

3.1.110 Utilities and Service Systems

This section addresses water and wastewater services required for Project development, as well as service providers and facilities needed to meet the demands. The discussion is based on the following reports prepared for the Project: Harmony Grove South Potable Water Study (Dexter Wilson Engineering 2015) included as Appendix P, and the Harmony Grove Village South Sewer Master Plan (Dexter Wilson Engineering 2016) included as Appendix Q. The Sewer Master Plan provides the basis for the description of the proposed on-site WTRF. A completed Project Facility Availability – Sewer form has been received from San Diego County Sanitation District, and a completed Project Facility Availability – Water form has been received from Rincon MWD. These forms are included in Appendix O, and the information within them is also summarized below.

San Diego Gas & Electric (SDG&E) would provide natural gas and electricity for the Project. SDG&E has anticipated growth within the area, and adequate gas and electric facilities can be made available to serve the proposed development. In addition, 100 percent of the Project electrical need would be provided by renewable sources, as described in Chapter 1.0 and ~~Section 3.1.3~~Subchapter 2.7 of this EIR. A detailed analysis of the energy demands of the Project compared to existing energy production and consumption conditions is provided in Section 3.1.1 of this EIR and is not discussed further in this section.

3.1.110.1 Existing Conditions

Water Supply

Rincon MWD provides water service to areas within the cities of Escondido, San Marcos, and San Diego. Service is also provided to customers within the unincorporated area 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 SDCWA and Metropolitan Water District of Southern California (Metropolitan Water District) 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 2016). The water district's potable water distribution system includes approximately 117 miles of water main (8 inches or larger in diameter), 10 reservoirs with a total storage capacity of 25.7 million gallons (MG), and four pump stations; with average distribution calculated at approximately 10 million gallons per day (mgd).

Rincon MWD prepared an Urban Water Management Plan (UWMP) in 2015 in compliance with state law, to restructure its then-existing 2010 UWMP (adopted on June 28, 2011) in order to comply with the California Department of Water Resources' review process. The 2015 UWMP contains a comparison of projected supply and demands within the district's existing boundaries through the year 2040. Projected potable water resources to meet planned demand primarily would be supplied with imported water purchased from SDCWA.

Rincon MWD also prepared a Water Master Plan Update (approved in 2014) to identify facilities, supplies, and capital funding needed to continue providing reliable water and recycled

water service to its customers through 2035. The district has set a strategic goal to offset all new potable water demands through the development of local supplies. The 2014 Water Master Plan Update (Atkins 2014) found that supply and demand conditions changed substantially since Rincon MWD last updated their Master Plan. Water demands have declined significantly in recent years due to conservation, water price increases, economic recession, and the mandatory use restrictions in effect during 2009 and 2010. The Master Plan projects potable demands will increase modestly in future years in response to population growth, but will remain below historical highs, and substantially below the levels projected in previous master plans. Rincon MWD currently supplies approximately 10,000 acre-feet of water per year to serve customer demands. Of this amount, approximately 70 percent is potable treated water supply purchased from the SDCWA, and the balance of approximately 30 percent is non-potable recycled water purchased from the City of Escondido. Rincon MWD expects to continue to be dependent on these two main water suppliers, but will seek to offset new customer demands with new local supplies, such that there will be no increase in water purchases from the SDCWA.

The Project site is located entirely within the boundaries of the Rincon MWD service area. The Project would be supplied from the R-1A and R-1B reservoirs, which have a high water level of 959 feet amsl (Appendix P).

Specifically, the 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. The R-1A Reservoir (3.1 MG capacity) is planned to be converted from potable water storage to the recycled water system to serve the planned HGV development (Atkins 2014). The R-1B Reservoir has a storage capacity of 3.7 MG.

The Water Master Plan Update assumes a new 3.0 MG R-7 Reservoir will be implemented in Rincon MWD by 2035 to meet storage needs resulting from: (1) the need to meet existing and future dual fire flows in the western area of ID-1; (2) increase in water demands with planned development; and (3) the conversion of the R-1A Tank to recycled water. Rincon MWD has acquired the property for the R-7 Reservoir and a preliminary site lay-out was prepared as part of the Water Master Plan Update. In addition, the district's existing recycled water system is being expanded to interconnect with the water reclamation plant and distribution system under construction in HGV.

Wastewater Management

The Project site is not located within a current sanitation district. It is, however, located immediately south of (within approximately 550 feet of) the HGV WRF that is being incorporated into the CSD, and is being constructed in conformance with County requirements. HGV South is even closer to public HGV park facilities south of Harmony Grove Road that would be served by the CSD.

The County provides sewer service for approximately 50,000 customers within the unincorporated communities of the County of San Diego. The CSD 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. As noted above, the Project site is not located in any of these sanitation or maintenance districts; it is, however, proposed to be annexed into the CSD, and is also located immediately south of the HGV Sewer Service Area. Accordingly, the option of utilizing the HGV WRF for the Proposed Project's wastewater treatment needs is discussed in Subchapter 4.7, *Analysis of the Off-site and Combined On-/Off-site Sewer Options Alternative*, along with a combined on- and off-site option, for the provision of sewer service in lieu of the proposed on-site WTRWF and related facilities.

Regulatory Setting

Water supply issues are continuously evolving; they are affected by regulations, policies and the plans and resources of regional agencies, as discussed below.

Water Supply

Senate Bills 610 and 221

Senate Bill (SB) 610 (PRC Section 21151.9 and California Water Code Sections 10631, 10656, 10657, 10910, 10911, 10912, and 10915) requires preparation of a Water Supply Assessment (WSA) when a project subject to CEQA exceeds 500 residential units or the equivalent. The 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 SB 610, requires verification of water supplies as a condition of tentative map approval for residential subdivisions of 500 units or more. Consistent with the above discussion, the Project vesting tentative map shows fewer than 500 residential units or equivalent; SB 221 is, therefore, not applicable to the Project.

Executive Orders B-29-15 and B-37-16

On April 1, 2015, Governor Brown signed Executive Order B-29-15, mandating state water restrictions for a 25 percent mandatory potable water reduction through February 28, 2016. These restrictions required California water suppliers to California cities and towns to reduce usage as compared to the amounts used in 2013. On May 18, 2016, the State Water Board adopted an emergency conservation regulation which replaced the statewide mandatory potable water reduction with a localized "stress test" approach, effective June 2016 through January 2017. Under the new regulation, local water agencies are required to adopt necessary conservation measures to ensure a three-year supply under drought conditions similar to what the State of California experienced from 2012 to 2015 (SWRCB 2016b). The State Water Board has been directed by Executive Order B-37-16 to make some of the requirements in the emergency conservation regulation permanent. Although San Diego County water conservation will continue to be directed by San Diego local water providers, Governor Brown declared an end to the drought on April 7, 2017.

San Diego County General Plan Policies

The San Diego County General Plan includes a Land Use Element that contains policies regarding water supply. These policies are analyzed in the Section 3.1.65 of this EIR.

Rincon MWD Drought Ordinance

The Rincon MWD Drought Ordinance, entitled “An Ordinance of the Rincon del Diablo Municipal Water District Finding the Necessity For and Adopting a Drought Response Plan,” was most recently updated on November 12, 2014 to address the current drought in California. The ordinance contains different “Drought Stages,” from Level 1 – Drought Watch to Level 4 – Drought Emergency. The different levels represent target reductions in Rincon MWD water use; at Level 1, water use cuts are voluntary while at Levels 2 through 4 water use cuts are mandatory. Rincon MWD’s Board of Directors rescinded a Level 2 – Drought Alert in place from May 27, 2015 and returned to Level 1 – Drought Watch on June 28, 2016, after meeting the State Water Resources Control Board’s (State Board) stress test requirements for drought conditions. Level 1 – Drought Watch, requires that customers meet voluntary water use reductions up to 10 percent and follow Permanent Water Use Restrictions addressing such items as number of days and time of day for use of potable water, etc.

Regional Water Supply Agency Plans

SDCWA’s 2015 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 2050 Regional Growth Forecast (Series 13) to calculate future demands within their service area. This provides for consistency between 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 2015 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 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 2015 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.

Wastewater Management

San Diego County General Plan Policies

The County General Plan includes a Land Use Element that contains policies regarding wastewater treatment and facilities expansion (timing, sizing and location). These policies are analyzed in Section 3.1.6-5 of this EIR.

3.1.110.2 Analysis of Project Effects and Determination as to Significance

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

As noted above, Rincon MWD would provide potable and recycled water for the Project. Rincon MWD's current potable water supply is dependent on the SDCWA as the wholesale water supplier. The Project does not exceed the specified size threshold of 500 residential units or equivalent, and thus, preparation of a WSA per SB 610 is not required. The following assessment of water supply for the Project is based on the Rincon MWD 2015 UWMP (Rincon MWD 2016).

Regional Potable Water Supply and Demand in Normal Year Conditions

Water service would be provided to the Project site by Rincon MWD. A completed Project Facility Availability – Water dated ~~January 4, 2015~~ March 7, 2018 has been received from Rincon MWD (Appendix O). The form notes that the Project is in the district and facilities to serve the Project are reasonably expected to be available within the next five years based on the capital facility plans of the district. The form also notes that the district will submit conditions at a later date, and provided a letter discussing possible restrictions that may occur if the current drought continues.

Table 3.1.110-1, *Rincon MWD Supply and Demand Summary for Normal-year Conditions*, presents a supply summary for normal-year conditions from the Water Master Plan Update (Atkins 2014). Potable water supply obtained from SDCWA from 2015 to 2035 is projected to remain the same at 7,000 acre-feet/year (afy). Recycled water purchases from Escondido are projected to total 3,030 afy through 2020, increase to 3,180 afy by 2025, and remain at this level to 2035. Recycled water supply from the Harmony Grove WRF is projected to total 220 afy starting in 2020. New local supplies are projected to increase from 280 afy in 2020 to 900 afy in 2035. Total supplies are estimated to increase from 10,080 afy in 2015 to 11,300 in 2035. The Water Master Plan Update states that for that portion of new water demand that cannot be directly supplied with recycled water, Rincon MWD plans to implement offsetting amounts of other new local supply development, which could consist of additional increments of non-potable recycled water delivered to existing customers via expansion of Rincon MWD's recycled

water distribution system, groundwater, indirect-potable recycled supplies, or a combination of these. Through this offsetting, Rincon MWD intends that there will be no increase in water purchases from SDCWA over time.

Table 3.1.4+10-1 also presents Rincon MWD projected demands. The estimates are based on data and projections contained in the most recent Regional Growth Forecast prepared by SANDAG, and incorporate projected increased use of recycled water due to (a) the HGV development, (b) conversions of existing potable customers serviceable from the existing recycled distribution system; and (c) one or more projected additional future development projects that the district will condition to require recycled water use (including Harmony Grove Meadows, a previous, 200-residential unit development proposed by others for the Project site).

The potable water demands in Table 3.1.4+10-1 reflect per capita demands that decrease over time from 207 gpd per person in 2015 to 200 gpd per person in 2035. Per capita potable water use is expected to continue to decline due to conservation efficiencies and the expanded use of recycled water. Use will remain below and in compliance with the target levels established by California Senate Bill X7-7, the “20 percent by 2020” legislation enacted into law in 2009, which set a goal of 218 gpd per person for 2020 (Atkins 2014).

The Water Master Plan Update concludes that because demands will remain below their historical highs, the existing water distribution and storage system generally will be adequate to serve future average day conditions. Nevertheless, capital spending will be required to:

1. replace aging infrastructure;
2. increase system redundancy;
3. provide for new more rigorous fire flow requirements; and
4. serve limited areas of new development.

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. Based on the Rincon MWD 2015 UWMP (Rincon MWD 2016), if Metropolitan Water District, SDCWA, and Rincon MWD supplies are developed as planned, no shortages are anticipated within the Rincon MWD service area in a normal year through 2040. Regionally, SDCWA’s water supply and demand assessment contained in their 2015 UWMP compared the total projected water use with expected water supply in normal, dry, and multiple dry years. The normal water year assessment showed no water shortages through 2040. Single and multiple dry year assessments showed some years over the next 20 years where management actions, such as additional conservation due to drought, would be required to maintain supply (SDCWA 2016). Overall, the assessment projected water reliability through the next 25 years to correspond with population growth forecasted by SANDAG.

As documented in their 2015 UWMP, SDCWA is planning to meet future and existing demands, including the demand increment associated with accelerated forecasted growth. SDCWA also assists 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. Also as part of preparation of its 2015 UWMP, SDCWA confirmed Rincon MWD demands.

Project Water Supply and Demands in Normal Year Conditions

The Project would be consistent with the 2016 Title 24 Energy Code (which went into effect January 1, 2017). The 2016 CALGreen Building Code targets reduction of both potable water use and wastewater generation by 20 percent. The Project incorporates measures such as a drought-tolerant landscaping plan; high efficiency drip irrigation systems; weather-based smart irrigation control systems, and use of reclaimed water for outdoor irrigation. In addition, the Project commits to installation of low-flow water fixtures, including low-flow bathroom fixtures,

The estimated water demands (estimated from planned land uses, using unit use factors specific to the primarily residential land use in the current Project plan) were included in the Project's Specific Plan. The total average water demand was estimated to be 181,200 gpd as detailed in Table 3.1.4+10-2, *Project Potable Water Demands*. The maximum anticipated single-day demand was estimated to be 308,000 gpd, with a peak hour demand of 365 gallons per minute (gpm).

The total average potable water demand of 181,200 gpd estimated for the Project is equivalent to approximately 200 afy, which represents approximately three percent of Rincon MWD's projected potable water supply from SDCWA. As a point of reference, single-family homes assumed for the Project parcels under the General Plan (one dwelling unit per 0.5 acre), would be anticipated to use 510 gpd per unit, or 113,220 gpd, with none of that water being returned to sewer and used to produce recycled water. Per capita use based on a Project population of 1,205 (2.66 persons per dwelling unit times 453 dwelling units) is projected to be 150 gpd per person, which is well below the goal of 218 gpd per person and Rincon MWD's service area projections of approximately 200 gpd per person. The difference in use rate is associated with the proposed 453 units at a higher density. There is an assumption of 400 gpd per unit.

Recycled Water

The primary source of recycled water for the Proposed Project would be the on-site WTWRF. This treated effluent would meet Title 22 standards and provide a source of recycled water that would irrigate approximately 36 acres (Appendix Q). The WTWRF, and a return of 200 gpd to the sewer to be recycled, would result in a commensurate reduction in daily need rate of potable water. This would result in a net potable water use of 200 gpd per unit, or 90,000 gpd.

Drought Condition Issues

According to the Rincon MWD 2015 UWMP (Rincon MWD 2016), coordinated regional planning for future drought situations has resulted in both Metropolitan Water District and SDCWA developing drought management plans to fairly and adequately deliver water to their member agencies. SDCWA has invested in carryover storage supplies to assist in achieving reliability in dry years as discussed in its 2015 UWMP. SDCWA's carryover supplies include regional surface water storage and groundwater storage in the California Central Valley. This has been supported by the 2014 Rincon MWD Drought Ordinance, with voluntary, and potential mandatory, use rate cuts.

In years where shortages are experienced after expenditure of SDCWA carryover supplies, Rincon MWD would respond to allocations in water demands as mandated by Metropolitan Water District and/or SDCWA. Additionally, Rincon MWD has developed a Drought Response Plan which identifies the thresholds and actions to support conservation, whether short or long-term. The Plan provides for four levels of drought conditions and corresponding response actions: Drought Watch, Drought Alert, Drought Critical, and Drought Emergency.

The Rincon MWD 2015 UWMP (Rincon MWD 2016) also notes that quantities of supplies derived from recycled water or brackish desalination projects are relatively unaffected by a dry year. SDCWA's existing and planned supplies from the Imperial Irrigation District transfer, seawater desalination, and canal lining projects are considered verifiable, or substantially sure supply sources, as discussed in Section 4 of the SDCWA 2015 UWMP. Information contained in Metropolitan Water District's 2015 UWMP also shows that previous normal or wet years prior to a dry year would cover potential shortfall in core supplies. Metropolitan Water District would have enough water in storage and would not need to allocate its supplies.

For both single and multiple dry year events, Rincon MWD would actively promote a "voluntary 10 percent reduction in use" message, and expects this will counteract the tendency for demands to be higher than normal during dry conditions such that its dry year demands will be the same as its projected normal year demands. Accordingly, from a regional planning perspective, no shortage of supplies would be anticipated in Rincon MWD's service area during either single or multiple dry year events. 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.

Reclaimed water would be produced for irrigation of parks, parkways, manufactured slope areas, and other common area landscaping; consistent with the County's Water Efficient Landscape Design Manual, the County of San Diego's Water Conservation in Landscaping Ordinance, and the State of California's Model Water Efficient Landscape Ordinance (MWELo). Permanent irrigation with potable water for newly constructed development would be delivered by drip or microspray systems.

As noted above, Rincon MWD has provided the Project with a Project Facility Availability – Water form stating that at this time the Project is eligible to receive water for fire and normal domestic use from Rincon MWD. The form also states, however, that water availability is subject to changes in the critical water issues throughout the State. If the drought continues and current Level 2 Drought Alert must be re-evaluated, Rincon MWD may impose further restrictions such as the suspension of new potable water availability certifications and the rescinding of outstanding certifications. Accordingly, the water availability for the Project will be re-evaluated when plans are submitted.

In summary, the Proposed Project has been found to create a demand for potable and recycled 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. In addition, regional and local water supply actions are in place to respond to drought conditions in both single and multiple dry years. Therefore, impacts associated with the Project's water supply demand would be **less than significant**.

Water Supply Facilities

Specifics regarding the water supply system for the Proposed Project are described in Section 1.2.2.2, under the heading *Utilities/Institution*, of this EIR, and in the Specific Plan (PDC 2017a). Figure 1-10 illustrates the proposed water system for the Project.

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.

A Potable Water Study (Appendix P to this EIR) has been prepared to determine the potable facility requirements to serve the new development and integrate it with the existing system (Dexter Wilson Engineering 2015). As noted above, a recycled water system would be designed to serve all irrigation of common areas such as parks, open space and parkways. This would notably reduce the on-site demand for potable water.

The potable water supply system facilities 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 discussed in Section 1.2.2.2, potable water service for the Project site would be primarily provided by a connection to an existing 12-inch potable water pipeline in Harmony Grove Road. For purposes of redundancy, the Project would connect with an existing 8-inch water pipeline near the western terminus of Country Club Drive (near the Harmony Grove Spiritualist Center). The 12-inch pipeline would connect to two points on the Project following the 90-degree turn in Country Club Drive. On-site water pipelines would be installed in Project roadways. The recycled water supply system is shown in Figures 1-6b and 1-12.

New water facilities, including connections, pipelines, and fire hydrants would be designed to satisfy Project needs and requirements of Rincon MWD. No modifications to Rincon MWD facilities have been noted as required in the Potable Water Study. Therefore, impacts to water service facilities would be **less than significant**.

Wastewater Management

Guidelines 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.

Guidelines Source

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 completed Project Facility Availability – Sewer form dated ~~March 3, 2015~~ March 7, 2018 has been received from the San Diego CSD (Appendix O). The form notes that the Project is not in the CSD and is not within its Sphere of Influence boundary, but facilities to serve the Project are reasonably expected to be available within the next five years and would be available subject to the conditions in the attachment provided with the form. The conditions in the attachment include the following:

- The Project must evaluate all potential sewer service providers/agencies and demonstrate that the CSD would be the superior provider based on economic and operational considerations.
- The Project must be annexed into the CSD through LAFCO action.
- The CSD must approve the Project Sewer Master Plan.
- The Project must fund and construct required facilities.
- The Project would be responsible for satisfying all future conditions that may be required by the CSD.
- The Project must satisfy all conditions of map approval and improvement agreements, including construction by the Project and acceptance by the CSD of any necessary on-site or off-site sewerage facilities, property, and easements.

A Sewer Master Plan has been prepared for the Project to provide an overall sewer service plan and determine the requirements for an on-site collection system (Dexter Wilson Engineering 2016). Specifics regarding the sewer system scenarios are provided in Section 1.2.2.2 and 4.7 of this EIR and in the Sewer Master Plan contained in Appendix Q.

Projected wastewater flows for the Project are based on the sewage generation factor contained in Appendix Q and summarized in Table 3.1.410-3, *Wastewater Generation Estimates*. A use rate of 215 gpd per unit is consistent with the factor for the approved HGV WRF. The average wastewater flow using this generation factor is projected to be 97,395 gpd.

Peak design flow factors, which do not vary with conservation, are summarized in Table 3.1.410-4, *Peak Flow Factors*. Peak wastewater flows from the Project calculated using the peaking factor of 2.11 and the highest average flows of 97,395 gpd would be 205,503 gpd, or approximately 143 gpm.

As described in detail in Section 1.2.2.2 of this EIR, wastewater treatment facilities appropriate to the proposed HGV South development would be built by the Project.

The Project WTWRF would be one of two different plant styles as described in Chapter 1.0, Section 1.2.2.2 of this EIR, under the heading “*Utilities/Institution.*” It could be either an Aeromod facility similar to the existing HGV WRF, or a pre-packaged membrane bioreactor (e.g., Ovivo Package Plant) and would be designed to meet the reliability requirements in

accordance with Title 22 of the California Code of Regulations. The HGV WRF was designed to produce disinfected tertiary recycled water meeting the requirements of Section 60304(a) of Title 22 of the California Code of Regulations. In order to utilize all of the recycled water generated from wastewater from the HGV South project, approximately 36 irrigated acres would be needed. Section 1.2.2.2 of this EIR also identifies Project areas for which irrigation would be required and which could use recycled water. Gravity sewer lines 12-inches in diameter and smaller would be designed to convey peak dry weather flows while not flowing at more than 50 percent full by depth (see sewer lines locations on Figure 1-6b). Gravity sewer lines would be designed to flow at a minimum velocity of 2.0 feet per second during peak flow conditions or have to have a minimum slope of 1.0 percent to prevent the deposition of solids.

This collection and treatment system would have the appropriate capacity for the proposed HGV South development. Additionally, in accordance with the completed Project Facility Availability – Sewer form from the CSD, it is anticipated that the sewer service area within the Project could be annexed into the San Diego CSD, subsequent to LAFCO approval of an amendment to the sphere of influence for this district. Since the treatment system could be owned and operated by the County, it would be designed to County standards. When a final wastewater treatment scenario is selected, a more detailed design report outlining the specific design requirements 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 appropriately without requiring significant alterations to existing sewage systems and infrastructure or substantially reducing the capacity of existing facilities. Thus, impacts related to wastewater management would be **less than significant**.

3.1.110.3 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 1-3. Combined, all 66 cumulative projects would result in the addition of approximately 15,494 housing units to this area of the County. Specifically within County jurisdiction, the cumulative projects (including the Proposed Project) would result in a total of 2,403 units in the Project site vicinity. 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.

Water Supply and Facilities

As discussed previously, the SDCWA's 2015 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. 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 2015 UWMP, the SDCWA is planning to meet future and existing demands which include the demand increment associated with the accelerated forecasted growth. Part of the SDCWA tool kit in these projections consists of WSAs prepared by applicable projects. Excluding the Proposed Project, 65 projects are listed in Table 1-3, showing cumulative projects relevant to this Project. Of these, a total of 21 projects shown on Figure 1-23 would require, or have the potential to require, a WSA. Five projects (numbers 15, 23, 31, 42, and 54) are residential, one project (47) is a commercial office development, and two projects (46 and 48) are mixed-use. Two projects (49 and 65) are hospitals or medical facilities of over 1,000,000 s.f. Five projects (19, 21, 25, 37, and 50) are considered likely to demand an amount of water equivalent to, or greater than, the amount of water required by a 500-DU project. This is due to the combination of those projects' high number of dwelling units with other uses such as parks, golf courses, and schools. An additional six projects have the potential to require a WSA. Two projects (52 and 64) involve the development of schools with unknown square footage. Four projects (30, 43, 55, and 56) have an unspecified amount of office, retail, or industrial square footage. SDCWA 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. Therefore, cumulative impacts on water supply and water facilities would be **less than significant**.

Wastewater Management

A collection and treatment system with the appropriate capacity for the Proposed Project would be constructed as part of the Project. All other cumulative developments that would generate sewage would be required to provide adequate wastewater collection and treatment facilities. Therefore, the Project's contribution to cumulative impacts on wastewater treatment services would be **less than significant**.

3.1.1110.4 Significance of Impacts

In consideration of the above information, impacts to public utilities would be less than significant.

3.1.1110.5 Conclusion

Based on the analyses provided above, implementation of the Proposed Project would not result in any significant impacts related to utilities and service systems

Year	2015	2020	2025	2030	2035
Supply Source					
SDCWA (potable)	7,000	7,000	7,000	7,000	7,000
Recycled - Total	3,030	3,250	3,400	3,400	3,400
-Escondido Purchases	3,030	3,030	3,180	3,180	3,180
-Harmony Grove WRP	0	220	220	220	220
New Local Supply*	50	280	550	790	900
Total Supply	10,080	10,530	10,950	11,190	11,300
Demand Projection					
Population	30,400	31,500	33,000	34,500	35,200
Potable Water Demand**	7,050	7,280	7,550	7,790	7,900
Recycled Water Demand	3,030	3,250	3,400	3,400	3,400
Total Water Demand	10,080	10,530	10,950	11,190	11,300

Source: Atkins 2014

*New Local Supply may be recycled water, groundwater, indirect or direct potable recycled supplies, or a combination.

**The increase in annual potable demand is projected to be offset by new local supplies, defined above.

Water supply and demand units are in acre-feet per year (afy)

Site	Units	Unit Demand (gpd/DU)	Average Demand (ADD)		Max Day Demand (1.7 x AAD)		Peak Hour Demand (2.9 x AAD)
			(gpd)	(gpm)	(gpd)	(gpm)	(gpm)
Residential	453	400	181,200	126	308,000	214	365
Total	453	--	181,200	126	308,000	214	365

Source: Dexter Wilson Engineering 2015

Table 3.1.1110-3 WASTEWATER GENERATION ESTIMATES					
Unit Rate Factor	Residential Units	Unit Rate (gpd/DU)	Average Flow (gpd)	Peaking Factor	Peak Flow
HGV South	453	215	97,395	2.11	205,503

Source: Dexter Wilson Engineering 2016
 gpd = gallons per day; DU = dwelling unit

Table 3.1.1110-4 PEAK FLOW FACTORS	
Flow	gpd
24 Hour Total	
Average Dry Weather Flow	97,395
Peak Monthly Dry Weather Flow (1.2 x average)	116,874
Peak Wet Weather Flow (2.11 x average)	205,503
1 Hour Peak	
Dry Weather (2.42 x average)	235,696
Wet Weather (4 x average)	389,580

Source: Dexter Wilson Engineering 2016
 gpd = gallons per day