
4.14 - Utility Systems

4.14.1 - Introduction

This section describes the existing setting regarding utility systems and potential effects from project implementation on the site and its surrounding area. Descriptions and analyses in this section are based on information contained in the *Preliminary Hydrology Report* prepared by PBS&J in 2007, the offsite hydrology prepared by Exponent in 2007, the *Water Supply Assessment* prepared by the City Water Department in 2007 and updated in 2008, the *Urban Water Management Plan (2000-2020)* prepared by the City of San Bernardino in 2005, and the *Dry Utility Feasibility Study* prepared by Utility Planners Inc. in 2007. The hydrology reports are included in this EIR as Appendix G and the Water Supply Assessment is contained in Appendix K.

As explained in Section 1, Introduction, where applicable, this project-level DEIR incorporates by reference information and analysis contained in the City of San Bernardino General Plan EIR and the Paradise Hills Specific Plan EIR, certified by the San Bernardino City Mayor and Common Council in 2007 and 2003, respectively. The General Plan EIR contemplated buildout of the General Plan at a programmatic level and concluded that all impacts on utility systems were less than significant after mitigation. The Paradise Hills Specific Plan EIR provided project-level analysis of the specific land uses proposed on the project site and concluded that all utility system impacts were less than significant after mitigation.

This DEIR accounts for modifications to the baseline conditions that have occurred since certification of the previous EIRs and changes that have increased the size and intensity of the Proposed Project. Accordingly, not all of the conclusions in the previous EIRs are applicable to the Proposed Project and new analysis is provided for potential impacts not previously considered in those documents.

4.14.2 - Environmental Setting

Water

Water Service

The San Bernardino Municipal Water Department (SBMWD) provides domestic water for the City, including the project site and unincorporated areas of San Bernardino County. Other local water agencies in the general area include East Valley Water District on the east, Redlands Mutual, Loma Linda Municipal, Riverside, and Colton water providers to the south, and West San Bernardino and Rialto to the west. The City has no jurisdiction over water supply so transmission, distribution, and storage facilities are administered by other entities. This section will examine only those facilities that affect the Proposed Project, in this case, those owned and maintained by the City. The City obtains all of its water at present from the Bunker Hill Basin. This aquifer supplies some 60 wells, some as deep as 1,200 feet, and provides potable water to over 40,000 SBMWD customers through 551 miles of water mains.

The SBMWD has the capacity to provide 70,000 acre-foot per year of water from both groundwater and surface water sources, however, groundwater from the Bunker Hill Basin is the primary source of water supply for the SBMWD (see also Section 4.7, *Hydrology and Water Quality*, for related discussions on groundwater quality and quantity in terms of area-wide needs). This basin is replenished by local precipitation and stream flows from rain and snowmelt from the nearby San Bernardino Mountains. While groundwater is the principal source of supply in the planning area, other sources of water supply include the State Water Project (SWP), the Santa Ana River, Mill Creek, and Lytle Creek.

The SBMWD distributes more than 16.66 billion gallons of water to over 151,000 residents in the City. The Department produces over 497 gallons per capita per day with the average consumption use reaching 330 gallons per capita per day. The distribution system includes approximately 551 miles of water mains, 41,317 active water meters and over 4,000 fire hydrants. SBMWD facilities also include 60 active wells, 4 treatment plants with capacity of 50 million gallons per day, 32 reservoirs with a total capacity of more than 100 MG of domestic storage water capacity, 27 chlorination facilities, and 66 booster pump stations. Water conservation and recycling are also considered important aspects of the City's water delivery system (page 2-42 and 2-43, CSB General Plan 2005).

The SBMWD maintains a 73-inch buried water line within a 50-foot wide non-exclusive easement across the central portion of the UHSP property from northwest to southeast. The proposed UHSP land plan accounts for this easement and no structures or restricting improvements are proposed over or within this easement (TPC 2007).

Wastewater

Treatment

The CSBMWD has operated the San Bernardino Water Reclamation Plant (WRP) since 1973, which treats domestic wastewater flows before discharging them into the Santa Ana River. The WRP provides secondary treatment for up to 33 million gallons per day (MGD). The plant serves a population of over 185,000 people with a service area that includes the cities of San Bernardino and Loma Linda, the East Valley, the San Bernardino International Airport, Patton State Hospital, and parts of San Bernardino County.

Collection

The City Public Works Department is responsible for the design and construction of wastewater facilities within the City, while the Public Services Department is responsible for their operation and maintenance. Wastewater collection facilities within the surrounding area are also owned and operated by the East Valley Water District (EVWD), the San Bernardino International Airport and Trade Center, and the City of Loma Linda.

Reclamation

In March 1996, the cities of San Bernardino and Colton wastewater treatment plants jointly opened the Rapid Infiltration and Extraction (RIX) facility, where secondary-treated wastewater undergoes the final filtering and disinfecting process to produce wastewater that is superior or equivalent to that produced by conventional filtration systems. The WRP and RIX facilities treat and provide over 33,000 gallons of reclaimed water a day for many commercial and agricultural uses. The excess reclaimed water (i.e., that amount not consumed after treatment in a given day) is currently discharged into the Santa Ana River where it contributes to other existing water flows and beneficial uses (see also Section 4.7, *Hydrology and Water Quality*).

Septic Systems

Presently the City also allows the limited use of septic tanks for developments within its boundaries, typically in older portions of the City or on large lot residential developments in areas with appropriate soils. Any new septic systems must comply with the Santa Ana Regional Water Quality Control Board's minimum lot size requirements (Currently one half acre). The UHSP project proposes to connect its units to the existing CSBMWD wastewater system and no septic units are proposed.

Storm Drainage

The City of San Bernardino owns and maintains drainage facilities within the city limits that connect to larger regional facilities owned and maintained by the San Bernardino County Flood Control District. Other facilities (i.e. downstream of the Proposed Project site) are also owned and/or maintained by the County and the USACE. Water quality and pollution issues are addressed in Section 4.7, *Hydrology and Water Quality*. This section will specifically address runoff and drainage issues relative to the UHSP project site. The City's drainage or flood protection system includes a network of channels, storm drains, street waterways, natural drainage courses, dams, basins, and levees. The design and construction of storm drain and flood control facilities is the responsibility of the City Public Works Department, while the Public Services Department is responsible for their operation and maintenance (Page 3-62, CSB General Plan 2005).

Solid Waste

Solid waste collection within much of the City and a portion of the unincorporated areas around the City is provided by the City's Department of Public Services. These services include collection of solid waste from commercial, industrial, and residential customers, collection of residential recyclables, and "green waste" (e.g., yard trimmings).

Landfills

Regional planning for solid waste issues is conducted by the San Bernardino County Solid Waste Advisory Committee governed by the County Solid Waste Management Plan. The City has a representative serving on the Solid Waste Advisory Committee. Any future solid waste facilities,

such as transfer stations and/or landfills, must be incorporated in the County Solid Waste Management Plan.

The California Integrated Waste Management Board indicates that 239,286 tons of solid waste was generated in the City of San Bernardino in 2005. More than 95.4 percent of San Bernardino's solid waste was disposed at the Mid-Valley Sanitary Landfill, with smaller amounts disposed of at other regional landfills. A summary of the regional landfills that accept solid waste from San Bernardino is provided below. Furthermore, solid waste collected in the planning area is disposed of at landfills in Colton and Fontana, which is owned and operated by the County of San Bernardino. When the Colton and Mid Valley Landfill eventually close, solid waste generated in the City will be transported to the San Timoteo Landfill also owned and operated by the County of San Bernardino. The Mid-Valley Landfill is projected to have approximately 40 years of capacity left as of 2005.

Regional Landfills

Antelope Valley Public Landfill (Los Angeles) , Bakersfield S.L.F. (Bena) (Kern) , Colton refuse disposal site (San Bernardino) , El Sobrante Sanitary Landfill (Riverside), Fontana Refuse Disposal site (San Bernardino) , Frank R. Bowerman Sanitary LF (Orange) , Lamb Canyon Disposal site (Riverside) , Landers Disposal site (San Bernardino), Olinda Alpha Sanitary Landfill (Orange) , Otay Annex Landfill (San Diego), Puente Hills Landfill #6 (Los Angeles), San Timoteo Solid Waste Disposal Site (San Bernardino), Simi Valley Landfill - Recycling Center (Ventura), Sycamore Sanitary Landfill (San Diego), Victorville Refuse Disposal site (San Bernardino), Waste Management of Lancaster SLF (Los Angeles).

Waste Diversion

The California Integrated Waste Management Board indicates that the City of San Bernardino had a waste diversion rate of 47 percent in 2006, the most recent year final numbers are available.

As landfills reach their capacities and new landfill sites become increasingly difficult to establish, the need to reduce solid waste generation is critical. State law currently requires that local jurisdictions divert at least 50 percent of their solid waste from landfills through conservation, recycling, and composting. Like all California communities, the City of San Bernardino is required to comply with State regulations. The challenge for San Bernardino, as well as communities throughout the state, is to continue to find diversion, recycling, and reuse strategies instead of relying on sanitary landfills as the primary method of managing solid waste. As the region grows, it becomes more difficult to site or expand landfills due to the unpopularity of these types of facilities.

Recycling and Green Waste Collection

The City provides curbside recycling and green waste pick-up services to residential customers in San Bernardino. Accepted recyclable materials include aluminum, glass, plastic, cardboard, mixed paper, newsprint, and motor oil. Commercial customers can contract with one or more of the City-licensed recycling service providers. As part of its contract with the City, the county of San Bernardino Public

Works Department operates the San Bernardino Recycling Center at 222 W. Hospitality Lane in the southwest portion of the City. The San Bernardino Recycling Center is a drop-off facility that accepts the previously mentioned recyclable materials, as well as scrap metal and wooden pallets.

Household Hazardous Waste

The County accepts household hazardous waste (paint, pesticides, motor oil, and other household chemicals) from San Bernardino residents at its Household Hazardous Waste Collection Facility, located at the San Bernardino International Airport, 2824 E. “W” Street, Building 302 in San Bernardino. The County also typically sponsors several household hazardous waste drop-off events in the City of San Bernardino on an annual basis.

Energy

Private suppliers provide electricity and natural gas service to the City of San Bernardino. Below is a discussion of each energy source.

Electricity

The Southern California Edison Company (“Edison”) provides electricity to much of Southern California including the City of San Bernardino. Edison obtains 80 percent of electricity from its own generation sources and the remaining 20 percent from outside sources. Edison-owned generating capacity includes nuclear, fossil fuel-fired, and hydroelectric facilities. Edison operates transmission and distribution lines over a service area of approximately 50,000 square miles, which is interconnected with electric power systems in the Western Electricity Coordinating Council. The Western Electricity Coordinating Council includes 14 western states; Alberta and British Columbia, Canada; and parts of Mexico.

In 2006, Edison delivered more than 97,389 gigawatt-hours of electricity to its customers in 2004. Residential customers accounted for the second largest segment of demand, with 28,916 gigawatt-hours (30 percent) of the total. Edison owns, operates, and maintains both above ground and underground facilities in the planning area. Most of Edison's facilities are located in the street right-of-way. Edison extends electrical service as needed into unserved areas pursuant to its current Rules and Rates.

Natural Gas

The Southern California Gas Company (“Gas Company”) provides natural gas to much of Southern California, including the City of San Bernardino. The Gas Company obtains approximately 42 percent of their natural gas supply from basins located in the Southwest, 26 percent from Canada, 14 percent from the Rocky Mountains, and 18 percent from basins located within California. The Gas Company operates transmission and distribution pipelines over a service area of 20,000 square miles.

In 2006, the Gas Company delivered 1 trillion cubic feet (Bcf) of natural gas to its customers. Residential customers accounted for approximately 5 percent of the total. The Gas Company owns, operates, and maintains underground gas lines in most of the City's public streets. Extension of service is based on the initiation of a service contract whose policies and extension rules are on file with the California Public Utilities Commission.

Other Utilities

Telephone service in San Bernardino is provided by Verizon and SBC, which are regulated by Title 14 of the City's Municipal Code, which address the granting of franchises. Cable Television is not legally classified as a "utility" and is therefore not regulated by the California Public Utilities Commission, however, it is regulated by local jurisdictions. The City's Telecommunications Division is responsible for franchise supervision and negotiation, in addition to subscriber complaint resolution. Each cable provider has been interlinked with the City's Telecommunications Division equipment for emergency broadcasts. Adelphia Cable, Mountain Shadows Cable, and Charter Communications Cable channels service the City of San Bernardino and surrounding communities.

Regulatory Framework

California Water Code Section 10910-10915

California Water Code Section 10910 through 10915 requires that a Water Supply Assessment be prepared for any project with the following characteristics:

- A residential development of more than 500 dwelling units;
- A shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- An industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed-use project that includes one or more of the projects specified above; and
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

The Water Supply Assessment must evaluate the Proposed Project's demand and determine if the local water supplier has adequate supplies to serve the project.

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code §10610-10656) requires that all urban water suppliers prepare urban water management plans and update them every 5 years.

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 939, the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. The legislation required each local jurisdiction in the State to set diversion requirements of 25 percent in 1995 and 50 percent in 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.

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 assure California utility customers safe, reliable utility service at reasonable rates, protect utility customers from fraud, and promote a healthy California economy.

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 set a goal of reducing growth in electricity use by 478 gigawatt-hours per year (GWh/y) and growth in natural gas use by 8.8 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 163.2 GWh/y of electricity savings and 0.5 million therms. For nonresidential buildings, the standards establish minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs.

City of San Bernardino General Plan

The Utilities Element of the City's General Plan establishes the following relevant goals and policies related to utility systems:

Goal 9.1: “Provide a system of wastewater collection and treatment facilities that will adequately convey and treat wastewater generated by existing and future development in the City’s service area.”

- **Policy 9.1.1:** Provide for the construction of upgraded and expanded wastewater collection and treatment improvements to support existing and new development, and to meet usage requirements and maximize cost efficiency, especially in areas where existing systems are deficient.

- **Policy 9.1.2:** Maintain and replace existing wastewater collection and treatment facilities as necessary.
- **Policy 9.1.3:** Require new development to connect to a master planned sanitary sewer system in accordance with the Department of Public Works' "Sewer Policy and Procedures." Where construction of master planned facilities is not feasible, the Mayor and Common Council may permit the construction of interim facilities sufficient to serve the present and short-term future needs.
- **Policy 9.1.4:** Evaluate the City's Sewer Collection System Master Plan and the Board of Water Commissioner's Master Plan for Wastewater Treatment Facilities as necessary to accurately determine which collection and treatment facilities will be needed to serve present and future growth in the City.
- **Policy 9.1.5:** Review development proposals for projects within the City's Sphere of Influence and request the County to disapprove any project that cannot be served with adequate public wastewater collection and treatment facilities. (U-1)
- **Policy 9.1.6:** Ensure that any proposed septic systems comply with the Santa Ana RWQCB's minimum lot size requirements, which are one-half acre as of 2005. (LU-1)

Analysis: The UHSP project will tie into the City's existing wastewater collection and treatment system and no significant impacts on sewer facilities or services are expected from construction and operation of the Proposed Project. Therefore, the Proposed Project is consistent with this goal and its policies.

Goal 9.2: *"Ensure that all wastewater collection and treatment facilities are operated to maximize public safety."*

- **Policy 9.2.1:** Provide for the monitoring of toxic or potentially toxic businesses to prevent contamination of water and wastewater.
- **Policy 9.2.2:** Require, when necessary, pre-treatment of wastewater from industrial sources prior to treatment at the Water Reclamation Facility.

Analysis: This measure deals with non-residential uses so it does not apply to the Proposed Project.

Goal 9.3: *"Provide water supply, transmission, distribution, storage, and treatment facilities to meet present and future water demands in a timely and cost effective manner."*

- **Policy 9.3.1:** Provide for the construction of upgraded and expanded water supply, transmission, distribution, storage, and treatment facilities to support existing and new development. (LU-1 and U-4)

- **Policy 9.3.2:** Maintain and replace existing water supply, transmission, distribution, storage systems, and treatment facilities as necessary. (U-4)
- **Policy 9.3.3:** Require adequate water supply, transmission, distribution, storage, and treatment facilities to be operational prior to the issuance of certificates of occupancy. (LU-1)
- **Policy 9.3.4:** Monitor the demands on the water system and, as necessary, manage development to mitigate impacts and/or facilitate improvements.
- **Policy 9.3.5:** Impose limits on new water hook-ups, if necessary, to comply with available domestic water supply.
- **Policy 9.3.6:** Request the Board of Water Commissioners to evaluate the Water System Master Plan, as necessary, to accurately determine which water facilities will be needed to serve present and future growth in the City.

Analysis: The UHSP project will tie into the City’s existing water distribution system and no significant impacts on water facilities or services are expected from construction and operation of the Proposed Project. The Water Supply Assessment prepared by the City for the UHSP project determined the City had adequate supplies of water to serve the Proposed Project over a minimum 20-year period, consistent with State law. Therefore, the Proposed Project is consistent with this goal and its policies.

Goal 9.4: “Provide appropriate storm drain and flood control facilities where necessary.”

- **Policy 9.4.1:** Ensure that adequate storm drain and flood control facilities are provided in a timely manner to protect life and property from flood hazards.
- **Policy 9.4.2:** Upgrade and expand storm drain and flood control facilities to eliminate deficiencies and protect existing and new development.
- **Policy 9.4.3:** Maintain existing storm drain and flood control facilities.
- **Policy 9.4.4:** Require that adequate storm drain and flood control facilities be in place prior to the issuance of certificates of occupancy. Where construction of master planned facilities is not feasible, the Mayor and Common Council may permit the construction of interim facilities sufficient to protect present and short-term future needs. (LU-1)
- **Policy 9.4.5:** Implement flood control improvements that maintain the integrity of significant riparian and other environmental habitats.
- **Policy 9.4.6:** Minimize the disturbance of natural water bodies and natural drainage systems. (LU-1)

- **Policy 9.4.7:** Develop San Bernardino’s flood control system for multipurpose uses, whenever practical and financially feasible.
- **Policy 9.4.8:** Minimize the amount of impervious surfaces in conjunction with new development. (LU-1)
- **Policy 9.4.9:** Develop and implement policies for adopting Sustainable Stormwater Management approaches that rely on infiltration of stormwater into soils over detention basins or channels. Sustainable Stormwater Management techniques include use of pervious pavements, garden roofs, and bioswales to treat stormwater, and reusing stormwater for non-potable water uses such as landscape irrigation and toilet/urinal flushing. (LU-1)
- **Policy 9.4.10:** Ensure compliance with the Federal Clean Water Act requirements for NPDES permits, including requiring the development of Water Quality Management Plans, Erosion and Sediment Control Plans, and SWPPPs for all qualifying public and private development and significant redevelopment in the City. (LU-1)
- **Policy 9.4.11:** Implement an urban runoff reduction program consistent with regional and federal requirements, which includes requiring and encouraging the following examples of BMPs in all developments:
 - Increase permeable areas, utilize pervious materials, install filtration controls (including grass lined swales and gravel beds), and divert flow to these permeable areas to allow more percolation of runoff into the ground;
 - Replanting and hydroseeding of native vegetation to reduce slope erosion, filter runoff, and provide habitat;
 - Use of porous pavement systems with an underlying stone reservoir in parking areas;
 - Use natural drainage, detention ponds, or infiltration pits to collect and filter runoff;
 - Prevent rainfall from entering material and waste storage areas and pollution-laden surfaces; and
 - Require new development and significant redevelopment to utilize site preparation, grading, and
 - Other BMPs that provide erosion and sediment control to prevent construction-related contaminants from leaving the site and polluting waterways. (LU-1)

Analysis: The Sustainability Guidelines and development principles in the Specific Plan document demonstrate that the Proposed Project is consistent with these guidelines, and is therefore consistent with this goal and its policies. In addition, the analysis in Section 4.7, Hydrology and Water Quality, demonstrates that the project will be consistent with the goals of the City relative to water quality. Therefore, the Proposed Project is consistent with this goal and its policies.

Goal 9.5: “Provide an adequate and orderly system for the collection and disposal of solid waste to meet the demands of new and existing developments in the City.”

- **Policy 9.5.1:** Install and maintain public trash receptacles along incorporated City streets in commercial areas and along major arterials.
- **Policy 9.5.2:** Provide regular street sweeping.
- **Policy 9.5.3:** Continue to reduce the amount of solid waste that must be disposed of in area landfills, to conserve energy resources, and be consistent with the County Solid Waste Management Plan and State law.
- **Policy 9.5.4:** Continue to support implementation of regional recycling programs through participation in the County Solid Waste Advisory Committee, the County Solid Waste Management Plan, and appropriate State programs.
- **Policy 9.5.5:** Develop and participate in local recycling programs.
- **Policy 9.5.6:** Develop and implement a program of public education regarding the benefits of recycling.

Analysis: The analysis in Section 4.14.5 demonstrates that the project will not have significant impacts on the collection or disposal of solid wastes. Therefore, the Proposed Project is consistent with this goal and its policies.

Goal 9.6: “Ensure an adequate, safe, and orderly supply of electrical energy is available to support existing and future land uses within the City on a project level.”

- **Policy 9.6.1:** Require that approval of new development be contingent upon the ability to be served with adequate electrical facilities. (LU-1)
- **Policy 9.6.2:** Underground utilities, including on-site electrical utilities and connections to distribution facilities, unless such undergrounding is proven infeasible. (U-2)
- **Policy 9.6.3:** Provide adequate illumination of all streets, alleys (under special conditions), and public areas; upgrading areas that are deficient and maintaining lighting fixtures in good working order.

- **Policy 9.6.4:** Require improvements to the existing street light system and/or new street light systems necessitated by a new development proposal be funded by that development.
- **Policy 9.6.5:** Encourage and promote the use of energy-efficient (U.S. Department of Energy “Energy Star” or equivalent) lighting fixtures, light bulbs, and compact fluorescent bulbs in residences, commercial, and public buildings, as well as in traffic signals and signs where feasible. (LU-1)

Analysis: The analysis in Section 4.14.5 demonstrates that the project, with the proposed design (see “Sustainability Principles”), will not have significant impacts on the provision of electrical energy to the project site or the City as a whole. Therefore, the Proposed Project is consistent with this goal and its policies.

Goal 9.7: “Ensure an adequate supply of natural gas is available to support existing and future land uses within the City at a project level.”

- **Policy 9.7.1:** Work with the Southern California Gas Company to ensure that adequate natural gas facilities are available to meet the demands of existing and new developments.
- **Policy 9.7.2:** Require that all new development served by natural gas install on-site pipeline connections to distribution facilities underground, unless such undergrounding is infeasible due to significant environmental or other constraints. (U-2)

Analysis: The analysis in Section 4.14.5 demonstrates that the project, with the proposed design (see “Sustainability Principles”), will not have significant impacts on the provision of natural gas to the project site or the City as a whole. Therefore, the Proposed Project is consistent with this goal and its policies.

Goal 9.8: “Ensure the operation and maintenance of telecommunications systems to support existing and future land uses within the City.”

- **Policy 9.8.1:** Provide for the continued development and expansion of telecommunications systems including cable and, as feasible, fiber optics, for entertainment, education, culture, information access, two-way communication between government and residents and businesses, and other similar purposes.
- **Policy 9.8.2:** Require that all new developments underground telecommunication facilities, unless such undergrounding is infeasible due to significant environmental or other constraints. (U-2)
- **Policy 9.8.3:** Cooperate with, and encourage public utilities to provide a fiber optics network in the City that is linked to regional systems.

Analysis: The analysis in Section 4.14.5 demonstrates that the project will not have significant impacts on the provision of communication services to the project site or the City as a whole. Therefore, the Proposed Project is consistent with this goal and its policies.

Goal 9.10: *“Ensure that the costs of infrastructure improvements are borne by those who benefit.”*

- **Policy 9.10.1:** Require that new development proposals bear the cost to improve wastewater collection and treatment facilities, water supply transmission, distribution, storage, and treatment facilities, and storm drain and flood control facilities as necessitated by the Proposed Project. This shall be accomplished either through the payment of fees, or by the actual construction of the improvements. (LU-1)
- **Policy 9.10.2:** Collect adequate amounts of fees and charges to fund the operation/maintenance of existing facilities and to construct new facilities.
- **Policy 9.10.3:** Review utility, capacity, and infrastructure fees, as well as development, acquisition of service, and monthly service charges on an annual basis to ensure that adequate amounts of fees and charges are collected to fund the operation/maintenance of existing facilities and to construct new facilities.
- **Policy 9.10.4:** Provide public funding support for expansion and upgrading of public utilities and infrastructure when improvements will provide substantial public benefit to the City.
- **Policy 9.10.5:** Allow the formation of benefit assessment districts and community facilities districts, where appropriate, in which those who benefit from specific improvements pay a pro rata share of the costs.

Analysis: The Proposed Project will install, or pay service providers to install, all of the necessary utility infrastructure to serve the Proposed Project. The project will not have significant impacts on the provision of utility services to the project site or the City as a whole. Therefore, the Proposed Project is consistent with this goal and its policies.

In addition, the Energy and Water Conservation Element of the City’s General Plan establishes the following relevant goals and policies related to utility systems:

Goal 13.1: *“Conserve scarce energy resources.”*

- **Policy 13.1.1:** Reduce the City’s ongoing electricity use by 10 percent and set an example for residents and businesses to follow.
- **Policy 13.1.2:** Ensure the incorporation of energy conservation features in the design of all new construction and site development in accordance with State Law. (LU-1)

- **Policy 13.1.3:** Consider enrollment in the Community Energy Efficiency Program (CEEP), which provides incentives for builders who attain energy savings 30 percent above the National Model Energy Code, the Energy Star Program, which is sponsored by the United States Department of Energy and the Environmental Protection Agency and encourages superior energy efficiency by residents and businesses, or the State’s Energy Efficiency and Demand Reduction Program, which offer rebates and incentives to agencies and developers who reduce energy consumption and use energy efficient fixtures and energy-saving design elements. (EWC-1)
- **Policy 13.1.4:** Require energy audits of existing public structures and encourage audits of private structures, identifying levels of existing energy use and potential conservation measures. (EWC-3)
- **Policy 13.1.5:** Encourage energy-efficient retrofitting of existing buildings throughout the City. (EWC-1)
- **Policy 13.1.6:** Consider program that awards incentives to projects that install energy conservation measures, including technical assistance and possible low-interest loans. (EWC-1)
- **Policy 13.1.7:** Ensure that new development consider the ability of adjacent properties to utilize energy conservation design. (LU-1 and EWC-1)
- **Policy 13.1.8:** Educate the public regarding the need for energy conservation, environmental stewardship, and sustainability techniques and about systems and standards that are currently available for achieving greater energy and resource efficiency, such as the U.S. Green Building Council’s “Leadership in Energy and Environmental Design” (LEED) standards for buildings.
- **Policy 13.1.9:** Encourage increased use of passive and active solar and wind design in existing and new development (e.g., orienting buildings to maximize exposure to cooling effects of prevailing winds, daylighting design, natural ventilation, space planning, thermal massing and locating landscaping and landscape structures to shade buildings). (LU-1)
- **Policy 13.1.10:** Consider adopting an ordinance relating to energy conservation, environmental stewardship, and sustainability for new development that incorporates the LEED standards. (A-1)

Analysis: The analysis in Section 4.14.5 demonstrates that the project, with the proposed design (see “Sustainability Principles”), will not have significant impacts on the provision of energy services to the project site or the City as a whole. In addition, these principles indicate the clubhouse and some of the high density buildings will be consistent with LEED certification and will in fact seek it out

prior to construction of the project. Therefore, the Proposed Project is consistent with this goal and its policies.

Goal 13.2: “Manage and protect the quality of the City’s surface waters and ground water basins.”

- **Policy 13.2.1:** Coordinate and monitor the City’s water conservation efforts on an annual basis and modify or expand them as necessary to ensure their effectiveness. (EWC-1)
- **Policy 13.2.2:** Require that development not degrade surface or groundwater, especially in watersheds, or areas with high groundwater tables or highly permeable soils. (LU-1)
- **Policy 13.2.3:** Consider the establishment of incentives, funding programs, or a rebate program for projects that implement water conservation measures, such as replacing aging, leaking, and/or inefficient plumbing with more efficient, water-saving plumbing. (EWC-1)
- **Policy 13.2.4:** Require the use of reclaimed water for landscape irrigation and other non-contact uses for industrial projects, golf courses, and freeways. (LU-1)
- **Policy 13.2.5:** Mitigate degradation of the groundwater basins that may have already occurred by existing commercial, industrial, and other uses.
- **Policy 13.2.6:** Require the replacement of existing septic systems with connections to a sanitation collection and treatment system as a condition of reconstruction or reuse. (LU-1)
- **Policy 13.2.7:** Require that new development incorporate improvements to channel storm runoff to public storm drainage systems and prevent discharge of pollutants into the groundwater basins and waterways. (LU-1)
- **Policy 13.2.8:** Require that BMPs are implemented for each project to control the discharge of point source and non-point source pollutants both during construction and for the life of the projects to protect the City’s water quality. (LU-1)
- **Policy 13.2.9:** Require that new construction on a site that is at least one acre comply with the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit 99-08-DWQ)). (LU-1)
- **Policy 13.2.10:** Require that development in the City’s watersheds incorporate adequate landscape and groundcover to prevent slope erosion and significant sedimentation of canyon drainages. (LU-1)
- **Policy 13.2.11:** Continue to inform the public about water conservation, techniques and available water conservation programs they can utilize.

Analysis: The analysis in Section 4.14.5 demonstrates that the project, with the proposed design (Sustainability Principles), will not have significant impacts on storm water runoff on the project site or the City as a whole. This analysis is also supported by the data in Section 4.7, *Hydrology and Water Quality*. Therefore, the Proposed Project is consistent with this goal and its policies.

San Bernardino City Development Code

San Bernardino City Municipal Code Section 19.28.110 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.

4.14.3 - Methodology

The CSBMWD prepared a Water Supply Assessment for the Proposed Project in June 2007 as required by State law because the Proposed Project would develop more than 500 residential units. The WSA provided demand projections for the Proposed Project and evaluated those projections in relation to those contained in CSBMWD’s 2005 Urban Water Management Plan. The Water Supply Assessment is contained in its entirety in Appendix K of this DEIR.

PBS&J Engineering, the project engineer, prepared project utility plans for water, wastewater, and drainage. PBS&J consulted with utility providers including Edison, the Gas Company, and the City of San Bernardino about existing infrastructure and necessary improvements to serve the Proposed Project. PBS&J also prepared a Preliminary Hydrology Report, which is contained in its entirety in Appendix G of this DEIR.

MBA evaluated utility system impacts using the aforementioned reports and plans, as well as utility information provided in the City of San Bernardino General Plan, the General Plan EIR, and the City of San Bernardino website. MBA also reviewed information posted on agency websites, including Edison, the Gas Company, and the California Integrated Waste Management Board. Table 4.14-1 summarizes the utility consumption and generation data for the Proposed Project.

Table 4.14-1: Project Utility Impacts

Utility	Usage/Unit	Total*
<u>Water</u> Consumption Rate Project Consumption	300 gal./per person or employee/day	987,900 gallons/day 1,106 acre-feet/year 1,383 acre-feet/year (+25% max.)
<u>Sewer</u> Generation Rate Project Production	150 gal./per person or employee/day	493,950 gallons/day (0.4 MG) 180.3 million gallons/year

Table 4.14 1: Project Utility Impacts (Cont.)

Utility	Usage/Unit	Total*
<u>Electricity</u> Consumption Rate Project Consumption	6,081 kWh/unit/year	16,327 kWh/day 5.96 million kWh/year
<u>Natural Gas</u> Consumption Rate Project Consumption	6,665 c.f./unit/month	214,741 cubic feet/day 78.4 million cubic feet/year
<u>Solid Waste</u> Generation Rate Project Generation	4.1 lbs/person/day	16,330 pounds/day 2,980.3 tons/year
* based on 3,283 residents (980 proposed units x 3.35 persons/unit) plus 10 clubhouse employees		

4.14.4 - 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?
- h.) Result in the unnecessary or wasteful use of energy?

4.14.5 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Potable Water

Impact US-1: The Proposed Project would substantially increase demand for potable water.

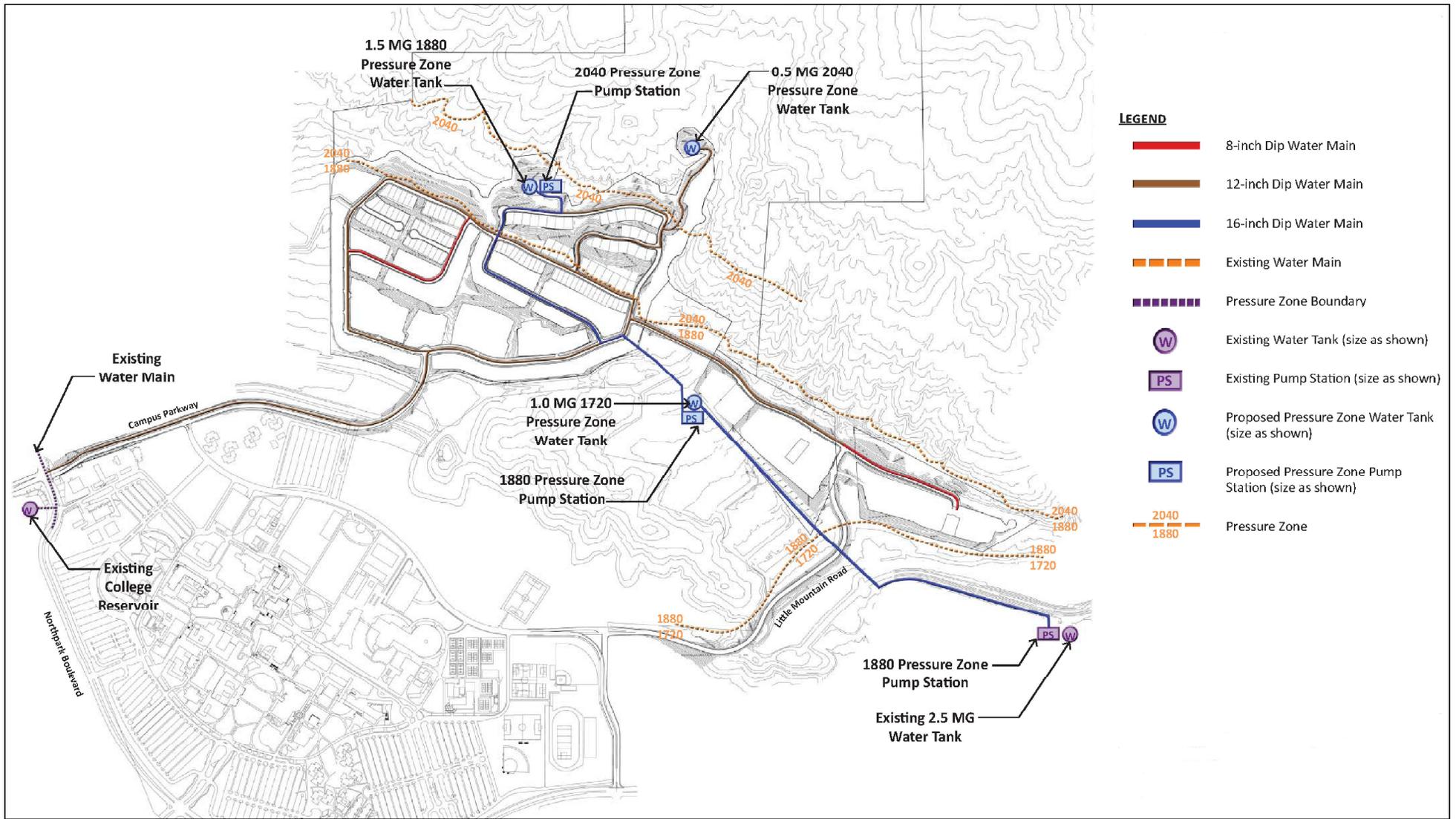
Background Information

Proposed UHSP Facilities

The primary source of water supply for the Proposed Project would be the existing Sycamore 1 Reservoir – this facility holds 2.5 million gallons (MG) of water and is located two miles east of the project site. The water facilities assessment for the project determined that the project would be served by three pressure zones; 1720, 1880, and 2040 (designated based on elevation in feet above sea level). Although there will not be any development in the 1720 Zone, SBMWD requires storage and pumping facilities for this Zone to provide an orderly water distribution system for the project within 1880 and 2040 Zones. Existing water facilities in the 1580 Zone will also be utilized to supply water to the project. SBMWD has indicated that the existing 1580 Zone has sufficient capacity to meet the Development demands.

The total water demand for the project would be 401 gallons per minute (gpm) for an average day, 681 gpm for a maximum day, 1,363 gpm for a peak hour demand, and a fire demand of 1,500 gpm for a period of 4 hours. The water facilities study indicated the project engineer designed the water system based on the SBMWD guidelines (PBS&J 2007). The proposed reservoirs were sized based on 25 percent of the maximum daily demand plus required fire flows. Therefore, 1720 Zone reservoir is designed to hold 1.0 million gallons (MG), the 1880 Zone Reservoir designed for 1.5 MG, and the 2040 Zone Reservoir is designed for 0.5 MG (PBS&J 2007). The 1880 Zone reservoir will be located in Planning Area 22 and the Zone 2040 Reservoir will be located in Planning Area 23, both north of Planning Area 15 within the UHSP project. Pads will need to be graded for these reservoirs in addition to that needed for project housing and roads (Exhibit 4.14-1).

This interconnected water system will require pumping facilities to balance water delivery and pressures between the various zones. The pump facilities were designed based on the cumulative maximum daily demand plus the required fire flows. The pumping capacity required for the 1720 Zone is 2,250 gpm using two 75-horsepower (hp) duty pumps. The capacity required by the 1880 Zone is 2,250 gpm using two 90-hp duty and one 90-hp standby pumps, and the capacity required for the 2040 Zone is 1,600 gpm using two 60-hp duty and 1-60 hp standby pumps (page 17, PBS&J 2007). Water distribution lines (8-12-inch diameter) will connect all the reservoirs and pump facilities to provide for hydraulic continuity within the water system. Exhibit 4.14-1 shows the proposed water distribution system for the proposed UHSP project.



Source: The Planning Center.

The water facilities report noted the UHSP project is at the far northern (upper) end of the City's water distribution system so no additional facilities should be needed north of or at higher elevations than the Proposed Project in the future (page 1, PBS&J 2007).

Water Supply Assessment

In addition to the water facilities report, the project was required to prepare a Water Supply Assessment (WSA) to comply with the requirements of SB 221 and SB 610 to demonstrate the project has a guaranteed water supply for a 20-year period, including during anticipated "worst case" drought conditions. This report was prepared by the City of San Bernardino Municipal Water Department (CSBMWD), which will provide service to the project if approved and built. The WSA determined that the proposed UHSP project was consistent, in terms of land use intensity (i.e., number of units) with the University District Specific Plan (UDSP). The WSA reasoned that the UDSP was consistent with the City's Urban Water Management Plan prepared in 2002 because the UWMP was based on the 2001 General Plan land use map, and that land use map had not changed since 2001 relative to the UHSP project site. Therefore, the WSA considered the Proposed Project to be consistent with and within the planning parameters of the City's current UWMP (page 3, CSBMWD 2007).

The WSA indicates the total water supply of CSBMWD was 231,405 acre-feet/year in 2005 with 132,305 acre-feet per year (57.1 percent) coming from groundwater sources, 52,200 acre-feet/year (22.6 percent) coming from surface water sources, and 47,000 acre-feet/year (20.3 percent) coming from reclaimed water and other supplies (Table 8, CSBMWD 2007).

The WSA estimates the population of the CSBMWD service area would increase from 173,359 in 2005 to 186,454 in 2030, which represents an average annual increase of 0.3 percent. During this same period, the WSA estimates the number of residential customers in the CSBMWD service area will increase by the same percentage (from 33,399 in 2005 to 36,299 in 2030). By comparison, the WSA indicates average annual water demand will increase from 47,280 acre/feet per year in 2005 to 73,504 acre-feet/year in 2030, representing an average annual increase of 2.2 percent, which is over 7 times the projected population increase in the service area during this same period. The WSA indicates most of this increase (26,114 acre-feet/year) will be split evenly between growth in the number of residential units and commercial/industrial growth (Table 4, CSBMWD 2007). The WSA also observed that local groundwater supplies had been overdrafted in recent years, but concluded that this source was expected to contribute most of the supplies needed to serve the increased water demand (18,724 acre-feet versus 26,114 acre-feet or 72 percent)(Table 6, CSBMWD 2007). The remaining increase in local water demand would have to be met by importing surface water from outside of the local basin (i.e., outside of Southern California such as the SWP). The WSA concluded that total groundwater supplies would be sufficient to meet demands within CSBMWD through 2022. It also concluded that after 2022, local supplies would be sufficient in all but the most severe drought conditions (Page 15, CSBMWD 2007). As required by SB 221 and SB 610, the WSA examined

water use for the Proposed Project under the following conditions: normal year, single dry year, and multiple dry years through 2025 (Tables 10-15, CSBMWD 2007). The conclusions of the 2007 WSA were confirmed in an updated WSA from the City Water Department dated January 22, 2008 (see Appendix K).

Ground Water

The Riverside-Corona Feeder is the most important supplier the several southern California Counties, including San Bernardino. The supplier connects to the Santa Ana River watershed and supplies over 400,000 acre-feet of ground water per year. New wet year water will come from local runoff, including regulated releases from Seven Oaks Reservoir and the State Water Project. The R-C Feeder is a multiple benefit regional water supply project. The water will be stored in San Bernardino Valley and Chino groundwater basins. Stored water will be delivered to consumers through a new groundwater pumping capacity. The new pumping and delivery capacity will enable water to be stored safely by providing the means to control water tables.

The WSA proposes the UHSP will connect to reservoirs, similar to the Riverside-Corona Feeder. The reservoirs will include a common inlet/outlet pipe with flexible connections, isolation valves and an altitude valve to prevent overflow. To improve mixing in the tank, each inlet/outlet pipeline would have two check valves, forcing water to travel a greater distance from inlet to outlet in a circular motion. The reservoirs would have separate overflow pipes and drain pipes that would discharge to a concrete gutter. The gutter would convey storm flows, reservoir overflows and drainage along the access road to the downstream development storm drain.

Impact Analysis

The Proposed Project would result in the development of 980 residential units, a clubhouse, 10 acres of parkland, and several roads with landscaped parkways. These uses will increase the consumption of local water from the City approximately 1 million gallons per day based on average area-wide composite consumption rates (300 gallons per person per day including all uses). Pursuant to State law, the City prepared a Water Supply Assessment in June 2007. The findings of the WSA were summarized previously and the complete document is available in Appendix K of this DEIR. The findings of the 2007 WSA were confirmed in a follow up memo from the City Water Department dated January 22, 2008, which is also included in Appendix K of this document.

The WSA concluded that the City will have sufficient water supplies to serve the Proposed Project, even under anticipated drought conditions, for at least the next 20 years. The WSA states that the projected increase is consistent with the demand projections contained in the City's 2005 Urban Water Management Plan for its service area and would not change the 2030 horizon year demand projections. It is important to note that the 2005 Urban Water Management Plan's planning level of demand is higher than actual observed demand.

According to the Specific Plan, the Proposed Project is designed to minimize water use and provide for percolation of runoff back into the ground to the extent feasible (see “Sustainability Principles”). The Proposed Project will implement a number of water conservation measures and practices, including high efficient washers, re-circulating hot water systems, tankless hot water heaters, green roofs where feasible, evapotranspiration-based water controllers, water budgets for landscape irrigation, and high efficiency toilets and waterless urinals. These have been incorporated into the design of the project as outlined in the Specific Plan document. With these design features, the Proposed Project will have **less than significant impacts** on local water supplies.

In summary, the Proposed Project would cause a net increase in potable water demand by almost a million gallons per day in relation to existing demand on the project site. The City’s WSA has indicated that this demand is accounted for in their long-term water supply planning and would not require the development of additional supplies. Unfortunately, City staff indicate that reclaimed water is not and will not be available to the project area at a cost effective rate due to its elevation (i.e., too high), and there is no infrastructure in place or planned to provide reclaimed water to the project site. Even with the ongoing uncertainty of imported water for Southern California and the City’s General Plan goal of using recycled water whenever practical, this impact is considered less than significant due to the design and location of the project relative to water and reclaimed water.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required.

Level of Significance After Mitigation

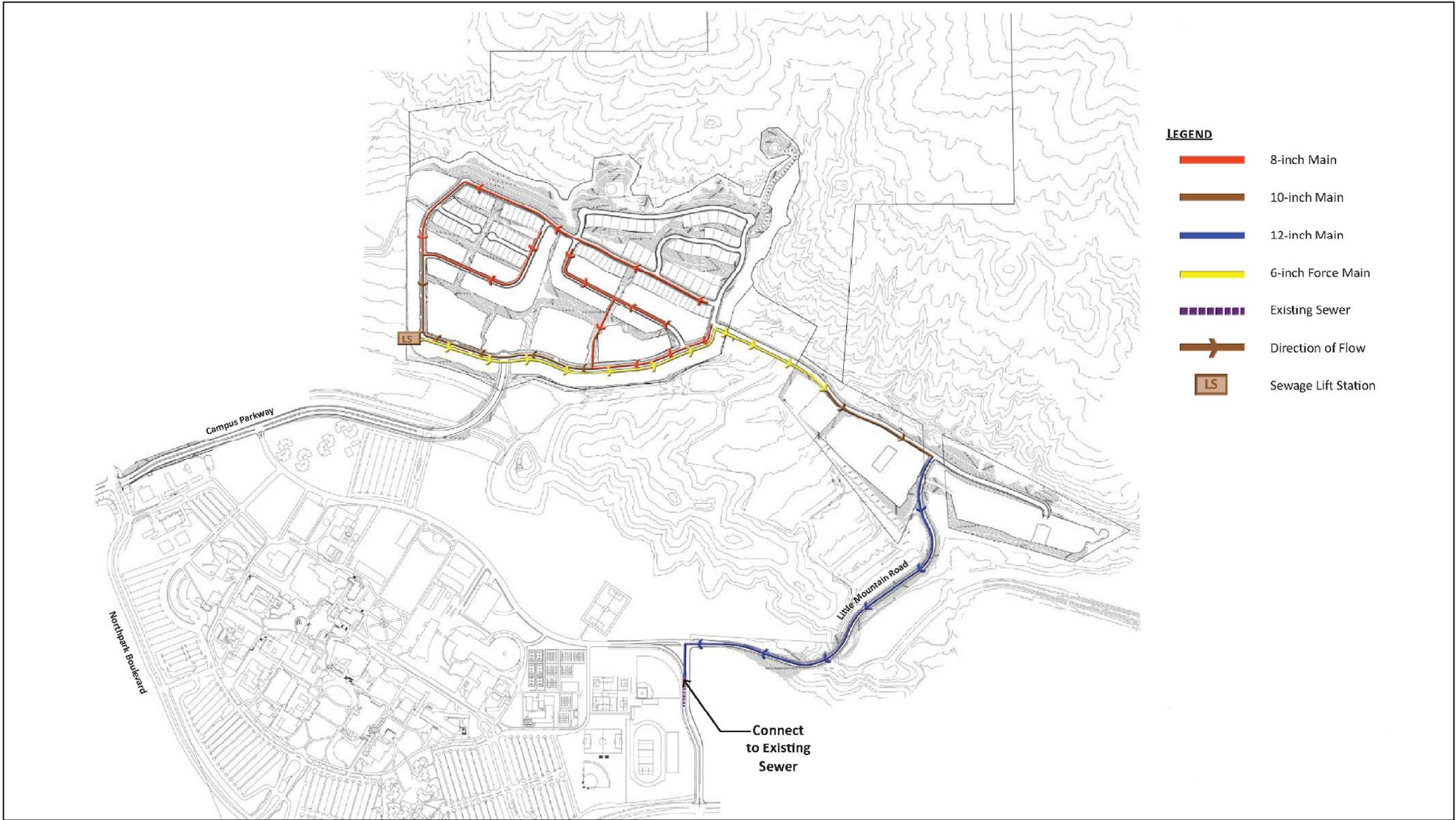
Less than significant impact.

Wastewater

Impact US-2: The Proposed Project may result in a need for new or expanded offsite wastewater conveyance or treatment facilities.

Impact Analysis

It is estimated the Proposed Project will generate approximately half a million gallons of wastewater per day (see Table 4.14-1). PBS&J Engineering, the project engineer, performed a standard utility review of the Proposed Project and determined that the existing backbone wastewater collection system, including existing lift stations, force mains, treatment works and discharge facilities, plus the proposed improvements on the project site, have adequate capacity for wastewater generated by the Proposed Project. In addition, the City’s treatment facility has a current capacity of 33 MG and is planned to be expanded based on projected growth under the General Plan. Therefore, the Proposed Project would not result in a need for new or expanded offsite conveyance or treatment facilities. The layout of the proposed sewer improvements onsite are shown in Exhibit 4.14-2, Master Sewer Plan.



With these planned improvements, connected to the City sewer system, the project will have a **less than significant impact** on wastewater collection, treatment, and disposal.

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

Impact US-3: **The Proposed Project would not result in a need for new or expanded offsite storm drainage facilities.**

Impact Analysis

The development of the Proposed Project will require the construction of new storm drain infrastructure, as shown in Exhibit 4.14-3, *Master Drainage Plan*. The onsite and offsite hydrology studies demonstrate that the project can be adequately protected from anticipated flooding (Exponent 2007)(PBS&J 2007). The Proposed Project will have 2.6 acres of bioswales that would capture runoff from impervious surfaces prior to discharge to the storm drains in local streets. Bioswales are vegetated drainage features that promote percolation of storm water runoff. Green roofs are vegetated areas on rooftops fed by piping from storm water collection systems – it is possible that the community center will have such a roof system. Both features are intended to capture urban water pollutants and reduce the volume of runoff leaving the project site. Through the implementation of these onsite features, there would be no need for offsite water treatment or flood control improvements in downstream waterways, and thus the Proposed Project would have a **less than significant impact** on storm drainage. For more information on storm drainage, see Section 4.7 (*Hydrology and Water Quality*).

Level of Significance Before Mitigation

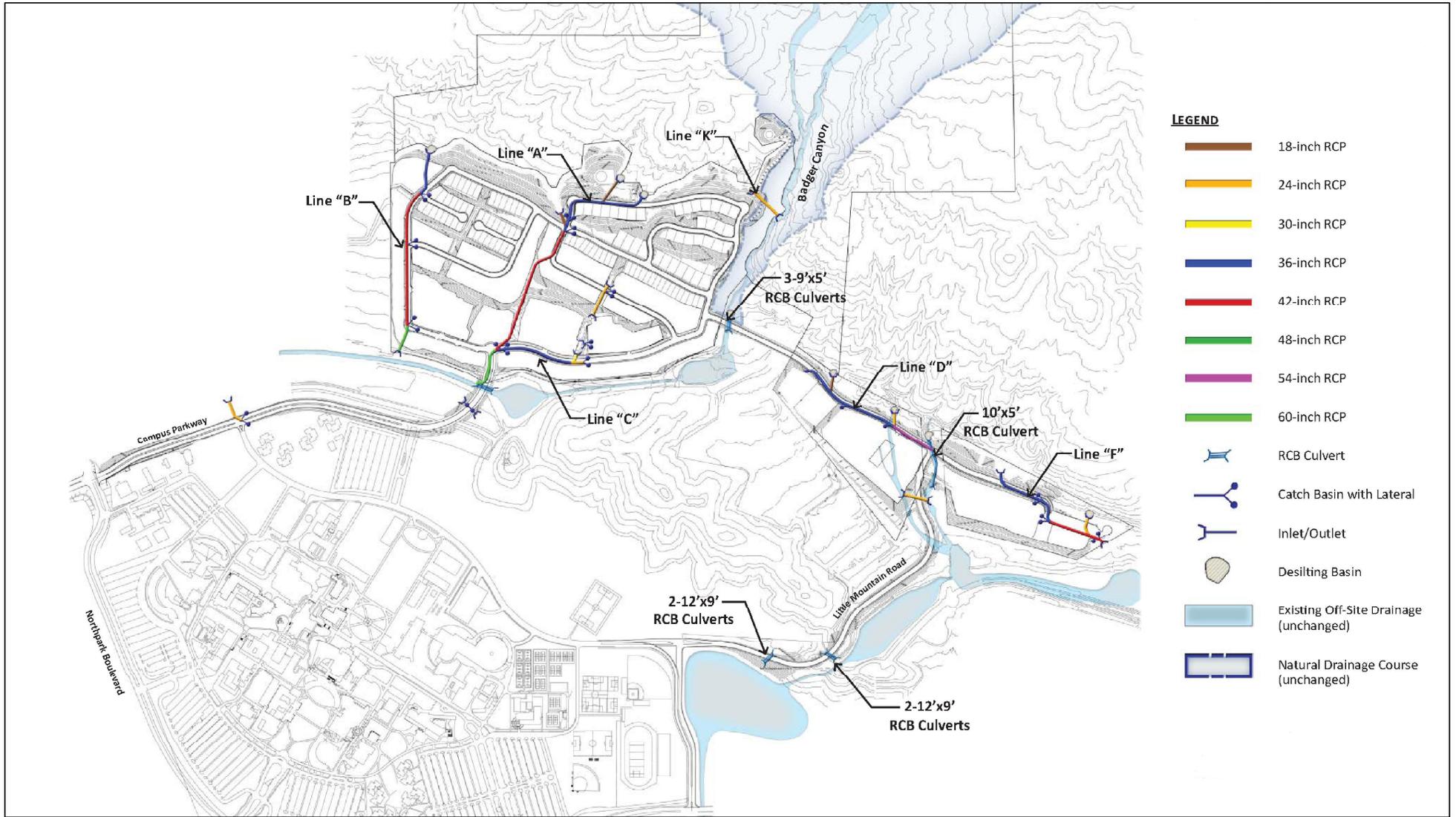
Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.



Source: The Planning Center.



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Exhibit 4.14-3
Drainage Plan

UNIVERSITY HILLS SPECIFIC PLAN EIR

Solid Waste

Impact US-4: **The Proposed Project 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

The construction phase of the Proposed Project would include the construction of 980 residential units and related non-residential improvements (e.g., roads, parks, etc.). 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 4.14-2. Note that nonresidential and residential construction activities were calculated separately because of differences in waste generation rates.

Table 4.14-2: Construction and Demolition Waste Generation

Activity	Type	Waste Generation Rate	Square Footage	Total
Construction	Nonresidential	3.89 pounds/square foot	20,000	38.9 tons
	Residential (980 units times 1,000 square feet average unit size)	4.38 pounds/square foot	980,000	2,146.2 tons
Total				2,185.1 tons

1 ton = 2,000 pounds
 Source: U.S. Environmental Protection Agency. 1998.

Table 4.14-2 estimates the Proposed Project will generate 2,185 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. Because this represents a significant amount of construction and demolition waste, this is considered a **potentially significant impact** and 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. With this measure, 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 4.14-3. The waste generation rates provided in the table were derived from information on the State’s Integrated

Waste Board’s website and the City’s General Plan EIR. Note that the estimates in the table are considered conservative estimates and likely overstate actual operational solid waste generation.

Table 4.14-3 estimates the Proposed Project will generate 7.7 tons of solid waste on a daily basis and 2,980 tons on an annual basis. The total solid waste generated is a “worst case” estimate, and can be seen in the previous Table 4.14-1. While regional landfill capacity is 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. The City requires that new development implement operational recycling and waste reduction practices which helps reduce operational solid waste generation substantially and conserve landfill capacity. .

Table 4.14-3: Operational Solid Waste Generation

Use	Size	Waste Generation Rate	Daily Total (pounds)	Annual Total (tons)
Residential	980 units	13.7 pounds/unit/day (4.1 pounds per person per day times 3.35 persons per unit for the City of San Bernardino)	13,426	2,450
Non-Residential (includes community center)	20,000 square feet	0.1 pound/square foot/day	2,000	365
Total			15,426	2,815
Notes: 1 ton = 2,000 pounds Waste generation rates were obtained from City of San Bernardino General Plan EIR and data from California Integrated Solid Waste Management Board 2007. Source: City of San Bernardino. 2005.				

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM US-4a Prior to the issuance of building permits, the applicant shall submit a Construction Debris Recycling Plan to the City of San Bernardino 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. This Plan shall achieve at least a 50 percent reduction in construction waste, to the satisfaction of the City Planner.

MM US-4b Prior to the issuance of occupancy permits, the developer shall provide the City with written assurance that all project residents will be provided with information on City and County waste reduction and disposal activities. This information may be

provided by the developer or home owners association (HOA) as appropriate. This measure shall be implemented to the satisfaction of the City Planner.

Level of Significance After Mitigation

Less than significant impact.

Energy

Impact US-5: The Proposed Project would demand substantial amounts of electricity and natural gas.

Impact Analysis

Using consumption figures provided by the California Energy Commission, the Proposed Project’s estimated building electricity and natural gas consumption following construction is summarized in the previous Table 4.14-1. As shown in the table, it is estimated the Proposed Project will consume 16,327 kilowatt hours (kWH) and 214,741 cubic feet of natural gas on a daily basis.

Edison and the Gas Company indicated they had adequate supplies and infrastructure and electricity and natural gas supplies to serve the Proposed Project (see Appendix A of this DEIR).

Due to its size, the Proposed Project’s projected consumption of electricity and natural gas is substantial but can be reduced through energy conservation measures such as natural day lighting, automated occupancy sensors, participation in various energy efficiency rebate programs, high-efficiency clothes washers and dishwashing machines, re-circulating hot water systems, and tankless water heaters. The Specific Plan document indicates these items have already been incorporated into the design and development requirements of the project. With the implementation of these energy conservation measures, the Proposed Project’s energy demand would not be unnecessary or wasteful. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

None required due to project design.

Level of Significance After Mitigation

Less than significant impact.

