June 9, 2015

Ms. Beth Ehsan
County of San Diego, Planning and Development Services
5510 Overland Ave., Ste. 310
San Diego, CA 92123

Subject: Draft Environmental Impact Report for Valiano Developoment

C-1 Thank you for the opportunity to review the Draft Environmental Impact Report (EIR) for the proposed Valiano project. Attached to this letter are highlighted and numbered sections of the report along with corresponding comments. The bulk of the comments support our April 25, 2015 letter attached to the revised Project Water Facility Availability Form (included in Appendix O of the draft EIR), which cover two main points:

C-2 1. Rincon Water has in place a Drought Ordinance, which is modified from time to time to comply with ongoing mandates from the State associated with the continued drought emergency that was first declared by the Governor last year. As such, future restrictions are possible for this project that could include the suspension of new meters, or requirements to offset the demand elsewhere within our system. This should be addressed in the water supply sections of the draft EIR.

C-3 2. Rincon Water's 2014 Master Plan identifies a new R7 Reservoir, located on a parcel surrounded by this project. At this time, we believe the project triggers the need for the R7 Reservoir based on the following: 1) the R7 Reservoir is classified as an expansion type project in the Master Plan and necessary to meet future growth, 2) Rincon Water's service area for the project shows an existing storage deficit in the Master Plan, and 3) the R7 Reservoir is a preferred means to hydraulically support meeting our design criteria within the project.

C-4 There are multiple sections in the report that imply Rincon Water has reviewed and approved the conceptual layout of the water system, with the intent of taking the lead to install the R7 Reservoir at a future date. This is not the case, and we recommend that the Final EIR adequately address this facility throughout the document to prevent needing to reopen the project's EIR at a later date. Also, if warranted, the utilities section in the draft Specific Plan should also be updated.

If you have any questions or require additional information please call.

Sincerely,

Randy Whitmann, Senior Engineer
Attachments: Comments (2 pages); Draft EIR Pages with Highlights (19 pages)

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C-1 The comment is introductory and is not at variance with the environmental document. See Responses C-2 through C-22 below for responses to specific issues.

C-2 The comment indicates that future drought restrictions are possible and should be addressed in the EIR. Section 3.1.8 of the EIR has been revised to include information about the Rincon del Diablo Municipal Water District's (Rincon MWD) Drought Ordinance. Section 3.1.8 of the EIR (Subsection 2.11.1.1 in the DEIR), as well the Water and Recycled Water Study (Appendix P of the EIR), also document historical water use on the property and demonstrate that the estimated average Project water use would be consistent with (i.e., within approximately 1.5 percent of) historical water use in the established baseline year (2013), and well below the previous five-year average on-site use. In addition, these analyses identify several considerations that are expected to further reduce water demand at the Project site (although these considerations are not included in the Project water demand projections). Specifically, these include water use reductions associated with current and future technological advances and conservation measures, as well as the proposed use of recycled water to irrigate approximately 35.6 acres of proposed on-site landscaping in lieu of potable water use (with these factors assumed to result in a lower overall water demand than that used for the Proposed Project analysis, and reduce the average on-site use below the 2013 baseline year average). This information can be used by the Rincon MWD Board to qualify the Project for meters as part of the Drought Ordinance. This issue is also discussed in Responses C-8 and C-10.

C-3 The comment indicates that the Project Description should be revised to encompass the 2014 Rincon MWD Water Master Plan R7 Reservoir, including its design and construction. The EIR has been modified in response to this comment, with construction of the R7 Reservoir and

C-3 cont. related access road/pipeline facilities now included in the Project Description (refer to Subsections 1.2.1.3, 2.1.2.1, 2.3.2.2, 2.4.2.1, 2.5.1.4, and 3.8.1.). This issue is discussed further in Responses C-4 and C-5.

C-4 The comment indicates that the DEIR implies that Rincon MWD has reviewed and approved the R7 Reservoir and layout of the water system when it has not been reviewed and approved, and that the EIR should further address the R7 Reservoir. As stated in Response C-3, the EIR, as well as the Water and Recycled Water Study (Appendix P of the EIR), have been modified to discuss the inclusion of the R7 Reservoir, including potential design and construction characteristics. In addition a Project Design Feature has been included in Table 1-4 and Chapter 7 that states that the hydraulic analysis shall be reviewed by the Rincon MWD to verify the associated sizing and scheduling conclusions, with any resultant modifications to be incorporated into the final Project design.

Rincon del Diablo MWD Comments May 2015 – Valiano Development Draft EIR

C-5 Comment 1 – The Proposed Project triggers the need to construct the R7 Reservoir, not provide an opportunity to facilitate earlier construction.

C-6 Comment 2 – Add "including the R7 Reservoir" to the sentence so it reads: Phasing of the onsite water system, including the R7 Reservoir, through the Project.

C-7 Comment 3 – This text should be deleted, as the need for the R7 Reservoir has already been identified.

C-8 Comment 4 – It should be noted here that Rincon Water also updated the 2010 UWMP in 2014 in concert with the Master Plan, and in the update, Rincon Water has set a strategic goal to offset all new imported potable water demand through the development of local supplies.

C-9 Comment 5 – EIR should also mention Rincon Water's 2014 UWMP Update.

C-10 Comment 6 – EIR should mention that continued drought and future mandates from the State could impose restrictions on this project, such as the suspension of new meter installations or requirements to offset the potable demand elsewhere in our system.

C-11 Comment 7 – Multiple dry year scenario shortages are likely, as a hot summer and forecasted dry winter this year will likely trigger going to Level 3, Drought Critical, in our Drought Ordinance. The EIR should mention that included in Rincon Water's plans to deal with this occurrence are meter restrictions and potable water offsets, by which the latter could include installation of offsite facilities.

C-12 Comment 8 – The water supply demand impact could be significant if water offsets are required, such as extending the recycled water system elsewhere in the system to convert existing potable irrigation meters to recycled water or developing alternative sources of potable water, such as local supply.

C-13 Comment 9 – Please note that all facilities shown have yet to be reviewed and approved by Rincon Water.

C-14 Comment 10 – This statement is misleading and should be reworded. It implies that the conceptual studies were requested by Rincon Water and suffice in determining project requirements. The studies were initiated by the developer and are presented in the draft EIR without any review or approval from Rincon Water. Therefore, the Rincon Water recommendation statement should be deleted, and the sentence reworded stating the studies

C-5 The comment indicates that the Proposed Project triggers the need to construct the R7 Reservoir as opposed to just providing an opportunity to facilitate earlier construction. The 2014 Rincon MWD Water Master Plan identified the R7 Reservoir as a facility required to: (1) meet future growth within the Rincon MWD Improvement District No. 1 (ID 1) South service area (which includes the Proposed Project site), for existing and future customers; (2) provide sufficient storage and water pressure to meet fire flow requirements within the ID 1 South service area; and (3) replace the capacity for potable water storage lost by converting the existing R1-A water storage reservoir to recycled water storage. The 2012 California Fire Code increased the fire flow requirements for residential from 1,500 gpm to 2,500 gpm in "high severity zone" or wildland areas, although the Valiano fire requirement is estimated to be 1,500 gpm by the San Marcos Fire Protection District (i.e., a "moderate severity zone"). These recent requirements have resulted in the need for higher flows in the District, and therefore the R7 Reservoir was included in the 2014 Water Master Plan to address these issues. As it has been determined that the Proposed Project triggers the need to construct the master planned R7 Reservoir, it would be designed and constructed by Valiano as part of the development, and is therefore included and analyzed in the EIR and the Water and Recycled Water Study (Appendix P of the EIR) as appropriate (please refer to Subchapters 2.1, 2.3, 2.4, 2.5 and 3.1.8).

C-6 The comment makes a correction to the EIR. The phasing of the on-site system, including the R7 Reservoir, will be included in the detailed hydraulic analysis to be submitted to the District for approval. A phasing figure (Figure 1-19b) has been added to Chapter 1 of the EIR.

C-7 The comment makes a correction to the EIR. See Subsection 1.2.1.3 of the EIR.

C-8 The comment indicates that the 2014 Urban Water Management Plan (UWMP) and Master Plan updates have a strategic goal of no net increase in imported water. The Project complies with this goal and the EIR, along with the Water and Recycled Water Study (Appendix P of the EIR), provide appropriate documentation of prior and projected water use and supply. Specifically, the EIR analysis concludes that: (1) projected water use associated with the Proposed Project would be consistent with (i.e., within approximately 1.5 percent of) on-site use during the identified baseline year of 2013, and well below the average use at the site over the past five years; (2) while not included in the Project demand analysis,

C-8 cont. current and future technological advances and conservation measures, as well as the proposed use of recycled water to irrigate approximately 35.6 acres of proposed on-site landscaping in lieu of potable water use, are assumed to result in a lower overall water demand than that used for the Proposed Project analysis (and to reduce the average on-site use below the 2013 baseline year average); (3) the Project demand for potable water would be met by water supplies identified to be available over a 20 year planning horizon under normal, single dry year, and multiple dry year conditions; (4) the proposed R7 Reservoir would, in combination with surplus capacity in the ID-1 North system, ensure adequate storage capacity for the Rincon MWD and the ID-1 South system; and (5) the Proposed Project water supply system facilities would be sized to provide adequate capacity for identified on-site development, and would not necessitate significant alterations to existing off-site systems beyond those assumed as part of the Project design. This issue is also discussed in Response C-2.

C-9 The comment indicates that the EIR should reference the 2014 UWMP update. The discussion of water supply and demand in Subsection 3.1.8.1 of the EIR, includes applicable information from the 2014 UWMP update, with this issue also being discussed in Response C-8.

C-10 The comment indicates that the EIR should discuss drought and future mandates from the State. Section 3.1.8 of the EIR (Subchapter 2.11 in the DEIR) provides discussion of drought conditions and related State mandates, including Executive Order-B-29-15, which requires a net reduction of water use relative to the amounts used in 2013. The Project site exhibited high historical water usage due to the previous orchard operations. Specifically, as shown in Section 3.1.8 of the EIR and the Water and Recycled Water Study (Appendix P of the EIR), the average on-site water use for the established baseline year (2013) was approximately 162,000 gallons per day (gpd), while the average use on-site over the past five years was approximately 194,000 gpd. The estimated average water use identified for the Proposed Project in the Water and Recycled Water Study is 164,520 gpd, which is well below the five-year average for the site and, consistent with the 2013 baseline year. As described in the EIR, however, average water use for the Proposed Project is also assumed to be below the identified 2013 baseline year consumption with consideration of water use reductions from technological advances, conservation measures, and the proposed use of recycled water for on-site landscape irrigation. This issue is also discussed in Responses C-2 and C-8.

C-11 The comment indicates that the EIR should mention Rincon MWD's plans to use meter restrictions and potable water offsets during mandatory restrictions under the Rincon MWD Drought Ordinance. This issue is discussed in Responses C-2, C-8 and C-10.

C-12 The comment indicates that water supply demand impacts could be significant if offsets such as extending recycled facilities off-site or developing alternative water supplies are required. As outlined in Section 3.1.8 of the EIR and Responses C-2, C-8 and C-10, however, the Proposed Project would (without offsets as described) use less water than the previous five-year average baseline agricultural use, and would be below the established 2013 baseline year use with consideration of assumed technological advances, conservation measures, and the on-site use of recycled water for landscape irrigation.

C-13 The comment indicates that the some of the facilities shown have yet to be reviewed and approved by Rincon MWD. This issue is discussed in Response C-4.

C-14 The comment indicates that the DEIR incorrectly stated that Rincon MWD recommended a conceptual water and recycled water study for the Project, and that further review by Rincon MWD would be required in the future. The referenced text in the EIR has been modified to clarify that the water and recycled water study was not requested by the Rincon MWD and will be subject to review by Rincon.

C-14 cont. estimate facility requirements, and further, more detailed analyses will be required by Rincon Water.

C-15 Comment 11 – Per our cover letter, the R7 Reservoir is an expansion based, developer driven project, and is a facility requirement for the project. Please reword accordingly and delete reference to a future Rincon Water project.

C-16 Comment 12 – The amount listed and assumptions on fire storage have yet to be reviewed or approved by Rincon Water. Also, the detailed hydraulic analyses will need to investigate a 10-day SDCWA Aqueduct shutdown, and the ability to feed the project from Rincon Water's emergency supply connections with Vista Irrigation District (VID) and the City of Escondido, or if additional storage is needed.

C-17 Comment 13 – See Comment 11, delete "(but not a part of)", and delete mitigation by Rincon Water. Please also address in Chapter 7, Mitigation Measures.

C-18 Comment 14 – Access may also be required from the subdivision road. All access roads will be paved. Delete reference to Rincon Water building the facility at a future date.

C-19 Comment 15 – See Comments 11 and 13.

C-20 Comment 16 – See Comments 11 and 13.

C-21 Comment 17 – See Comments 11 and 13.

C-22 Comment 18 – Analysis should be based on demands within the ID-1 South Zone, not the entire system.

C-15 The comment indicates that the R7 Reservoir is a developer driven project and is a facility requirement for the Project. This issue is discussed in Response C-5.

C-16 The comment indicates that the reservoir capacity and fire storage assumptions have yet to be reviewed or approved by Rincon MWD, and that the detailed hydraulic analyses will need to investigate additional issues. These issues are discussed in Responses C-4 and C-5.

C-17 The comment makes a correction to the EIR. The EIR, as well as the Water and Recycled Water Study (Appendix P of the EIR), have been modified to discuss the inclusion of the R7 Reservoir, including potential design and construction characteristics. This issue is also discussed in Responses C-3 through C-6.

C-18 A revised reservoir and access road design has been prepared as part of the Water and Recycled Water Study (Appendix P of the EIR), and is included in the EIR (Subsection 1.2.1.3 and Section 3.1.8). The preferred access route includes a 15-foot paved access road within a 20-foot wide easement, and has been designed using the existing orchard roads as much as possible. Under the proposed design, access road grades would be limited to a maximum of 20 to 25 percent, consistent with other Rincon MWD reservoir access roads.

C-19 The comment references Comments C-15 and C-17 and highlights a passage in the DEIR regarding the R7 Reservoir as being proposed by Rincon MWD. This issue is discussed in Responses C-3 through C-6.

C-20 The comment references Comments C-15 and C-17 and highlights a passage in the DEIR regarding the R7 Reservoir as being proposed by Rincon MWD. This issue is discussed in Responses C-3 through C-6.

C-21 The comment references Comments C-15 and C-17 and highlights a passage in the DEIR regarding the R7 Reservoir as being proposed by Rincon MWD. This issue is discussed in Responses C-3 through C-6.

C-22 The comment indicates that the final sizing and timing of the R7 tank will be determined in a detailed hydraulic study, based on analysis of the ID 1 South zone. A revised design for the reservoir lay-out and access road was prepared as part of the Water and Recycled Water Study (Appendix P of the EIR), and is included in the EIR as the preferred access route. This issue is also discussed in Response C-18.

connecting to Country Club Drive). As discussed previously, this portion of Hill Valley Drive is an existing dirt road that is proposed to be improved to a paved road approximately 24 feet wide, for a majority of the road length as part of the Proposed Project. As currently designed, one section of this road (approximately 185 - 195 feet) can only be improved to 20 feet wide due to easement access issues. In order for the Additional Access Option to be executed, the roadway would have to meet County private road standards. The road would require improvement to a paved width of 24 feet with a corresponding design speed of 30 miles per hour and a 40-foot right of way (unless granted a design modification). Impacts for implementing this option are analyzed in the EIR sections that may be affected.

To support pedestrian circulation, the Proposed Project may include a sidewalk on a portion of the west side of Country Club Drive in the City of Escondido north of Hill Valley Drive. The right-of-way exists within land that is disturbed. The improvement would be subject to approval by the City of Escondido.

Trail Network

A system of public multi-use trails and private internal trails would link key open space features of the Proposed Project site and would connect to proposed offsite public trails and nearby residential uses. The conceptual trail plan is shown in Figure 1-18, *Conceptual Trail Plan*. The public multi-use trail would be 10 feet wide bound by fencing on one or both sides and would have a surface of native soil or similar suitable material. Signage depicting trail safety and rules will be located at strategic places along the trail. The trail is intended to serve equestrian uses, hiking, biking and jogging. The multi-use trail would be built to County of San Diego Trail Design Standards. The trail would run entirely along the community parkway, in addition to connecting with parks and open space. In addition, sidewalks would be located along most internal roadways, which in turn connect to the trail system. Sidewalks would be concrete. Soft surface sidewalks (5 feet wide) would be installed in the portions of Country Club Drive abutting the Project site. The public trail is within the private road system and would require an easement and dedication to the County and would also require an additional easement within the private road for the County to access the trail for maintenance.

1.2.1.3 *Utilities*

Potable Water

Water service for fire protection and residential use would be provided by Rincon MWD. The Proposed Project site is located entirely within the boundaries of the Rincon MWD which serves approximately 30,000 people through nearly 8,000 connections in portions of the cities of Escondido, San Marcos and San Diego.

Specifically, the Proposed Project would be served by the Improvement District 1 South (ID 1) water system. ID-1 South includes existing development generally south of SR-78 and west of I-15. The San Diego County Water Authority (SDCWA) is the sole supplier of water to the ID 1 service area via two connections to the First Aqueduct, near the Hubbard Hill area to the northeast of the Project.

The Proposed Project site would be served by the 959 Pressure Zone in this area. Potable water service for the Plan area would be primarily provided by a connection to an existing 14-inch water main along the southern boundary of the Project site. Secondary sources of water supply would also be necessary including: a new 12-inch main to Eden Valley Drive and the backbone 16-inch water main to the north at Hill Valley Drive (so it can be connected in the future to the Rincon MWD's planned reservoir and transmission projects). Figure 1-19, *Proposed Water Infrastructure*, depicts the proposed water infrastructure. A 16-inch water main would loop the core development area to support larger fire flow requirements. The primary water supply would initially be from the south and the infrastructure that is currently being constructed by the Harmony Grove project, which was designed to the new fire flow standard.

The Proposed Project would require a small booster pump station to service approximately 75 homes situated above the 800 foot elevation. The pump station would be owned and operated by Rincon MWD and would be housed in a small building. The pump station would include a total of four pumping units, two small domestic pumps (100 gpm each) and two dedicated fire flow pumps (2,500 gpm each). It is assumed Rincon MWD would require a generator for the fire pumps. A 100 kilowatt diesel back-up generator would be required and housed in an enclosure adjacent to the pump building.

Rincon MWD owns a future reservoir site within the ID 1 South service area, located in (but not part of) the northern portion of the Proposed Project (Figure 1-3). The 2014 Water Master Plan recommended a 3.0 MG Reservoir, referred to as the "R7 Reservoir" as part of the District's proposed 5-year capital improvement program to improve regional water capacity. This tank would be approximately 32 feet high and 138 feet in diameter and would be located on a 3.2-acre site. There is an existing 20-foot wide easement for the access road to the tank. The tank location and access easement are shown in Figure 2.11-1 in Subchapter, 2.11, *Utilities*.

The R7 Reservoir would provide multiple benefits for the community service area including:

- Operational storage and fire flow capacity needs for existing and planned development in the ID South service area; and
- Upgrades and improvements to the existing ID South service area to the new fire flow standard by providing increased available supply and pressure.

COMMENT #1

The Proposed Project would provide an opportunity to facilitate earlier construction of the regional R7 Reservoir that would be used to increase fire flow capacity to enhance regional and area fire safety. It also upgrades and improves the existing ID South service area to the new fire flow standard by providing increase available supply and pressure with the R7 Reservoir.

A detailed water system analysis would be required by Rincon MWD prior to recordation of the Final Map, to determine at a minimum:

- The final sizing of all onsite water distribution pipelines;
- Phasing of the onsite water system through the Project; COMMENT #2

- Connection points to the existing water system;
- Booster pump station sizing; and
- Confirmation of the necessity of the R7 Reservoir.

Based on the findings of the water system analysis, Rincon MWD would work with the Applicant to address the timing and schedule for the R7 Reservoir and pipeline to ensure, the most efficient process for implementation. COMMENT #3

The environmental analysis associated with the construction of the tank, access road and water pipeline (based on conceptual design contained in the 2014 Water Master Plan) is discussed in Subchapter 2.11 and also included in the cumulative analysis.

Wastewater

The existing parcels within the Proposed Project site either have no dwelling units, or are served by existing septic systems. The proposed development would be served by a system of public sewer mains and a WTWRF which would be owned and operated by the San Diego County Sanitation District. The proposed on-site sewer system is shown in Figure 1-20, *Proposed On-site Sewer System*. The proposed WTWRF would be located at the southeasterly portion of the Project site within Neighborhood 5. A wet weather storage area would be located in the northwestern corner of Neighborhood 5. Please refer to Section 1.2.1.1 for more detailed information on the WTWRF.

Recycled Water

The Proposed Project would include a recycled water system constructed in accordance with the regulations, laws, and standards set by the County of San Diego, Rincon MWD, and the state of California. Use of recycled water would be for all common area landscape irrigation, including private parks, streetscapes and manufactured slopes (See Figure 1-21, *Reclaimed Water Areas*). The primary source of recycled water for the Project would be from the WTWRF. At buildout, the Proposed Project would generate approximately 58,300 to 71,100 gpd of treated wastewater that could be utilized.

The proposed recycled water system would originate at the WTWRF and would require a dedicated recycled water pump station to serve the distribution system and wet weather storage site. A proposed recycled water pump station would serve to supply the irrigation demands of the Proposed Project from the WTWRF, through a proposed Rincon MWD recycled water system. The new supply would be in addition to the Harmony Grove Wastewater Reclamation Plant. The estimated capacity for the recycled water pump station is approximately 150 gallons per minute (gpm).

All irrigation systems would follow the County's Water Conservation and Landscape Ordinance Design Manual with recycled water to have a separate distribution system of purple pipes. This ordinance requires efficient outdoor water use through planning, installation, and maintenance of landscaping using a maximum applied water allowance (MAWA) developed for the site-specific conditions and through use of recycled water when tertiary treated recycled water is available.

2.11 Utilities and Service Systems

This subchapter of the EIR addresses water and wastewater services required for Project development, as well as service providers and facilities needed to meet this demand. Project Facility Availability Forms, as well as personal communications from service providers, are summarized below and included in Appendix O. The following water and wastewater services technical reports were prepared: Conceptual Water and Recycled Water Study (Atkins 2015b) included in Appendix P and Sewer Study (Atkins 2015a) included in Appendix Q.

Natural gas and electricity for the Proposed Project would be provided by SDG&E. A detailed analysis of the energy demands of the Project compared to existing energy production and consumption conditions is provided in Section 3.1.2, *Energy*, and is not discussed further in this section.

2.11.1 Existing Conditions

2.11.1.1 *Water Supply*

Water service would be provided to the Project site by Rincon MWD. Rincon MWD provides water and recycled services to areas within the cities of Escondido, San Marcos, and San Diego. Service is also provided to customers within various unincorporated areas of San Diego County. Rincon MWD delivers potable and recycled water to a population of 30,000 through nearly 8,000 connections representing residential, agricultural, landscape, and commercial/industrial water users. Rincon MWD was annexed into the SDCWA and Metropolitan Water District of Southern California in 1954 for the purpose of securing additional water supplies. Rincon MWD is a retail water supplier and does not routinely sell wholesale water supplies to any entity (Rincon MWD 2011). Additionally, it is a member agency of SDCWA, and serves approximately 30,000 people through nearly 8,000 connections (representing residential, agricultural, landscape, and commercial/industrial water users). Rincon's potable water distribution system includes 112 miles of water main (8-inches or larger in diameter), ten reservoirs with a total storage capacity of 25,742,229 million gallons, and four pump stations. Peak production is calculated at 10 mgd.

Rincon MWD prepared a UWMP in 2010 in compliance with the state law, to restructure its existing 2005 UWMP (amended and adopted on December 13, 2005) in order to comply with the California Department of Water Resources' review process. The 2010 UMWP contains a comparison of projected supply and demands within its existing boundaries through the year 2035. Projected potable water resources to meet planned demand would be primarily supplied with imported water purchased from SDCWA.

Rincon MWD recently prepared a Water Master Plan Update in 2014 to identify facilities, supplies, and capital funding Rincon MWD would need to continue providing reliable water and recycled water service to its customers through 2035. Supply and demand conditions have changed substantially since Rincon MWD last updated their Master Plan in 2005 and the 2014 Master Plan update addresses these changes (Rincon MWD 2014). COMMENT #4

The Project site is located to the west of Rincon MWD's current service area and would be served by the 959 Pressure Zone in this area. Potable water service for the Plan area would be primarily provided by connections to existing 8-inch and 10-inch water mains in Eden Valley Lane, Mt. Whitney Road, and south of Hill Valley Drive.

2.11.1.2 *Wastewater*

In terms of wastewater service facilities, the Proposed Project site is not located in the San Diego County Sanitation District, but is proposed to be annexed into the District. The County provides sewer service for approximately 50,000 customers within the unincorporated communities of the County of San Diego. The County' Sanitation District was consolidated in 2011 and includes nine County sewer service areas. Collectively, the County's wastewater collection and conveyance system includes approximately 432 miles of pipeline, 8,200 manholes, and 12 lift stations. However, the Project site is also not located in any of these sanitation or maintenance districts. The Project site is located immediately north of the Harmony Grove Sewer Service Area. The option of utilizing the Harmony Grove Sewer Service Area for the Proposed Project's wastewater treatment needs is discussed in Subchapter 4.5, *Analysis of the Sewer Options Alternative*, which includes three potential off-site options for the provision of sewer service in lieu of the proposed on-site WTWRF and related facilities.

2.11.1.3 *Regulatory Setting*

Senate Bills 610 and 221

A Water Supply Assessment (WSA) is required, depending on the size of a proposed project, by Senate Bill 610 (specifically, Public Resources Code Section 21151.9 and California Water Code Sections 10631, 10656, 10657, 10910, 10911, 10912, and 10915). This document addresses the issue of water supply availability and is required through Senate Bill (SB) 610 to be prepared when projects subject to CEQA and larger than certain specified thresholds are under evaluation. The Proposed Project does not exceed the specified size threshold of 500 residential units or equivalent, and thus, preparation of a WSA is not required.

SB 221, a companion bill approved at the same time as Senate Bill 610, requires verification of water supplies as a condition of tentative map approval for residential subdivisions of 500 units or more. The Proposed Project water use is fewer than 500 residential units or equivalent; SB 221 is therefore not applicable to the Project.

Regional Water Supply Agency Plans

COMMENT #5

SDCWA's 2010 Urban Water Management Plan (UWMP) provides for a comprehensive planning analysis at a regional level and includes water use associated with accelerated forecasts of residential development as part of its municipal and industrial sector demand projections. SDCWA utilizes the SANDAG regional growth forecast to calculate future demands within their service area. This provides for consistency between San Diego County planning efforts and SDCWA demand projections, thereby ensuring that adequate supplies are being planned for existing and future water users. The demand associated with accelerated forecasted growth is

intended to account for SANDAG's land use development currently projected to occur between 2035 and 2050, but with the likely potential to occur on an accelerated schedule. SANDAG estimates that accelerated residential development could occur within the planning horizon of the 2010 UWMP update. These residential units are not yet included in local jurisdictions' general plans, so their projected demands are incorporated at a regional level. When necessary, this additional demand increment can be used by member agencies (including Rincon MWD), which will provide water service for the Proposed Project to meet the demands of development projects not identified in the general land use plans, as part of general plan amendments, and/or new annexations.

As documented in the 2010 UWMP, the SDCWA is planning to meet future and existing demands, which include the demand increment associated with the accelerated forecasted growth. The SDCWA will also assist its member agencies) in tracking certified EIRs provided by the agencies that include water supply assessments that utilize the accelerated forecasted growth demand increment, to demonstrate adequate supplies for the development.

State of California Executive Order-B-29-15

On April 1, 2015, Governor Brown signed an executive order mandating state water restrictions for a 25 percent mandatory potable water reduction through February 28, 2016. These restrictions will require California water suppliers to California cities and towns to reduce usage as compared to the amounts used in 2013. COMMENT #6

San Diego County General Plan Policies

The San Diego County General Plan includes a Land Use Element that contains policies regarding water supply and wastewater. These policies are analyzed in the Section 3.1.4, *Land Use and Planning*.

2.11.2 Analysis of Project Effects and Determination as to Significance

2.11.2.1 ***Water Supply***

Guideline for the Determination of Significance

A significant impact to utilities would occur if the Proposed Project would:

1. Create a demand for potable water that cannot be met with the current projected water supplies and/or that requires significant alterations to the existing water pipelines and infrastructure that is needed to convey potable water to the site.

Guideline Source

The identified guideline for significance is based on Appendix G of the CEQA Guidelines and is intended to ensure that adequate public utilities and services are available for local residents.

Analysis

Project Demand and Regional Water Supply

As noted above, water supply for the Proposed Project would be provided by Rincon MWD. Rincon MWD's water supply is dependent on the SDCWA as the wholesale water supplier. Therefore, the water supply reliability assessment relies on the Water Authority's 2010 UWMP. Water Code Section 10635 requires that every urban water supplier assess the reliability of its water services during normal, dry and multiple dry water years. The water supply and demand assessment compare the total projected water use with expected water supply over the next 20 years in 5-year increments. The assessment contained in the 2010 UWMP projects reliability through the next 25 years to correspond with population growth forecasted by SANDAG.

The estimated water demands (estimated from planned land uses, using unit use factors specific to each land use in the current Project plan) were included in the Project's specific plan. The total average water demand was estimated to be 160,870 gpd as detailed in Table 2.11-1, *Potable Water Demands.* The maximum anticipated single-day demand was estimated to be 416,849 gpd, with a peak hour demand of 437 gpm.

The near-term service for the proposed water demands of the Project can be accounted for in the SDCWA's 2010 UWMP accelerated forecasted growth demand increment, discussed above. This additional demand increment can be used by member agencies to meet the demands of development projects not identified in general land use plans, as part of general plan amendments, and/or new annexations. As documented in the 2010 UWMP, SDCWA is planning to meet future and existing demands—including the demand increment associated with accelerated forecasted growth. SDCWA also will assist its member agencies in tracking the certified EIRs provided by the agencies that include water supply assessments that utilize the accelerated forecasted growth demand increment, to demonstrate adequate supplies for the development. In addition, the next update of the demand forecast for SDCWA's 2015 UWMP will be based on SANDAG's most recently updated forecast, which would include the Project.

As noted above, Rincon MWD used SDCWA's projections for normal, dry year and multiple dry years to determine future demands for the next 20 years. The forecasted normal year water demands compared with the projected supplies for Rincon MWD are shown in Table 2.11-2, *Supply and Demand Comparison – Normal Year*. Any shortfall from locally developed potable water would come from SDCWA (Rincon MWD 2011). With existing supplies and implementation of the projects discussed in the SDCWA and Rincon's planning documents, there would be adequate water supplies to serve the Project. Table 2.11-3, *Supply and Demand Comparison – Single Dry Year,* provides a comparison of a single dry year supply with projected water demands over the next 20 years. In a single dry year, Rincon MWD would actively promote a "voluntary 10% reduction in use" message. Past experience during a single dry year indicates that customers have responded and exceeded voluntary calls for conservation. No shortage in supplies would be anticipated during a single dry year.

Table 2.11-4, *Supply and Demand Comparison – Multiple Dry Years,* presents multiple dry year scenarios (one, two, and three year supplies). For multi-year analysis, the planning assumption is

the MWD will be allocating supplies to its member agencies according to its Water Supply Allocation Plan. Under parameters assumed in multi-dry year analysis, and by past experience, some level of shortage could potentially be experienced. SDCWA has invested in carryover storage supplies to assist in achieving reliability in dry years as discussed in its 2010 UWMP. Should shortages be experienced after the expenditure of SDCWA carryover supplies, Rincon MWD would respond to allocations in water demands mandated MWD and SDCWA. Additionally, Rincon MWD would implement its Drought Response Plan accordingly. As demonstrated by Tables 2.11-2 through 2.11-4, Rincon MWD can reliably meet demands during normal and single dry conditions. While multiple dry year scenario shortages are not likely due to the existence of carryover storage supplies, Rincon MWD has plans in place to deal with such an occurrence, including the aforementioned Drought Response Plan. COMMENT #7

In summary, the Proposed Project has been found to create a demand for potable water that would be met by water supplies that are planned for and intended to be available over a 20-year planning horizon, under normal conditions and in both single and multiple dry years. Therefore, **impacts associated with the Project's water supply demand would be less than significant.**
COMMENT #8

Water Supply Facilities

Specifics regarding the water supply system for the Proposed Project are described in Section 1.2.1.3 of this EIR, and in the Specific Plan (April 2015). Figure 1-19 illustrates the proposed water system for the Project. COMMENT #9

As noted above, the Project site is located entirely within the boundaries of Rincon MWD, which would provide water service for fire protection and residential use. Specifically, the Proposed Project would be served by the Improvement District 1 (ID 1) South water system. ID 1 South includes existing development generally south of SR-78 and west of I-15. The ID 1 South system includes four reservoirs with varying high water levels, the highest being R-1A and R-1B reservoirs at 959 feet. SDCWA is the sole supplier of water to the ID 1 service area via two connections to the First Aqueduct, near the Hubbard Hill area to the northeast of the Project.

Rincon MWD, in their Project Facility Availability Form (see Appendix O), discussed the fact that some of the proposed home elevations are above the service levels of the existing reservoirs. Per their recommendation, a conceptual water and recycled water study has been prepared to determine the potable facility requirements to serve the new development and integrate it with the existing system (Atkins 2015b). COMMENT #10

The water study also addresses the recycled water system, which would be designed to serve on-site common landscape irrigation for parks, open space, and parkways. The primary source of recycled water for the Proposed Project would be the on-site WTWRF. The WTWRF is estimated to produce 70,100 gpd or 50 gpm average daily flow at buildout, which would equate to approximately 36 acres of land that could be permanently irrigated using recycled water (Atkins 2015b). This would reduce the on-site demand for potable water.

The water supply system facilities referenced above would be sized to provide the capacity required, and would not necessitate significant alterations to existing systems beyond those

assumed as part of Project design. As described above and discussed in more detail in Section 1.2.1.3, potable water service for the Project site would be primarily provided by a connection to an existing 14-inch water main along the southern site boundary and would connect with infrastructure that is currently being constructed by the Harmony Grove project. Secondary sources of water supply would be provided via a new 12-inch main in Eden Valley Drive, as well as the backbone 16-inch water main to the north at Hill Valley Drive. These would connect in the future to the Rincon MWD's planned reservoir (R7 Reservoir discussed below) and transmission projects identified in the Water Master Plan under the five year Capital Improvement Program) to serve future development and provide increased fire storage for existing and future customers (Rincon MWD 2014). Since existing potable water storage is located near the Proposed Project with the R-1B reservoir, it is assumed that the fire storage portion is available and can be used for the Proposed Project. The adjacent R-1A reservoir is proposed to be converted to recycled water as part of the Harmony Grove Village project and be used by Rincon for operational storage for an expanded recycled water system. Water storage required for the Proposed Project can be estimated based on the District's criteria of approximately 3.33 times the average annual demand (0.16 million gallons [MG] per day for the Project). Therefore, a total of approximately 0.53 MG is recommended to meet the in-District storage needs, exclusive of fire storage which is assumed available in existing storage reservoirs.

#11

#12

COMMENT #12

Existing water mains within the Project boundary are planned to be abandoned and replaced with Project improvements.

A small boosted pressure zone is anticipated to be needed to serve the western portion of the Proposed Project site where elevations are above 800 feet and would be beyond the service area of the 959 Pressure Zone. The Project would construct a new pump station within the Project boundaries and within the Project footprint to serve approximately 75 homes. The pump station would be owned and operated by Rincon MWD and would be sized for domestic and maximum daily plus fire flow demands. As shown in Figure 1-19, a new 1130 Pressure Zone would be supplied by the pump station. As a condition of Project approval, a future hydraulic study would be prepared by Rincon MWD during final Project design to verify the final sizing of the proposed water system.

Based on the estimated development growth in the District from 2015 to 2035, Rincon MWD would need approximately 3.0 MG of additional potable water storage to meet a regional increase in water demand. Table 2.11-5, *Summary of District Treated Water Storage Criteria*, presents this additional storage required by 2035. To meet these storage requirements, the 2014 Water Master Plan recommended a 3.0 MG Reservoir, referred to as the "R7 Reservoir." This additional District facility would be located in (but not part of) the northern portion of the Project site and would include a water tank, an access road within the existing easement, and a connecting pipeline within the access road from the water tank to existing pipeline. The R7 Reservoir is proposed as part of Rincon MWD's five-year capital improvement program, and is not included as part of the Proposed Project. However, because environmental review has not been performed on the Water Master Plan Update and given the timing of the Proposed Project, this EIR is providing a brief environmental analysis based on conceptual design contained in the 2014 Water Master Plan. Any mitigation deemed necessary would, however, be the responsibility of Rincon MWD.

COMMENT #13

The proposed water tank would be approximately 32 feet high and 138 feet in diameter and would be located on a 3.2-acre site located within existing grove area. In order to provide the base for the tank, the top of a knoll (at approximately 945 feet) would be lowered by approximately 5 feet, and flattened to 940 feet AMSL. A new pipeline would be required to deliver water to and from the tank. This proposed subsurface pipeline is presumed to be located under the proposed access road and would connect to existing pipeline to the north. Figure 2.11-1, *Rincon MWD Easement and Reservoir*, shows the approximate location of the proposed water tank in relation to the Proposed Project, as well as the location and path of the related access road. The access road is approximately 2000 feet long and 20 feet wide. The R7 Reservoir, planned to be built by Rincon MWD at some point within the next five years, would have associated potential environmental effects related to visual, biological, and cultural resources. Other issue areas would be limited to short-term construction impacts and are not covered in this discussion. The analysis below includes a conservative estimate of 3.0 MG of water storage capacity. COMMENT #14

Relative to visual effects, potentially visible elements over the long term would relate to the tank itself, as well as a six-foot retaining wall that would support the tank at a bottom elevation of 940 feet AMSL. The tank would add a new – and notable – built feature to the north of the Project development footprint. The size of the water tank would be similar to a large two-story residence, and would be visible to off-site viewers. The knoll upon which the tank would be located, however, is lower than the topographic feature to the west of it. That knoll is never lower than approximately 1,000 feet AMSL, and goes up to approximately 1065 feet AMSL. As a result, the tank would be visually "backed" by topography a minimum of 28 feet higher than the top of the tank (at 940 feet AMSL, plus 32 feet of tank height), and would not be skylined. The six-foot retaining wall is expected to be obscured from off-site viewers by intervening grove trees. This feature would be visually consistent with other tanks located on higher hills in the vicinity (although somewhat atypical due to the lack of skylining), and also consistent with the grove uses within which it would be located.

As discussed in the Biological Resources Addendum contained in Appendix E, construction of the reservoir and access road would not impact sensitive vegetation communities, as only orchard, non-native vegetation, and developed land are present in these areas. Construction of the reservoir would also not impact jurisdictional wetlands or waters, as none are present within the 3.2-acre parcel; however, as shown in Figure 2.11-2, *Sensitive Biological Resources for the Rincon MWD Easement and Reservoir*, construction of the easement access road does have the potential to result in impacts to non-wetland WUS/streambed.

As discussed in the Cultural Resources Addendum contained in Appendix F, the 3.2-acre site and access road were surveyed for cultural resources on March 12, 2014 by Affinis archaeologists with Native American monitors from Saving Sacred Sites (Luiseño) and Red Tail Monitoring and Research (Kumeyaay). The parcel was walked in parallel transects spaced approximately 10 to 15 meters apart. The parcel was an avocado grove, which afforded poor ground visibility. No cultural resources were previously recorded within the reservoir site or the associated easement, based on records searches conducted at the South Coastal Information Center (SCIC) for the Project, including a records search obtained in March 2015 in conjunction with the Section 404 permit process. No cultural resources have been identified within or adjacent to the

reservoir site or the associated easement; therefore, there would be no impacts to cultural resources.

Although the Proposed Project would not directly result in impacts to utilities and service systems, the District's proposed R7 Reservoir has the potential to result in impacts related to visual and biological resources. Therefore, **impacts to water service facilities would be potentially significant. (Impact UT-1)** COMMENT #15

2.11.2.2 ***Wastewater Management***

Guideline for the Determination of Significance

A significant impact to utilities would occur if the Proposed Project would:

2. Generate wastewater that cannot be treated by an existing or proposed facility and/or requires significant alterations to existing sewage systems and infrastructure.
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Guideline Sources

The identified guidelines for significance are based on Appendix G of the CEQA Guidelines and are intended to ensure that adequate public utilities and services are available for local residents.

Analysis

A conceptual sewer study has been prepared for the Proposed Project to provide an overall sewer service plan and determine the requirements for an on-site collection system (Atkins 2015a). The proposed development would be served by a system of public sewer mains and an on-site WTWRF to be located at the southeasterly portion of the Project, which would be owned and operated by the San Diego County Sanitation District. More specifics regarding the sewer system are provided in Chapter 1 and in the Conceptual Sewer Study contained in Appendix Q and an analysis of the Sewer Options Alternative is provided in Subchapter 4.5.

Projected wastewater flows for the Proposed Project are based on the sewage generation factors contained in Appendix Q and summarized in Table 2.11-6, *Project Wastewater Generation*. The total average wastewater flow is projected to be 70,100 gpd. Peak wastewater flows from the Proposed Project are calculated based on the peaking factor of 2.11 and average flows of 70,100 gpd, for a peak wastewater flow of 280,360 gpd, or approximately 195 gpm under a peak hour wet weather condition.

The proposed WTWRF would have the appropriate capacity for the Proposed Project. Additionally, the sewer service area within the Project would be annexed into the San Diego County Sanitation District, subsequent to LAFCO approval of an amendment to the SOI for this district. Since the WTWRF would be owned and operated by the County, it would be designed

to County standards. Preliminary sizing of the primary lift station includes two 120-gpm pumps and approximately 20,000 gallons of emergency storage, assuming storage for six hours of average flow. Two smaller lift stations, each serving 10 to 15 homes, are assumed to be owned and maintained by an HOA, and also would be designed to County standards. The WTWRF would be an Aero-Mod system using an extended aeration wastewater treatment process, as described in detail in Section 1.2.1.1. The Aero-Mod-style process would include on-site digester basins to reduce settled solids produced by the treatment process. A preliminary design report outlining the specific design requirements of the WTWRF and associated infrastructure would be prepared and submitted to the County as a condition of Project approval. Based on these considerations, wastewater generated by the Project would be treated by the proposed on-site facility and would not require significant alterations to existing sewage systems and infrastructure or substantially reduce the capacity of existing facilities. Thus, **impacts related to wastewater management would be less than significant.**

2.11.3 Cumulative Impact Analysis

Several related cumulative development projects have been recently completed or are planned for development in the vicinity of the Proposed Project, as listed in Table 1-5. These future projects include residential developments totaling approximately 15,500 units (including the Proposed Project), as well as other types of development, such as a light recycling processing facility and offices. Cumulative impacts of these development projects are analyzed below within the context of comprehensive regional planning and forecasting of water supplies and facility needs. The significance guidelines that were used to evaluate Project-specific impacts also are used here to evaluate cumulative impacts.

2.11.3.1 *Water Supply and Facilities*

As discussed previously, the SDCWA's 2010 UWMP provides for a comprehensive planning analysis at a regional level and includes water use associated with accelerated forecasts of residential development as part of its municipal and industrial sector demand projections. The demand associated with accelerated forecasted growth is intended to account for SANDAG's land use development currently projected to occur between 2035 and 2050, but which has the likely potential to occur on an accelerated schedule. SANDAG estimates that this accelerated residential development could occur within the planning horizon of the 2010 UWMP update. These units are not yet included in local jurisdictions' general plans, so their projected demands are incorporated at a regional level. When necessary, this additional demand increment can be used by member agencies to meet the demands of development projects not identified in the general land use plans or for new annexations.

As documented in the 2010 UWMP, the SDCWA is planning to meet future and existing demands which include the demand increment associated with the accelerated forecasted growth. SDCWA will also assist its member agencies in tracking the certified EIRs provided by the agencies that include water supply assessments that utilize the accelerated forecasted growth demand increment, to demonstrate adequate supplies for the development. Therefore, cumulative impacts on water supply and water facilities would be **less than significant**.

2.11.3.2 *Wastewater Management*

The Proposed Project would not rely upon an existing sanitation or maintenance district, but rather, would involve the construction of an on-site facility to treat the wastewater generated from the Proposed Project. Because the Proposed Project would not rely upon an existing facility for wastewater treatment, the Project's contribution to cumulative impacts on wastewater treatment services would be **less than significant.**

2.11.4 Significance of Impacts Prior to Mitigation

The Proposed Project would not result in impacts to utilities and service systems, however, potential impacts could occur as a result of the Rincon MWD planned R7 Reservoir. The R7 Reservoir is planned to be constructed by Rincon MWD within the Project site, although not as part of the Proposed Project. This new facility is the responsibility of the Rincon MWD and could result in the following impact related to utilities and service systems: COMMENT #16

Impact UT-1 Construction of the R7 Reservoir could result in:

- Visual impacts to neighboring areas if the surrounding grove trees are not tall enough to provide sufficient screening of the water tank; and
- Biological resource impacts if construction of the easement access road cannot avoid the non-wetland WUS/streambed.

2.11.5 Mitigation

The mitigation measure would be implemented when the reservoir is being designed and approved. The agency responsible for approving the facility (Rincon MWD) would also be responsible for the mitigation to reduce utility-related impacts to less than significant.

M-UT-1 The Applicant will coordinate with Rincon MWD at the time the tank is designed and constructed to ensure that there is adequate mitigation for utility-related impacts. The mitigation is anticipated to include, but may not be limited to:

- In order to be fully consistent with seen elements of notable tanks east of Harmony Grove, tall trees shall be planted around the tank to provide more height screening than may be provided by grove trees. These plantings shall soften the line of the tank top, which otherwise would provide a rigid horizontal element to the view. Rincon MWD shall plant this facility similarly to their other nearby tanks for visual continuity.
- If impacts to the WUS/streambed crossings cannot be avoided by constructing structures spanning these areas rather than using fill, Rincon MWD shall obtain permits from the USACE, Regional Water Quality Control Board, and CDFW, and shall provide appropriate mitigation.

COMMENT #17

2.11.6 Conclusion

The implementation of the mitigation measure listed above would reduce utility-related impacts to less than significant.

Table 2.11-1
POTABLE WATER DEMANDS

Site	Units	Unit Demand (gpd/du)	Average Demand		Max Day Demand (2.6xAAD)		Peak Hour Demand (3.9xAAD)
			(gpd)	(gpm)	(gpd)	(gpm)	(gpm)
Condominium Residential (detached)	49	400	19,600	14	50,960	35	55
Single-family Residential	277	510	141,270	98	365,889	254	382
TOTAL	**326**	--	**160,870**	**112**	**416,849**	**289**	**437**

Source: Atkins 2014b

Table 2.11-2
SUPPLY AND DEMAND COMPARISON – NORMAL YEAR

	2015	2020	2025	2030	2035
Supply Totals	9,400	9,600	9,800	10,000	10,100
Demand Totals	9,669	9,823	10,041	10,263	10,371
Difference	269	223	241	263	271
Difference as % of Supply	3%	3%	3%	3%	3%
Difference as % of Demand	97%	97%	97%	97%	97%

Source: Rincon MWD 2011
Units are in acre-feet per year

Table 2.11-3
SUPPLY AND DEMAND COMPARISON – SINGLE DRY YEAR

	2015	2020	2025	2030	2035
Supply Totals	9,400	9,600	9,800	10,000	10,100
Demand Totals	9,669	9,823	10,041	10,263	10,371
Difference	(269)	(223)	(241)	(263)	(271)
Difference as % of Supply	-3%	-3%	-3%	-3%	-3%
Difference as % of Demand	-97%	-97%	-97%	-97%	-97%

Source: Rincon MWD 2011
Units are in acre-feet per year

Table 2.11-4
SUPPLY AND DEMAND COMPARISON – MULTIPLE DRY YEAR

		2015	2020	2025	2030	2035
Multiple Dry-Year	New Sources	2,000	2,500	3,000	3,500	4,000
	Supply Totals	9,400	9,600	9,800	10,000	10,100
	Demand Totals	9,669	9,823	10,041	10,263	10,371
First Year Supply	Difference	-269	-223	-241	-263	-271
	Difference as % of Supply	-3%	-3%	-3%	-3%	-3%
	Difference as % of Demand	-1%	-2%	-2%	-3%	-3%
Multiple Dry-Year	New Sources	2,000	2,500	3,000	3,500	4,000
	Supply Totals	9,400	9,600	9,800	10,000	10,100
	Demand Totals	10,055	10,216	10,443	10,674	10,790
Second Year Supply	Difference	-655	-616	-643	-674	-690
	Difference as % of Supply	-7%	-6%	-7%	-7%	-7%
	Difference as % of Demand	-7%	-6%	-6%	-6%	-6%
Multiple Dry-Year	New Sources	2,000	2,500	3,000	3,500	4,000
	Supply Totals	9,400	9,600	9,800	10,000	10,100
	Demand Totals	8,748	8,888	9,085	9,286	9,474
Third Year Supply	Difference	652	712	715	714	726
	Difference as % of Supply	7%	7%	7%	7%	7%
	Difference as % of Demand	8%	8%	8%	8%	8%

Source: Rincon MWD 2011
Units are in acre-feet per year
This data included indirect potable water from a project that is not yet implemented. Rincon will utilize local supplies as feasible. Shortfalls will be augmented with SDCW imported supplies.

Table 2.11-5
SUMMARY OF DISTRICT TREATED WATER STORAGE CRITERIA

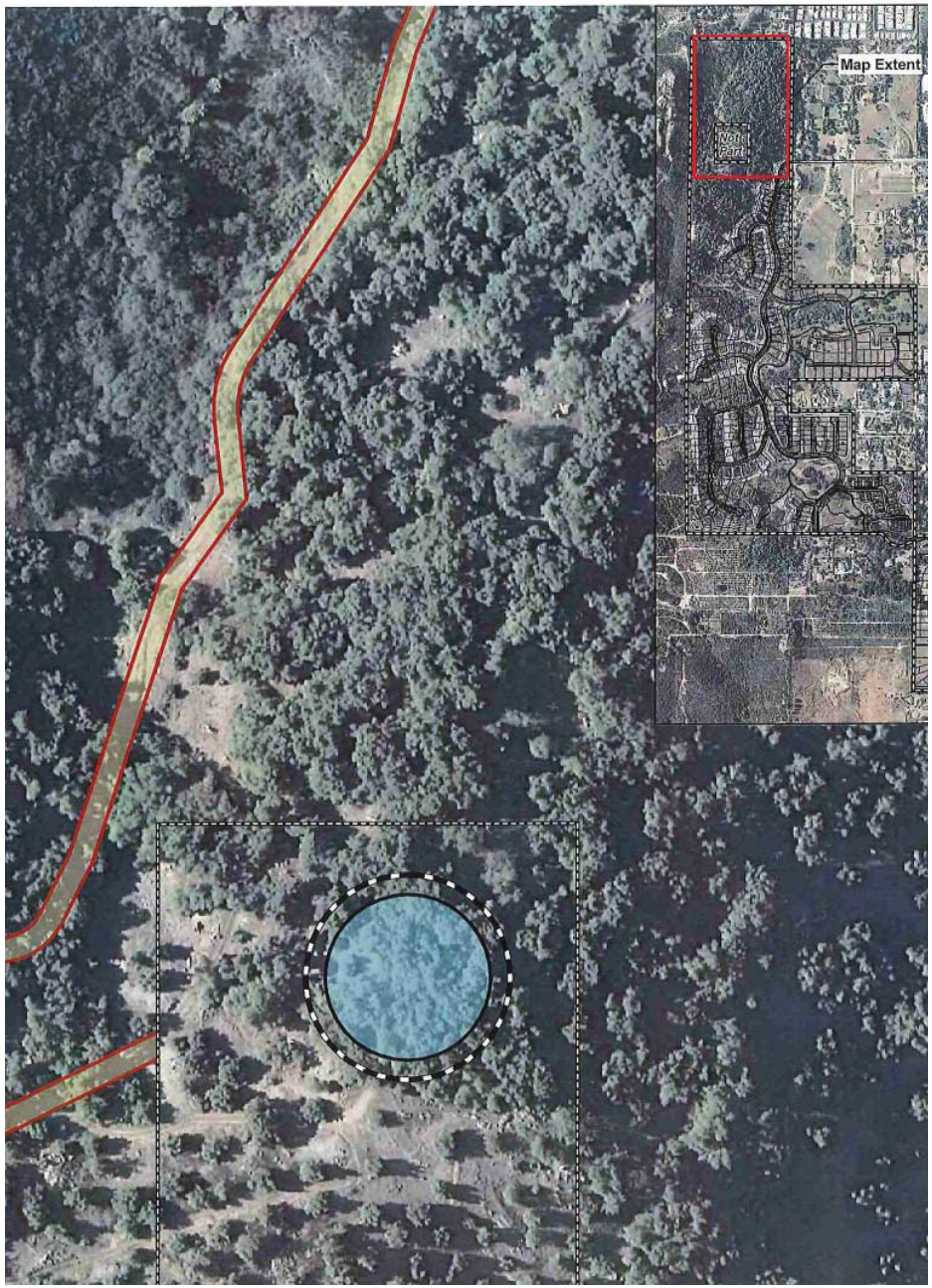
Storage Type	Volume (as duration)	2013 Volume Required[1] (MG)	2035 Volume Required[2] (MG)	Description / Notes
Emergency	3.0 average days	18.7	20.9	Emergency reserve for use during supply interruption
Fire Flow	2 at 2,500 gpm for 2 hours, for each of ID-1 & ID-A	2.4	2.4	District policy is to provide facilities to supply two concurrent fires
Operational	ID-1: 0.33 average days ID-A: 0.40 average days	2.1	2.4	Operational storage addresses time-of-day variation in demands
Total Storage Volume per Criteria		**23.2**	**25.7**	
Actual Existing (2013)[3] – Percent of Criteria Total		22.9 99%	22.9 89%	R-1A reservoir volume not included in total
Surplus (Deficit)[4]		**(0.3)**	**(2.8)**	2013 volume deficit is not significant. 2035 deficit will require new storage.

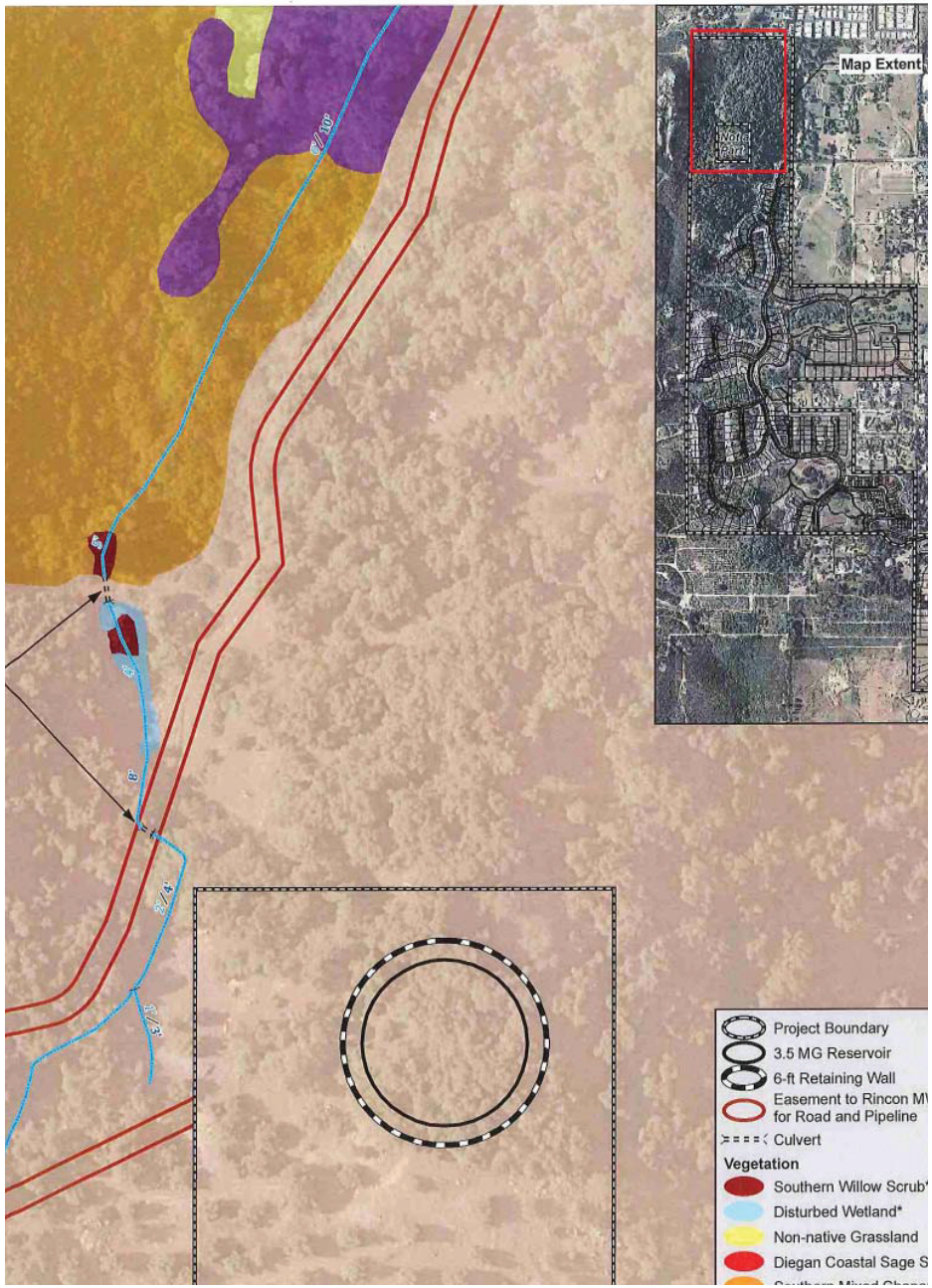
Source: Rincon del Diablo Municipal Water District Water Master Plan Update June 2014 COMMENT #18
MG = million gallons; MGD = million gallons per day
(1) 2013 Volume based on average potable demand of 7,000 AF/yr, or 6.25 MGD
(2) 2035 Volume based on average potable demand of 7,900 AF/yr, or 7.05 MGD. Future potable demand could be less if the District elects to pursue an expansion of its recycled water distribution system as part of its New Local Supply initiative.
(3) Potable storage volume does not include the R-1A reservoir (3.1 MG), which is planned to be converted to the recycled water system.
(4) The totals and surplus/deficit data shown here is for the District system as a whole, and does not account for the distribution of storage among pressure zones.

Table 2.11-6
PROJECT WASTEWATER GENERATION

	Units	Unit Rate (gpd/du)	Average Flow (gpd)	Peaking Factor	PDWF	PWWF
Condominium Residential (detached)	49	215	10,540	2.11	25,495	42,140
Single-family Residential	277	215	59,560	2.11	144,123	238,220
TOTAL	326	--	70,100	--	169,618	280,360

Source: Atkins 2015a
gpd = gallons per day; du = dwelling unit; PDWF = Peak Dry Weather Flow; PWWF = Peak Wet Weather Flow


Map Extent


Map Extent
Project Boundary
3.5 MG Reservoir
6-ft Retaining Wall
Culvert
Vegetation
Southern Willow Scrub*
Disturbed Wetland*
Non-native Grassland
Diegan Coastal Sage S