Bay Area Stormwater Management Agencies, 1999 Edition.

The following describes the relevance of the items in the list above:

Canada Gobernadora is a sub-basin (Basin Number 1.24) within the San Juan Creek Watershed (Watershed), which is located in the San Diego Regional Water Quality Control Board (“SDRWQCB”) jurisdiction. The upper portion of Canada Gobernadora sub-basin has been developed since the late 1960’s as the community of Coto de Caza, a private community with over 5,000 dwelling units and two golf courses, which is being provided water service by SMWD. The highly developed upper watershed is 29.84% impervious per Table 4.1.1-2 San Juan Creek Watershed Physical Characteristics from the Special Area Management Plan Environmental Impact Statement (SAMP EIS). Start at the Source, Design Guidance Manual for Stormwater Quality Protection, Bay Area Stormwater Management Agencies, 1999 Edition, notes:

“...significant water quality impacts begin at impervious land cover levels as little as 10%. At impervious land cover over 30%, impacts on streams and wetlands become more severe, and degradation is almost unavoidable without special measures.”

Much of the region was developed prior to the current water quality regulations and the stormwater management design used the conveyance approach; therefore, no onsite detention, retention, or water quality treatment facilities are located within many communities. Urban runoff and storm flows from development have resulted in downstream erosion and sedimentation, excessive surface and groundwater originating upstream, and degraded water quality. Additionally, SMWD has experienced damage to existing pipeline right-of ways within the lower sub-basin.

The Project is included in the proposed Southern Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan being prepared by the County of Orange in cooperation with the California Department of Fish and Game and the U.S. Fish and Wildlife Service.

In 2008, a San Juan Creek Watershed Stream Monitoring Program was prepared by PACE to document the ongoing monitoring for THE RANCH PLAN development and assess changes or responses in the stream system to development. Additionally, a Watershed Hydrology Analysis, Impacts, Analysis, and Planning Level Mitigation Study and Updated Rancho Mission Viejo Runoff Management Plan – Planning Level Detention Basin Strategy – 100-Year Urbanized Peak Flow-rate Attenuation Analysis were completed in 2009 to ensure adequate flood management for the watershed.

The rain storms of 2010 warranted completion of the December 2010 Storm Damage Assessment for Crossing at Gobernadora Creek and San Juan Creek Preliminary Mitigation Measures in January 11, 2011. The proposed Project will serve as a mitigation measure for future storms.

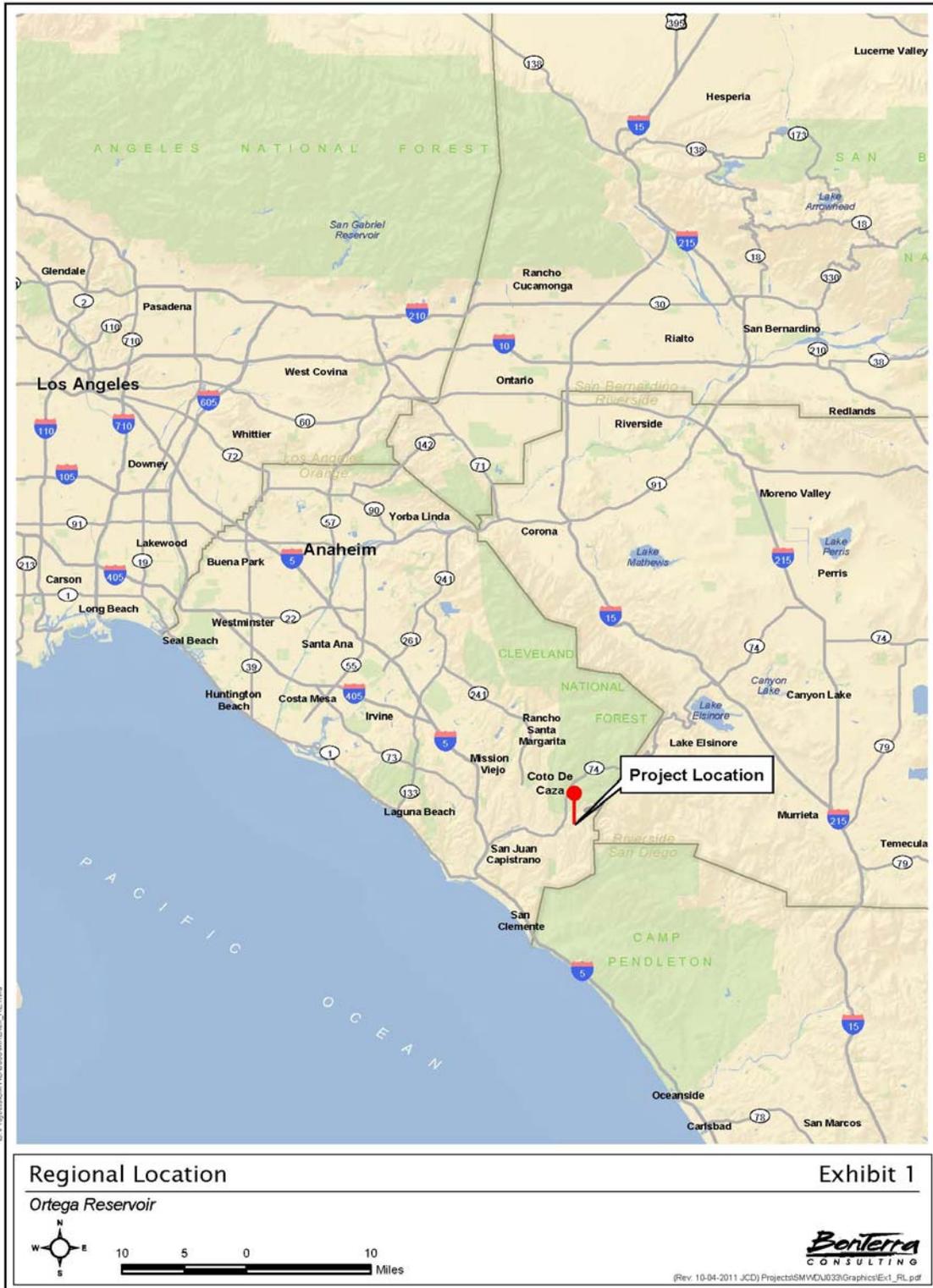
Although the Project is included in the Ranch Plan Final EIR, supplemental documentation in the form of a Mitigated Negative Declaration is scheduled for approval by the SMWD board May 2013.

Project Map

Project Maps are included in Figures 5 and 6 below.

Additional information is available in Att3_SWF_WorkPlan_2 of 2.

Figures 5 & 6 – Project Site Maps





Project Specifics

The Project is not part of the State Plan of Flood Control (“SPFC”). The SPFC Planning Area, defined as the geographic area that includes the lands currently receiving protection from the SPFC, encompasses the watershed areas of the two major river systems of the Central Valley – the Sacramento and the San Joaquin rivers with a combined drainage area of more than 45,000 square miles. The Ortega Reservoir Project is located within the South Orange County Watershed Management Area, which is in the County of Orange in Southern California (refer to Figures 1, 3, 4, 5, and 6).

Project Timing and Phasing

The Project is a standalone project and is not part of a multi-phased project complex. Costs were used for environmental work to date, which are nearly completed. Costs are described in Attachment 4 and timing is described in Attachment 5 for the following Tasks:

WORK PLAN TASKS**TASKS**

SMWD proposes to construct the Ortega Reservoir (“Project”). The Project will be utilized for:

- Storm water diversion to protect downstream wetlands and riparian habitat from further erosion and deposition damage.
- A collection system to capture and harvest drainage flows for recycled water use in the Chiquita Water Reclamation Plant and elsewhere.
- Receipt of tertiary treated sewage water acceptable for landscape irrigation.

The following lists the Work Plan Tasks

Budget Category (a): Direct Project Administration Costs**Task 1: Project Administration by SMWD**

This task includes the following:

- SMWD will serve as the Project lead to administer the Grant contract with the Department of Water Resources (“DWR”).
- SMWD will serve as the project manager responsible for implementation of the Ortega Reservoir contract elements and coordination with the partner agencies, including development and execution of grant and administration agreements, administration and work to be performed.
- Project Administration by SMWD includes preparation of staff reports to the Board of Directors, issuance of purchase orders, review of invoices and progress payments, and Project close out documentation.

Deliverables: Preparation of invoices to funding agencies and other deliverables as required.

Task 2: Labor Compliance Program

This task includes developing a Labor Compliance Program.

- SMWD will work with a Labor Compliance Consultant to develop a Labor Compliance Program.

Deliverables include: Labor Compliance Program.

Task 3: Reporting

This task includes quarterly and final progress reporting:

- SMWD will prepare quarterly progress reports for submittal to the DWR Project representative per the grant agreement. The progress report will describe activities undertaken and accomplishments of each task during the quarter.
- SMWD will prepare a draft and final report that summarizes Project accomplishments and submit to DWR.

Deliverables: Quarterly Reports and Final Report.

Budget Category (b): Land Purchase/Easement**Task 4: Property Dedication and Implementation Agreement**

This task includes land acquisition coordination with County of Orange, RMV, and SMWD regarding the Implementation Agreement.

- The Implementation Agreement will designate the responsibilities of the Stakeholders concerning construction of the Project, clarify corresponding Stakeholder funding, identify construction phasing that may occur, and determine administration responsibilities for construction, operations, and maintenance, per the provisions of a pending MOU or as superseded by the Implementation Agreement.

Deliverable: Executed Implementation Agreement.

Budget Category (c) Planning/Design Engineering/Environmental Documentation**Task 5: Assessment and Evaluation**

This task includes Project Assessment and Evaluation, including data management and monitoring and is consistent with the Monitoring Plan proposed in **Att6_SWF_Measures 1 of 1**. The following monitoring and performance measures will be implemented:

- The existing San Juan Creek Stream Monitoring Plan (“SMP”) summarizes how the Project performance will be assessed on stabilizing the downstream creek system. Attachment 6 identifies performance measures and indicators that will track Project progress and link progress with the desired outcomes which are consistent with the monitoring requirements identified in the Ranch Plan EIR and

County of Orange Mitigation Monitoring and Reporting Program. The program will focus on runoff flow, groundwater, and stream stability.

- Prepare a Quality Assurance Project Plan (“QAPP”) that reflects the monitoring and data reporting requirements outlined in the existing Ranch Plan EIR and County of Orange Mitigation Monitoring and Reporting Program (such as the “San Juan Creek Stream Monitoring Plan” (PACE 2006).
- Implement a monitoring plan consistent with the existing Ranch Plan EIR and County of Orange Mitigation Monitoring and Reporting Program, which will include a description of the monitoring objectives, types of assessments and specific observations to be monitored, and the frequency and schedule for the monitoring activities.
- Water Meter and Groundwater monitoring wells, within the Ortega Reservoir, operated by SMWD

Performance measures include monitoring of captured dry season flows and groundwater levels, photo/field verification. Monitoring plans will include flow measurement and recording. Measurable targets for flow capture include 2000+ acre-feet per year of captured flows and reduction in peak storm flows for 100 year events at the Ortega Reservoir.

Deliverables: Monitoring Plan, SMP/PAEP, QAPP and other data management and monitoring deliverables as required.

Task 6: Preliminary Design Report

This task includes finalization of a Preliminary Design Report.

The Preliminary Design Report (“PDR”) was completed in June 2006. The PDR finalizes the design concept and preliminary geotechnical work, and includes the following:

- Development of baseline hydrology
- Site specific geotechnical investigation
- Field topographic survey
- Development of groundwater profiles and design constraints for flood storage
- Review historical daily dry weather inflows
- Flood plain mapping
- Sediment transport and stream stability
- Development of alternatives

Deliverable: Preliminary Design Report.

Task 7: Operation and Management Plan

SMWD will maintain all portions of the Project.

A planning level Operations and Maintenance (O&M) Manual will be prepared by the design engineer and approved by SMWD.

Deliverable: Operations and Management Plan.

Task 8: Final Design

This task includes Final Design efforts:

Final design will be based on the concept in the Preliminary Design Report and the existing data and studies noted under "Existing Data and Studies/Scientific and Technical Merit." Final Design will be prepared in phases for the construction. Design will meet SMWD Design Criteria and all applicable standards including American Water Works Association ("AWWA"), Standard Plans for Public Works Construction, County of Orange, and the State of California.

- Solicit proposals from reputable design and geotechnical firms per SMWD's policies for contracting for professional services. SMWD will provide project management directly.
- Complete Final design plans and specifications for the Ortega Reservoir which includes the phases of work identified above.
- Construction Management and Inspection shall be provided by SMWD; geotechnical inspection services shall be provided by a geotechnical engineer.

Deliverable: Engineering Services Contract, Final Design Plans, and Specifications at the 90 percent and final levels.

Task 9: Environmental Documentation

This task identifies environmental documentation and permitting status for the Project:

- Draft Mitigated Negative Declaration prepared by SMWD. Santa Margarita Water District finds that the Project will not have a significant adverse effect on the environment based on the results of the Initial Study Environmental Checklist and Discussion of Environmental Impacts. Some potentially significant effects have been identified and mitigation measures have been incorporated into the Project to ensure that these effects remain at less than significant levels. An MND is therefore proposed to satisfy the requirements of CEQA (PRC 210000 et seq. 14 Cal. Code Regs 15000 et seq.). Status: Scheduled for approval by SMWD Board May 2013.

The following references are relevant to CEQA/NEPA completion:

- The Ranch Plan Program EIR No. 589, County of Orange 2004, SCH No. 2003021141 (GPA/ZC FEIR 589) was certified November 8, 2004. The programmatic FEIR included the Ortega Reservoir Project. Status: Complete.
- National Environmental Policy Act ("NEPA") Environmental Impact Statement for Southern Subregion Habitat Conservation Plan (SSHCP EIS) issued by the U.S. Fish and Wildlife Service ("USFWS") on January 10, 2007. Project is included in this document. Status: Complete.
- Environmental Impact Statement for Special Area Management Plan (SAMP EIS) issued by the U.S. Army Corps of Engineers (ACOE) on March 16, 2007. Project is included in this document.

Status: Complete.

- Project included in the Southern Natural Community Conservation Plan (NCCP)/Master Streambed Alteration Agreement/Habitat Conservation Plan prepared by the County of Orange in cooperation with the California Department of Fish and Game and the U.S. Fish and Wildlife Service. Status: released July 2006.

Deliverables: Approved and adopted CEQA documentation.

Task 10: Permitting

This task includes permitting for the Project:

The following identifies the status of permits for the Project:

- Building and Grading Permits necessary for Construction will be obtained by SMWD. Status: Pending.
- Regulatory permits necessary for Operations and Maintenance activities will be obtained by RMV (subject to appropriate review, comment, and approval by the County prior to agency issuance) for use by the County and SMWD. Status: Pending.

Deliverables: Section 10 (a) Incidental Take Permit from USFWS, Long Term Individual 404 Permit from the ACOE, MSAA, Building and Grading Permits, O&M Permits, and 401 certification application.

Budget Category (d): Construction/Implementation

Task 11: Construction Contracting

This task includes items related to construction contracting:

Construction is proposed to occur in one phase with each phase being publicly bid based on the approved plans and specifications in accordance with SWMD policies and procedures.

The Construction Contracting portion of the Project includes the following:

- Preparation of the Bid Forms, Contract, Insurance, and Bond Forms
- Ensure fair and proper bidding advertisements
- Conduct pre-construction conferences and contractor site visits
- Review Design Engineer submissions
- Evaluate all timely submitted bids and subsequently, award the contract
- Award and finalize construction contract following established SMWD contracting procedures

Deliverables: Advertisement for bids; pre-bid contractors meeting; evaluation of bids, award contract.

Task 12: Construction

This task includes construction of Project components:

The Project will comply with required design and construction standards and health and safety standards established by AWWA, Public Works Construction, County of Orange, and the State of California.

Subtask 12.1 Mobilization and Site Preparation

Mobilization and Site Preparation includes the following:

- Procure contractor bonds and insurances
- Mobilization of temporary facilities at the Project site
- Provide pollution prevention and erosion control at the Project site
- Implementation of safety requirements
- Provide necessary onsite surveys
- Work with Southern California Edison to establish electrical power for the site

Subtask 12.2 Construction

Flood control and sediment control facilities, water quality improvement facilities, and non-potable water reclamation facilities are proposed for construction as part of the Project.

Subtask 12.3 Performance Testing and Demobilization

This task includes Performance Testing and Demobilization:

Perform the necessary testing of the operational equipment, and site demobilization. Includes the removal of all temporary facilities at the Project site.

Deliverables: As-builts/Record Drawing, O&M Manuals, Final Site Survey/Map.

Budget Category (e): Environmental Compliance/Mitigation/Enhancement**Task 13: Environmental Compliance/Mitigation/Enhancement**

This task includes Environmental Mitigation Measures as determined for the Project:

- Mitigation Measures per Mitigated Negative Declaration shall be implemented as part of the Project.

Deliverable: Required Mitigated Measures Documentation.

Budget Category (f): Construction Administration**Task 14: Construction Administration**

This task includes Construction Administration:

- Construction Management

- Site Inspection Services
- Engineering submittals, including the review and processing of RFI's
- Generate an Operations and Start-up Plan for the facility
- Geotechnical Testing and Inspections shall be provided by a Third-Party consulting Geo-Technical Engineer, as necessary

Deliverables: Operations and Start-up Plan, and other documents as required.