ATTACHMENT 7
TECHNICAL JUSTIFICATION

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.

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 Rancho Mission Viejo, LLC ("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, Santa Margarita Water District ("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 Chiquita Water Reclamation Plant and elsewhere).
3. Sewage and Flood Management ("SF"): The proposed 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 RMV property, which has been subject to extensive, multiple-agency planning and permitting efforts. Three 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/MSAA/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 the planning efforts.

Technical Justification – 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. This storage capacity would provide the minimum required seasonal storage (estimated at approximately 2,900 af) with additional capacity for other purposes. The typical operating range would be from 540 to 580 feet above msl, where approximately 2,900 af (and later 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.

Technical Justification – 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.

Technical Justification – 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.

Technical Justification – 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.

Technical Justification – 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.

Technical Justification – 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.

Technical Justification – 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.

Economic Costs

The Ortega Reservoir Project's economic costs consist of costs contained in the Project Budget (Attachment 4), as well as annual administration, maintenance, and replacement costs. Maintenance and replacement costs are associated with removal of sediment accumulation, clearing, making adjustments or replacements to appurtenant measurement devices (as described in Attachment 6), and periodic inspections. Administration costs are associated with SMWD's management of annual maintenance and reporting realized benefits to DWR.

Additionally, although there are pumping costs associated with moving the recycled water from the Project to end users, these costs would also be incurred using water purchased from the State Water Project ("SWP").

Water valuation is based on the Tier 2 full service treated volumetric cost for 2013, which is the actual amount paid by SMWD to purchase SWP water for designated uses and irrigation purposes. *Exhibit incorporated into Attachment 8*.

Estimates of Without-Project Conditions; e.g. Current and Future Water Supplies and Demand

In the current condition, water shortages in region are creating the need to purchase water from the SWP. Additionally, groundwater is currently overdrawn, increasing the need for irrigation water.

Estimates of With-Project conditions; e.g. Improvements in New Water Supplies Made Available to Meet Demand

Project results in increased protection from 25-year to 100-year storm events by limiting stormwater flows and providing continuous access to critical utilities. It would also protect the local habitat from damage caused by erosion, preventing the disturbance and potential relocation of local wildlife.

In addition to stormwater containment, the Reservoir will be used for water recycling and harvesting of an additional 2,900-4,900 acre-feet per year (*see Table 7 herein*). With and without project conditions are based on discussions with the Project engineer, Orange County Flood Control, various Project proponents, and SMWD, as well as information contained in the attached Exhibits described below.

Description of the Distribution of Local, Regional, and Statewide Benefits

Benefits are primarily local in nature. However, any reduction in demand on SWP water will benefit water agencies throughout the State whose need for additional water exceeds that of SMWD.

Identification of Beneficiaries

Residents and businesses within the County of Orange, Southern California Edison users, SMWD water and sewer users, State and local emergency response agencies, and more generally, residents and businesses throughout California, the Metropolitan Water District, and all urban water suppliers intending to purchase SWP water in the future.

When the Benefits will be Received

The benefits will be realized as of the completion date of the Project, when the stormwater flows are captured by the Reservoir and associated dams, and then pumped to the local facilities for treatment and distribution.

Description of any Adverse Effects

There will be no adverse effects other than short term inconvenience to hikers and trail users and construction noise.

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:

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 the community. 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.

Table 7/14 is included in this document to quantify water supply costs and benefits for the Ortega Reservoir Project. Narratives supporting this information are provided in Attachment 8.

Table 7/14 - Annual Water Supply Benefits
Project: Ortega Reservoir
Type of Benefit Claimed: Reduced Importation of Water from State Water Project ("SWP")
Measure of Benefit: Acre-Feet

(a) Year	(b) Type of Benefit	(c) Measure of Benefit (Units)	(d) Without Project	(e) With Project	(f) Change Resulting from Project (e) – (d)	(g) Unit $ Value	(h) Annual $ Value (f) x (g)	(i) Discount Factor	(j) Discounted Benefits (h) x (i)
2012	Reduced Importation	Acre-Feet	0	0	0	$997	$0	1.000	$0
2013	Reduced Importation	Acre-Feet	0	0	0	$997	$0	0.943	$0
2014	Reduced Importation	Acre-Feet	0	848	848	$997	$845,456	0.890	$752,453
2015	Reduced Importation	Acre-Feet	0	848	848	$997	$845,456	0.840	$709,861
2016	Reduced Importation	Acre-Feet	0	2,900	2,900	$997	$2,891,300	0.792	$2,290,180
2017	Reduced Importation	Acre-Feet	0	2,900	2,900	$997	$2,891,300	0.747	$2,160,548
2018	Reduced Importation	Acre-Feet	0	2,900	2,900	$997	$2,891,300	0.705	$2,038,252
2019	Reduced Importation	Acre-Feet	0	2,900	2,900	$997	$2,891,300	0.665	$1,922,880
2020	Reduced Importation	Acre-Feet	0	2,900	2,900	$997	$2,891,300	0.627	$1,814,037
2021	Reduced Importation	Acre-Feet	0	2,900	2,900	$997	$2,891,300	0.592	$1,711,356
2022	Reduced Importation	Acre-Feet	0	2,900	2,900	$997	$2,891,300	0.558	$1,614,487
2023	Reduced Importation	Acre-Feet	0	2,900	2,900	$997	$2,891,300	0.527	$1,523,101
2024	Reduced Importation	Acre-Feet	0	2,900	2,900	$997	$2,891,300	0.497	$1,436,888
2025	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.469	$2,290,419
2026	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.442	$2,160,773
2027	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.417	$2,038,465
2028	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.394	$1,923,080
2029	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.371	$1,814,227
2030	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.350	$1,711,535
2031	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.331	$1,614,655
2032	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.312	$1,523,260
2033	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.294	$1,437,037
2034	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.278	$1,355,696
2035	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.262	$1,278,958
2036	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.247	$1,206,564
2037	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.233	$1,138,268
2038	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.220	$1,073,838
2039	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.207	$1,013,055
2040	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.196	$955,712
2041	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.185	$901,615
2042	Reduced Importation	Acre-Feet	0	4,900	4,900	$997	$4,885,300	0.174	$850,580
							Total Present Value of Discounted Benefits Based on Unit Value		$44,261,779

Comments: Reduced capacity in 2014/2015 as surplus would be required to accommodate initial loading of the Reservoir. During subsequent operational years, there will be surpluses of 848 AF (over SMWD's needs) and 2,052 AF (amount SMWD will not need to pump from State Water Project). Additionally, approximately ten (10) years following Project completion, excess capacity (up to 5,300 AF) 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). Values further explained in Attachment 8.