6.18 UTILITIES – WATER

6.18.1 OVERVIEW AND SUMMARY

Water service at the proposed project site would be provided by the Camrosa Water District. The most recent urban water management plan prepared by the district indicates that there are sufficient supplies of water available to supply current and projected demand for the district, including the proposed project. Therefore, impacts would be less than significant.

6.18.2 LITERATURE AND DATA REVIEW

Data Sources

The following sources provided information regarding:

- Camrosa Water District. *2015 Urban Water Management Plan*. 2015.
- Camrosa Water District. Draft Integrated Facilities Master Plan. February 2011.
- Camrosa Water District. Water Design and Construction Standards.
- Terry Curson, Project Engineer, Camrosa Water District.

6.18.3 METHODOLOGY

The analysis of water resources and water supply is based upon the understanding of projected water supplies as developed by the Camrosa Water District (Camrosa). This includes estimates of available groundwater, Colorado River water, and State Water Project (SWP) sources. Quantitative estimates of water supplies and demands were considered as part of the impact assessment.

The water supply analysis is based upon the Camrosa 2015 Urban Water Management Plan.[1]

1 Camrosa Water District (Camrosa). *2015 Urban Water Management Plan*. 2015.

6.18.4 APPLICABLE REGULATIONS

Federal Regulations

Clean Water Act

The federal Clean Water Act (CWA) establishes regulatory requirements for potable water supplies including raw treated water quality criteria. The US Environmental Protection Agency (US EPA) established primary drinking water standards in Clean Water Act Section 304. States are required to ensure that potable water sold by retail providers to the public meets these standards. Standards for a total of 81 individual constituents have been established under the federal Safe Drinking Water Act below, as amended in 1985. The US EPA may add additional constituents in the future. LADWP is required to monitor water quality and conform to the regulatory requirements of the CWA.

Safe Water Drinking Act

The Safe Water Drinking Act[2] (SDWA) requires actions to protect drinking water and its sources including rivers, lakes, springs, and groundwater wells. SDWA authorizes the United States Environmental Protection Agency (US EPA) to set national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants that may be found in drinking water. US EPA, states, and water systems work together to make sure that these standards are met. SDWA applies to every public water system in the United States.

State Regulations

Urban Water Management Planning Act

The Urban Water Management Planning Act[3] requires urban water suppliers that provide water for municipal purposes to more than 3,000 customers, or more than 3,000 acre-feet (af) of water, on an annual basis to prepare an urban water management plan (UWMP). The intent of the UWMP is to assist water supply agencies in water resource planning given their existing and anticipated future demands. The UWMP must include a water supply and demand assessment comparing total water supply available to the water supplier with the total projected water use over a 20-year period. The management plans must be updated every five years.

---

2 US Environmental Protection Agency, Safe Water Drinking Act, http://water.epa.gov/lawsregs/rulesregs/sdwa/index.cfm.

3 Department of Water Resources, Urban Water Management Planning Act, Water Code Sections 10610-10656.

California Water Code (Sections 10910–10915)

California Water Code Division 6, Part 2.10, Sections 10910–10915, the Urban Water Management Plan Act, requires urban water suppliers that provide water for municipal purposes to more than 3,000 customers, or more than 3,000 acre feet per year (afy) of water, to prepare an UWMP. The intent of the UWMP is to assist water supply agencies in water resource planning given their existing and anticipated future demands. The UWMP must include a water supply and demand assessment comparing total water supply available to the water supplier with the total projected water use over a 20-year period. It is also mandatory that the management plans be updated every five years.

If the water demands for the proposed developments have been accounted for in a recently adopted urban water management plan, the water supplier may incorporate information contained in that plan to satisfy certain requirements of a water supply assessment. The California Water Code requires the assessment to include, along with other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the Project and the quantities of water received in prior years pursuant to those entitlements, rights, and contracts. The California Water Code also requires the public water system, or the city or county, as applicable, to submit its plans for acquiring additional water supplies if that entity concludes that water supplies are, or will be, insufficient.

Executive Order B-29-15

On April 2015, Governor Brown signed Executive Order (EO) B-29-15 which provides actions that will save water, increase enforcement to prevent wasteful water use, streamline the state's drought response, and invest in new technologies to make California more drought-resilient. The EO provides water savings by directing the State Water Resources Control Board to implement mandatory water reductions in cities and towns to reduce water usage by 25% or approximately 1.5 million acre-feet. The Executive Order calls for local water agencies to implement conservation pricing to discourage water waste.

Senate Bill 610 and Senate Bill 221

In 2001, the California State Legislature approved SB 610, which amended Sections 10910–10915 of the State Water Code to require:

> *A city or county that determines a project is subject to the California Environmental Quality Act to identify any public water system that may supply water for the project and to request those public water systems to prepare a specified water supply assessment, except as otherwise specified. The bill would require the assessment to include, among other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the*

> *identified water supply for the Proposed Project and water received in prior years pursuant to those entitlements, rights, and contracts. The bill would require the city or county, if it is not able to identify any public water system that may supply water for the project, to prepare the water supply assessment after a prescribed consultation. The bill would revise the definition of "project," for the purposes of these provisions, and make related changes.*

Pursuant to SB 610, projects that are required to obtain Water Supply Assessments include the following:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or building establishment of more than 500,000 square feet or floor space employing more than 1,000 persons;
- A proposed commercial office building of more than 250,000 square feet of floor space or employing more than 1,000 persons;
- A proposed hotel or motel of more than 500 rooms;
- A proposed industrial manufacturing, or processing plant or industrial park of more than 40 acres of land, more than 650,000 square feet of floor area, or employing more than 1,000 persons;
- A mixed-use project that falls in one or more of the above-identified categories; or
- A project not falling in one of the above-identified categories but that would demand water equal to or greater than that required by a 500-dwelling unit project

As the Project includes the development of 300 senior housing residential units, preparation of a WSA is not required by Water Code section 10912(a) as the project does not warrant an assessment under the first criteria. However, under Water Code section 10912(b), a WSA must be prepared if a public water system has fewer than 5,000 service connections and a proposed residential development would account for an increase of 10 percent or more in the number of existing service connections.

California Government Code 66473.7

California Government Code 66473.7 requires written verification from a public water system providing service to a project that a sufficient water supply is available as a condition to approval of certain tract maps. Sufficient water supply is defined as the total water supply available during normal, single-dry, and multiple-dry years within a 20-year projection that will meet the projected demand of a proposed project, in addition to existing and planned future uses. A

Assembly Bill 134

In 2001, the California State Legislature approved Assembly Bill 134 (AB 134) which requires urban water suppliers to prepare a Ground Water Management Plan (GWMP) in accordance with the provisions of California Water Code Section 10753 (Groundwater Management Plans).

Senate Bill X7-7

Senate Bill X7-7 (SB X7-7), also known as the Water Conservation Act of 2009, was enacted in November 2009, requiring all water suppliers to increase water use efficiency. The main features of this legislation are divided into two sectors, Urban Water Conservation and Agricultural Water Conservation.

The bill requires, among other things, that the DWR, in consultation with other state agencies, develop a single standardized water use reporting form, which would be used by both urban and agricultural water agencies.

Local Regulations

County of Ventura

Ventura County Well Ordinance No. 4184, last revised in May 1999, regulates the construction, repair, modification, and destruction of groundwater wells within the County.[4]

City of Camarillo

The Camarillo Municipal Code[5] includes provisions to protect the City's potable water supply from contamination in order to meet the mandates of the Safe Drinking Water Act (SDWA). It sets standards for the separation of potable water and wastewater, and also provides regulations for water wells and water conservation.

Camrosa Water District

Camrosa Ordinance 40-10 was adopted in April 2010 and is the current ordinance that establishes the terms and conditions of Camrosa water and sanitary service.[6] It regulates residential, commercial, and

---

4 County of Ventura, "Ventura County Well Ordinance No. 4184," http://pwaportal.ventura.org/WPD/docs/Groundwater-Resources/Ventura-County-Well-Ordinance-No-4184.pdf

5 City of Camarillo, *Municipal Code*, Title 14, http://library.municode.com/index.aspx?clientID=16239&stateID=5&statename=California.

6 Camrosa, *Ordinance 40-10, Rules and Regulations Governing the Provision of Water and Sanitary Services*, 2010.

agricultural supply, including tertiary treated wastewater provided via Camrosa's water reclamation facility.

In order to address the continuing shortage of State Water Project (SWP) water imported into Camrosa's service area, the Board of Directors declared a moratorium on the issuance of Water Availability and Water Will Serve letters for new development that would result in an unmitigated new water demand upon the District's Potable Water Distribution System.[7] For new development to occur, the developer must provide mitigation for new potable water demands. The moratorium will have the effect of dampening growth in potable water demand while allowing continued growth in accordance with the policies of agencies responsible for land-use decisions.

6.18.5 EXISTING CONDITIONS

Water Supply

The proposed project site is located within the service area of Camrosa. The district's water supply is a complex mix of public and private sources including imported state water, public and private wells in three groundwater basins, surface water diverted from Conejo Creek, and recycled water from two wastewater treatment facilities. Having multiple water sources gives the district considerable flexibility and improved reliability when compared to other nearby purveyors. Sources available to Camrosa include imported water from Metropolitan Water District of Southern California (imported through Calleguas Municipal Water District [CMWD]), local groundwater, and non-potable recycled water from various sources.

Imported Water

Camrosa depends exclusively upon Calleguas Municipal Water District, a Metropolitan Water District wholesaler, for its imported potable water supply. Most of the water Calleguas delivers is State Water Project from the Sacramento-San Joaquin Delta, though Colorado River water is blended in when SWP supplies are low, as was the case in the fall of 2015, as persistent drought conditions and reduced SWP allocations were threatening area storage and supply. While the quantity of imported State Water Project water Camrosa relies on to meet normal-year demands has been significantly reduced from historical levels over the last 20 years due to the development of local resources, as of 2015 SWP deliveries still constitute approximately 60 percent of the District's potable supply, making the reliability of Camrosa's potable distribution system fairly dependent upon the reliability of Calleguas, Metropolitan, and the State

7 Camrosa, *Draft Integrated Facilities Master Plan (IFMP), Section 2.3.6: Moratorium on Water Will Serve Letters,* (February 2011)

Water Project. Camrosa's primary strategy of reducing demand on imported water, however, should reduce that dependence to less than 50 percent by 2020, with a goal of less than 33 percent by 2025.

Since 1991, Calleguas Municipal Water District has implemented a strategy for meeting rising water demands in its service area by implementing both regional and local supply-augmentation and demand management programs. The Las Posas Aquifer Storage and Recovery Project has been an ongoing project that, according to Calleguas's 2015 Urban Water Management Plan, has the goal of maintaining at least 20,000 acre feet (af) of water in storage in the Las Posas Basin, with an estimated extraction capacity of approximately 70 cubic feet per second (CFS). Currently, Calleguas has 12,000 af of groundwater stored in the East Las Posas Basin. The Lake Bard filtration plant has a treatment capacity ranging from 30 to 100 cfs. At high flow, it would empty Lake Bard in 5.5 weeks, at low flow in four months.

Despite the winter rains, California has not yet lifted drought restrictions. Consecutive years of abnormally dry weather across the Sierra Nevada Mountain Range which produced little snowpack and spring runoff, resulting in reduced water volume in the Sacramento-San Joaquin Delta; as a result the US District Court ordered pumping restrictions to protect Threatened species in the Delta. This compounded chronic water conveyance issues and left SWP contractors in Southern California with only 40 percent of their contracted allocations in 2009. the fortuitous wet winter in 2017 will allow water levels in the Delta to rise and, consequently, allocation restrictions should ease.

On June 2012, under Resolution 12-14, the district established a permanent moratorium on new unmitigated potable demand, requiring all new development to "bring with them" additional or "new" water supplies sufficient to offset project max-day demands.

On April 7, 2017 Governor Brown declared that the drought emergency in California was over, with the exception of a few counties. On the same day, the state released its long-awaited report, "Conservation as a Way of Life," which was the culmination of the work of five state agencies under direction from the Governor's office. This report outlines a framework for a number of significant changes in water management for the coming years, in particular the imposition of water budgets on every urban water agency in the state. So, even though the drought emergency may officially be over, the implementation of the resultant long-term policy changes is only beginning.

On May 4, 2017, the Camrosa Board of Directors removed the District's Stage Two water shortage declaration that had been in place since June of 2016. This means that water use is not as limited as in the past; however, the District still has water-use prohibitions that remain in place, regardless of drought status. You can view those restrictions here:

https://www.camrosa.com/documents/WaterUseProhibitions.pdf

Groundwater

Camrosa overlays four groundwater basins: the northeast Pleasant Valley, Santa Rosa, Tierra Rejada, and the Perched aquifer. Camrosa has one well in each the Pleasant Valley and Tierra Rejada Basins, and is in the process of constructing a second well in the Pleasant Valley basin.

Eight wells draw from the Santa Rosa Basin: five that are connected to the potable system and three that contribute to the non-potable system.

Table 6.18-1, Historical and Projected Groundwater Pumping Volumes, shows the amounts of groundwater pumped from Camrosa's sources and total pumping volumes from the years 2011 to 2015.

Table 6.18-1
Historical and Projected Groundwater Pumping Volumes (acre-feet per year)

Basin	2011	2012	2013	2014	2015
Perched Aquifer	0	0	0	10	263
Pleasant Valley Basin	720	809	183	295	761
Santa Rosa Basin	2,844	2,915	3,931	3,865	2,719
Tierra Rejada Basin	435	514	428	443	367
Total	**3,999**	**4,238**	**4,542**	**4,613**	**4,110**

Source: Camrosa Water District. 2015 Urban Water Management Plan. 2015.

Groundwater provides approximately 40 percent of Camrosa's potable water supply; the rest is met by imported SWP water. That 40 percent acts as a buffer against increasingly unreliable SWP supplies; not only does it help keep rates lower and more stable, compared with agencies that depend on the legislative, political, and meteorological whims that affect Delta supply, but also in the worst-case scenario of an extended interruption in importer-water service, Camrosa has more than sufficient supply from its groundwater resources to keep its customers hydrated and hygienic indefinitely. It is Camrosa's primary supply strategy to significantly increase this ratio by bringing more local projects on line, such as the RMWTP in 2015, and a Santa Rosa groundwater recharge project, a Santa Rosa desalter, and additional wells in the PV Basin.

The RMWTP, a 1-MGD reverse-osmosis brackish groundwater desalination facility, was completed in 2014, and only started producing at capacity in August of 2015. Small refinements remain to ensure the plant runs at an optimal recovery rate, and the plant is expected to produce 850 afy. This represents 10-15 percent of the SWP water Camrosa imports from Calleguas.

The Woodcreek Well, Camrosa's well in the Pleasant Valley Basin, was out of service for 17 months between 2013 and 2014; it required significant rehabilitation to be returned to service. Pleasant Valley

Well #2, which is being constructed during 2016, will add an additional 1,500 afy of local supply to Camrosa's supply portfolio.

As **Table 6.18-1** indicates, pumping in the Santa Rosa Basin, Camrosa's primary source of groundwater, increased dramatically in 2013 and 2014, as the drought intensified; this aligns with Camrosa's strategy of relying on the basin in times of drought and/or reduced imported supply. In 2015, Camrosa experienced operational difficulties at some of its wells in the Santa Rosa Basin, and pumping dropped off. As these operational challenges are corrected, production in the Santa Rosa Basin will increase again. The basin recharges readily, and pumping above the safe yield of 3,320 afy when drought conditions impinge and threaten imported supplies is not a concern; as Table 6-1 demonstrates, extractions over the last five years have averaged (3,255 afy) less than the safe yield. The 15-year average extraction rate is 3,082 afy.

Recycled Water

Camrosa obtains recycled water for use in agricultural and landscape irrigation. The district owns and operates a 1.5-mgd wastewater reclamation facility (WRF), which is being expanded to 2.25 mgd. The Camrosa WRF produces approximately 1,500 af of tertiary-treated recycled water a year. Camrosa customers' conservation efforts reduced daily flows to about 1.3 MGD. The Camrosa UWMP projects a recycled water availability of 1,570 afy through 2035.

The Camarillo Sanitary District (CamSan) was formed in 1955 to provide wastewater treatment for most of what is now the City of Camarillo. The treatment plant occupies a 20-acre site on Howard Road next to Conejo Creek within the Camrosa Water District boundaries. The plant currently treats about 4.0 million gallons of wastewater each day, with a maximum capacity of 6.75 million gallons. Over the years, the treatment plant has undergone several modifications to increase its capacity and to incorporate new technologies. Construction to upgrade treatment from secondary to tertiary levels, in order to meet all DHS was recently completed.

Camrosa plans to construct a 3,000-foot, 15-inch pipeline to tee off of CamSan's effluent discharge pipeline to receive the city's surplus recycled water. Camrosa will store that water in its storage ponds, and deliver it to customers on demand. Camrosa and the city have received a total of $3.35 million in Proposition 84 grand funding towards this project. It is expected to be complete by the end of FY2017. CamSan is only able to guarantee Camrosa 500 afy for five years, though the city's use of their full production capacity is contingent on substantial expansion of their recycled water distribution system, and it is expected that recycled water will continue to be available during winter months beyond the five years.

Non-potable Irrigation Water

The Hill Canyon Wastewater Treatment Plant (HCTP) is a source of non-potable surface water originating from the City of Thousand Oaks. HCTP in the City of Thousand Oaks discharges its tertiary-treated wastewater effluent to Conejo Creek, where it mixes with the North and South Forks of the Conejo Creek and becomes non-potable surface water. That water is diverted from Conejo Creek, 7 miles downstream of HCTP, by Camrosa Water District, under a water right permit and agreement between Camrosa and Thousand Oaks. Camrosa distributes that water within Camrosa's service area, and delivers surplus water to Pleasant Valley County Water District. Because this water originated as tertiary-treated recycled water, becomes unregulated non-potable surface water after hitting the naturally occurring waterway of the Conejo Creek, receives no additional treatment from the Camrosa Water District after diversion and prior to delivery, and is used entirely to offset imported potable water use, it is classified, for the purposes of this UWMP, as recycled water. It is expected that Camrosa would only divert only 9,000 afy from the HTCP.

Table 6.18-2, Historical and Projected Water Supplies, summarizes the amounts of water available to the district from all sources.

Table 6.18-2
Historical and Projected Water Supplies (acre-feet per year)

Source	2015	2020	2025	2030	2035	Water Quality
Purchased or Imported Water						
SWP imported via Calleguas MWD	5,566	7,900	7,900	7,900	7,900	Potable
Groundwater						
Perched Aquifer, Pleasant Valley Basin, Santa Rosa Basin, Tierra Rejada Basin,	3,125	5,900	10,780	10,780	10,780	Potable
Desalinated Water						
From RMWTP	263	850	850	850	850	Potable
Recycled Water						
Camrosa WRF + HCTP	6,773	9,800	9,300	9,400	9,400	Non-Potable
Total	**15,727**	**24,450**	**28,830**	**28,930**	**28,930**	

Source: Camrosa Water District. 2015 Urban Water Management Plan. 2015.

Water Distribution System

Distribution Infrastructure

Camrosa operates 10 reservoirs with a total storage capacity of approximately 13.7 million gallons, or about 42 af.[8] Reservoirs are located on hillsides or hillcrests above the areas they serve. The district's distribution system consists of more than 150 miles of buried pipeline with diameters up to 24 inches. The main east-west pipeline corridor is along Santa Rosa Road. Separate pipelines carry potable water, non-potable surface water for irrigation purposes, and recycled water from the district's WRF.

Existing Water Use

Camrosa supplied 15,684 af of potable and non-potable water to all customers in 2015. The district supplied 15,025 af of potable and non-potable water to all customers in 2010, showing a very modest upwards trend of water use. **Table 6.18-3, Camrosa Water District Demand 2015**, shows the water demand generated by different land uses within the Camrosa service area in 2015, the year of Camrosa's 2015 UWMP Update.

Table 6.18-3
Camrosa Water District Demand 2015

Land Use Type	Demand (afy)
Potable Water Demand	
Residential (all)	4,839
Commercial	617
Institutional and Governmental	462
Landscape	745
Agriculture	1,005
Other (Misc.)	2
Other (Line Loss)	734
Total Potable	**8,404**
Recycled Water Demand	
Total Recycled	**7,280**
Total District Demand	**15,684**

Source: Camrosa Water District. 2015 Urban Water Management Plan. 2015. Table 4-1b

8 Camrosa Water District. Draft Integrated Master Facilities Plan. 2011

Reliability Planning

Reliability is a measure of the anticipated capability of a water service system to manage water shortages. This assessment must include a comparison of the total projected water demand to the supply available during the following hydrologic conditions: (1) average water year, (2) single-dry water year, and (3) multiple-dry-year sequences. In its analysis of water supply reliability, the Camrosa 2015 UWMP Update concluded that water supplies are adequate to meet demand under all of the required hydrologic conditions through the planning horizon year of 2035.[9]

Under the three potable water supply and demand scenarios, imported water is limited to 7,900 afy, an artificial constraint that may be exceeded if demand exceeds supply. For example, in the drought year of 1991, the district imported approximately 12,000 af. Due to statewide reassessment of the Sacramento-San Joaquin Delta's overall health and sustainability, MWD has reduced the amount of water it will allow its constituent agencies to purchase. Thus, quantities expected to be imported for 2015 through 2035 are not expected to exceed 7,900 afy, even in the driest years. **Table 6.18-4, Potable Water Supply Reliability 2020**, shows the sources that would be used to meet demand in the 2020 multiple-dry-year scenario.

Table 6.18-4
Potable Water Supply Reliability 2020 (acre-feet)

			Multiple Dry Years		
	Normal Water Year	Single Dry Year	Year 1	Year 2	Year 3
Total Supply	**24,450**	**24,450**	**24,450**	**23,931**	**21,385**
Total Demand	**15,941**	**15,941**	**15,941**	**15,941**	**15,941**
Difference	**8,509**	**8,509**	**8,509**	**7,990**	**5,444**

Source: Camrosa Water District. 2015 Urban Water Management Plan. 2015.

The year 2020 is used as this is when the next UWMP would be prepared and when the construction of the proposed project would be completed. Due to the conscious effort on the part of the Camrosa to develop alternate water supplies in order to reduce dependence upon imported supplies, and the continued success of conservation efforts on the part of customers, Camrosa will likely stay well below this amount.

Project Site

The proposed project site is currently served via an 8-inch meter service located in the southeast corner of the site. Water service is provided by the Camrosa. This connection is through an easement at the end of the southernmost cul-de-sac, Calarosa Ranch Road, within the Pinnacle development.

9 Camrosa, *2015 UWMP*, (2015) 7-6.

No other service connection was provided within Pinnacle during its planning. However, an 8-inch main (one each for potable and non-potable) was installed up to a northern cul-de-sac at Worth Way. The ends of these lines are approximately 1,000 feet from the proposed project site. A roadway connects between the end of the cul-de-sac and very near the property line, but easements would be necessary to make this connection. Although there is an existing 8-inch connection, the Camrosa Water District would require that any new project use an existing 12-inch main within Upland Road. The main extends approximately 100 feet west of the proposed project site and is approximately 1,200 feet from the current entrance into the seminary.

The project site is located in the non-potable surface water pressure zone 3. The project site is also located within Zone 2 for potable water storage. Zone 2 is currently deficient approximately 4.34 million gallons (mg) of storage capacity.

6.18.6 THRESHOLDS OF SIGNIFICANCE

In order to assist in determining whether a project will have a significant effect on the environment, the *California Environmental Quality Act (CEQA) Guidelines*, City of Camarillo Threshold Guidelines (adopted from the *State CEQA Guidelines*, Appendix G) identify criteria for conditions that may be deemed to constitute a substantial or potentially substantial adverse change in physical conditions.

Under the following thresholds, a project may be deemed to have a significant impact if it would

- have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed; or
- require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

6.18.7 ENVIRONMENTAL IMPACTS

Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

Impacts

Water Demand

The St. John's Seminary site is currently planted in 75 acres of citrus and avocado crops and is irrigated with a private well. Approximately 66,000 gpd are utilized by the Seminary. Implementation of the proposed project would add residential users to the Camrosa service area, which would create additional

demands on the district's water supply. **Table 6.18-5, Project Indoor Water Demand**, summarizes the indoor water demand that the proposed project would generate.

Table 6.18-5
Project Indoor Water Demand

Development Plan	Dwelling Units	Generation Factor	Indoor Project Demand (gpd)	Indoor Project Demand (afy)
Single Family Detached	158	2.1 persons/single family unit (detached) 220 gpcd	72,996	81.8
Single Family Attached	142	2.1 persons/multiple family dwelling 220 gpcd	65,604	73.5
Total	**300**		**138,600**	**155.3**

gpd = gallons per day; afy = acre-feet per year; gpcd = gallons/capita/day
Source: Camrosa Water District, Water Design and Construction Standards, Section 2: Design Criteria.

It is important to note that the water generation factor of **Table 6.18-5** is conservative – as mentioned in **Section 6.12, Population and Housing,** the proposed project is expected to generate approximately two residents per dwelling unit, as it is senior citizen housing development. Under project implementation, the proposed project's potable indoor water demand would total approximately 138,600 gpd, or 155.3 acre feet per year (afy). Furthermore, the proposed project would likely generate less water demand than what is analyzed as the use of city approved landscaping would reduce water consumption

Table 6.18-6, Project Outdoor Water Demand, summarizes the outdoor water demand that the proposed project would generate. The proposed parks and open space would have a water demand of approximately 60,150 gpd, or 67.4 afy.

Table **6.18-6**
Project Outdoor Water Demand

Land Use	Acreage	Generation Factor	Outdoor Project Demand (gpd)	Outdoor Project Demand (afy)
Open Space	40.10	1,500 gal/acre/day	60,150	67.4

gpd = gallons per day; afy = acre-feet per year
Source: Camrosa Water District, Water Design and Construction Standards, Section 2: Design Criteria.

The proposed project total water demand, which includes both indoor and outdoor demand, is summarized below in **Table 6.18-7, Project Total Water Demand**. As summarized in **Table 6.17-7**, the proposed project's total water demand would be 198,750 gpd and 222.6 afy.

Table 6.18-7
Project Total Water Demand

Open Space Acreage	Residential DU	Total Project Demand (gpd)	Total Project Demand (afy)
40.1	300	198,750	222.6

DU = dwelling units; gpd = gallons per day; afy = acre-feet per year.
Source: Camrosa Water District, Water Design and Construction Standards, Section 2: Design Criteria.

Table 6.18-8, Project Potable Water Demand and Camrosa Water Supply Forecasts, summarizes the demand that the proposed project would generate along with Camrosa's projections for demand growth and water supply.

Table 6.18-8
Project Potable Water Demand and Camrosa Water Supply Forecasts

Development Concept	Project Demand (gal/day)	Project Demand (afy)	Projected 2020 Potable Water Demand (afy)	Total Demand (afy)	Projected 2020 Water Supply (afy)
Residential + Open space	198,750	222.6	15,941	16,16.6	24,450

Source: Camrosa Water District, Urban Water Management Plan*, 2015.*

The proposed project's total water demands including open space and the residential component would increase total demand by less than two percent from project 2020 demand, and would consume 2.6 percent of the projected water surplus (8,509 afy). The projected water supplies of the Camrosa Water District are adequate to meet demand of the proposed project at buildout.

The Camrosa's 2015 UWMP Update foresees no difficulty meeting increased demand associated with growth in its service area through the 2035 planning horizon. Under each of the hydrologic conditions (i.e., normal water year, single dry year, and multiple dry years) the Camrosa analysis shows adequate supply to serve all users within its service boundary.[10]

Water Storage

In addition to the proposed project's water demand, the project would need to be able to store water in the event of an emergency (i.e., fire or during a water shortage).

The project's total water demand is also considered the average water demand. The project's water storage capacity is based on the maximum day demand. The maximum day demand is based on a

10 Camrosa Water District, *Urban Water Management Plan*, (2015).

peaking factor which is used to determine the system demands during conditions other than the average demand. The maximum day demand peaking factor is 2.15 which is multiplied by the average water demand.[11] **Table 6.17-9, Project Total Water Demand**, summarizes the water storage capacity demand generated by the proposed project.

Table 6.17-9
Project Total Water Demand

Development Plan	Total Project Demand (gpd)	Peaking Factor	Maximum Day Demand (gpd)	Max Day Demand - Existing water use (gpd)	Fire Flow Requirements (gpd)	Storage Demand (gpd)
Residential + Open Space	198,750	2.15	427,312	456,884	180,000	636,884

gpd = gallons per day; afy = acre-feet per year
Source: Camrosa Water District, Water Design and Construction Standards, Section 2: Design Criteria.

The project site has an existing water usage of approximately 66,000 gpd which can be credited towards the project water storage capacity. Fire flow requirements require that development in Zone 2 sustain 3,000 gallons per minute (gpm) for 2 hours totaling 360,000 gallons need for storage.[12] The proposed project would develop residential uses, and in an effort not to overburden the developer, Camrosa would reduce the fire flow requirements to 180,000-gallon storage requirement. Once all storage requirements have been met, total storage demand for the proposed project would require 636,884 gpd.

Conclusion

There is currently a moratorium on the issuance of Water Availability and Water Will Serve letters for new development within the Camrosa Water District. Camrosa would issue a "water availability letter" which would indicate that potable water would be available to serve the project within the Camrosa service area, but would not be a formal commitment to actually provide the water service.[13]

On June 27, 2012, under Resolution 12-14, the District made the moratorium permanent, requiring all new development to "bring with them" additional or "new" water supplies sufficient to offset project max-day demands.

11 Camrosa, *Water Design and Construction Standards, Section 2: Design Criteria*, Table 2.6.

12 Camrosa, *Draft IFMP Section 5: Existing Potable Water Facilities*, (2011) page 5-21.

13 Telecommunication with Mr. Terry Curson, Engineer, Camrosa Water District, February 8, 2012.

In order to reconcile Camrosa's permanent moratorium on new water connections with the need to supply the proposed project with potable water, the applicant and Camrosa Water District executed a Water Service Project Participation Agreement on December 30, 2016. The Agreement requires the applicant to participate in funding the construction of the Pleasant Valley Well Number 2 to offset the new water demand of the proposed project. The applicant's participation in the Well Number 2 project would not only offset its own proposed project demand, it would also contribute directly to additional water supply for existing Camrosa water customers.

Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impacts

The proposed project site would be served by the Camrosa Water District. Camrosa facilities exist to provide potable. While the project site is currently served by an 8-inch potable connection within the southeast corner of the project site, the proposed project would be required by Camrosa to make a connection to a 12-inch potable main located within Upland Road, approximately 1,200 feet from the project site entrance. The nearest recycled water point of connection is located within Worth Way, east of the proposed project site.

The proposed project would be designed for a looped system. The internal system would consist of 12-inch and 8-inch mains and would include both potable and non-potable water systems.

Mitigation Measures

No mitigation is required

Residual Impacts

Impacts would be less than significant.

6.18.8 CUMULATIVE ANALYSIS

Impacts

Cumulative growth in the City of Camarillo would add additional residential, commercial, and institutional water users to the Camrosa service area. Related projects are identified in **Section 5.0**, **Cumulative Scenario**. **Table 6.18-10, Projected Water Supply and Demand**, summarizes Camrosa projections for demand growth and supply availability through 2035.

Table 6.18-10
Projected Water Supply and Demand (acre-feet per year)

	2020	2025	2030	2035
Supply	24,450	28,830	28,930	28,930
Demand	15,941	15,587	15,987	16,113
Surplus	8,509	13,243	12,943	12,817

Source: Camrosa Water District, *Urban Water Management Plan*, 2015.

The cumulative scenario proposes additional 749 multi-family residential units, a commercial development, and an industrial development along with the proposed project. **Table 6.18-11, Cumulative Indoor Water Demand**, depicts water demand of the cumulative scenario.

Table 6.18-11
Cumulative Indoor Water Demand

Land Use	Size	Generation Factor	Indoor Project Demand (gpd)	Indoor Project Demand (afy)
Proposed Project	300 DU	(2.1)(220)(300)	**138,600**	**155.3**
Cumulative Dwelling Units	749 DU	(2.1)(220)(DU)	346,038	387.6
Light Commercial	10 acres	2,000 gal/acre/day	20,000	22.4
Industrial	1.89 acres	3,000 gal/acre/day	5,670	6.35
Total			**510,308**	**571.65**

gpd = gallons per day; afy = acre-feet per year; DU = dwelling units
Source: Camrosa Water District, *Water Design and Construction Standards, Section 2: Design Criteria*.

The projected water demand for 2020 is 15,941 afy, with a supply of 24,450 afy and a surplus of 8,509 afy. The cumulative scenario's total water demands would increase total demand by less than four percent,

and would consume 6.7 percent of the projected water surplus (8,509 afy). The projected water supplies of the Camrosa Water District are adequate to meet demand of the cumulative scenario.

Water supply would therefore be adequate to serve cumulative projects. The construction of the non-potable reservoir, non-potable pipeline, and pump station would contribute to the future infrastructure needs of the non-potable pressure zone and alleviate potential system deficiencies.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

6.18.9 CONSISTENCY WITH GENERAL PLAN

The City of Camarillo General Plan Open Space and Conservation Element[14] provides the following goals and policies for that apply to the proposed project. An analysis of the consistency of the proposed project with each of the general plan goals, objectives, and policies is provided below.

Open Space and Conservation Element

Policy Identify and protect natural watersheds, natural drainage beds, and water recharge areas to achieve recovery of local water and the preservation of natural plant and animal habitat.

Analysis: The proposed project would implement a drainage and stormwater management system that would meet the current water quality regulations and would be designed along the current drainage pattern for the project site. The stormwater best management practices (BMPs) would reduce the runoff volumes of stormwater to the maximum extent practicable. BMP techniques potentially used on the project site would include bioswales, infiltration basins, porous pavement and porous landscape detention would allow for sufficient time and storage of surface water runoff to meet these standards.

Policy: Encourage development in areas where services and facilities already exist and are underused. Promote efficient extension of utilities and services.

Analysis: The proposed project would be developed near existing developments. The proposed project site is currently served by Camrosa via an 8-inch meter service located in the southeast corner of

14 City of Camarillo, *City of Camarillo General Plan*, "Open Space and Conservation Element," 2006.

the site. The district would require that any new project use an existing 12-inch main within Upland Road. The main extends approximately 100 feet west of the proposed project site and is approximately 1,200 feet from the current entrance into the seminary. As the proposed project site is currently provided with water service and connections exist to serve future development, the proposed project would not conflict with this policy.

Summary

The proposed project is consistent with the City of Camarillo's General Plan.