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## 3.13 - Utility Systems

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### 3.13.1 - Introduction

This section describes the existing utility systems setting and potential effects from implementation of the Specific Plan on the affected area and its surroundings. Descriptions and analysis in this section are based on information contained in the North Camino Ramon Specific Plan, and the North Camino Ramon Specific Plan Water Supply Assessment, prepared in November 2010 by the East Bay Municipal District and included in this EIR as Appendix F.

### 3.13.2 - Environmental Setting

#### Potable Water

East Bay Municipal Utility District (EBMUD) and Dublin San Ramon Services District (DSRSD) provide potable water service to the City of San Ramon. EBMUD provides potable water service to the northern and western portions of San Ramon, including the Specific Plan area. DSRSD does not serve the Specific Plan area with potable water; therefore, this EIR will focus on EBMUD.

#### *East Bay Municipal Utility District*

##### *Service Area*

EBMUD serves northern Alameda County and western and central Contra Costa County with potable water supply. The 2010 Service Area population is estimated to be 1,380,000.

##### *Distribution System*

EBMUD's distribution and storage system consists of 4,085 miles of pipelines and 833 million gallons of storage capacity. EBMUD operates five terminal reservoirs: Briones, Chabot, Lafayette, San Pablo, and Upper San Leandro.

Potable water destined for San Ramon is treated at the Walnut Creek Water Treatment Plant and conveyed south down a transmission line within the Iron Horse Trail right-of-way through Alamo and Danville. In 2006, EBMUD completed a \$180 million project to improve water quality and reliability along the main transmission line. The project consisted of capacity expansion and seismic upgrades at the Walnut Creek Water Treatment Plant, upgrading a pumping plant in Alamo, and installing 4 miles of water pipeline in Walnut Creek and Alamo.

There are several existing, large-diameter water transmission lines within the Fostoria Way, Camino Ramon, and Norris Canyon Road rights-of-way.

##### *Water Supply*

EBMUD obtains approximately 90 percent of its water supply from the Mokelumne River watershed in Alpine, Amador, and Calaveras counties in the Sierra Nevada Mountains. EBMUD impounds Mokelumne River within Comanche Reservoir (upstream) and Pardee Reservoir (downstream). Both facilities are operated jointly by EBMUD. EBMUD has water rights that allow for delivery of up to a maximum of 325 million gallons per day (mgd) from the Mokelumne River, subject to the availability

of Mokelumne River runoff and to the senior water rights of other users, downstream fishery flow requirements, and other Mokelumne River water uses. The remaining 10 percent is provided by local runoff collected in its five terminal reservoirs.

Raw water from Pardee Reservoir is transported approximately 91 miles to EBMUD water treatment plants and terminal reservoirs through the Pardee Tunnel, the Mokelumne aqueducts, and the Lafayette aqueducts. Water flowing by gravity from Pardee Reservoir takes 30 to 45 hours to reach the East Bay.

#### *Urban Water Management Plan Projections*

The EBMUD 2010 Urban Water Management Plan, adopted in June 2011, provides a comparison of demand and supply under various scenarios through the year 2040. Table 3.13-1 summarizes the water supply projections contained in the EBMUD 2010 Urban Water Management Plan.

**Table 3.13-1: EBMUD Demand and Supply Projections (2015 – 2040)**

Scenario	Category	Year (million gallons per day)					
		2015	2020	2025	2030	2035	2040
Demand	Planning Level of Demand	223	221	224	229	229	230
Normal Water Year	Available Supply	>223	>221	>224	>229	>229	>230
Single Dry Year (Year 1)	Available Supply	217	215	218	223	222	222
	Supplemental Supply Needed	6	6	7	7	8	8
Multiple Dry Years (Year 2)	Available Supply	189	188	190	194	194	195
	Customer Rationing	15%	15%	15%	15%	15%	15%
	Supplemental Supply Needed	21	21	21	22	22	22
Multiple Dry Years (Year 3)	Available Supply	189	188	190	194	194	195
	Customer Rationing	15%	15%	15%	15%	15%	15%
	Supplemental Supply Needed	21	21	21	33	53	73
Three-Year Drought	Total Supplemental Supply Needed (Thousands of Acre-Feet)	54	54	55	69	93	115
Notes: Planning Level of Demand accounts for customer demand adjusted for cumulative conservation from implementation of the 2011 Water Conservation Master Plan and recycled water savings. Cumulative conservation and recycled water savings increase over time, thereby offsetting growth from customer demand. Source: East Bay Municipal Utility District, 2011.							

EBMUD evaluates and forecasts water supply availability for any calendar year based on forecasted runoff and existing storage levels in the reservoirs. A “normal year” is a year in which EBMUD does not need to implement a Drought Management Program. For a normal year, the April projection of the total system storage at the end of September would be 500,000 acre-feet or greater. EBMUD can meet customer demands through the year 2040 during normal year conditions; therefore, the available supply is considered equal to or greater than demand. However, unless supplemental water supplies

are developed and while EBMUD’s Mokelumne River supply continues to decrease, the frequency of normal year-types will decrease in the future. The frequency of dry years that require customer rationing is expected to increase.

In evaluating its water supply availability, EBMUD takes into account diversions of both upstream and downstream water right holders and fishery releases. The available water supply shown in Table 3.13-1 in years 1, 2, and 3 of a multiple-year drought is derived from EBMUDSIM analyses with the following assumptions:

- EBMUD’s drought planning sequence is used for 1976, 1977, and 1978;
- Total system storage is depleted to minimum operating levels by the end of the third year of the drought planning sequence;
- EBMUD will implement its Drought Management Program when necessary;
- The diversions by Amador and Calaveras counties upstream of Pardee Reservoir continues to increase up to 47,000 acre-feet in 2040;
- Releases from Camanche Reservoir are sufficient to meet the requirements of downstream senior water right holders;
- Minimum instream flow requirements for the Lower Mokelumne River are in accordance with the 1998 Joint Settlement Agreement;
- Dry-year supply of Central Valley Project water, through the Freeport Regional Water Facility, is available beginning in 2010; and
- Bayside Groundwater Project, Phase 1, is available beginning in 2010.

In Table 3.13-1, “Single Dry Year” (equivalent to Multiple Dry Years - Year 1) is a year in which EBMUD would implement Drought Management Program elements at the “moderate” stage with the goal to achieve a reduction between 0 and 10 percent in customer demand. Based on this EBMUD rationing policy, rationing in the first year of a drought is estimated at 2 percent of the planning level of demand in 2010, and 4 percent in 2040 only if additional supplemental supplies beyond the dry year supply available through the Freeport Regional Water Facility and through the Bayside Groundwater Facility are obtained. Therefore, deficiencies continue to exist unless additional supplemental supplies are obtained. Year 2 of “Multiple Dry Years” is a year in which EBMUD would implement Drought Management Program elements at the “severe” stage with the goal to achieve a reduction between 10 and 15 percent in customer demand. Year 3 of “Multiple Dry Years” is a year in which EBMUD would implement Drought Management Program elements at the “critical” stage. Despite water savings from EBMUD’s aggressive conservation and recycling programs and rationing of up to 15 percent, additional supplemental supplies beyond those provided through the Freeport Regional Water Facility and the Bayside Groundwater Facility will be needed

during Years 2 and 3 of a three-year drought. In Table 3.13-1, the term “Supplemental Supply Need” is the additional amount of water necessary to limit customer rationing to 15 percent during droughts while meeting the requirements of senior downstream water right holders and the provisions of the 1998 Joint Settlement Agreement. The forecasted need for supplemental supply ranges from 21 mgd in 2010 to 73 mgd by 2040 during Year 3 of a three-year drought.

As indicated in Table 3.13-1, EBMUD has a total supplemental supply need of 69,000 over multiple dry years for 2030 level demands, beyond the current supplemental supplies provided through the Freeport Regional Water Facility and the Bayside Groundwater Facility. EBMUD plans to meet this need by relying on short-term supplemental supply sources that include the Northern California Water Transfers (expected to provide up to 13 mgd [15,000 acre-feet/year] of dry-year water), and the Bayside Groundwater Project Expansion (expected to provide up to 9 mgd [10,000 acre-feet/year] of dry-year water). Beyond 2030 and outside the current required 20-year planning horizon of the Urban Water Management Plan (UWMP), EBMUD’s supplemental supply needs will be met by implementing long-term conceptual supplemental supply sources, whose project capacities can only be quantified in subsequent UWMPs through refined project developments.

In a normal year, conservation and recycled water programs will play a very important role in future reliability of EBMUD’s supply. In a normal year for a 312-mgd demand, conservation is expected to offset about 20 percent of the needed supply, and recycled water programs will offset about 6 percent. For a 312-mgd demand in an average drought year of a three-year-drought sequence projected for year 2040, rationing and supplemental supply will account for 25 percent, and the projected shortfall to be met by developing supplemental water supply sources will be about 11 percent.

### **Recycled Water**

The DSRSD/EBMUD Recycled Water Authority (DERWA) provides recycled water to the City of San Ramon. DERWA was established in 1995 by DSRSD and EBMUD through a joint-powers agreement to serve as a recycled water wholesaler to both water agencies, which in turn deliver recycled water to their customers. DERWA operates the San Ramon Valley Recycled Water Program, a multi-phased program to supply the DSRSD and EBMUD service areas with recycled water.

In addition, EBMUD has future plans that identify a network of recycled water lines servicing both the Bishop Ranch Business Park and the North Camino Ramon Specific Plan Area. EMBUD is currently planning/designing recycled water pipelines in the following roadways:

- Camino Ramon from Bollinger Canyon Road north to Crow Canyon Road
- Crow Canyon Road from the Camino Ramon Intersection east to the El Capitan Drive intersection
- Executive Parkway from Camino Ramon west to Bishop Drive

- Norris Canyon Road from Camino Ramon west to the Bishop Drive/Annabel Lane Intersection
- From Camino Ramon through the existing private office development to Crow Canyon Place

When completed, all proposed recycled water mains will be operated and maintained by EBMUD, separate from DERWA.

**Production and Distribution System**

Recycled water is tertiary-treated wastewater and is produced at the DSRSD Recycled Water Treatment Facility in Pleasanton, which is part of the agency’s Regional Wastewater Treatment Facility. Recycled water meets California Title 22 requirements for unrestricted use. The DERWA recycled water system consists of 151 miles of pipelines and two elevated reservoirs with capacity for 2 million gallons. The system extends throughout the Dougherty Valley and Southern San Ramon.

Treated effluent at the R1 tertiary treatment plant in Pleasant is filtered and disinfected for appropriate irrigation reuse. Within the Specific Plan area, recycled water is conveyed to Camino Ramon via a backbone line located within the Iron Horse Trail right-of-way.

**Recycled Water Supply Projections**

Table 3.13-2 summarizes DERWA demand and supply projections between 2010 and 2030, as contained in the DSRSD 2005 Urban Water Management Plan. As shown in the table, adequate recycled water supplies would be available to meet projected demand through 2030.

**Table 3.13-2: DERWA Demand and Supply Projections (2010 - 2030)**

Scenario	Category	Acre-Feet				
		2010	2015	2020	2025	2030
Normal Year	Demand	2,700	3,250	3,700	3,700	3,700
	Supply	2,700	3,250	3,700	3,700	3,700
Supply – Single Dry Year	Demand	2,700	3,250	3,700	3,700	3,700
	Supply	2,700	3,250	3,700	3,700	3,700
Supply – Multiple Dry Years	Demand	2,700	3,250	3,700	3,700	3,700
	Supply	2,700	3,250	3,700	3,700	3,700

Notes:  
Single Dry Year and Multiple Dry Years assume demand reductions.  
Source: Dublin San Ramon Services District, 2005.

## **Wastewater**

Central Contra Costa Sanitary District (CCCSD) provides wastewater collection and treatment to the northern and central portions of the City of San Ramon including the Specific Plan area.

### ***Central Contra Costa Sanitary District (CCCSD)***

#### *Collection System*

CCCSD's sewer collection infrastructure consists of approximately 1,500 miles of underground pipe ranging from 4 to 102 inches in diameter and 18 lift stations. Wastewater flows from San Ramon are conveyed north to CCCSD's wastewater treatment plant via the San Ramon Interceptor located within the Iron Horse Trail corridor. CCCSD indicates that the San Ramon Interceptor may be expanded at the end of the decade (approximately 2018) to accommodate future growth. All upgrades to the backbone interceptor will be paid for by fees collected on a CCCSD system-wide basis.

In addition to the San Ramon Interceptor within the Iron Horse Trail corridor, there are various existing collection mains ranging from 8 to 15 inches that provide sewer service to existing users within the project area. In general, wastewater flows in an east or west direction via the existing sewer mains in Executive Parkway, Norris Canyon Road, Crow Canyon Road, and Fostoria Way to the existing 15-inch truck main or 24-to 30-inch interceptor where it flows in a northerly direction to the treatment plant.

#### *Treatment Plant*

CCCSD treats sewage at its treatment plant in Martinez. The treatment plant has a dry weather effluent discharge limit of 53.8 million gallons per day (mgd). In 2009, the average daily dry weather flow at the treatment plant was 32.5 mgd. CCCSD indicates that the treatment plant has a "reliable" physical capacity of 53.8 mgd and is expected to be sufficient to accommodate effluent from "currently planned growth" within the service area over the next 15 years. The treatment plant uses ultraviolet disinfection and has secondary treatment capabilities. A portion of the treated effluent receives additional treatment and is used as recycled water; the remaining effluent is released into Suisun Bay via an outfall. The treatment plant is in compliance with all applicable federal and state environmental health and safety standards for treated wastewater.

## **Storm Drainage**

The City of San Ramon owns and maintains drainage facilities within the City limits. The Specific Plan area is divided into two major drainage basins. The northern portion of the site is drained by a network of storm drainpipes ranging from 15 to 48 inches. All runoff from this portion of the site eventually flows to a 60-inch storm drain located within the Iron Horse Trail corridor. This 60-inch storm drainpipe conveys runoff in a northerly direction into the drainage systems of Danville, Alamo, and Walnut Creek ultimately discharging into Suisun Bay. The southern portion of the project area drains to the south via a network of storm drainpipes into a 72-inch storm drain located under Camino Ramon that transitions to an 84-inch-diameter pipe south of the Bollinger Canyon Road and ultimately, to a 96-inch-diameter pipeline located under the Bishop Ranch 1 surface parking areas.

The 96-inch-diameter pipeline crosses Bishop Ranch 1 to the Iron Horse Trail corridor, discharges into South San Ramon Creek, and ultimately flows to the Lower San Francisco Bay.

According to the Specific Plan, there are no known deficiencies within the existing stormwater drainage system.

**Solid Waste**

Solid waste collection and disposal in San Ramon is provided by Valley Waste Management, which is a part of Waste Management, Inc. Valley Waste Management provides solid waste collection services under an exclusive franchise agreement with the City of San Ramon. These services include collection of solid waste from commercial, industrial, and residential customers; collection of residential recyclables and yard trimmings; and management of the San Ramon Recycling Center. Commercial recycling services are provided by several companies that have been granted permits by the City of San Ramon, and are available to all San Ramon businesses on a competitive basis.

**Landfill Capacity**

Valley Waste Management transports solid waste to the Vasco Road Sanitary Landfill in Livermore. Currently the landfill has capacity until 2025.

**Table 3.13-3: Landfill Summary**

Landfill	Location	Maximum Daily Throughput	Remaining Capacity	Closure Date
Vasco Road Sanitary Landfill	Livermore	2,250 tons	9.8 million cubic yards	2025
Source: City of San Ramon, 2012.				

**Energy**

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to the City of San Ramon. Below is a discussion of each energy source.

**Electricity**

PG&E provides electricity service to all or part of 47 counties in California, including Contra Costa County, constituting most of the northern and central portions of the State. As of December 31, 2010, PG&E provided electricity to approximately 5.2 million customers. In 2010, PG&E obtained 43 percent of electricity from its own generation sources and the remaining 57 percent from outside sources. PG&E-owned generating facilities include nuclear, fossil fuel, hydroelectric, and solar with a net generating capacity of more than 7,300 megawatts. Outside suppliers to PG&E include the California Department of Water Resources, irrigation districts, renewable energy suppliers, and other fossil fuel-fired suppliers. PG&E operates approximately 160,000 circuit miles of transmission and distribution lines. PG&E is interconnected with electric power systems in the western Electricity

Coordinating Council, which includes 14 western states; Alberta and British Columbia, Canada; and parts of Mexico.

In 2010, PG&E delivered 83,908 gigawatt-hours of electricity to its customers.

### **Natural Gas**

PG&E provides natural gas service to all or part of 39 counties in California, including Contra Costa County, constituting most of the northern and central portions of the State. As of December 31, 2010, PG&E provided electricity to approximately 4.3 million customers. PG&E obtains more than 59 percent of its natural gas supplies from western Canada and the balance from U.S. sources. PG&E operates approximately 49,000 miles of transmission and distribution pipelines.

### **3.13.3 - Regulatory Framework**

#### **State**

#### **California Urban Water Management Planning Act**

The Urban Water Management Planning Act (California Water Code Sections 10610-10656) requires that all urban water suppliers with at least 3,000 customers prepare urban water management plans and update them every five years. The act requires that urban water management plans include a description of water management tools and options used by that entity to maximize resources and minimize the need to import water from other regions. Specifically, urban water management plans must:

- Provide current and projected population, climate, and other demographic factors affecting the supplier's water management planning;
- Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier;
- Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage;
- Describe plans to supplement or replace that source with alternative sources or water demand management measures;
- Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis (associated with systems that use surface water);
- Quantify past and current water use;
- Provide a description of the supplier's water demand management measures, including schedule of implementation, program to measure effectiveness of measures, and anticipated water demand reductions associated with the measures; and
- Assess water supply reliability.

EBMUD's Urban Water Management Plan was last updated in 2011 and projects water demand and supply through 2040.

#### ***Model Water Efficient Landscape Ordinance***

The Model Water Efficient Landscape Ordinance was adopted by the Office of Administrative Law in September 2009 and requires local agencies to implement water efficiency measures as part of their review of landscaping plans. Local agencies can either adopt the Model Water Efficient Landscape Ordinance or incorporate provisions of the ordinance into code requirements for landscaping. For new landscaping projects of 2,500 square feet or more that require a discretionary or ministerial approval, the applicant is required to submit a detailed "Landscape Documentation Package" that discusses water efficiency, soil management, and landscape design elements.

#### ***California Integrated Waste Management Act***

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed Assembly Bill (AB) 939, the California Integrated Waste Management Act of 1989, effective January 1990. The legislation required each local jurisdiction in the State to set diversion requirements of 25 percent by 1995 and 50 percent by 2000; established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated. In 2007, Senate Bill (SB) 1016, Wiggins, Chapter 343, Statutes of 2008, introduced a new per capita disposal and goal measurement system that moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a per capita disposal rate factor. As such, the new disposal-based indicator (pounds per person per year) uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities. The City of San Ramon's disposal rate goal is 5.7 pounds per person per year.

#### ***California Public Utilities Commission***

The California Public Utilities Commission (CPUC) regulates privately owned telecommunication, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. It is the responsibility of the CPUC to (1) assure California utility customers safe, reliable utility service at reasonable rates; (2) protect utility customers from fraud; and (3) promote a healthy California economy. The Public Utilities Code, adopted by the legislature, defines the jurisdiction of the CPUC.

#### ***Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings***

Title 24, Part 6, of the California Code of Regulations establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The standards were updated in 2005 and recently amended in 2008. The 2008 standards set a goal of reducing growth in electricity use by 561.2 gigawatt-hours per year (GWh/y) and growth in natural gas use by 19 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 151.2 GWh/y of electricity savings and 3.3 million therms. For nonresidential buildings, the standards establish minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating,

ventilation, and air conditioning [HVAC] and water heating systems), indoor and outdoor lighting, and illuminated signs.

## Local

### City of San Ramon

#### General Plan

- **Implementing Policy 2.3-I-20:** Evaluate the ability of new development to pay for its infrastructure, its share of public and community facilities, and the incremental operating costs it imposes.
- **Implementing Policy 2.3-I-23:** Assure adequate revenue sources to finance City capital facilities and program initiatives.
- **Implementing Policy 2.3-I-24:** Assure that ongoing budgets provide for adequate maintenance of the City's capital facilities, and establish fees commensurate with services rendered (e.g., application processing fees, planning, building and safety and engineering) to recover costs of these services.
- **Guiding Policy 3.1-G-1:** Manage the City's growth in a way that balances existing and planned transportation facilities, protection of open space and ridgelines, provision of diverse housing options, and the preservation of high quality community facilities and services.
- **Implementing Policy 3.1-I-7:** Allow urban development only within the City's Urban Growth Boundary (see Implementing Policies 4.6-I-1 through 4.6-I-5) and only in accord with a plan for full urban services (police, fire, parks, water, sanitation, streets and storm drainage) to which all providers are committed.
- **Guiding Policy 3.2-G-1:** Ensure the attainment of public facility and service standards through the City's development review process, Capital Improvement Program (CIP), and a variety of funding mechanisms to maintain existing facilities and help fund expansion.
- **Implementing Policy 3.2-I-1:** Adopt "Findings of Consistency" that ensure new projects will comply with the City's performance standards through its development review process.
- **Implementing Policy 3.2-I-3:** Require new development to fund public facilities and infrastructure that is deemed necessary to mitigate the impact of that new development.
- **Implementing Policy 3.2-I-4:** Levy local, sub-regional, and regional mitigation fees for public facilities and infrastructure improvements in proportion to a new development's impact.
- **Guiding Policy 7.5-G-1:** Manage solid waste so that State goals are exceeded and the best possible service is provided to the citizens and businesses of San Ramon.
- **Implementing Policy 7.5-I-1:** Provide the best possible service for the collection of garbage, recyclables, and green waste at the lowest possible cost.
- **Implementing Policy 7.5-I-2:** Provide and promote opportunities to reduce waste in all sectors of San Ramon, including residential, commercial, non-profit, government, and educational sectors.
- **Implementing Policy 7.5-I-3:** Develop consumer friendly, convenient, affordable options for community serving recycling services.

- **Implementing Policy 7.5-I-4:** Through the development review process, encourage the provision of convenient recyclable material storage locations.
- **Implementing Policy 7.5-I-5:** Comply with State requirements for proper handling and storage of solid waste, recyclables, and hazardous materials, diversion of solid waste from landfills, and provision of programs to make these activities feasible.
- **Implementing Policy 7.5-I-6:** Ensure that solid waste programs effectively address community needs and issues.
- **Implementing Policy 7.5-I-7:** Provide options for the safe disposal of hazardous waste and materials.
- **Implementing Policy 7.5-I-8:** Encourage solid waste diversion (e.g. waste prevention, reuse, recycling, and composting).
- **Implementing Policy 7.5-I-9:** Require new development projects to comply with the Municipal Code’s construction and demolition debris diversion requirements.
- **Implementing Policy 7.5-I-10:** Provide convenient recycling opportunities at large public events and venues.
- **Implementing Policy 7.5-I-11:** Promote public and private efforts to recycle electronic waste.
- **Guiding Policy 8.6-G-1:** Promote the implementation of water quality and conservation programs and measures by San Ramon employers, residents, and public agencies.
- **Implementing Policy 8.6-I-1:** Require new development projects to implement indoor water conservation and demand management measures.
- **Implementing Policy 8.6-I-2:** Require new development projects to implement outdoor water conservation and demand management measures.
- **Implementing Policy 8.6-I-3:** New development in areas where recycled water service exists or is planned shall be plumbed with “purple pipe” and other measures necessary to accommodate non-potable water service.
- **Implementing Policy 8.6-I-4:** Require new development to meet the State Model Water Efficient Landscape Ordinance (MWELO).
- **Implementing Policy 8.6-I-5:** Collaborate with DERWA (Dublin San Ramon Services District and East Bay Municipal Utilities District Recycled Water Authorities) to expand the recycled water distribution system in an efficient and timely manner.
- **Implementing Policy 8.6-I-6:** Continue implementation of the City of San Ramon Stormwater Management Program to reduce storm water pollution, provide public education, and to protect the water quality of the City’s local creeks and streams.
- **Guiding Policy 9.4-G-1:** Protect the community from risks to lives and property posed by flooding and stormwater runoff.
- **Implementing Policy 9.4-I-2:** Require new development to prepare hydrologic studies to assess storm runoff impacts on the local and subregional storm drainage systems and/or creek corridors. New development shall implement all applicable and feasible recommendations from the studies.

- **Implementing Policy 9.4-I-3:** Require new development to provide a funding mechanism for ongoing maintenance of drainage facilities and other stormwater control measures. Maintenance may be by the City under contract, or by a private entity.
- **Implementing Policy 9.4-I-7:** All new developments shall not increase runoff to the 100-year peak flow in the City’s flood control channels or to local creeks and shall be substantially equal to pre-development conditions. All new storm water systems shall be in compliance with the requirements of the City’s Stormwater Municipal Regional Permit issued by the San Francisco Regional Water Quality Control Board.
- **Guiding Policy 11.21-G-4:** Promote energy conserving practices in the location, construction, renovation, and maintenance of San Ramon’s housing units.
- **Implementing Policy 11.4-I-4:** Enforce the State’s energy conservation standards for new residential construction and renovations to existing structures.
- **Implementing Policy 11.4-I-5:** Encourage innovative designs to maximize passive energy efficiencies, while retaining compatibility with surrounding neighborhoods.

#### *San Ramon Municipal Code*

San Ramon Municipal Code Division C4 Chapter VIII (Ordinance No. 218) requires that water conservation features be incorporated into landscaping plans. The ordinance includes provisions requiring the use of drought-tolerant landscaping, climate-sensitive irrigation systems, use of water-efficient sprinkler heads, and other water conservation practices and technologies where feasible.

#### ***East Bay Municipal Utility District***

EBMUD Policy 8.01 requires that customers use recycled water for non-domestic purpose when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health, and not injurious to plants or wildlife.

### **3.13.4 - Methodology**

EBMUD prepared a Water Supply Assessment for the proposed project in November 2010. The Water Supply Assessment was required by state law, because the proposed project would develop a mixed-use project that would demand an equivalent or greater amount of water as a 500-unit residential project. Note that the proposed project would also exceed the thresholds related to 500,000 square feet of retail space and 250,000 square feet of office space. The Water Supply Assessment provided demand projections for the proposed project and evaluated those projections in relation to those contained in EBMUD’s 2005 Urban Water Management Plan<sup>1</sup>. The Water Supply Assessment is contained in Appendix F of this DEIR.

Michael Brandman Associated (MBA) evaluated utility system impacts using the Water Supply Assessment, as well as utility information provided in the City of San Ramon General Plan, the City

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<sup>1</sup> At the time the Water Supply Assessment was prepared (November 2010), EBMUD had not yet adopted the 2010 Urban Water Management Plan and, therefore, used the adopted 2005 Urban Water Management Plan. Regardless, the 2010 Urban Water Management Plan accounts for the Specific Plan’s demand projections.

of San Ramon General Plan EIR, the EBMUD 2010 Urban Water Management Plan, and the PG&E 10-k Annual Report. MBA also reviewed information posted on agency websites, including EBMUD, DERQA, and the United States Energy Information Administration.

### 3.13.5 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to utilities and service systems are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

- a.) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- b.) 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?
- c.) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- d.) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?
- e.) 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?
- f.) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- g.) Comply with federal, state, and local statutes and regulations related to solid waste?

### 3.13.6 - Project Impacts and Mitigation Measures

#### Water

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**Impact US-1:            Development and land use activities contemplated by the Specific Plan would not result in a need for additional water supplies or additional treatment capacity.**

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#### ***Impact Analysis***

Land uses within the Specific Plan area are served with potable water supplied by EBMUD. As previously discussed, EBMUD project's adequate supplies under various hydrologic conditions through 2030. According to the EBMUD, the Specific Plan Area currently uses approximately 455,000 gallons per day (gpd) of water.

The proposed project consists of the adoption and implementation of the North Camino Ramon Specific Plan. The Specific Plan includes redevelopment from a low-density commercial area to a transit- and pedestrian-oriented neighborhood with a mix of uses. Implementation of development

within the plan boundaries would result in an increased demand for potable water. Pursuant to state law, EBMUD prepared a Water Supply Assessment in November 2010. The findings of the Water Supply Assessment are summarized below and the complete document is available in Appendix F of this Draft EIR.

The Water Supply Assessment indicates that existing potable water demand within the Specific Plan area currently constitutes approximately 455,000 gallons per day (gpd) and projects that, at buildout, water demand would be approximately 892,000 gpd. The Water Supply Assessment states that the water demands for the Specific Plan are accounted for in EBMUD's 2005 Urban Water Management Plan<sup>2</sup>, which concluded that adequate water supplies are available to serve existing and projected water demands through 2030. Furthermore, EBMUD recently updated its demand projections as part of the development of its Water Supply Management Program 2040. EBMUD indicated that the Specific Plan would not change demand projections included in the Water Supply Management Program 2040.

As previously discussed, EBMUD's 2010 Urban Water Management Plan projects customer rationing during the Single Dry Year and Multiple Dry Years scenarios to offset decreases in supply. Additionally, the 2010 Urban Water Management Plan anticipates that recycled water programs will offset demand for potable water by using non-potable water for irrigation.

As identified in the Specific Plan, development within the plan boundaries would be required to comply with the Model Water Efficient Landscape Ordinance, which requires that plans and water usage estimates for landscape irrigation be submitted prior to the issuance of ministerial permits. This has been incorporated as a mitigation measure.

Furthermore, Specific Plan Policy UTL-1.1 requires water conservation and Low Impact Development best management practices to be incorporated into all public improvement and private development projects in the Specific Plan area.

In summary, the Specific Plan would cause a net increase in potable water demand by 437,000 gallons per day in relation to existing demand within the plan boundaries. EBMUD indicated that this demand is accounted for in its long-term water supply planning and would not require the development of additional supplies. While EBMUD's 2010 Urban Water Management Plan forecasts a worst-case scenario of a three-year drought that would result in a need for supplemental water supply, the proposed project would not exacerbate this projected deficit because its demand is accounted for in this total. Furthermore, it should be emphasized that this projection is based on a number of adverse conditions occurring simultaneously and, therefore, is considered a "worst case" planning scenario. The Specific Plan includes a number of policies requiring water conservation measures to be incorporated into development that occurs pursuant to the plan. These policies are

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<sup>2</sup> As previously noted, the 2010 Urban Water Management Plan was adopted in June 2011 and accounts for the Specific Plan's projected demand.

binding, and future development and land use activities that occur pursuant to the Specific Plan would be required to implement them.

Finally, as shown in Exhibit 2-12, the Specific Plan contemplates a comprehensive network of potable water and recycled water distribution facilities. The implementation of these facilities would ensure that adequate infrastructure is available to serve the Specific Plan uses.

For these reasons, the Specific Plan would have a less than significant impact on water.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Wastewater**

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<b>Impact US-2:</b>	<b>Development and land use activities contemplated by the Specific Plan would not require or result in the construction of new water or wastewater treatment facilities or expansion of offsite existing facilities.</b>
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**Impact Analysis**

Land uses within the Specific Plan area are served with wastewater collection and treatment service provided by CCCSD. As previously discussed, CCCSD has adequate collection and treatment capacity to serve development within its service area.

The proposed project consists of the adoption and implementation of the North Camino Ramon Specific Plan. The Specific Plan includes redevelopment from a low-density commercial area to a transit- and pedestrian-oriented neighborhood with a mix of uses. Implementation of development within the plan boundaries would result in an increased need for wastewater services.

As stated in the Specific Plan, CCCSD has indicated that the Specific Plan would not create capacity deficiencies in the existing trunk system and adequate treatment plan capacity is available.

Furthermore, as shown in Exhibit 2-14, the Specific Plan contemplates a network of sewer collection facilities that would ensure that development that occurs pursuant to the plan would be adequately served with wastewater collection and treatment. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Storm Drainage**

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**Impact US-3:           Development and land use activities contemplated by the Specific Plan would not result in a need for new or expanded offsite storm drainage facilities.**

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**Impact Analysis**

The existing Specific Plan area is highly developed with a significant footprint of impervious surfaces (buildings, parking lots, and roadways). The proposed Specific Plan would alter development types in the area, but it is not anticipated to increase the quantity of impervious surfaces.

Development within the Specific Plan boundaries would be required to comply with the California Regional Water Quality Control Board, San Francisco Region’s new regional municipal permit. A key element of the permit would require new development to employ Low Impact Development techniques to minimize and treat stormwater runoff. According to the Regional Water Quality Control Board, the goal of Low Impact Development is to “reduce runoff and mimic a site’s predevelopment hydrology . . . by infiltrating, storing, detaining, evapotranspiring, and/or biotreating stormwater runoff close to its source.” As such, each development within the plan boundaries would be required to demonstrate that it adequately treats any site runoff to insure the proper quality of the runoff leaving the site; does not increase the quantity, duration, or peak flow of runoff from a site; and employs proper construction management techniques through the construction process to insure sediment and erosion control (addressed through the state National Pollutant Discharge Elimination System requirements).

Accordingly, new development within the Specific Plan boundaries would not increase flows within the existing drainage system. As indicated by the Specific Plan, there are no known deficiencies within the existing drainage system. Furthermore, as shown in Exhibit 2-16, the Specific Plan contemplates a network of storm drainage facilities that would ensure that development that occurs pursuant to the plan would be adequately served with drainage.

New drainage infrastructure required by the Specific Plan would be limited to that required for new roadways and would be appropriately sized and modeled through the existing drainage system to insure proper sizing to handle stormwater flows. As such, the Specific Plan would not result in an increased need for offsite stormwater drainage facilities and impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.

**Solid Waste**

**Impact US-4:** Development and land use activities contemplated by the Specific Plan would generate substantial amounts of solid waste that may result in the unnecessary use of regional landfill capacity.

**Impact Analysis**

Solid waste would be generated by short-term construction activities and long-term operational activities. Each is discussed below.

*Construction Waste Generation*

Implementation of development in accordance with the Specific Plan would include the demolition of approximately 2.65 million square feet of commercial uses, and the construction of 5.07 million square feet of commercial uses and 1.65 million square feet of residential uses. Using construction and demolition debris waste generation rates published by the U.S. Environmental Protection Agency, an estimate of the total construction and demolition debris generated by the proposed project is provided in Table 3.13-4. Note that nonresidential and residential construction activities were calculated separately because of differences in waste generation rates.

**Table 3.13-4: Construction and Demolition Waste Generation**

Activity	Type	Waste Generation Rate	Square Footage	Total (tons)
Demolition	Nonresidential	155 pounds/square foot	2,650,000	205,375
Construction	Nonresidential	3.89 pounds/square foot	5,070,000	9,861
	Residential	4.38 pounds/square foot	1,650,000	3,613
<b>Total</b>				<b>218,850</b>
Notes: 1 ton = 2,000 pounds Source: U.S. Environmental Protection Agency, 1998; Michael Brandman Associates, 2012.				

Implementation of the Specific Plan is estimated to generate 218,850 tons of construction and demolition debris. This tonnage would be spread out over the length of construction activities and the actual volumes of construction waste disposed of at any one time are not expected to be more than several tons of debris. However, because 218,850 tons represents a significant amount of construction and demolition waste, mitigation is proposed that would require the applicant to implement construction and demolition recycling to the maximum extent feasible. The implementation of this mitigation measure would reduce short-term solid waste generation

substantially. Therefore, short-term construction impacts on landfill capacity would be less than significant.

#### *Operational Waste Generation*

Daily and annual operational solid waste generation estimates are provided in Table 3.13-5. Operational solid waste generation for non-residential and residential uses was calculated using a standard waste generation rates provided by the California Integrated Waste Management Board. Note that the estimates in the table are considered conservative estimates and likely overstate actual operational solid waste generation.

**Table 3.13-5: Operational Net Solid Waste Generation**

Use	Size	Waste Generation Rate	Daily Total (tons)	Annual Total (tons)
Non-Residential	4,325,000	0.1 pound/square foot/day	216.25	78,931.25
Residential	1,500 units	10 pounds/unit/day	7.5	2,737.50
<b>Net Total</b>			<b>223.75</b>	<b>81,668.75</b>
Notes: 1 ton = 2,000 pounds Source: Michael Brandman Associates 2012.				

The proposed project is estimated to generate a net total of 233.75 tons of solid waste on a daily basis and 81,668.75 tons on an annual basis. While regional landfill capacity would be available to accommodate this amount of solid waste, this figure could be substantially reduced through recycling and waste reduction practices and would avoid the unnecessary use of landfill capacity. Mitigation is proposed that would require development projects within the Specific Plan boundaries to implement operational recycling and waste reduction practices to the maximum extent feasible. The implementation of this mitigation measure would reduce operational solid waste generation substantially and conserve landfill capacity. Therefore, long-term operational impacts on landfill capacity would be less than significant.

#### ***Level of Significance Before Mitigation***

Potentially significant impact.

#### ***Mitigation Measures***

**MM US-4a** Prior to the issuance of demolition and construction permits, project applicants within the Specific Plan area shall submit a recycling plan to the City of San Ramon identifying the procedures by which construction and demolition would be salvaged and recycled to the maximum extent feasible. The plan shall include proof that a construction and demolition debris recycler is under contract to the applicant to perform this work.

**MM US-4b** Prior to the issuance of occupancy permits, project applicants within the Specific Plan area shall submit a Recycling and Waste Reduction Plan to the City of San Ramon identifying practices they and their tenants would implement during project operations that demonstrate at least 50-percent diversion.

Operation recycling and waste reduction practices shall include but not be limited to:

- Contracting with one or more City-licensed commercial recycling providers to serve all project commercial uses. Recyclable materials collection containers shall be provided in common commercial tenant disposal areas and be equipped to accept aluminum, cardboard, glass, green waste, mixed paper, and plastic materials, and, where feasible, food scraps.
- Compliance with City of San Ramon’s 50-percent waste diversion ordinance.
- Installation of common recycling facilities in all residential uses. These facilities shall be equipped to accept aluminum, cardboard, glass, mixed paper, and plastic materials and contain signage clearly identifying accepted materials.
- Periodic notification of residents and commercial tenants about the location of recycling facilities and accepted materials.
- Installation of recyclable materials receptacles in public places (along streets in public parks, plazas, and outside of the Transit Center, etc.). Recycling receptacles shall be of high-quality design and shall display signage clearly identifying accepted materials.
- Common commercial and residential disposal areas shall be designed with sufficient space to accommodate separate containers for solid waste, recyclables, organics, and—for restaurants—tallow, subject to approval of the franchise waste provider and City of San Ramon. Plans should include adequate and safe access for solid waste and recycling vehicles to access and collect materials.

***Level of Significance After Mitigation***

Less than significant impact.

**Energy**

**Impact US-5: Development and land use activities contemplated by the Specific Plan would not result in the unnecessary, wasteful, or inefficient use of energy.**

**Impact Analysis**

Using consumption figures provided by PG&E and the U.S. Energy Information Administration, the proposed project’s estimated building electricity and natural gas consumption following construction is summarized in Table 3.13-6. As shown in the table, the proposed project is estimated to demand a net total of 80.6 million kilowatt hours (kWH) and 327.1 million cubic feet of natural gas annually at full buildout.

**Table 3.13-6: Estimated Energy Consumption**

Use	Energy Source	Annual Consumption Rate	Unit	Estimated Annual Consumption
Commercial	Electricity	15.7 kWH/square foot	4,325,000 square feet	67.9 million kWH
	Natural Gas	58.3 cubic feet/square foot		252.1 million cubic feet
Residential	Electricity	8,492 kWH/per household	1,500 households	12.7 million kWH
	Natural Gas	50,000 cubic feet/per household		75.0 million cubic feet
Total	Electricity	—	—	<b>80.6 million kWH</b>
	Natural Gas	—	—	<b>327.1 million cubic feet</b>

Notes:  
kWH = kilowatt hours  
Source: Pacific Gas and Electric Company, 2011; Energy Information Administration, 2007.

Policy UTL-5.1 of the Specific Plan requires that new residential and commercial development within the plan boundaries comply with the San Ramon Climate Action Plan’s Energy Conservation and Alternative Energy strategies that include but are not limited to LEED certification, use of photovoltaic panels, and sustainable design. Policy UTL-5.2 of the Specific Plan requires new residential and commercial development within the plan boundaries to demonstrate a 15-percent increase in energy efficiency compared with Title 24 standards. As such, implementation of the Specific Plan would not result in the unnecessary, wasteful, or inefficient use of energy. Impacts would be less than significant.

**Level of Significance Before Mitigation**

Less than significant impact.

**Mitigation Measures**

No mitigation is necessary.

**Level of Significance After Mitigation**

Less than significant impact.