

4.9 UTILITIES AND SERVICE SYSTEMS

4.9.1 INTRODUCTION

This section describes existing utilities including water supply and the water distribution system, and wastewater collection, conveyance, and treatment systems that serve the project site and its vicinity and analyzes the potential for the proposed El Dorado Hills Apartments project to affect these utilities. Information on utilities and service systems was obtained from the El Dorado Irrigation District (EID), the EID's 2015 Urban Water Management Plan (UWMP), and an evaluation of water supply prepared by West Yost Associates. The water supply evaluation is presented in **Appendix 4.9** of this Draft EIR.

4.9.2 ENVIRONMENTAL SETTING

4.9.2.1 Water

EID would provide both potable and recycled water service to the project site. EID's service area encompasses approximately 220 square miles on the western slope of the Sierra Nevada Mountains and serves a population of approximately 110,000 people in El Dorado County. EID's service area is primarily located in two major watersheds, the South Fork American River in the north and the North Fork of the Cosumnes River in the south, and is hydrologically split by the Placerville Ridge and Highway 50, which is generally located between these two drainage watersheds.

For planning purposes, EID has divided its contiguous water service area into three regions based on service areas:

- El Dorado Hills/ Cameron Park Region: El Dorado Hills, Bass Lake, and Cameron Park
- Western Region: Shingle Springs, Logtown, and Diamond Springs
- Eastern Region: Pleasant Valley, Sly Park, Pollock Pines, Camino, Placerville, and Lotus/Coloma

The El Dorado Hills/Cameron Park Region is divided into Zones 1, 2, and 4. The project site is located in Service Zone 2 (El Dorado Hills).

Existing and Projected Water Supply

Surface water constitutes a majority of EID's water supply with the remaining supply provided by recycled water. A description of EID's potable and recycled water supply systems is provided below.

Potable Water

EID maintains two primary interconnected potable water systems in its contiguous service area - the El Dorado Hills system and the Western/Eastern system.

The El Dorado Hills system obtains its primary supplies under rights and entitlements from Folsom Reservoir while the Western/Eastern system derives its supplies from sources under rights and entitlements emanating from further up the South Fork American River watershed (Forebay Reservoir) and the Cosumnes River watershed (Jenkinson Lake) (EID 2016a).

EID derives the remainder of its water supply from a number of sources. These include pre-1914 appropriative water rights, licensed and permitted appropriative water rights, United States Bureau of Reclamation Central Valley Project water service contracts, and Warren Act Contracts. In addition, the EID has identified two future water supply sources - water under the El Dorado-Sacramento Municipal Utility District (SMUD) Cooperation Agreement and a water entitlement derived from El Dorado County Water Agency Fazio water supply (EID 2016a). A summary of EID's existing and planned future potable water supplies during normal, single-dry and multiple dry years is provided in **Table 4.9-1, EID Projected Supply**.

**Table 4.9-1
EID Projected Supply**

Wholesale Sources	Projected Volume, AFY				
	2020	2025	2030	2035	2040
Normal Year Water Supplies, AFY					
Jenkinson Lake	23,000	23,000	23,000	23,000	23,000
El Dorado Forebay	15,080	15,080	15,080	15,080	15,080
Folsom Reservoir- USBR Contract	7,550	7,550	7,550	7,550	7,550
Folsom Reservoir- Warren Act Contract	4,560	4,560	4,560	4,560	4,560
Folsom Reservoir- Permit 21112	17,000	17,000	17,000	17,000	17,000
CVP supply (Public Law 101-514)	7,500	7,500	7,500	7,500	7,500
UARP supply (El Dorado-SMUD Agreement)	-	30,000	30,000	30,000	30,000
Total	74,690	104,690	104,690	104,690	104,690
Single Dry Year Water Supplies, AFY					
Jenkinson Lake	20,920	20,920	20,920	20,920	20,920
El Dorado Forebay	15,080	15,080	15,080	15,080	15,080
Folsom Reservoir- USBR Contract	3,775	3,775	3,775	3,775	3,775
Folsom Reservoir- Warren Act Contract	3,000	3,000	3,000	3,000	3,000
Folsom Reservoir- Permit 21112	17,000	17,000	17,000	17,000	17,000
CVP supply (Public Law 101-514)	3,750	3,750	3,750	3,750	3,750
UARP supply (El Dorado-SMUD Agreement)	-	5,000	5,000	5,000	5,000

Wholesale Sources	Projected Volume, AFY				
	2020	2025	2030	2035	2040
Total	63,525	68,525	68,525	68,525	68,525
Multi-Dry Year Water Supplies, First Year, AFY					
Jenkinson Lake	20,920	20,920	20,920	20,920	20,920
El Dorado Forebay	15,080	15,080	15,080	15,080	15,080
Folsom Reservoir- USBR Contract	3,775	3,775	3,775	3,775	3,775
Folsom Reservoir- Warren Act Contract	3,000	3,000	3,000	3,000	3,000
Folsom Reservoir- Permit 21112	17,000	17,000	17,000	17,000	17,000
CVP supply (Public Law 101-514)	3,750	3,750	3,750	3,750	3,750
UARP supply (El Dorado-SMUD Agreement)	-	5,000	5,000	5,000	5,000
Total	63,525	68,525	68,525	68,525	68,525
Multi-Dry Year Water Supplies, Second Year, AFY					
Jenkinson Lake	17,000	17,000	17,000	17,000	17,000
El Dorado Forebay	15,080	15,080	15,080	15,080	15,080
Folsom Reservoir- USBR Contract	3,775	3,775	3,775	3,775	3,775
Folsom Reservoir- Warren Act Contract	3,000	3,000	3,000	3,000	3,000
Folsom Reservoir- Permit 21112	17,000	17,000	17,000	17,000	17,000
CVP supply (Public Law 101-514)	3,750	3,750	3,750	3,750	3,750
UARP supply (El Dorado-SMUD Agreement)	-	5,000	5,000	5,000	5,000
Total	59,605	64,605	64,605	64,605	64,605
Multi-Dry Year Water Supplies, Third Year, AFY					
Jenkinson Lake	15,500	15,500	15,500	15,500	15,500
El Dorado Forebay	15,080	15,080	15,080	15,080	15,080
Folsom Reservoir- USBR Contract	1,888	1,888	1,888	1,888	1,888
Folsom Reservoir- Warren Act Contract	3,000	3,000	3,000	3,000	3,000
Folsom Reservoir- Permit 21112	17,000	17,000	17,000	17,000	17,000
CVP supply (Public Law 101-514)	1,875	1,875	1,875	1,875	1,875
UARP supply (El Dorado-SMUD Agreement)	-	5,000	5,000	5,000	5,000
Total	54,343	59,343	59,343	59,343	59,343

Source: EID 2015 UWMP, approved by EID Board of Directors June 27, 2016. Table 3-1 and 3-3.

Recycled Water

EID produces recycled water at both the El Dorado Hills and Deer Creek wastewater treatment plants (WWTP) which is then used by EID customers for irrigation of residential landscape, commercial landscape, recreation turf and, in a few areas, fire suppression and dust control. The availability of recycled water is currently limited to the El Dorado Hills and Cameron Park areas. In 2015, users within these areas used approximately 2,350 AFY of recycled water (WYA 2017).

Recycled water supply is not subject to climatic limitations as much as surface water supplies and, therefore, is expected to be available in all hydrologic year types. Recycled water supplies during dry

years are assumed to be the same as normal year supplies. **Table 4.9-2, EID Recycled Water Supply Reliability, AFY**, shows the incremental recycled water assets that would be available over time for EID's non-potable water uses.

Table 4.9-2
EID Recycled Water Supply Reliability, AFY

Year	Normal Year	Single Dry Year	Multiple Dry Years		
			Year 1	Year 2	Year 3
2016 ¹	2,500	2,500	2,500	2,500	2,500
2020	2,800	2,800	2,800	2,800	2,800
2025	3,000	3,000	3,000	3,000	3,000
2030	3,100	3,100	3,100	3,100	3,100
2035	3,300	3,300	3,300	3,300	3,300
2040 ²	3,500	3,500	3,500	3,500	3,500

Source: EID 2015 UWMP

1 EID's 2015 recycled water supply was 2,349 AFY (Source: EID 2016b Water Resources and Service Reliability Report) and its use is assumed to expand incrementally over time

2 By 2040, EID anticipates a supply of 3,500 AFY (Source: EID 2015 UWMP)

Water Distribution and Treatment

EID's potable water distribution system is comprised of over 1,200 miles of pipeline, 27 miles of ditches, five treatment plants, 34 storage reservoirs with a combined capacity of over 100 million gallons, and 38 pumping stations (EID 2016a). Potable water in El Dorado Hills is treated at the El Dorado Hills water treatment plant (WTP), which has an authorized capacity of 26 million gallons per day (mgd) (EID 2017b) and treats approximately 16 mgd at the present time (Strahan 2017). Potable water would be delivered to the project site via an existing 12-inch potable water main in Town Center Boulevard and Vine Street.

EID's recycled water distribution system is composed of two treatment plants that generate over 900 million gallons of recycled water each year, 55 miles of pipeline, six pump stations, and four storage tanks (EID 2017c). Recycled water in El Dorado Hills is provided by the El Dorado Hills WWTP, which is described in more detail below. Recycled water would be delivered to the project site via an existing 6-inch non-potable water main in Vine Street.

4.9.2.2 Wastewater

Wastewater Treatment

Wastewater on the project site would be collected and treated by EID. EID has four permitted wastewater collection systems: El Dorado Hills, Deer Creek, Camino Heights, and Gold Ridge Forest. The two largest

collection systems are the El Dorado Hills and Deer Creek Collection Systems. These systems are served by a series of lift stations, force mains, and gravity mains that convey wastewater to the El Dorado Hills WWTP and the Deer Creek WWTP, respectively (EID 2013).

Wastewater generated on the project site would be treated at the El Dorado Hills WWTP, which is located at 1000 Blackstone Parkway, along the east side of Latrobe Road. The El Dorado Hills WWTP has a rated capacity of 4.0 mgd and currently treats approximately 2.65 mgd (EID 2013), and thus is operating at about 65 percent of its capacity. Treated effluent that is not recycled is discharged to Carson Creek (EID 2013).

Sewage Collection and Conveyance

EID also provides sanitary sewer collection services to the area within its jurisdiction. The system consists of 560 miles of wastewater collection pipelines as well as 64 lift stations (EID 2017b). Wastewater on the project site would be conveyed to the El Dorado Hills WWTP via an 8-inch sewer main located in Town Center Boulevard.

4.9.2.3 Stormwater

The project site is served by storm drainage facilities that are owned and maintained by the El Dorado Hills Community Services District (CSD). The project site would be served by a 12-inch storm drain located in Town Center Boulevard.

4.9.2.4 Solid Waste

The project site is located within the El Dorado Hills CSD boundary. El Dorado Hills CSD contracts with El Dorado Disposal Service for franchised solid waste collection, disposal, and recycling services. El Dorado Disposal Service transports municipal waste to the Western El Dorado Recovery Systems (WERS) Transfer Station and Material Recovery Facility, located at 4100 Throwita Way in Placerville. The WERS Transfer Station and Material Recovery Facility handles mixed municipal waste and has a maximum permitted throughput of 400 tons per day.

After undergoing processing, non-recyclable wastes from the WERS Transfer Station and Material Recovery Facility are delivered to the Potrero Hills Landfill, located at 3675 Potrero Hills Lane, in Suisun City. The landfill handles several different types of waste, including agricultural, ash, construction and demolition, industrial, mixed municipal, sludge, and tires. The Potrero Hills Landfill has a maximum permitted capacity of 83.1 million cubic yards. The landfill receives a maximum disposal of 4,330 tons per day. The estimated closure date for the facility is 2048.

Recyclable materials are distributed to a facility in Benicia, and green wastes are sent to a processing facility in Sacramento. County Ordinance No. 4319 requires that new development provide areas for adequate, accessible, and convenient storing, collecting and loading of solid waste and recyclables.

4.9.3 REGULATORY CONSIDERATIONS

4.9.3.1 State Laws and Regulations

Urban Water Management Planning Act

California State Assembly Bill 797 (California Water Code Section 10610, et seq.), adopted in 1983, requires every urban water supplier providing water for municipal purposes to more than 3,000 customers or more than 3,000 acre-feet 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. UWMPs must be updated every five years, in years ending in zero and five.

EID has complied with the Urban Water Management Planning Act through the adoption of the EID's 2015 UWMP in May 2016.

Senate Bills 610 and 221

In 2001, the California Legislature passed Senate Bill 610 (Water Code Section 10910 et seq.) and Senate Bill 221 (Water Code Section 66473.7) to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 were companion measures, which sought to promote more collaborative planning between local water suppliers and cities and counties.

SB 610 requires the preparation of a Water Supply Assessment (WSA) for certain large developments, including residential projects with more than 500 dwelling units. SB 221 prohibits approval of subdivisions consisting of more than 500 dwelling units unless there is verification of sufficient water supplies for the project from the applicable water supplier(s). Because the proposed project includes less than 500 dwelling units, neither preparation of a WSA pursuant to SB 610 nor a water supply verification pursuant to SB 221 is required.

Although the proposed project is not subject to either SB 610 or SB 221 because of its size, a water supply evaluation utilizing data published by the EID and consistent with WSA requirements was prepared to demonstrate the existence of sufficient water supplies for the project.

Water Conservation Act of 2009 (SBX7-7)

The Water Conservation Act of 2009 (also known as Senate Bill X7-7) established a statewide water conservation target of 20 percent reduction in water use by 2020 compared to the State's 2005 baseline use. The Act requires that retail water suppliers define in their 2010 urban water management plans the gallons per capita per day (gpcd) targets for 2020, with an interim 2015 target. The legislation also requires the California Department of Water Resources, in consultation with other state agencies, to develop a single standardized water use reporting form, which would be used by both urban and agricultural water agencies. EID's 2015 UWMP, adopted in May 2016, complied with these requirements.

4.9.3.2 Local Plans and Policies

El Dorado Irrigation District

Drought Preparedness Plan

In 2008, EID adopted a Drought Preparedness Plan, which is a comprehensive plan to help identify drought conditions and determine when El Dorado County would be considered to be entering drought conditions. An update to the plan was prepared in 2015. Drought stages in the plan range from 0 to 4. For normal water supply conditions, EID would continue to implement water conservation measures and prohibit water waste, while raising public awareness regarding water efficiency practices. If water supplies become slightly restricted, the plan calls for an introductory Stage 1 drought response, during which customers are informed of possible shortages and asked to voluntarily conserve up to 15 percent. At Stage 2 when water supplies become moderately restricted, both voluntary and mandatory measures are implemented to achieve a demand reduction goal of up to 30 percent. If water supplies subsequently become severely restricted, a Stage 3 drought can be called with the enforcement of mandatory measures to achieve a demand reduction goal of up to 50 percent. Lastly, if drought conditions persist and EID experiences extremely restricted water supplies, then Stage 4 measures can be implemented, which require water rationing for health and safety purposes, in addition to the restrictions previously placed on more dispensable uses, in order to achieve a greater than 50 percent reduction of demand (EID 2008; EID 2015). In February 2014, the EID declared a Stage 2 Water Shortage. In April of 2017, Governor Brown declared the drought state of emergency over in most of the state, including the area within EID's jurisdiction. In May 2017, EID removed mandatory watering restrictions and returned control to the local purveyors to manage their water supplies. Conservation efforts and water use efficiency will be continually encouraged (EID 2017a).

Drought Action Plan

In 2014, EID prepared a Drought Action Plan that serves as a detailed work plan for EID that includes specific actions for management of water supply and demand, addresses effects associated with drought, and facilitates the timely implementation of effective drought responses. The most recent plan was adopted in February 2014, with subsequent revisions in April 2014. The Drought Action Plan addresses four stages of drought: 1) water alert; 2) water warning; 3) water crisis; 4) water emergency. In addition, post-drought actions address the scenarios that caused the drought (e.g., low rainfall or snowpack), lessons learned, and the associated costs and revenue to EID.

El Dorado County General Plan

The following presents guiding and implementing policies from the current County of El Dorado General Plan (2004) relevant to water and wastewater, which are contained within the Public Services and Utility and Conservation and Open Space Elements.

Public Services and Utilities Element

GOAL 5.1: PROVISION OF PUBLIC SERVICES: Provide and maintain a system of safe, adequate, and cost-effective public utilities and services; maintain an adequate level of service to existing development while allowing for additional growth in an efficient manner; and, ensure a safe and adequate water supply, wastewater disposal, and appropriate public services for rural areas.

OBJECTIVE 5.1.2: CONCURRENCY: Ensure through consultation with responsible service and utility purveyors that adequate public services and utilities, including water supply, wastewater treatment and disposal, solid waste disposal capacity, storm drainage, fire protection, police protection, and ambulance service are provided concurrent with discretionary development or through other mitigation measures provided, and ensure that adequate school facilities are provided concurrent with discretionary development to the maximum extent permitted by State law. It shall be the policy of the County to cooperate with responsible service and utility purveyors in ensuring the adequate provision of service. Absent evidence beyond a reasonable doubt, the County will rely on the information received from such purveyors and shall not substitute its judgment for that of the responsible purveyors on questions of capacity or levels of service.

Policy 5.1.2.1 Prior to the approval of any discretionary development, the approving authority shall make a determination of the adequacy of the public services and utilities to be impacted by that development. Where, according to the purveyor responsible for the service or utility as provided in Table 5-1, demand is determined to

exceed capacity, the approval of the development shall be conditioned to require expansion of the impacted facility or service to be available concurrent with the demand, mitigated, or a finding made that a CIP project is funded and authorized which will increase service capacity.

Policy 5.1.2.2 Provision of public services to new discretionary development shall not result in a reduction of service below minimum established standards to current users, pursuant to Table 5-1 (presented as 4.9-3 in this Draft EIR; the table includes only those portions of General Plan Table 5-1 that are relevant to this section of the Draft EIR).

**Table 4.9-3
Minimum Levels of Service - Utilities**

	Community Region	Rural Center and Rural Region
Public water source	As determined by purveyor	As determined by purveyor, when applicable
Public water treatment capacity	As determined by purveyor	As determined by purveyor
Public sewer treatment capacity	As determined by purveyor	As determined by purveyor
Storm drainage	Department of Transportation	Department of Transportation
Solid waste	Environmental Management	Environmental Management

Source: County of El Dorado General Plan, Public Services and Utility Element, 2004

GOAL 5.2: WATER SUPPLY: The development or acquisition of an adequate water supply consistent with the geographical distribution or location of future land uses and planned developments.

OBJECTIVE 5.2.1: COUNTY-WIDE WATER RESOURCES PROGRAM: Establish a County-wide water resources development and management program to include the activities necessary to ensure adequate future water supplies consistent with the General Plan.

Policy 5.2.1.2 An adequate quantity and quality of water for all uses, including fire protection, shall be provided for with discretionary development.

Policy 5.2.1.3 All medium-density residential, high-density residential, multifamily residential, commercial, industrial and research and development projects may be required to connect to public water systems if reasonably available when located within Community Regions and to either a public water system or to an approved private water systems in Rural Centers.

Policy 5.2.1.4 Rezoning and subdivision approvals in Community Regions or other areas dependent on public water supply shall be subject to the availability of a permanent and reliable water supply.

Policy 5.2.1.6 Priority shall be given to discretionary developments that are infill or where there is an efficient expansion of the water supply delivery system.

Policy 5.2.1.9 In an area served by a public water purveyor or an approved private water system, the applicant for a tentative map or for a building permit on a parcel that has not previously complied with this requirement must provide a Water Supply Assessment that contains the information that would be required if a water supply assessment were prepared pursuant to Water Code section 10910. In order to approve the tentative map or building permit for which the assessment was prepared the County must (a) find that by the time the first grading or building permit is issued in connection with the approval, the water supply from existing water supply facilities will be adequate to meet the highest projected demand associated with the approval on the lands in question; and (b) require that before the first grading permit or building permit is issued in connection with the approval, the applicant will have received a sufficient water meters or a comparable supply guarantee to provide adequate water supply to meet the projected demand associated with the entire approval. A water supply is adequate if the total entitled water supplies available during normal, single, dry, and multiple dry years within a 20-year projection will meet the highest projected demand associated with the approval, in addition to existing and 20-year projected future uses within the area served by the water supplier, including but not limited to, fire protection, agricultural, and industrial uses, 95% of the time, with cutbacks calculated not to exceed 20% in the remaining 5% of the time.

Policy 5.2.1.11 The County shall direct new development to areas where public water service already exists. In Community Regions, all new development shall connect to a public water system. In Rural Centers, all new development shall connect either to a public water system or to an approved private water system.

GOAL 5.3: WASTEWATER COLLECTION AND TREATMENT: Provide an adequate and safe system of wastewater collection, treatment, and disposal to serve current and future County residents.

OBJECTIVE 5.3.1: WASTEWATER CAPACITY: Ensure the availability of wastewater collection and treatment facilities of adequate capacity to meet the needs of multifamily, high-, and medium-density residential areas, and commercial and industrial areas.

Policy 5.3.1.1 High-density and multifamily residential, commercial, and industrial projects may be required to connect to public wastewater collection facilities if reasonably available as a condition of approval. In the Rural Centers of Camino/Cedar Grove/Pollock Pines, the long term development of public sewer service shall be encouraged.

Policy 5.3.1.7 In Community Regions, all new development shall connect to public wastewater treatment facilities. In Community Regions where public wastewater collection facilities do not exist project applicants must demonstrate that the proposed wastewater disposal system can accommodate the highest possible demand of the project.

GOAL 5.4: STORM DRAINAGE: Manage and control storm water runoff to prevent flooding, protect soils from erosion, prevent contamination of surface waters, and minimize impacts to existing drainage infrastructure.

OBJECTIVE 5.4.1: DRAINAGE AND FLOOD MANAGEMENT PROGRAM: Initiate a County-wide drainage and flood management program to prevent flooding, protect soils from erosion, and minimize impacts on existing drainage facilities.

Policy 5.4.1.1 Require storm drainage systems for discretionary development that protect public health and safety, preserve natural resources, prevent erosion of adjacent and downstream lands, prevent the increase in potential for flood hazard or damage on either adjacent, upstream or downstream properties, minimize impacts to existing facilities, meet the National Pollution Discharge Elimination System (NPDES) requirements, and preserve natural resources such as wetlands and riparian areas.

Policy 5.4.1.2 Discretionary development shall protect natural drainage patterns, minimize erosion, and ensure existing facilities are not adversely impacted while retaining the aesthetic qualities of the drainage way.

Conservation and Open Space Element

GOAL 7.3: WATER QUALITY AND QUANTITY: Conserve, enhance, and manage water resources and protect their quality from degradation.

OBJECTIVE 7.3.5: WATER CONSERVATION: Conservation of water resources, encouragement of water conservation, and construction of wastewater disposal systems designed to reclaim and re-use treated wastewater on agricultural crops and for other irrigation and wildlife enhancement projects.

Policy 7.3.5.1 Drought-tolerant plant species, where feasible, shall be used for landscaping of commercial development. Where the use of drought-tolerant native plant species is feasible, they should be used instead of non-native plant species.

Policy 7.3.5.4 Require efficient water conveyance systems in new construction. Establish a program of ongoing conversion of open ditch systems shall be considered for conversion to closed conduits, reclaimed water supplies, or both, as circumstances permit.

Policy 7.3.5.5 Encourage water reuse programs to conserve raw or potable water supplies consistent with State Law.

4.9.4 IMPACTS AND MITIGATION MEASURES

4.9.4.1 Significance Criteria

In accordance with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines*, the impact of the proposed project related to public services, recreation, and utilities and service systems would be considered significant if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Board.
- Require or result in the construction of new water or wastewater treatment facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects.
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Comply with federal, state, and local statutes and regulations related to solid waste.

4.9.4.2 Issues adequately addressed in the Initial Study

As noted in the Initial Study, implementation of standard conditions would ensure storm drainage facilities are adequate to accept project flows. It is anticipated that storm drain improvements would be made on-site, with connections to existing points of connection in adjacent roadways. Impacts would be less than significant. No further analysis is required in the EIR.

As discussed in the Initial Study, the proposed project would generate approximately 856 pounds of solid waste per day (156.2 tons per year), which would not represent a substantial contribution to the waste stream at the County's Material Recovery Facility (MRF) or landfills where County-generated waste is disposed. Further, the project would be required to comply with AB 341 and AB 1826, and the County operates a comprehensive recycling program, which would reduce the amount of solid waste. Impacts would be less than significant. No further analysis is required in the EIR.

4.9.4.3 Methodology

Project impacts related to water and wastewater are evaluated according to the above standards of significance by utilizing information on existing water service and wastewater service systems infrastructure provided by EID. A water supply evaluation was prepared for the proposed project and is included in **Appendix 4.9** of this Draft EIR. The evaluation utilizes information from EID's 2015 UWMP (2016a), the Wastewater Facilities Master Plan (2013), and Water Resources and Service Reliability Report (2016b).

The project's effect on the wastewater conveyance and treatment systems was evaluated by using the information in EID's Annual Water Resources Report, which evaluated the existing and future capacity of the wastewater conveyance system using monitoring and a hydraulic model.

4.9.4.4 Project Impacts and Mitigation Measures

Impact UTL-1: Development of the proposed project would not result in the need for new or expanded water supply entitlements. (*Less than Significant*)

Project Water Demand

As shown in **Table 4.9-4, Projected Water Demand**, the proposed project would result in a demand for about 53.9 AFY of water. This projection includes a 13 percent factor for unaccounted-for water to match the system water loss reported in EID's 2013 Integrated Water Master Plan. However, because the project site will be served by existing water service connections, water system line losses should not significantly increase with development of the proposed project. Therefore, the applied water loss of 13 percent produces a highly conservative demand projection for the proposed project.

**Table 4.9-4
Projected Water Demand**

Component	Quantity	Water Factor	Units	Annual Water Demand, AFY
Multi-Family Residential Units	214 DU	0.20	AFY/DU	42.8
Parks	0.9 acres	2.77	AFY/acre	2.4
ROW Landscaping	0.5 acres	3.30	AFY/acre	1.7
Open Space ¹	1.6 acres	0	AFY/acre	0.0
Unaccounted-for-Water ²	-	-	-	7.0
Total Water Demand				53.9

Source: West Yost Associates, 2017

1 Includes parking garage, other hardscape, and exterior open space.

2 Based on 13 percent of total water production (El Dorado Irrigation District Integrated Water Resources Master Plan, March 2013).

As recycled water is available in the El Dorado Hills service area of EID, potable water estimate was reduced by the amount of recycled water that would be used on the project site. As shown in **Table 4.9-5, Projected Potable and Recycled Water Demand**, the proposed project's projected potable and recycled water demand is projected to be 49.2 AFY and 4.7 AFY, respectively.

**Table 4.9-5
Projected Potable and Recycled Water Demand**

Component	Quantity	Water Factor	Units	Annual Water Demand, AFY
Potable Water Component				
Multi-Family Residential Units	214 DU	0.2	AFY/DU	42.8
Unaccounted-for-Water ^(a)	-	-	-	6.4
Total Potable Water Demand				49.2
Recycled Water Component				
Parks	0.9 acres	2.77	AFY/acre	2.4
ROW Landscaping	0.5 acres	3.30	AFY/acre	1.7
Unaccounted-for-Water ¹	-	-	-	0.6
Total Recycled Water Demand				4.7

Source: West Yost Associates, 2017

(a)Based on 13 percent of total water production (El Dorado Irrigation District Integrated Water Resources Master Plan, March 2013).

Potable Water Supply Sufficiency

According to EID's 2016 Water Resources and Service Reliability Report (2016b), the total available water supply for the El Dorado Hills service area (23,775 AF) satisfies and exceeds the projected normal year potential water demand for 2016 (9,483 AF). Therefore, under current conditions, the El Dorado Hills service area has approximately 14,292 AF of unallocated water supply. The current unallocated water supply significantly exceeds the 53.9 AFY total water demand as well as the potable water demand of 49.2 AFY associated with the proposed project.

Table 4.9-6, Summary of Potable Water Demand versus Supply, provides a comparison of projected potable water demand and supplies during hydrologic normal, single-day, and multiple dry years for the entire EID system over a 20 year planning period. As shown, EID has enough potable water supply available to serve its projected demand, including the demand associated with the proposed project, during all hydrologic conditions through 2040.

**Table 4.9-6
Summary of Potable Water Demand versus Supply**

Hydrologic Condition	Supply and Demand Comparison				
	2020	2025	2030	2035	2040
Normal Year					
Available Surface Water Supply	74,690	104,690	104,690	104,690	104,690
Total Water Demand (with Project)	40,367	43,758	47,490	49,822	52,658
Potential Surplus (Deficit)	34,323	60,932	57,200	54,868	52,032
Single Dry Year					
Available Surface Water Supply	63,525	68,525	68,525	68,525	68,525
Total Water Demand (with Project)	42,385	45,946	49,865	52,313	55,291
Potential Surplus (Deficit)	21,140	22,579	18,660	16,212	13,234
Multiple Dry Years					
Multiple-Dry Year First Year Supply	Available Surface Water Supply	63,525	68,525	68,525	68,525
	Total Water Demand (with Project)	42,385	45,946	49,865	52,313
	Potential Surplus (Deficit)	21,140	22,579	18,660	16,212
Multiple-Dry Year Second Year Supply	Available Surface Water Supply	59,605	64,605	64,605	64,605
	Total Water Demand (with Project)	40,266	43,649	47,371	49,697
	Potential Surplus (Deficit)	19,339	20,956	17,234	14,908
Multiple-Dry Year Third Year Supply	Available Surface Water Supply	54,343	59,343	59,343	59,343
	Total Water Demand (with Project)	38,147	41,351	44,878	47,082
	Potential Surplus (Deficit)	16,196	17,992	14,465	12,261

Source: West Yost Associates, 2017

Normal year demands are from Table 5-2 and dry year demands are based off the demand assumptions stated in Section 5.2. Surface water supplies are from Table 6-3.

Recycled Water Supply Sufficiency

Table 4.9-7, Summary of Recycled Water Demand versus Supply (During Hydrologic Normal, Single Dry, and Multiple Dry Years for EID, AFY), provides a comparison of projected recycled water demand and supplies during hydrologic normal, single-day, and multiple dry years for the entire EID system over a 20 year planning period. As shown, EID does not have enough recycled water supply available to serve its projected demand, including the proposed project, during most hydrologic conditions through 2040.

Table 4.9-7
Summary of Recycled Water Demand versus Supply
(During Hydrologic Normal, Single Dry, and Multiple Dry Years for EID, AFY)

Hydrologic Condition	Supply and Demand Comparison					
	2020	2025	2030	2035	2040	
Normal Year						
Available Recycled Water Supply	2,800	3,000	3,100	3,300	3,500	
Total Water Demand (with Project)	3,165	3,130	3,261	3,359	3,464	
Potential Surplus (Deficit)	-365	-130	-161	-59	36	
Single Dry Year						
Available Recycled Water Supply	2,800	3,000	3,100	3,300	3,500	
Total Water Demand (with Project)	3,323	3,287	3,424	3,527	3,637	
Potential Surplus (Deficit)	-523	-287	-324	-227	-137	
Multiple Dry Years						
Multiple-Dry Year First Year Supply	Available Recycled Water Supply	2,800	3,000	3,100	3,300	3,500
	Total Water Demand (with Project)	3,323	3,287	3,424	3,527	3,637
	Potential Surplus (Deficit)	-523	-287	-324	-227	-137
Multiple-Dry Year Second Year Supply	Available Recycled Water Supply	2,800	3,000	3,100	3,300	3,500
	Total Water Demand (with Project)	3,157	3,122	3,253	3,351	3,455
	Potential Surplus (Deficit)	-357	-122	-153	-51	45
Multiple-Dry Year Third Year Supply	Available Recycled Water Supply	2,800	3,000	3,100	3,300	3,500
	Total Water Demand (with Project)	2,991	2,958	3,082	3,174	3,273
	Potential Surplus (Deficit)	-191	42	18	126	227

Source: West Yost Associates, 2017

Normal year demands are from Table 5-2 and dry year demands are based off the demand assumptions stated in Section 5.2. Recycled water supplies are from Table 6-4.

EID is unable to increase its recycled water supplies further until additional population growth occurs and treatment and storage facilities are expanded. Although EID's wastewater treatment plants treat about twice the amount of water that is recycled, EID is required to discharge a portion of its treated wastewater, thereby preventing EID from distributing a greater volume of recycled water at this time. To alleviate these potential recycled water deficits, EID has the capability to supply potable water to the recycled water users, as EID has several thousand AFY in surplus potable water supply in every scenario. EID could also implement minimal short term demand reductions (water conservation) to help reduce

the demand for recycled water (West Yost Associates 2017). EID would implement water conservation efforts in addition to providing supplemental water for recycled uses should the need arise.

As discussed above, in February 2014, EID declared a Stage 2 Water Shortage which sets a 30 percent water conservation target. EID's 2014 reduction target significantly exceeds the demand reductions needed to alleviate 2040 water supply deficiencies. Therefore, EID's total projected water supplies can easily satisfy the projected demands during normal, single-dry, and multiple dry water years over a 20 year projection (West Yost Associates 2017).

In summary, based on the analysis in the water supply evaluation prepared for the proposed project, water demand associated with the proposed project would be served by existing supplies under normal, single-dry, and multiple dry years, and the development of the proposed project would not result in the need for new or expanded water supply entitlements. The project's impact related to water supply would be less than significant.

Mitigation Measures: No mitigation measures are required.

Impact UTL-2: **Development of the proposed project would not require the construction of new or expanded water conveyance systems. (*Less than Significant*)**

Potable and recycled water service would be provided to the site by a proposed on-site water infrastructure system. The on-site water infrastructure improvements would connect to an existing 12-inch potable water main and an existing 6-inch non-potable water main located in Town Center Boulevard and would not require an upgrade or extension to the existing off-site water infrastructure system. Therefore, the proposed project would not require expansion of EID's water delivery system. This impact would be less than significant.

Mitigation Measures: No mitigation measures are required.

Impact UTL-3: **Development of the proposed project would not require the construction of new or expanded wastewater treatment facilities, nor would it result in a discharge that would cause the water treatment facility to exceed the wastewater treatment requirements of the Regional Water Quality Control Board. (*Less than Significant*)**

The proposed project would generate approximately 0.04 mgd of wastewater.¹ Wastewater generated by the proposed project would be conveyed to the El Dorado Hills WWTP. As discussed above, the treatment plant is currently operating at approximately 65 percent of its capacity and would be capable of handling increased flows anticipated with the proposed project. Therefore, development of the proposed project would not require the construction of new or expanded wastewater treatment facilities, nor would it result in a discharge that would cause the water treatment facility to exceed the wastewater treatment requirements of the Regional Water Quality Control Board. This impact would be less than significant.

Mitigation Measures: No mitigation measures are required.

Impact UTL-4: **Development of the proposed project would require the construction of new or expanded wastewater conveyance systems. (Potentially Significant; Less than Significant with Mitigation)**

Wastewater generated on site would be collected through an on-site collection system and discharged into the existing 12-inch sewer main in Town Center Boulevard, which discharges into the 18-inch El Dorado Hills Boulevard (EDHB) trunk gravity sewer line in the vicinity of White Rock Road and Post Street. While the existing sewer main adjacent to the site has adequate capacity to serve the proposed project, EID has indicated that multiple sections of the 18-inch EDHB trunk line may not have adequate capacity to handle project flows (El Dorado County 2014). As a result, development of the proposed project may require the construction of new or expanded wastewater conveyance systems. The upgrade to the EDHB trunk line would take place within the existing roadway, which has already been disturbed, and thus would not result in effects that cannot be mitigated to a less than significant level. For this reason, upgrades to the EDHB trunk line would not result in significant environmental effects. Furthermore, upgrades to the EDHB trunk line are included in the EID's 2014-2018 Capital Improvement Plan, and the proposed project would be required to pay fees towards the planned improvements. Nonetheless, conservatively, the impact is considered potentially significant, and **Mitigation Measure UTL-1** is set forth below to mitigate this impact.

Mitigation Measures:

UTL-4 The applicant shall pay fair-share fees towards the planned CIP improvement for the EDHB trunk sewer line improvement, and associated EID connection costs.

¹ Based on 90 percent of potable water demand ($[49.2 \text{ AFY} = 16 \text{ mgd}] / 365 \text{ days} = 0.04 \text{ mgd}$)

Significance after Mitigation: Less than significant

4.9.4.5 Cumulative Impacts and Mitigation Measures

Cumulative Impact C-UTL-1: The proposed project, in conjunction with other past, present and reasonably foreseeable future development, would not result in a significant cumulative impact on utilities. (*Less than Significant*)

The following analysis evaluates the significance of potential cumulative impacts of the proposed project on water and wastewater systems in conjunction with the projects included in **Table 4.0-1**.

Water Supply

The proposed project, combined with other past, present, and reasonably foreseeable development in the EID service area, would increase demand for potable and recycled water. As shown in **Table 4.9-6** above, the EID has enough potable water supply available to serve the projected demand, which includes existing and proposed development as well as the proposed project. Therefore, cumulative development would not result in the need for new or expanded water supply entitlements, and the cumulative impact would be less than significant.

Wastewater Conveyance and Treatment

The proposed project, combined with other past, present, and reasonably foreseeable development (listed in **Table 4.0-1**) within the service area of the El Dorado Hills WWTP, would increase the amount of wastewater that would require treatment. EID's wastewater master plan was prepared in 2013 utilizing conservative growth projections for each service area based on General Plan projections and over a 20 year planning period, from 2010 through 2030. The master plan further relied on the service area and infrastructure needs to serve the growth defined by the land uses specified in the County General Plan, including the El Dorado Hills Specific Plan. The General Plan and Specific Plan land uses for the project site included commercial land uses, which were accounted for in the 2013 wastewater master plan. As the proposed project would require General Plan and Specific Plan amendments which would allow for construction of housing instead of commercial uses at the project site, the wastewater flows associated with the proposed project are likely more than those accounted for in EID's estimated projections of wastewater flows to the WWTP and may be incremental to EID's estimates. Regardless, EID monitors and updates its planning efforts to provide expanded wastewater collection and treatment facilities to meet the demand associated with authorized development, including five-year capital improvement plans.

Based on its projections of wastewater flows to the El Dorado Hills WWTP prepared in 2013, EID estimated at that time that the El Dorado Hills WWTP will approach its permitted capacity in 2026. EID estimates that the El Dorado WWTP would require a capacity of 5.45 mgd to treat existing and future wastewater flows within its service area and plans to have an expanded facility operational by 2026 (EID 2013). The expansion of the El Dorado Hills WWTP would take place on a developed portion of the facility, and in 2007 the EID prepared an Initial Study/Mitigated Negative Declaration (IS/MND) to evaluate the potential environmental effects of the plant expansion on the environment. According to the IS/MND, the proposed expansion of the El Dorado Hills WWTP could result in temporary significant adverse effects to the environment with respect to air quality (diesel exhaust, fugitive dust emissions, and naturally occurring asbestos), cultural resource (unknown archaeological resources, including human remains), geology and soils (soil erosion), and noise (noise in excess of established standards) during construction. However, with proposed mitigation, such as compliance with the local air district's rules and regulation and the preparation of a storm water pollution prevention plan, these temporary effects would be reduced to a less than significant level. In addition, the expansion of the plant could result in permanent significant adverse effects to the environment with respect to aesthetics (visual character/light and glare) and geology and soils (exposure to people to seismic risks) after construction. However, with the implementation of mitigation measures requiring the preparation of a revised landscape plan, and conformance with County and State building codes, these permanent effects would also be reduced to a less than significant level (EID 2007).

As noted above, the El Dorado Hills WWTP is currently operating at 65 percent capacity, and the EID does not expect the capacity of the existing facility to be reached until 2026. Therefore, enough capacity would exist to treat wastewater generated by the proposed project when it is occupied in 2019. In addition, development on the project site was included in EID's wastewater projections, and while residential development on the project site would result in the generation of more wastewater than projected under the current commercial land use designation, this addition represents only a small fraction of anticipated wastewater treatment demand from future development. Finally, the expansion of the El Dorado WWTP would be funded through the EID's facility capacity charges for new development, which the proposed project would be required to pay. As the expansion of the El Dorado WWTP would not cause significant environmental effects and the amount of wastewater generated by the project site would be minimal relative anticipated future demand, the cumulative impact on wastewater treatment services is deemed less than significant.

Mitigation Measures: No mitigation measures are required.

4.9.5 REFERENCES

- County of El Dorado. 2004. *El Dorado County General Plan - Conservation and Open Space Element*. Adopted July 19. Last amended December 2015.
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