3.12 UTILITIES AND SERVICE SYSTEMS

Introduction

This section identifies the primary utility providers serving the project area with water, wastewater, solid waste, and energy services. This section examines the effect of the proposed project on the ability of the utility provider to deliver those services.

Although the project area is already largely developed, the proposed project would increase the developed floor area and increase on-site employment, as described in Chapter 2, Project Description and Section 3.9, Population and Housing. Both the proposed General Plan re-designation to Mixed-Use Commercial Business Park and rezoning to M-3 would permit greater floor area ratios (FARs), thus increasing building intensities and demand for public utilities and services in the project area. This section examines whether the resulting change in demand would overtax the capacity of the basic infrastructure serving the project area.

Comments raised in letters received on the Notice of Preparation and made during the public scoping meeting (see Appendix C) did not raise any issues related to public utilities.

The primary resources used for this analysis include the Draft Water Supply Assessment for the Proposed Menlo Gateway Project, PBS&J (June 2009); City of Menlo Park Urban Water Management Plan (UWMP), adopted December 2005; the SFPUC UWMP (December 2005), and the SFPUC Water Supply Improvement Program, as well as communication with service and utility providers.

Setting

Water Supply, Storage, Treatment, and Distribution

Water Supply. The project area is served by the City of Menlo Park Municipal Water Department (MPMWD), which is supplied with wholesale water by the San Francisco Public Utilities Commission (SFPUC) from the Hetch Hetchy Reservoir in the Sierra Nevada Mountains. The MPMWD is part of the Bay Area Water Supply and Conservation Agency (BAWSCA), created in 2003 through State legislation (AB 2058) to represent the interests of 26 cities and water districts and two private utilities in Alameda, Santa Clara, and San Mateo counties that purchase water on a wholesale basis from SFPUC's regional water system. The Hetch Hetchy watershed originates in Yosemite National Park and travels more than 160 miles across California by gravity to reach Menlo Park. In 2004, the Hetch Hetchy watershed supplied 94 percent of the SFPUC's total water supply, which delivers 265 million gallons per day (mgd) of water to 2.4 million San Francisco Bay Area residents and over 75,000 businesses.

SFPUC – Regional Water System. The SFPUC System consists of three regional water supply and conveyance systems: Hetch Hetchy, Alameda, and the Peninsula systems, which are all connected.

The Peninsula system includes water facilities that connect Menlo Park to the San Francisco distribution system and Bay Division pipelines. Approximately 85 percent of the SFPUC water supply is served through deliveries from the Hetch Hetchy system. The balance of the SFPUC water supply (approximately 15 percent) comes from diversions on a variety of streams and stored in local reservoirs The supply sources and quantities are shown in Table 3.12-1.

Table 3.12-1
Supply Sources and System-Wide Reductions

SFPUC Water Sources	Normal Year Supply Source			Approximate Multiple Dry-Year Supply Source (20% System-wide Reduction)	
	Origin/System	mgd	Approximate % of Supply	mgd	Approximate % of Supply
Local Source	Alameda System[1]	39.75	15	14.84	7
	Peninsula System[2]				
Imported Source	Hetch Hetchy System[3]	225.25	85	197.16	93
	Total	**265.00**	**100**	**212.00**	**100**

Sources: *Draft Water Supply Assessment for the Menlo Gateway Project,* PBSJ, June 2009. Appendix H. San Francisco Public Utilities Commission. 2005. *Urban Water Management Plan*. p. 11.

Notes:

1. Calaveras Reservoir, San Antonio Reservoir.
2. Crystal Springs Reservoirs, San Andreas Reservoir, Pilarcitos Reservoir.
3. Hetch Hetchy Reservoir, Lake Lloyd, Lake Eleanor, New Don Pedro Reservoir, Tuolumne River System.

On the San Francisco Peninsula, SFPUC uses Crystal Springs Reservoir, San Andreas Reservoir, and Pilarcitos Reservoir to capture local watershed runoff. In the Alameda Creek watershed, the SFPUC constructed the Calaveras Reservoir and San Antonio Reservoir. In addition to using these facilities to capture runoff, they also provide storage for Hetch Hetchy diversions, and serve as an emergency water supply in the event of an interruption to Hetch Hetchy diversions.

SFPUC is currently delivering approximately 265 mgd.[1] The Water Supply Master Plan (2000) prepared by SFPUC identified a 239 mgd annual average delivery over a hydrologic period equivalent to that experienced from 1921 to 1999 with no deficiencies.[2] Currently, under existing operations, the SFPUC system has a firm delivery capability of 219 mgd.[3] This reduction is due to the 2001 Department of Water Resources, Division of Safety of Dams' operational restrictions on Calaveras Dam. As of June 2009, the environmental review for the Calaveras Dam Replacement project is on-going. Construction is scheduled to begin in 2011 and be complete in 2015; thereby, improving supplies by at least 20 mgd to 239 mgd.

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1 San Francisco Public Utilities Commission. 2005. *Urban Water Management Plan*. p. 11.

2 San Francisco Public Utilities Commission. April 2000. *Water Supply Master Plan*. p. 22.

3 City and County of San Francisco: San Francisco Planning Department. June 2007. *Draft Program Environmental Impact Report for the San Francisco Public Utilities Commission Water System Improvement Program*. p. 5.1-12.

In 1984, the SFPUC executed the Settlement Agreement and Master Water Sales Contract (MSA) with the 27 member agencies of the BAWSCA. The BAWSCA members purchase approximately two-thirds of the water delivered by the SFPUC system and the balance is delivered to the City of San Francisco and its retail customers.

The MSA provides 184 mgd as an annual average of "Supply Assurance" to all BAWSCA wholesale customers, but is subject to reductions in the event of droughts, water shortage, earthquake, other acts of God, or system maintenance and rehabilitation.[4] Each member holds an individual water supply contract and the MSA governs the contract. SFPUC and the BAWSCA agencies are approving a new MSA 25-year contract. Upon approval, this new MSA expires on June 30, 2034.

Additional agreements and plans have been developed over the last 25 years. In the early 1990s, for planning and reliability purposes, BAWSCA negotiated, and then formally adopted the Supply Assurance Allocation (SAA) in 1993 that quantifies SFPUC's contractual obligation to supply water to each of the members. The MSA does not guarantee that SFPUC will meet peak or hourly demands if the individual wholesaler's annual usage exceeds the SAA. The SAA helps the wholesaler plan for future demands and growth within their service area; for that reason, the SAA transcends the MSA expiration and continues indefinitely.

The SFPUC and the wholesale members developed a long-term strategy to accommodate or rectify the potential of future water shortages throughout its wholesale and retail operations.[5] The methodology for determining water supply reliability during drought years is the Interim Water Shortage Allocation Plan (IWSAP). Under this plan, the SFPUC will determine the available water supply in drought years for shortages up to 20 percent on an average, system-wide basis. The IWSAP will remain in effect through June 2018.

In terms of water supply reliability, the SFPUC's UWMP assumes "firm" delivery "as amount the system can be expected to deliver during historically experienced drought periods."[6] The 1987 to 1992 drought is the basis for this plan, plus an additional period of limited water availability.[7] The SFPUC plans its water deliveries assuming that the worst drought experience is likely to reoccur and then adds an additional period of limited water availability. An eight and a half-year drought scenario is referred to as the "design drought" and is ultimately the basis for SFPUC water resource planning and modeling. The "design drought" is based on the 1986-1992 drought plus two and a half years of "prospective drought," which includes 6 months of recovery period.[8]

According to the SFPUC's UWMP, there is sufficient water to meet all expected future demand in normal and wet hydrologic periods; however, the MSA allows the SFPUC to curtail deliveries during droughts, emergencies and scheduled maintenance activities.[9] SFPUC system operations are designed

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4 San Francisco Public Utilities Commission. April 2000. *Water Supply Master Plan*. p. 23.

5 San Francisco Public Utilities Commission. December 2005. *Urban Water Management Plan*. p. 22.

6 Ibid. p. 21.

7 Ibid. p. 21.

8 San Francisco Public Utilities Commission. April 2000. *Water Supply Master Plan*. p. 22.

9 San Francisco Public Utilities Commission. 2005. *Urban Water Management Plan*. p. 15.

to allow sufficient water remaining in SFPUC reservoirs after six years of drought to provide some ability to continue delivering water, although at significantly reduced levels.[10] This differs from the "design drought," which is a water supply planning tool and, as previously stated, is based on the 1986-1992 drought plus two and a half years of "prospective drought," which includes 6 months of recovery period.[11] If SFPUC declares a shortage, rationing would be necessary. Rationing is voluntary for up to a 10-percent system-wide reduction, but mandatory at greater than a 10-percent reduction. Under 2005 conditions (year of available data), there is a 7.3 percent probability of a 10 percent system wide shortage and a 9.8 percent probability of a 20 percent system wide shortage.[12]

Under critical dry and multiple dry years, due to supply curtailments by SFPUC of 10 and 20 percent, the City of Menlo Park, along with all the other BAWSCA members, can anticipate regional supply shortages of varying degrees now and over the next 20 years. It should be noted that after 2018, SFPUC could increase diversions off the Tuolumne River and eliminate the need for supply reductions. The WSA assumed that diversion increases may not occur, and therefore, supply curtailments would be necessary.

MPMWD. Menlo Park buys all of its water from the SFPUC. Menlo Park's Supply Assurance is 4.46 mgd; this is its share of the 184 mgd allocated for the BAWSCA members.[13] Menlo Park purchased 3.69 mgd from SFPUC to meet customer needs in fiscal year 2007-2008, which accounted for 82.7 percent of their allocation.[14]

According to the SFPUC 2004 Wholesale Customer Water Demand Projections study (Demand Study), Menlo Park requested 3.84 mgd from SFPUC to meet customer needs in 2005. Actual use in 2005 was 3.38 mgd. This reduction is partially attributed to repairs to system leakage and reductions in public facilities irrigation.[15] The reduction can also be partially explained by normal variation in demand related to local climatic conditions, particularly temperature and rainfall.

This supply is subject to reductions in critical dry years or over multiple dry years. For example, if 2005 had been a critical dry year, mandatory reductions would have been necessary and supplies would be reduced to 3.35 mgd; over a multiple dry years, the supply would be further reduced to 2.91 mgd.

The Demand Study analyzed water demands associated with each customer sector and then forecasted demands over a 25-year planning horizon. MPMWD purchase requests are shown in Table 3.12-2. Supply purchase requests of 4.54 mgd are anticipated in 2030.[16]

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10 San Francisco Public Utilities Commission. April 2000. *Water Supply Master Plan*. p. 20.

11 Ibid. p. 22.

12 City and County of San Francisco: San Francisco Planning Department. June 2007. *Draft Program Environmental Impact Report for the San Francisco Public Utilities Commission Water System Improvement Program*. p. 9-13.

13 Bay Area Water Supply and Conservation Agency, March 2007, *Annual Survey: FY 2005-06*. p. 15

14 Bay Area Water Supply and Conservation Agency, January 2009, *Annual Survey*, *FY 2007-2008*, p. 15.

15 Pat Stone and Virginia K.F. Parks of City of Menlo Parks, personal communication, February 7, 2006.

16 Bay Area Water Supply and Conservation Agency, *Annual Survey*, FY 2007-2008, January 2009, p. 17.

Table 3.12-2
MPMWD Purchase Requests in Normal Years (mgd)

	2010	2015	2020	2025	2030
Wholesale (BAWSCA) Supply Assurance[1]	184	184	197.6	203.6	209.4
MPMWD Supply Assurance Allocation[2]	4.23	4.31	4.41	4.45	4.46

Source: PBSJ, *Draft Water Supply Assessment for the Menlo Gateway Project,* June 2009. Appendix H.

Notes:

1. 2009 MSA is undergoing region-wide approval; the 2009 MSA allocates wholesale supplies up to 184.0 mgd to 2018; therefore, the Tier One supplies shown are held constant to 184 mgd through 2015.
2. Based on letter dated June 1, 2005 from SFPUC to Menlo Park. Assumes increased supplies over time through implementation of SFPUC's Water System Improvement Plan or increased annual average diversions from the Tuolumne River under CCSF existing water rights.

Water Storage and Distribution. The MPMWD maintains 59 miles of water mains, 5,006 (including 4,300 residential) metered water services, two reservoirs, and one pump station. Eight hundred valves, 330 fire hydrants, 600 backflow prevention devices, 40 flushing points, and five service connections to SFPUC complete the system. MPMWD serves an area of four square miles and a population of about 14,000 people. The remainder of Menlo Park is served by the California Water Services Company (Cal Water) and the O'Conner Tract Cooperative Water Company.[17]

The existing uses at the Independence site had an average daily demand of approximately 0.013 mgd from 2004 through 2008. The existing uses at the Constitution site had an average daily demand of approximately 0.012 mgd over the same 5-year period. MPMWD's Zone 2 (Industrial) encompasses a roughly rectangular area on the north side of US 101 between Haven Avenue and the intersection of the Caltrain tracks (railroad tracks) and Chilco Street, and north along the southern edge of Bedwell Bayfront Park along Bayfront Expressway. The project area is within Zone 2. The water demand for Zone 2 in 2004 ranged at the lowest point in March at approximately 0.43 mgd to approximately 0.84 mgd at the peak in August.[18] Zone 2 accounts for approximately 11 percent of the total water use in the MPMWD service area.

Water Treatment. The City of Menlo Park purchases 100 percent of its treated water supplies from SFPUC as agreed upon in the MSA and its Individual Supply Allocation. The purchased water is treated at both the Sunol Valley WTP and the Harry Tracy WTP. SFPUC is currently engaged in a variety of water treatment and distribution system improvements projects that comprise its Water System Improvement Program (WSIP), which evolved out of the Water System Master Plan (2000). As recent as fall 2008, SFPUC certified the Program Environmental Impact Report (PEIR) for the WSIP. The WSIP consists of 85 projects, 26 of which are specifically for water supply reliability needed to accommodate projected growth, meet water quality standards, and add system redundancy in the event of an interruption due to seismic activity. The PEIR evaluated the impacts associated with

[17] City of Menlo Park, Municipal Water Department, *Draft Urban Water Management Plan 2005*, December 15, 2005.

[18] Parks, Virginia, Assistant Engineer, Menlo Park Municipal Water Department, telephone communication with PBS&J, July 27, 2005.

implementation of the WSIP; individual projects would be subject to project-specific environmental review. SFPUC is in the process of completing the environmental review for expansion at the Sunol Valley WTP; once completed the Sunol Valley WTP would have capacity to treat up to 160 mgd. The Harry Tracy WTP treats 120 mgd, but there are plans for expansion and upgrades to sustainably treat 180 mgd. When both of these WTPs are operating at capacity, SFPUC would be capable of producing up to 340 mgd. In addition, SFPUC initiated construction of the Tesla WTP in Tracy, California, which is scheduled for completion in 2011. The Tesla WTP will be the nation's largest ultraviolet disinfection treatment plant and will be capable of producing 315 mgd. Therefore, after 2011, SFPUC can deliver up to 655 mgd.

The City of Menlo Park's 2007-2008 water demand was 3.69 mgd.

Wastewater Collection and Treatment

The South Bayside System Authority (SBSA) operates a regional domestic and industrial wastewater treatment facility serving the cities of Redwood City, San Carlos, and Belmont, and the West Bay Sanitary District (WBSD), which serves the project area. The SBSA Wastewater Treatment Plant opened in 1981 and replaced four older facilities along US 101. The SBSA facility, located in southeastern Redwood Shores, consists of primary clarifiers, fixed film reactors, aeration tanks, final clarifiers, dual media filters, and chlorination and dechlorination equipment and is responsible for the operation of four pump stations, one force main, and a sub-regional tertiary wastewater treatment facility. The SBSA is permitted by the San Francisco Bay Regional Water Quality Control Board (RWQCB) to discharge wastewater into San Francisco Bay. The treated wastewater is discharged into the deep water channel of lower San Francisco Bay at a point approximately 3.5 miles southerly from the San Mateo-Hayward Bridge through a submerged diffuser about 6,800 feet offshore at a depth of 50 feet below the water surface. The advanced secondary treatment wastewater treatment plant discharges about 2.5 miles from the Foster City shellfish beds.[19] In 1998, SBSA approved an expansion program to incrementally increase the capacity of the SBSA treatment plant from 24 mgd to 29 mgd.[20] The plant has since been expanded to a dry weather flow design capacity of 29 mgd.[21]

WBSD, situated in the southeasterly portion of Rancho de las Pulgas, in San Mateo County, provides sewer service within a 13 square mile service area. The District maintains and operates over 200 miles of main line sewer system in the City of Menlo Park and portions of the cities of East Palo Alto, Redwood City, the Towns of Atherton, Woodside, and Portola Valley, and portions of unincorporated San Mateo and Santa Clara counties.[22] There are about 100 miles of lateral sewer connections and eight pumping stations; except for these eight stations, the system is operated by gravity flow to its terminus at the end of Marsh Road in Menlo Park.[23] All wastewater collected within the WBSD is transported via main line trunk sewers to the Menlo Park Pumping Station located at the entrance to

[19] California RWQCB, California Coastal Water Quality Monitoring Inventory, SBSA, November 16, 1992.

[20] South Bayside System Authority, SBSA Bulletin, Summer 2006, p. 3.

[21] South Bayside System Authority, SBSA Bulletin, Winter 2007, p. 5.

[22] West Bay Sanitary District, http://www.westbaysanitary.org/district_services.htm, accessed April 14, 2009.

[23] City of Menlo Park, *Menlo Park General Plan Background Report*, December 1994.

Bedwell Bayfront Park and from there to the SBSA Regional Treatment Plant in San Carlos. WBSD owns and operates this treatment plant in conjunction with the cities of Redwood City, Belmont, and San Carlos.[24] The project area is currently connected to WBSD service.

WBSD's average daily flow during dry weather is approximately 6 mgd. The flows increase to approximately 14 mgd during wet weather due to the "Inflow and Infiltration" of rainwater; a great deal of the inflow is the result of cracked or offset private sewer lines. To prevent as much inflow and infiltration as possible, the connection of open drainage systems to the sewer system is prohibited.[25] WBSD's dry weather allocation from the South Bayside System Authority Regional Treatment Plant is approximately 6.6 mgd.[26] WBSD's Flow Stabilization Facility, with storage capacity of 9.2 million gallons, is used when wastewater storage is needed for either the WBSD or SBSA, allowing SBSA to reduce peak flow rates to the treatment plant as needed.[27] The stored wastewater, including solids, is aerated and mixed, then returned to the SBSA pump station through the same force main. The average storage period can be as long as three to five days during wet weather flows, and one day during dry weather flows. The Flow Equalization Facility pond has a ten million gallon capacity. According to the WBSD, the current capacity for the Independence site and the Constitution site combined is 20,454 gallons per day (gpd), which is approximately 0.5 percent of the total daily flow.[28]

Solid Waste Collection and Disposal

Under a franchise agreement granted by the City, Allied Waste Services (formerly called Browning-Ferris Industries (BFI)) of San Mateo County provides solid waste collection, transportation, disposal services, and recycling collection within Atherton, Belmont, Burlingame, Hillsborough, San Mateo, Foster City, Redwood City, San Carlos, Fair Oaks, unincorporated areas of San Mateo County, Menlo Park, and WBSD.[29] Allied Waste Services collects solid waste from the City and hauls it to the San Carlos Transfer Station, located approximately 5 miles west of the project area at 225 Shoreway Road, east of US 101. South Bayside Waste Management Authority (SBWMA) owns the transfer station and Allied Waste Services operates it. This facility has a permitted daily capacity of 3,000 tons and receives 1,500 to 1,900 tons per day.[30] After solid waste is collected at the San Carlos Transfer Station, it is transported to the Ox Mountain Sanitary Landfill, north of Highway 92 and Skyline Boulevard near the City of Half Moon Bay. Recycling collection services are provided to all businesses by Allied Waste Services for paper, cardboard, glass/metal/plastic containers, plant materials, and food waste. Recycling services are also available from other haulers. Ox Mountain is

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24 West Bay Sanitary District, http://www.westbaysanitary.org/about.htm, accessed April 21, 2009.

25 Ibid.

26 City of Menlo Park, 1300 El Camino Real Project Draft EIR (SCH# 2007082037), March 2009, p. 210.

27 West Bay Sanitary District, Draft Municipal Service Review, December 10, 2008, p. 6.

28 Brion Associates, *Final Draft Report, Fiscal Impact Analysis of Bohannon Properties: Independence and Constitution Sites, Menlo Park, California*, Prepared for The David Bohannon Organization, May 2005.

29 Allied Waste, http://alliedwastesanmateocounty.com/index.cfm?referrer=bfisanmateocounty.com, accessed April 21, 2009.

30 Wallace, Bert, Transfer Station/Recycling Facility Manager, San Carlos Transfer Station, telephone conversation with PBS&J, June 29, 2005.

permitted by the California Integrated Waste Management Board (CIWMB) to receive 3,598 tons per day or 1.3 million tons per year and has a total remaining capacity of over 44.6 million cubic yards as of January 2000.[31]

The landfill's remaining capacity is 44.6 million cubic yards, which translates to a capacity until approximately 2023, which is somewhat variable depending on diversion and waste rates from year to year.[32] The City of Menlo Park generated about 50,508 tons of solid waste in 2000.

Storm Drainage System

The City of Menlo Park Public Works Department constructs, operates, and maintains the storm drainage system for the City, including the one underlying the project area. As described in Section 3.5, Hydrology and Water Quality, the existing storm drain system for the Constitution site consists of a 24-inch line through the northern portion of the site, an 18-inch line along Constitution Drive, and a 54-inch line along Chrysler Drive, to the east. These pipes deliver stormwater flow to the pump station at the northeast corner of the Constitution site. The existing storm drain system for the Independence site consists of a 48-inch pipe running along Chrysler Drive, and an 18-inch pipe at Independence Drive, running from 120 Independence Drive to the east. A 42-inch storm drain is located along the southern edge of the site draining east. This pipe connects to the main line at Chrysler Drive.[33] Runoff from the Independence site is directed to the 48-inch line that ultimately delivers flows to the pump station at the northeast corner of the Constitution site. The pump station discharges flows to the Atherton Channel and Flood Slough.

As discussed in greater detail in Section 3.5, Hydrology and Water Quality, the Constitution site and a portion of the Independence site are within an area which is subject to flooding during the 500-year event or shallow flooding during the 100-year event.[34]

Natural Gas and Electricity

Existing development in the project area is served by the Pacific Gas & Electric Company (PG&E). PG&E provides natural gas and electric service within 94,000 square miles of northern and central California. PG&E operates with a grid distribution system that channels all energy produced at the different sources into one large energy pool for distribution throughout the service territory. Bedwell Bayfront Park, immediately north across Bayfront Expressway from the Constitution site, was constructed atop a solid waste landfill. The City extracts methane gas from the park and uses it to generate electricity, which is then sold to PG&E. The City has a contract with Foristar Methane

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31 California Integrated Waste Management Board, www.ciwmb.ca.gov/SWIS/41-AA-0002/Detail/, accessed April 21, 2009.

32 Caffey, Lochlin, Ox Mountain Sanitary Landfill, telephone conversation with PBS&J, January 19, 2006.

33 Philip Williams and Associates, *Draft Preliminary Hydrology Report*, 2008.

34 FEMA, 1999.

Group (formerly Laidlaw Gas Recovery Systems) to operate and maintain the gas wells, pipelines, and generation plant facilities.[35]

Natural Gas. PG&E's gas piping system delivers natural gas from three major sources (Canada, southwestern United States, and California) to its residential, commercial, industrial, and agricultural customers. While most customers purchase their gas from PG&E, large customers can purchase gas from other third-party suppliers. Natural gas typically comes out of the ground via gas wells. Its pressure lets it rise to the surface naturally. Gas from a well is cleaned and treated, removing sand, dust, and water. The gas is also odorized (i.e., a smell is injected into the gas, so that its presence can be detected). To meet customer demand all year round, gas is compressed in underground storage fields (usually depleted oil and gas wells) between April and November, when demand is lower. It is then drawn out during the cold weather months as needed. A compressor station increases gas pressure to move it into storage and through transmission lines. High-pressure transmission lines (61 to 1,000 pounds per square inch gauge (psig) transport the gas to the distribution system via a network of mostly underground lines. The higher pressures result from line packing (compressing the gas in the line) which provides limited storage of gas, sufficient enough to meet short-term peak demands. When necessary, pipelines are suspended in the air across canals or attached to bridges. Regulators reduce the pressure of the gas entering the distribution system. The distribution system consists of both high-pressure mains (less than 60 psig) and low-pressure mains (0.25 psig), which distribute gas from the regulator station to the customer. Valves can safely isolate smaller areas during construction and emergencies. Individual services connect the distribution system to the customer. Standard delivery pressure is 0.25 psig. Existing natural gas infrastructure to serve the project area is currently in place and in use.

Electricity. Electrical power comes from a wide mix of generating sources, including fossil-fueled plants, hydroelectric powerhouses, and nuclear power plants. It is also bought from independent power producers and other utilities. After the power is produced or bought, it goes into the electric transmission and distribution system to be delivered to homes and businesses in the PG&E service territory. The electricity is carried in bulk over a network or "grid" of high-voltage transmission lines that connect power plants to substations, and connect the PG&E system to neighboring systems. Substations connect the transmission system to the distribution system. Transformers are used to "step down" the voltage of the electricity to lower levels. Substations are critical junctions and switching points in the electric system.

The distribution system links the transmission system and most customers. It includes main or "primary" lines and lower voltage or "secondary" lines, which deliver electric energy either overhead or underground; distribution transformers, which lower voltage to usage levels; and switching equipment to permit the lines to be connected together in various combinations and patterns. Individual services or "drops" connect the distribution system to the customer.

Existing electricity infrastructure to serve the project area is currently in place and in use. A PG&E 60 kV electric transmission line transects the northern portion of the Constitution site paralleling

[35] City of Menlo Park, *Menlo Park General Plan Background Report*, December 1994.

Bayfront Expressway. Two transmission towers are also located on the Constitution site. This infrastructure would remain and would not be affected by future development within the project area.

Regulatory Setting

Urban Water Management Planning Act. Section 10610.4 of the California Urban Water Management Planning Act specifies that "Urban Water Suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies." The MPMWD prepared and adopted its Urban Water Management Plan (UWMP) in December 2005. The City of Menlo Park 2005 UWMP is currently available online.[36]

Senate Bill 610. Effective January 1, 2002, the State of California, through Senate Bill 610 (SB 610) requires that a city or county, and the associated public water system, prepare a Water Supply Assessment (WSA) for projects that meet certain criteria: (1) a project creating the equivalent demand of 500 residential units, (2) a proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet (s.f.) of floor space, and (3) a commercial office building employing more than 1,000 persons or having more than 250,000 s.f. of floor space. The proposed project meets the criteria for requiring a WSA because it would create employment for over 1,000 persons and would include more than 250,000 s.f. of floor space. The WSA that is required as part of the CEQA process must include, among other information, an identification of existing water supply assessments, water rights or water service contracts relevant to the identified water supply for the proposed project, and water received in prior years pursuant to those entitlements, rights, and contracts. A WSA has been prepared for the proposed project by PBS&J in June 2009 (Appendix H), the results of which are considered in this Utilities and Service Systems section.

California Integrated Waste Management Act (Assembly Bill 939). 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. According to AB 939, all cities and counties in California are required to divert 25 percent of all solid waste from landfill or transformation facilities by January 1, 1995, and 50 percent by January 1, 2000.

Solid waste plans are prepared by each jurisdiction to explain how each city's AB 939 plan is integrated with its county plan. The plans must promote in order of priority: source reduction, recycling and composting, and finally, environmentally safe transformation and land disposal. The City/County Association of Governments of San Mateo County (C/CAG) is responsible for review and comment of a countywide Integrated Solid Waste Management plan through their Solid Waste Advisory Committee.

As of 2006, the City had achieved a diversion rate of 55 percent for the 2005-2006 review cycle.[37]

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[36] *City of Menlo Park 2005 Urban Water Management Plan*, www.menlopark.org/departments/pwk/mpmwd.html.

[37] California Integrated Waste Management Board, Jurisdiction Diversion Rate Summary, http://www.ciwmb.ca.gov/lgtools/mars/DrmcMain.asp?VW=In, accessed May 6, 2009.

State Model Ordinance California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327). To support recycling of materials generated at the finished site, this Act requires adequate areas to be reserved for collecting and loading recyclables. The City, similarly, has requirements for including garbage and recycling enclosures in site design, including space for recycling containers and access for recycling and garbage collection trucks.

Title 24 Building Energy Efficiency Standards. Building energy consumption is regulated under Title 24 of the California Code of Regulations. The efficiency standards contained in this title apply to new construction, both residential and non-residential buildings, and regulate energy consumed for heating, cooling, ventilation, water, and lighting.

City of Menlo Park General Plan. Goals and policies contained in the City's General Plan apply to future development in the project area.

> **Policy I-H-2.** This policy requires the use of water-conserving plumbing fixtures in all new public and private development.
>
> **Policy I-H-3.** This policy requires plant material selection and landscape and irrigation design in public and private developments to adhere to the City's Water Efficient Landscaping Ordinance.
>
> **Policy I-H-7.** This policy encourages the use of reclaimed water for landscaping and other feasible uses.
>
> **Policy I-H-12.** This policy promotes energy efficiency through design of street orientation, placement of buildings, and use of shading.

Menlo Park Municipal Code. Provisions of the City's Municipal Code that govern the provision of utilities include:

> **Chapter 12.44.** This code establishes a structure for designing, installing, and maintaining water-efficient landscapes in new projects and establishes provisions for water management practices and water waste prevention for established landscapes.
>
> **Chapter 12.48.** This code specifies landfill diversion requirements of construction and demolition debris. Commercial construction projects of 5,000 s.f. or greater are required to divert at least 60 percent of total generated waste tonnage from landfills by using recycling, reuse, salvage, and other diversion programs. Before obtaining a building or demolition permit, project applicants must submit a form and obtain approval from the building division (Ord. 908 Section 2 (part), 2001).

Public Utilities Analysis Methodology

Water Supply. The analysis in this section focuses on the nature and magnitude of the change in levels of water use compared with existing and projected water use in the project area and the City's water service area. To determine potential impacts, future water consumption was estimated from demand projection calculations and quantitative evaluation of data for existing land uses, approved projects, and proposed development, including that proposed for the project area. The primary resources used for this analysis include the Draft WSA for the Proposed Menlo Gateway Project, PBS&J (June 2009); City of Menlo Park UWMP, adopted December 2005; the SFPUC UWMP (December 2005), the SFPUC Water Supply Improvement Program.

Demand Analysis. Water demand for the project is based upon the WSA prepared for the EIR. According to the WSA, the expected water use of the prospective development was determined by analyzing similar land uses and assigning a demand factor for each use. This demand analysis analyzes water use at the project-level under three different scenarios: (1) the Menlo Gateway development project; (2) General Plan Amendment and Zoning Ordinance Amendment (GPA/ZOA), which assumes the project area could be developed with a 100 percent Research and Development (R&D) uses; and (3) a split between Office (63 percent) and R&D uses (37 percent), referred to as the "Split Option." The Split Option was analyzed to provide the decision makers with information that indicates how much R&D uses could be developed before significant water impacts would occur. Development under the GPA/ZOA scenario assumes the worst case or highest demand for water. Buildout in the project area is expected by 2015.

The demand factors were formulated based on data from current and historical uses at similar facilities in Northern California. Development in the project area would comply with City of Menlo Park General Plan Policies I-H-2, I-H-3, I-H-7, and Municipal Code Chapter 12.44, which require the installation of low-water use plumbing fixtures and landscaping in new development. Compliance with these requirements could reduce demands by approximately 40 percent.[38]

Wastewater. The increase in wastewater is estimated using generation rates provided by the City of Menlo Park and, in instances where the City does not have a specific generation rate the City of Oakland Sewer Design Guidelines, 2004, are referenced. The proposed Menlo Gateway project is evaluated, as well as development that could occur under the GPA/ZOA.

Solid Waste. Solid waste generation for the project is based upon generation rates from the CIWMB. The proposed project solid waste generation is then compared to available capacity at solid waste facilities that serve the project area (San Carlos Transfer Station and Ox Mountain Sanitary Landfill).

Storm Drain. Per City policy, the project would not increase storm flows, so the existing public storm drain infrastructure should not be impacted.

[38] *Draft Water Supply Assessment for the Menlo Gateway Project*, June 2009. Appendix H.

Energy Services. Energy services was assessed based on information provided by PG&E.

Standards of Significance

The proposed project would result in a significant impact if it would result in:

- **Impact Criterion #1:** Have insufficient water supplies available to serve the project from existing entitlements and resources.[39]
- **Impact Criterion #2:** 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.
- **Impact Criterion #3:** Exceed wastewater treatment requirements of the applicable RWQCB.
- **Impact Criterion #4:** Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- **Impact Criterion #5:** Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- **Impact Criterion #6:** Fail to comply with federal, State, and local statutes and regulations related to solid waste.
- **Impact Criterion #7:** Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- **Impact Criterion #8:** Result in a determination by the gas and electric provider that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments, and would result in wasteful, inefficient, and unnecessary consumption of energy.

Project Evaluation

The following analysis discusses the potential impacts that would be allowed under the GPA/ZOA, the proposed Menlo Gateway project, as well as the Split Option.

Impact UT-1: *The proposed project could exceed water supplies available under normal year conditions to serve the project from existing entitlements. Therefore, this would be a significant impact. (S)*

The proposed Menlo Gateway project would increase the building intensity in the project area over existing conditions. Net square footage on both sites combined would increase by approximately

[39] In the absence of an established standard for determining significance, this EIR assumes that a project that requires water supplies greater than 10 percent of the difference between demands of the most recent calendar year (i.e., 2007-2008) and the MPMWD's SAA of 4.46 mgd, or 0.077 mgd (City's remaining unused portion) would be a significant impact.

870,113 s.f. over existing conditions. The proposed project would also result in a net increase of employment of approximately 1,878 persons (refer to Section 3.9, Population and Housing), for a total of approximately 2,566 employees,[40] as well as hotel guests and restaurant and health club users.

Table 3.12-3 shows estimated existing annual average water demand in the project area and estimated annual average water demand for the proposed Menlo Gateway project, the maximum GPA/ZOA, and the Split Option that allows R&D and office uses. To reduce water demand, the project sponsor of the Menlo Gateway project is proposing to install low-flow fixtures, appliances and hardware to reduce water consumption per the City's General Plan Policy I-H-2. All landscaping would be required to adhere to the City's Water Efficient Landscaping Ordinance.

Table 3.12-3
Summary of Existing and Estimated Water Demands
Specific Development Proposed at the Independence and Constitution sites

	Existing Average Daily Demand (mgd)	Estimated Average Daily Demand (mgd)	Net New Demand (mgd)	Percentage (%) Increase1
Proposed Menlo Gateway Project				
Independence Site	0.013	0.051	0.038	392%
Constitution Site	0.012	0.014	0.002	56%
TOTAL	0.025	0.065	0.040	260%
Maximum GPA/ZOA[2] (worst-case)				
Combined Sites[2]	0.025	0.161	0.140	644%
Split Option[3] (Office 63% and R&D 37%)				
Combined Sites[3]	0.025	0.10	0.077	400%

Source: Draft Water Supply Assessment for the Menlo Gateway Project, Tables 3-1 and 3-2. PBSJ, June 2009. Appendix H.
Notes:
1. Based on increase of average daily demand with project over existing demand.
2. Assumes 100% R&D use in the Office Flex Space of 694,669 s.f.
3. Assumes 63% Office and 37% R&D use in the Office Flex Space of 694,669 s.f.

Each development scenario is discussed below.

Proposed Menlo Gateway Project. The WSA assumed that the proposed Menlo Gateway project would use water supplied through surface water rights and entitlements from the Tuolumne River, the Peninsula and Alameda Systems. These supplies would be delivered through existing MPMWD supply facilities and new water infrastructure constructed for delivery into the project area per the requirements of the City of Menlo Park. The proposed project would potentially use 73 acre-feet per year or an average demand of 65,486 gallons per day (gpd) (0.070 mgd). The existing demand is approximately 28 acre-ft per year or an average demand of 24,632 gpd (0.030 mgd). The net increase

[40] Keyser Marston Associates, Inc, *Draft Housing Needs Analysis Bohannon Office/Hotel Mixed Use Project General Plan Amendment and Rezoning Project*, June 2008.

in demand for the proposed project over existing conditions is approximately 46 acre-ft per year or an average demand of 40,854 gpd (0.040 mgd), which includes irrigation demands of 6.8 acre-ft per year or an annual average of approximately 6,100 gpd (0.0061 mgd).[41] Irrigation demands were calculated using a demand factor of one acre-foot/acre/year.

As shown in Table 3.12-3, the proposed project would increase average daily water demand over existing uses. MPMWD currently uses approximately 82.5 percent of its allocation from SFPUC. Of the 0.77 mgd not utilized out of SFPUC allocations, the proposed project would require approximately 0.040 mgd or about 5.0 percent of the currently unused water resources that MPMWD has from its SFPUC contract.

The WSA concluded under normal year conditions that MPMWD would have sufficient capacity to meet the water demands of the proposed project without compromising existing demands. As previously stated, SFPUC can reliably deliver the purchase request submitted by the BAWSCA member agencies (assumes implementation of the SFPUC's Water System Improvement Plan or after year 2018, increased diversions from the Tuolumne River under CCSF existing water rights).

Water demand in Menlo Park, with the additional demand generated by the proposed project, is less than MPMWD's purchase requests or its SAA and remains less than the City's significance threshold. Therefore, in normal years, MPMWD would have sufficient water supply to serve the proposed project and the impact is less than significant. However, under critical dry and multiple dry years, due to supply curtailments by SFPUC of 10 and 20 percent, the City of Menlo Park can anticipate regional supply shortages of varying degrees now and over the next 20 years.

Installation of the water distribution system would include permanent water distribution lines and appurtenances, corresponding to the construction phasing of the project. The piping system within the project area would be sized to accommodate development; additional on-site water delivery system would consist of water distribution lines within the local street rights-of-way. Water supply design specifications would comply with the MPMWDs standards regarding requirements for design and operation of water distribution facilities. Final approvals by the City would be necessary prior to delivery of water to the project area.

Any impacts associated with the installation of water supply infrastructure on-site are evaluated as part of the construction-related impacts analyzed in the other technical sections of this EIR, as appropriate.

Split Option. Like the previous scenario, the proposed Split Option would use water supplied through surface water rights and entitlements from the Tuolumne River, the Peninsula and Alameda Systems. In accordance with City of Menlo Park General Plan Policies I-H-2, I-H-3, I-H-7, and Municipal Code Chapter 12.44, which require the installation of low-water use plumbing fixtures and landscaping in

[41] *Draft Water Supply Assessment for the Independence/Constitution General Plan Amendment and Rezoning Project*, Tables 3-1 and 3-2. PBSJ, June 2009. Appendix H.

new development, this analysis assumes that water efficient fixtures and landscaping features would be installed.[42]

The Split Option scenario (Office 63% and R&D 37%) would potentially use 115 acre-feet per year or an average demand of 102,231 gpd (0.100 mgd). With existing demand of approximately 28 acre-ft per year or an average demand of 24,632 gpd (0.030 mgd), the net increase in demand for this scenario would be approximately 87 acre-ft per year or an average demand of 77,598 gpd (0.077 mgd), including the same irrigation demands as the previous scenarios (annual average of approximately 6,100 gpd). Irrigation demands were calculated using a demand factor of one acre-foot/acre/year.[43]

As shown in Table 3.12-3, the Split Option would increase average daily water demand over existing uses. Of the remaining supply not utilized out of the SFPUC allocations, this scenario would require approximately 0.0.077 mgd, or about 10.0 percent of the currently unused water resources that MPMWD has from its SFPUC contract.

The WSA concluded, under normal year conditions, that MPMWD would have sufficient capacity to meet the water demands of the Split Option scenario without compromising existing demands. As previously stated, SFPUC can reliably deliver the purchase request submitted by the BAWSCA member agencies (assumes implementation of the SFPUC's Water System Improvement Plan or after year 2018, increased diversions from the Tuolumne River under CCSF existing water rights).

Water demand in Menlo Park, with the additional demand generated by the Split Option, is less than MPMWD's purchase requests or its SAA and remains less than the City's significance threshold. Therefore, in normal years, MPMWD would have sufficient water supply to serve the proposed project under the split option scenario, and the impact is less than significant.

Maximum GPA/ZOA. The WSA assumed that, under the Maximum GPA/ZOA, water would be supplied in the same fashion as the Menlo Gateway project via surface water rights and entitlements from the Tuolumne River, the Peninsula and Alameda Systems. In accordance with City of Menlo Park General Plan Policies I-H-2, I-H-3, I-H-7, and Municipal Code Chapter 12.44, which require the installation of low-water use plumbing fixtures and landscaping in new development, this analysis assumes that water efficient fixtures and landscaping features would be installed.[44]

The Maximum GPA/ZOA assumes 100 percent of office flex space would be developed with R&D (wet lab), which would have a water demand of approximately 181 acre-feet per year or an average demand of 161,251 gpd (0.160 mgd). The existing demand, as noted above, is approximately 28 acre-ft per year or an average demand of 24,632 gpd (0.030 mgd). The net increase in demand under this scenario is approximately 153 acre-ft per year or an average demand of 136,619 gpd (0.140 mgd), which includes irrigation demands of 6.8 acre-ft per year or an annual average of approximately

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42 *Draft Water Supply Assessment for the Menlo Gateway Project*, Tables 3-1 and 3-2. PBS&J, June 2009. Appendix H.

43 Ibid.

44 *Draft Water Supply Assessment for Menlo Gateway Project*, Tables 3-1 and 3-2. PBS&J, June 2009. Appendix H.

6,100 gpd (0.0061 mgd).[45] Irrigation demands were calculated using a demand factor of one acre-foot/acre/year.[46]

As shown in Table 3.12-3, the Maximum GPA/ZOA scenario would substantially increase average daily water demand over existing uses and over the Menlo Gateway project. MPMWD currently uses approximately 82.5 percent of its allocation from SFPUC. Of the remaining supply not utilized out of the SFPUC allocations, the Maximum GPA/ZOA would require approximately 0.14 mgd or about 18.0 percent of the currently unused water supplies that MPMWD has from its SFPUC contract.

The WSA concluded under normal year conditions that MPMWD would have sufficient capacity to meet the water demands of the Maximum GPA/ZOA scenario without compromising existing demands. As previously stated, SFPUC can reliably deliver the purchase request submitted by the BAWSCA member agencies (assumes implementation of the SFPUC's Water System Improvement Plan or after 2018, increased diversions from the Tuolumne River under CCSF existing water rights).

However, even though water demand in Menlo Park, with the additional demand generated by the Maximum GPA/ZOA scenario, is less than MPMWD's purchase requests and its SAA, the Maximum GPA/ZOA would exceed the City's significance threshold. Therefore, a significant impact would occur.

MITIGATION MEASURE. Mitigation Measure UT-1.1, to be implemented by the project sponsor, lists a number of water conservation methods that could further reduce the Maximum GPA/ZOA impact on water demand. Demands associated with the Maximum GPA/ZOA Development were estimated at 0.140 mgd. Implementation of Mitigation Measure UT-1.1 would have to successfully reduce this demand by half in order to remain below the City's significance threshold in Criterion 1. Because the GPA/ZOA would allow for the maximum amount of R&D uses, no amount of water savings measures would reduce demands associated with this scenario to below the City's significance threshold without drastically changing the facilities or FAR allowed under the proposed general plan and zoning amendments. Impacts related to water supply, upon successful implementation of the following mitigation measures would be reduced; however, the impacts would still remain significant and unavoidable. (SU)

UT-1.1 *Water Conservation Methods*. The project sponsor shall implement the following water conservation methods. These methods could include, but not be limited to, the following:

- On-site rain gardens, cisterns, stormwater collection systems and other low impact development (LID) practices shall be installed.
- A dual recycled water system shall be installed, in consultation with the SFPUC, as part of project design, and to be used for toilets, irrigation of outdoor landscaping and other non-potable water supply requirements.

[45] Ibid.

[46] Ibid.

Impact UT-2: *The proposed project would not require or result in the construction of new water treatment facilities or the expansion of existing facilities, which could cause significant environmental effects. Therefore, the proposed project would have a less-than-significant impact on water supply facilities. (LTS)*

The potential water demands at the project area, depending on specific onsite development, would range from 0.04 mgd to 0.140 mgd above existing conditions. As shown in Table 3.12-4, water demands in MPMWD service area are expected to increase over the next 20 years and the demands at the project area would contribute to service area increases. The WSA, based on the ABAG growth projections, estimated annual increases of approximately 3 percent.

Table 3.12-4
Citywide Demand Projections (mgd)

Demand (mgd)	2010	2015[3]	2020	2025	2030
Supply Assurance Allocation	4.46	4.46	4.46	4.46	4.46
Annual Supply Request[1]	4.23	4.31	4.41	4.45	4.54
Projected Demands plus Project Demands.[2,3] (No Conservation)	3.97	4.00	4.03	4.07	4.10

Source: Draft Water Supply Assessment for the Menlo Gateway Project, PBSJ, June 2009. Appendix H.

Notes:

1. Values from letter from SFPUC dated June 1, 2005. Consistent with values from BAWSCA Annual Survey FY 2006-07 Table II B.
2. Based on ABAG growth rates for population (0.554 %) and jobs (0.35%) from 2000 to 2030 plus losses of 7%
3. Assumes full build-out of the proposed project, the GPA/ZOA or the Split Option by 2015. Demand based on Tables 3-1 and 3-2 from the *Draft Water Supply Assessment for the Menlo Gateway Project*, PBS&J, June 2009. Appendix H.

Because SFPUC has planned for improvements to the water treatment system to improve system reliability and accommodate projected growth in its regional service area, the proposed project, under any of the scenarios, would not prompt a need to expand treatment facilities in order to meet its demands. As stated above, SFPUC's WTPs currently have a maximum combined treatment capacity of 340 mgd, if operated continuously. After 2011 with the addition of the Tesla WTP (315 mgd), SFPUC can reliably deliver 655 mgd, which is well in excess of the demands within MPMWD's service area, now and over the next 20 years.

In order to ensure proper distribution, SFPUC also manages the regional conveyance system used to transport potable water supplies to the wholesale water agencies. In addition, SFPUC manages and maintains all the WTPs; any improvements or expansions are the responsibility of SFPUC and would not adversely affect the MPMWD or any of the development scenarios proposed.

Therefore, as a result of the proposed project, no new or expanded water treatment facilities or storage would be required. Consequently this impact is considered less than significant.

Impact UT-3: *The proposed project would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities, nor result in a determination by the wastewater treatment provider that serves the project area that it has inadequate capacity to serve the project's expected demand in addition to the provider's existing entitlements. Therefore this impact would be less than significant. (LTS)*

It is estimated that 100 percent of the water consumed indoors in the project area would become wastewater conveyed to the SBSA regional treatment plant. This wastewater flow excludes water used outdoors for irrigation, swimming pools, or similar uses. It is estimated that the existing uses in the project area generate approximately 0.009 mgd of wastewater flows. Using generation rates for wastewater, as shown in Table 3.12-5, it is estimated that the proposed Menlo Gateway project would generate an approximate average daily demand of 0.098 mgd of wastewater. Under the GPA/ZOA, an estimated daily flow of 0.10 mgd would result, as shown in Table 3.12-6.

Table 3.12-5
Menlo Gateway Project
Estimated Wastewater Generation

Use	Square Footage/Rooms	Generation Rate (gpd/unit)	Estimated Average Daily Flow
Hotel/Lodging	171,563 s.f./230 rooms	150 gpd/room1	34,500 gpd
Restaurant	4,245	300 gpd/1000 s.f.1	1,273 gpd
Health Club	68,519	300 gpd/1000 s.f.1	20,555 gpd
Office/R&D3	694,669	0.06 gpd/s.f.2	41,680 gpd
Retail/Community Facilities	7,420[4]	0.06 gpd/s.f.	445 gpd
Total	946,416 s.f.	—	0.098 mgd [4]

Source: PBS&J, 2009.

Notes:

1. Based on information from the City of Oakland Sewer Design Guidelines, 2004.
2. Based on generation rates provided in the 1300 El Camino Real Project DEIR, March 2009. No source was provided for these rates in the EIR.
3. No differentiation was made between office and R&D uses.
4. The retail uses would be included in the total amount of office space so the estimated amount of wastewater is a conservative estimate for the purposes of this EIR.

Table 3.12-6 GPA/ZOA Estimated Wastewater Generation			
Use	**Square Footage/Rooms**	**Generation Rate (gpd/unit)**	**Estimated Average Daily Flow**
Hotel/Lodging	173,667 sf/230 rooms	150 gpd/room[1]	34,500 gpd
Restaurant	6,947	300 gpd/1000 s.f.[1]	2,084 gpd
Health Club	69,467	300 gpd/1000 s.f.[1]	20,842 gpd
Office/R&D[3]	694, 669	0.06 gpd/s.f.[2]	41,684 gpd
Retail/Community Facilities	10,420	0.06 gpd/s.f.	625 gpd
Total	955,170 s.f.	—	.10 mgd

Source: PBS&J, 2009.

Notes:

1. In lieu of no City generation rates, information from the City of Oakland Sewer Design Guidelines, 2004 was referenced.
2. Based on generation rates provided in the 1300 El Camino Real Project DEIR, March 2009.
3. No differentiation was made between office and R&D uses because there is no generation rate specific to wet labs.

As noted above, the SBSA treatment plant has been expanded to a dry weather flow design capacity of 29 mgd. WBSD's average daily flow during dry weather flow is approximately 6 mgd, compared to WBSD's dry weather allocation of approximately 6.6 mgd. Under the Menlo Gateway project, operations in the project area would contribute a total of approximately 0.098 mgd to the WBSD, which is about 16 percent of remaining, currently unused entitlements that WBSD has with SBSA. The wastewater treatment system at SBSA currently has no major constraints. The proposed project would comply with all current WBSD Regulations and Standards. In light of this, the available capacity at the WBSD and the SBSA Wastewater Treatment Plant and existing collection system would be sufficient to accommodate the wastewater generated by the proposed Menlo Gateway project and the GPA/ZOA. Thus, the proposed project would result in a less-than-significant impact with respect to exceeding wastewater treatment requirements, requiring the construction of new facilities, and exceeding wastewater treatment capacity.

Impact UT-4: *The proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal. The proposed project would comply with federal, State, and local statutes and regulations related to solid waste. Therefore, this impact would be less than significant. (LTS)*

The proposed project would increase the amount of development in the project area, thereby increasing the generation of solid waste. While existing and future-with-project solid waste generation rate estimates for the project area are not available, the CIWMB estimates disposal rates for various

industries.[47] Solid waste generation rate estimates include the amount of waste created by residences or businesses over a certain amount of time, inclusive of all materials discarded, whether or not they are later recycled or disposed in a landfill. The assumption for disposal rates is that businesses of a certain type (e.g., restaurants) dispose similar wastes at similar rates (per square foot), regardless of the location or size of the business. Table 3.12-7 shows the estimated waste disposal rates based on the Menlo Gateway project's development program. Table 3.12-8 shows the breakdown under the maximum allowable development under the GPA/ZOA.

As indicated in Table 3.12-7, the proposed Menlo Gateway project would be expected to dispose of a conservative estimate of 791 tons of solid waste per year, or 2.16 tons per day, all of which would go through the San Carlos Transfer Station and eventually to the Ox Mountain Sanitary Landfill. Under the GPA/ZOA, this amount would increase slightly to 797 tons per year, or 2.18 tons per day. The Ox Mountain Sanitary Landfill has sufficient permitted capacity to accept either amount, because the landfill would not reach capacity until around 2023. The Ox Mountain Sanitary Landfill has a permitted capacity of 3,598 tons per day, which would be able to accommodate the approximate 2.16 or 2.18 tons per day (or approximately 0.07 percent of permitted capacity) from the proposed project. The San Carlos Transfer Station has a permitted capacity of 3,000 tons per day and receives 1,500 to 1,900 tons per day, so it would also be able to accommodate the approximately 2.16 or 2.18 tons per day of additional solid waste from the proposed project.

Table 3.12-7
Menlo Gateway Project
Estimated Waste Disposal Rates by Industry

Industry	Square Footage/Rooms	Waste Disposal Rate	Estimated Waste Disposal tons/year
Hotel/Lodging	171,563 sf/230 rooms	2 lbs/room/day	84.0
Restaurant	4,245	5 lbs/1000 s.f./day	3.9
Health Club	68,519	31.2 lbs/1000 s.f./day	62.4
Office	694,669	5 lbs/1000 s.f./day	633.9
Retail/Community Facilities	7,4201	5 lbs/1000 s.f./day	6.8
Total	946,416	—	791 tons/year[1] (2.16 tons/day)

Source: California Integrated Waste Management Board, Estimated Solid Waste Generation Rates for Commercial Establishments, www.ciwmb.ca.gov/WasteChar/WasteGenRates/commercial.htm, accessed January 21, 2008.

Note:

1. The retail uses would be included in the total amount of office space so the estimated amount of solid waste is a conservative estimate for the purposes of this EIR.

[47] California Integrated Waste Management Board, Estimated Solid Waste Generation Rates for Commercial Establishments, www.ciwmb.ca.gov/WasteChar/WasteGenRates/commercial.htm, accessed January 21, 2008.

Table 3.12-8 GPA/ZOA Estimated Waste Disposal Rates by Industry			
Industry	**Square Footage/Rooms**	**Waste Disposal Rate**	**Estimated Waste Disposal tons/year**
Hotel/Lodging	173,667 sf/230 rooms	2 lbs/room/day	84.0
Restaurant	6,947	5 lbs/1000 s.f./day	6.3
Health Club	69,467	31.2 lbs/1000 s.f./day	63.4
Office	694,669	5 lbs/1000 s.f./day	633.9
Retail/Community Facilities	10,420	5 lbs/1000 s.f./day	9.5
Total	955,170	—	797.1 tons/year (2.18 tons/day)
Source: California Integrated Waste Management Board, Estimated Solid Waste Generation Rates for Commercial Establishments, www.ciwmb.ca.gov/WasteChar/WasteGenRates/commercial.htm, accessed January 21, 2008.			

As mentioned above, the City achieved a diversion rate of 55 percent in 2005-2006. It is assumed that the proposed project would be subject to the same programs for waste reduction and recycling and would, therefore, achieve similar or better diversion rates as the rest of the City. As a result, the proposed project would have a less-than-significant impact regarding exceeding landfill capacities, and would not violate solid waste regulations.

The proposed project would require demolition of approximately 219,000 s.f. of existing buildings, which could generate substantial amounts of demolition and construction waste. The project would be required to comply with the City's Construction and Demolition Recycling Ordinance, which requires salvage or recycling of at least 60 percent of construction-related solid waste generation. Therefore, construction and demolition waste would not be considered a significant impact.

Impact UT-5: *Implementation of the proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, resulting in a less-than-significant impact. (LTS)*

The proposed project, under either the Menlo Gateway project or allowable development under the GPA/ZOA, would result in a slight net increase in pervious surface area in the project area. Consequently, stormwater runoff generated in the project area would not increase and, according to the City, the existing stormwater drainage system would be able to serve new development. While the proposed project could require the installation of new storm drainage structures that would connect the project area to the existing drainage system, installation of these structures would be in new driveways or in areas graded for the construction of new buildings. The installation of any stormwater infrastructure would not involve significant construction activities resulting in environmental impacts. Therefore, the proposed project would have a less-than-significant impact on stormwater drainage facilities.

Impact UT-6: *The proposed project would not exceed existing gas and electric supply. Therefore, this impact would be less than significant. (LTS)*

The proposed project would intensify development in the project area, thereby increasing demand for gas and electric service. On-site employment and additional uses, such as the proposed hotel, health club and restaurant/cafe, which would use gas and electricity during more hours of operation than would normally be used by existing daytime office and R&D buildings, would be primary contributors to the increased on-site energy consumption. The project area has existing connections to PG&E's gas and electric facilities, as described above under the Setting. It is recognized that an extension of electrical and gas distribution systems to the project area may be required to accommodate new development. Such extensions would be provided by PG&E upon request and paid for by the project sponsor. The extension of the gas and electric distribution system would not be expected to interfere with normal PG&E services.

The energy consumption demands of the proposed project would conform to the State's Title 24 energy conservation standards such that the development would not be expected to wastefully use gas and electricity. While exact design plans are not known at this time, the proposed project would consider use of low-energy glass windows, renewable energy, efficient HVAC systems, and maximum natural lighting designs to reduce electricity use. As discussed in Chapter 2, Project Description, the Menlo Gateway project is proposing to obtain LEED certification, which is designed to maximize energy efficiency.

In addition, gas and electric service to the project area would be provided to meet the needs of the proposed project as required by the California Public Utilities Commission, which obligates PG&E to provide service to its existing and potential customers. Since the proposed project would comply with Title 24 conservation standards and would be served by PG&E, the proposed project would not directly require the construction of new energy generation or supply facilities and there would be no substantial adverse environmental impacts related to energy demand, and consequently, the impact would be less than significant.

Cumulative Impacts

The geographic context for a discussion of cumulative impacts on utilities is the service area of the utility provider. For instance, the geographic context for cumulative impacts on wastewater treatment is the SBSA service area. The cumulative impacts analysis for each utility includes all cumulative growth within its respective service area.

Impact UT-1CM: *The proposed project, in combination with other development within the City of Menlo Park, could have insufficient water supplies available to serve the project from existing entitlements under normal, dry and multiple dry years. Therefore, this is a significant cumulative impact. (S)*

As discussed previously in the Regulatory Setting, development within the project area would be required to comply with the City of Menlo Park General Plan Policies I-H-2, I-H-3, I-H-7, and

Municipal Code Chapter 12.44, which requires the installation of low-water use plumbing fixtures and landscaping in new development. Water efficiency fixtures and conservation efforts would help to ensure that its contribution to the total City water demand remains less than cumulatively considerable.

The MPMWD, based on the ABAG growth projections, can anticipate an increase in demand of 0.13 mgd in normal years between 2010 and 2030, as shown in Table 3.12-7. However, the Demand Study assumed a broader range of growth demands would occur between MPMWD's Annual Supply Request of 4.23 mgd in 2010 and 4.54 mgd in 2030, which equates to 0.31 mgd. The WSA considered the growth in demand estimated in the ABAG study, because the change in demand over the next 20 years more realistically follows actual growth in demand over the last eight years.

At full buildout of the proposed project in 2015, water demand in the project area is estimated to increase over existing conditions by 0.04 mgd (proposed Menlo Gateway project) and 0.14 mgd (maximum GPA/ZOA). The Split Option scenario would increase demand by approximately 0.077 mgd. The proposed project represents at least 1 percent of anticipated demands in MPMWD's service area. Similarly, if either the Split Option or the maximum GPA/ZOA scenario are implemented, this would represent 2.0 percent and 3.4 percent, respectively, of MPWMD's anticipated demands.

The SFPUC can meet the current and future demands of its retail and wholesale customers in years of average and above-average precipitation. The MSA allows the SFPUC to reduce water deliveries to wholesale customers during periods of water shortage. Under the IWSAP, SFPUC will determine the available water supply in drought years for shortages up to 20 percent on an average, system-wide basis. The SFPUC used the historical hydrologic record from 1920 to 2002 to compare water supplies and demands into the future. This methodology assumes that climatic history will repeat itself and similar hydrologic conditions will be experienced.

As shown in Table 3.12-9, SFPUC is incapable of sufficiently meeting demands within MPMWD's service area now and over the next 20 years for dry and multiple dry years. In fact, under dry year conditions, even without implementation of new projects, SFPUC is incapable of meeting local and regional demands. Under present regional water supply conditions, if a critical dry year is declared, SFPUC system-wide supplies could be reduced by 10 percent to approximately 239 mgd; and under multiple dry years, specifically the second consecutive dry year, SFPUC supplies would be reduced by 20 percent from 265 mgd down to 212 mgd.

Furthermore, as presented in Figure 3.12-1, the MPMWD's growth in demand (pink line) corresponds to growth in population and jobs. This model shows that demands will likely remain below the MPMWD's SAA over the next 20 years. The SAA of 4.46 mgd, beginning in 2005, is held constant over the next 20 years and is assumed to be the supply cap over this same period. This assumption is based on the IWSAP and the 2009 MSA because of the unknown supply changes that may occur after 2018.

Table 3.12-9
Water Supply and Demand - Comparison for Normal, Critical Dry, and Multiple Dry Years

	Normal Year		One Critical		Multiple Dry Year Event					
	Purchase Request		Dry Year		Year 1		Year 2		Year 3	
2010	**mgd**	**%**	**mgd**	**%**	**mgd**	**%**	**mgd**	**%**	**mgd**	**%**
SFPUC/BAWSCA Allocation[1]	184.0	100	162.8	88.5	162.8	88.5	141.5	76.9	141.5	76.9
Menlo Park Supply Request[2]	4.23	100	3.69	87.2	3.69	87.2	3.21	75.8	3.21	75.8
Menlo Park Demand[3]	3.97		3.97		3.97		3.97		3.97	
Difference	**0.26**	93.85	-0.28	-7.6	-0.28	-7.6	-0.76	-23.8	-0.76	-23.8
2015										
SFPUC/BAWSCA Allocation[1]	184.0	100	162.8	88.5	162.8	88.5	141.5	76.9	141.5	76.9
Menlo Park Supply Request[2]	4.31	100	3.76	87.2	3.76	87.2	3.27	75.8	3.27	75.8
Menlo Park Demand[3]	4.00		4.00		4.00		4.00		4.00	
Difference	**0.31**	92.81	-0.24	-6.4	-0.24	-6.4	-0.73	-22.4	-0.73	-22.4
2020										
SFPUC/BAWSCA Allocation[1]	184.0	100	162.8	88.5	162.8	88.5	141.5	76.9	141.5	76.9
Menlo Park Supply Request[2]	4.41	100	3.85	87.2	3.85	87.2	3.34	75.8	3.34	75.8
Menlo Park Demand[3]	4.03		4.03		4.03		4.03		4.03	
Difference	**0.38**	91.38	-0.18	-4.8	-0.18	-4.8	-0.69	-20.6	-0.69	-20.6
2025										
SFPUC/BAWSCA Allocation[1]	184.0	100	162.8	88.5	162.8	88.5	141.5	76.9	141.5	76.9
Menlo Park Supply Request[2]	4.46	100	3.89	87.2	3.89	87.2	3.38	75.8	3.38	75.8
Menlo Park Demand[3]	4.07		4.07		4.07		4.07		4.07	
Difference	**0.39**	91.26	-0.18	-4.7	-0.18	-4.7	-0.69	-20.4	-0.69	-20.4
2030										
SFPUC/BAWSCA Allocation[1]	184.0	100	162.8	88.5	162.8	88.5	141.5	76.9	141.5	76.9
Menlo Park Supply Request[2]	4.54	100	3.96	87.2	3.96	87.2	3.44	75.8	3.44	75.8
Menlo Park Demand[3]	4.10	0	4.10		4.10		4.10		4.10	
Difference	**0.44**	90.31	-0.14	-3.6	-0.14	-3.6	-0.66	-19.1	-0.66	-19.1

Source: *Draft Water Supply Assessment for the Menlo Gateway Project*, PBSJ, June 2009. Appendix H.

Notes:

1. BAWSCA Allocation based on the 2009 MSA currently being approved by all parties in interest. Pursuant to the 2009 MSA, BAWSCA and its member agencies will receive 184 mgd. After 2018 SFPUC could obtain additional supplies from the Tuolumne River watershed; however, at this time that remains an unknown. Therefore, in order to meet potential growth now and beyond 2018 to 2030, BAWSCA and its member agencies must optimize conservation measures and pursue local water supply sources, i.e. groundwater, stormwater and recycled water. The MSA determined that the BAWSCA members are responsible for obtaining 25 mgd collectively.
2. Menlo Park Supply Request based on letter dated June 1, 2005 from SFPUC to MP which demonstrates MP dry year reductions as 87.2% (10% system-wide reduction) and reductions 75.8% (20% system-wide reduction).
3. Menlo Park demand determined by estimated growth projections from Table 1-3 Base Forecasts of Accounts and Water Use, 2005, 2015, 2025 are calculated by a constant average growth rate by account.

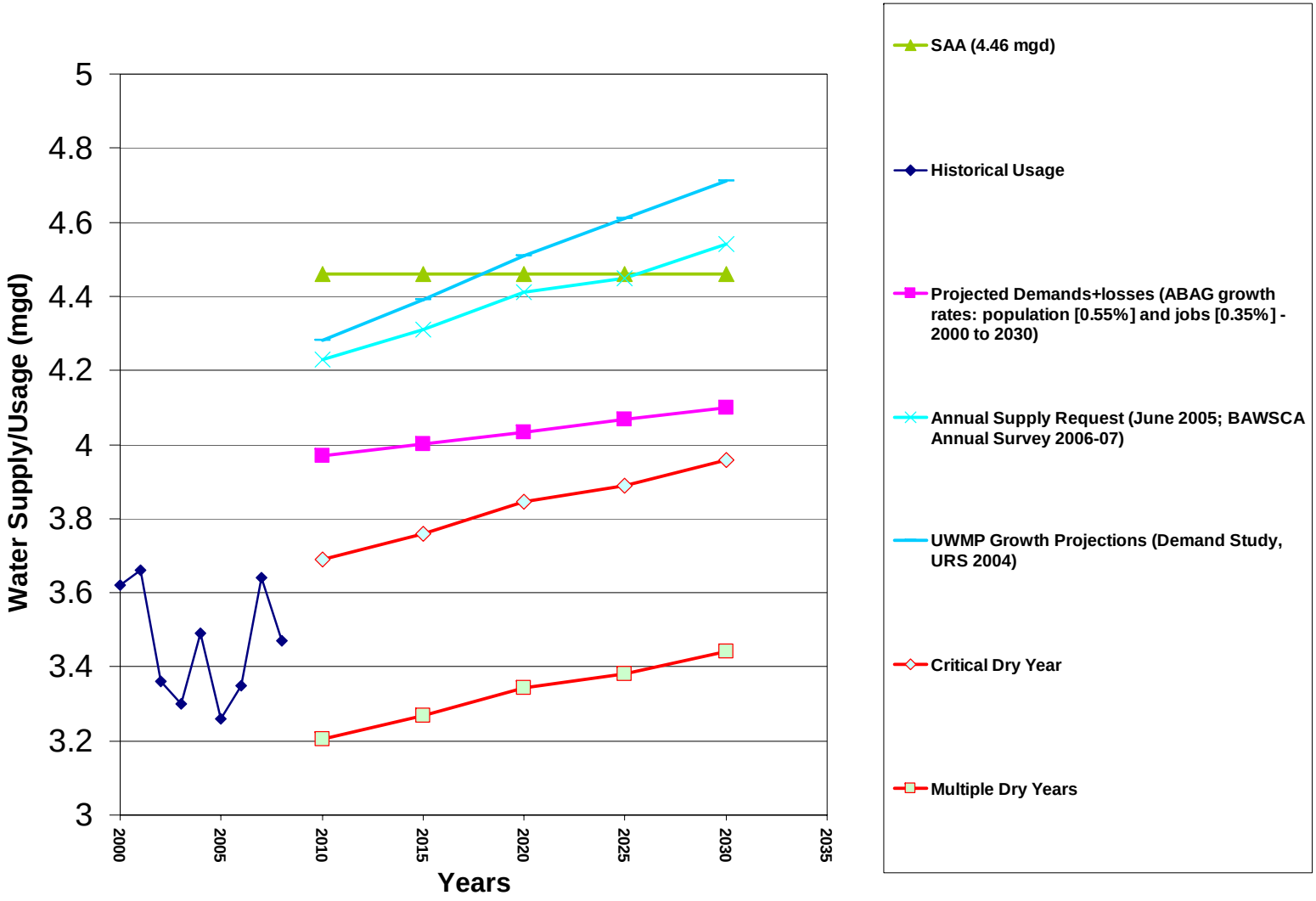

Figure 3.12-1 Water Usage with Supply and Demand Projections[48]

[48] Draft Water Supply Assessment for the Menlo Gateway Project, *PBSJ, June 2009. Appendix H.*

Figure 3.12-1 also illustrates the supply and demand situation under critical or multiple dry year conditions over the next 20 years due to regional supply cutbacks; MPMWD would not have adequate supplies under these dry year scenarios. As presented in Figure 3.12-1, the model shows supply curtailments (red lines) fall below the presumed demand (pink line) in all years beginning in 2010.

Therefore, MPMWD would not have sufficient water supplies available to serve existing and planned uses, including the proposed development (Menlo Gateway project, Split Option, or GPA/ZOA) in the project area during normal, dry and multiple dry years. The project's contribution to the increase in water demand would be considerable, resulting in a significant cumulative impact.

MITIGATION MEASURE. UT-1CM.1 The following mitigation measures identify a number of water conservation measures, programs or projects that could reduce water demand and begin to correct the supply and demand imbalance. In compliance with its Individual Contract with SFPUC and under BAWSCA's conservation provisions, MPWMD, in its efforts to reduce its contribution to regional demands, has implemented the BMPs listed below with the exception of the "Potential BMPs." Figure 3.12-2 demonstrates the levels of conservation at 10 and 20 percent that would be necessary to reduce the cumulative impact to less-than-significant levels. However, in order to reduce water demand within MPMWD service area, some of the BMPs involve other entities. While these BMPs would potentially reduce citywide demands and reduce the water supply shortfall due to the extent of regional supply cutbacks and since all BMPs are not under the City's jurisdiction, it cannot be guaranteed that each BMP would be implemented; therefore, this cumulative impact would remain significant and unavoidable for all three options. (SU)

UT-1CM.1 Conservation Measures. The UWMP lists BMPs outlined by the California Urban Water Conservation Council (CUWCC) and other demand management programs that are currently in effect to reduce demand in the event of supply cutbacks.

Residential plumbing retrofit. Between 1985 and 1993, MPMWD distributed over 5,000 water conservation kits (showerheads, aerators, toilet dams and leak pills). MPMWD plans to continue this program in the future, but market penetration of lowflow devices (showerheads) is nearly saturated and expected additional savings very modest.

Leak reductions through constant maintenance, system repair audits, leak detection, and repair. Conducted on an as needed basis. Unaccounted for water is historically low (3 to 4%) relative to other utilities.

Metering with commodity rates for all new connections and retrofit of existing connections. MPMWD meters water use for all of its customers and uses a conservation promoting multi-block tiered rate structure in order to encourage water conservation.

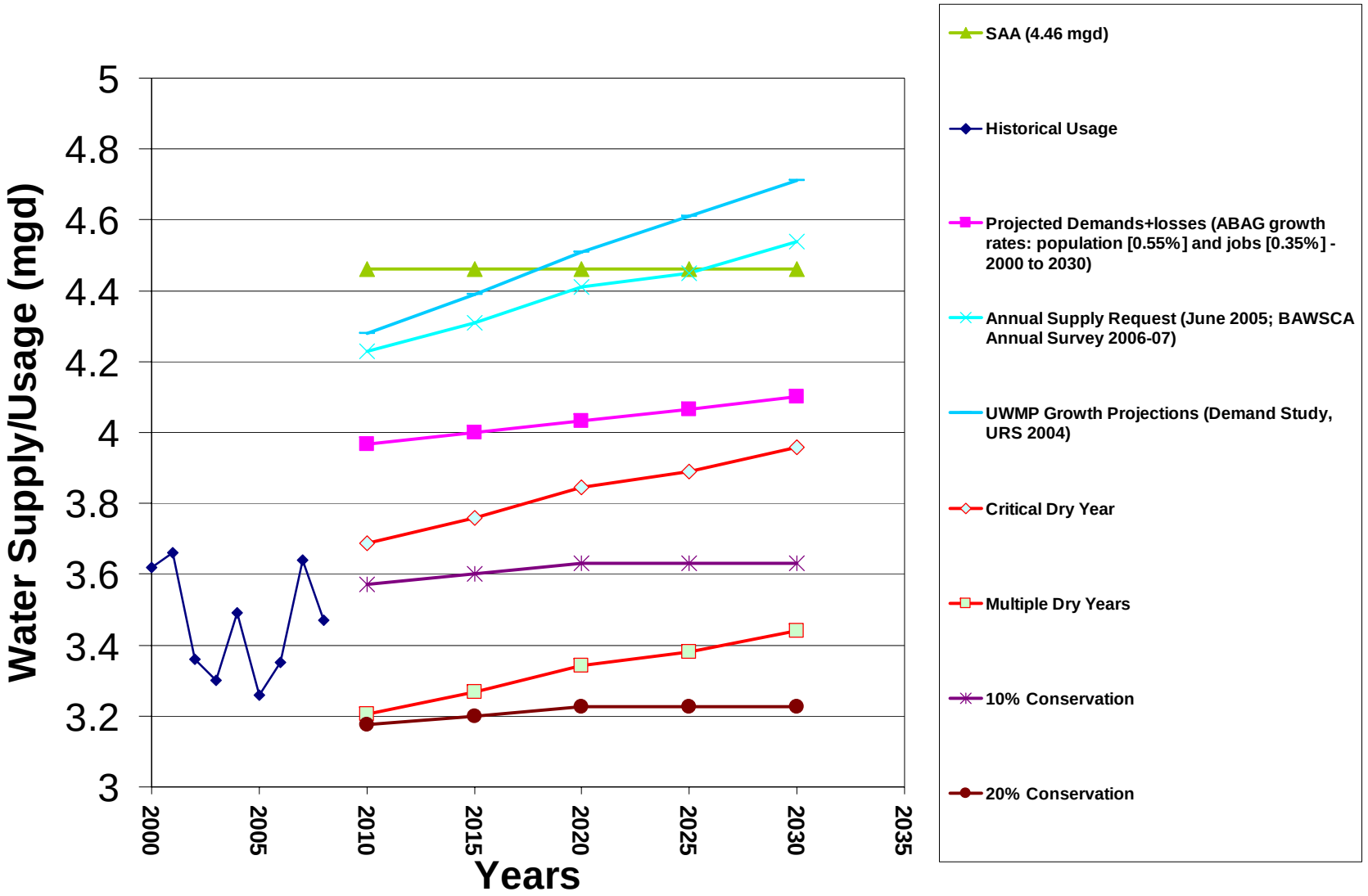

Figure 3.12-2 Water Usage with Supply and Demand Projections

Large landscape conservation programs and incentives. Enforce water efficient landscape ordinance (UWMP Appendix D). Plans to distribute water use reports to large landscape users. Plans to facilitate Xeriscape education and staff training at retail garden/irrigation supply centers.

High-efficiency washing machine rebate programs. Currently participating in residential and commercial programs. For the residential program, achieved 66 rebates for FY 2003/04 and 84 rebates for FY 2004/05.

School education programs and public outreach, includes water efficient landscaping demonstrations. Multiple level programs: slogan contests, giveaways of water savings kits (showerheads and other fixtures); advertizing campaigns; Bay Area landscape seminars and classes.

Conservation programs for commercial, industrial, and institutional accounts. Participating in a pre-rinse spray nozzle replacement program for restaurants and food service facilities. Enforce water efficient landscape ordinance (UWMP Appendix D). Achieve water reduction goals in the form of employee education and audits. In the future, BAWSCA may offer a regional program.

Conservation pricing. Uses an increasing block-rate tiered structure where the per unit price of water increases with increasing increments of water use.

Water conservation coordinator. Shared position among staff.

Water waste prohibition. Comply with Municipal Code Chapter 7.38 Water Conservation.

Residential ultra-low-flush toilet replacement programs.

System Pressure Control Program.

Figure 3.12-2 shows that demands would likely remain below the MPMWD's SAA over the next 20 years. As modeled in Figure 3.12-2, 20 percent demand reductions by 2020 as mandated in AB 49 would reduce district-wide demands to levels below the supply reductions and no further conservation measures would be required. It should be noted that conservation savings are unquantifiable; therefore, the WSA concluded that due to regional supply cutbacks, the MPMWD would not have adequate supplies under critical and multiple dry years.

UT-1CM.2 *Alternative Supplies and Demand Offsets*. Listed below are projects or programs that MPMWD is currently investigating or considering as methods to reduce citywide demands or improve local supplies. These Mitigation Measures would potentially reduce citywide demands and reduce the water supply shortfall. However, it is not guaranteed that each project would be implemented; consequently, due to the extent of regional supply cutbacks and

lacking the quantifiable effectiveness of each Mitigation Measure - impacts would remain significant and unavoidable.

- Use of groundwater wells to serve irrigation needs;

  Implementation of this mitigation measure could require project-specific environmental analysis to assess if the construction or operation of new wells would have any adverse environmental consequences and would require environmental evaluation;

- Use of dual plumbing systems utilizing groundwater or "gray water" for irrigation and other non-potable needs; and
- Water use offsets, such as removal and replacement of existing turf with artificial turf at sports fields.

UT-1CM.3 Capital Improvement Projects. MPMWD, through implementation of its Capital Improvement Program, is taking steps to address dry year deficiencies as well to provide continued reliable water service through the year 2030. One of MPMWD's guiding principles regarding water service is to repair, replace, and upgrade the water distribution infrastructure to ensure the system's long-term integrity. Money is appropriated to the Capital Improvement Program to accomplish this objective as illustrated in Table 3.12-10. The amount varies year to year depending on the particular projects.[49]

Table 3.12-10
Capital Improvement Program - Fiscal Year Budget

2004-2005	$1,727,354
2003-2004	$138,055
2002-2003	$19,888
2001-2002	$169,178
2000-2001	$1,230,823
1999-2000	$337,415
1998-1999	$891,519

Source: City of Menlo Park 2005 Urban Water Management Plan, p. 35.

Impact UT-2CM: *The proposed project, in combination with other development within the City of Menlo Park, would not require or result in the construction of new water treatment facilities or the expansion of existing facilities, which could cause significant environmental effects. Therefore, this impact would be less than significant. (LTS)*

[49] City of Menlo Park 2005 Urban Water Management Plan. p. 35.

As stated in Impact UT-2, the City of Menlo Park purchases 100 percent of its treated water supplies from SFPUC and distributes treated water to customers within the MPMWD service area. Purchased water is treated at both the Sunol Valley WTP and the Harry Tracy WTP. SFPUC is currently engaged in a variety of water treatment and distribution system improvements projects that comprise its Water System Improvement Program (WSIP), which evolved out of the SFPUC Water System Master Plan (2000). As recent as fall 2008, SFPUC certified the Program Environmental Impact Report (PEIR) for the WSIP. The WSIP consists of 85 projects, 26 of which are specifically for water supply reliability needed to accommodate projected growth, meet water quality standards and add system redundancy in the event of an interruption due to seismic activity. The PEIR programmatically evaluated the impacts associated with the implementation of the WSIP, while individual projects would be subject to project-specific environmental review. SFPUC is in the process of completing the environmental review for expansion at the Sunol Valley WTP; once completed, the Sunol Valley WTP would have capacity to treat up to 160 mgd. The Harry Tracy WTP treats 120 mgd but will be expanded and upgraded to sustainably treat 180 mgd. When both of these WTPs are operating at capacity, SFPUC will be capable of producing up to 340 mgd. In addition, SFPUC initiated construction of the Tesla WTP in Tracy, California, which is scheduled for completion in 2011. The Tesla WTP will be the nation's largest ultraviolet disinfection treatment plant and will be capable of producing 315 mgd. Therefore, after 2011, SFPUC can deliver up to 655 mgd.

SFPUC has sufficient water treatment capacity within its existing and planned facilities; consequently, it is not necessary for the City of Menlo Park to operate a proprietary water treatment plant. Because SFPUC has planned for improvements to the water treatment system to improve system reliability and accommodate projected growth in its regional service area, there would be no cumulative impact. As stated above, after 2011, SFPUC's WTP's will be capable of producing 655 mgd if operated continuously, which is well in excess of the demands within MPMWD's service area now and over the next 20 years.

In order to ensure proper distribution, SFPUC also manages the regional conveyance system used to transport potable water supplies to the wholesale water agencies. In addition, SFPUC manages and maintains all the WTPs; any improvements or expansions are the responsibility of SFPUC and would not adversely affect the MPMWD or any of the development options at the project site. Therefore, as a result of anticipated cumulative growth water demands within MPMWD's service area, no new or expanded water treatment facilities or storage would be required. Therefore, the project's contribution to this impact would be less than significant.

UT3-CM: *The proposed project, in combination with other development within the service area, would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, require or result in the construction of new wastewater treatment facilities or the expansion of existing facilities, nor result in a determination by the wastewater treatment provider that serves or may serve the project area that it has inadequate capacity to serve the project's expected demand in addition to the provider's existing entitlements. Therefore, this cumulative impact would be less than significant. (LTS)*

The WBSD currently uses about 77 percent of its dry weather entitlement capacity from SBSA, with a remaining unused allocation of approximately 1.38 mgd of average daily dry weather wastewater flows. The proposed project is projected to generate an average daily demand of approximately 0.103 mgd of wastewater, which is about 7.5 percent of the City's current allocation at SBSA via WBSD. As mentioned previously, the WBSD wastewater volumes sent through SBSA's Wastewater Treatment Plant annual average is approximately 4.6 mgd and the SBSA treatment plant is currently experiencing no major constraints. The remaining capacity at the SBSA could be expected to decrease in the future due to cumulative development within the SBSA service area. However, as noted above, SBSA already has plans to increase its capacity to 29 mgd; thus, accommodating additional sewer loads generated by foreseeable cumulative development. As a result, cumulative impacts on wastewater treatment are expected to be less than significant.

UT4-CM: *The proposed project, combined with other development within the service area, would be served by a landfill with sufficient permitted capacity to accommodate its solid waste disposal needs, and the proposed project would comply with federal, State, and local statutes and regulations related to solid waste. Therefore, this cumulative impact would be less than significant. (LTS)*

The Ox Mountain Sanitary Landfill facility has a remaining capacity of about 44.6 million cubic yards and a remaining life period of approximately 17 years.[50] This estimate is based on current disposal and diversion rates and development assumptions within the landfill service area. At this point, there is no evidence to suggest that future disposal rates would increase substantially from current rates. In fact, the expectation is that the rates should decline as a result of continuing efforts at source reduction and recycling. Given that there appears to be sufficient landfill capacity to accommodate solid waste generated in the future, the cumulative impact is less than significant. The proposed project, in combination with other growth in the Ox Mountain Sanitary Landfill service area, would have a less-than-significant cumulative impact on solid waste disposal services. The City would continue to require the proposed project and other foreseeable development to maximize recycling in the project area to minimize solid waste disposal to the Ox Mountain Sanitary Landfill, as well as enforce compliance with the State Model Ordinance California Solid Waste Reuse and Recycling Access Act of 1991.[51]

UT5-CM: *The proposed project alone would not require the construction or expansion of the stormwater facilities. Therefore, the proposed project would not contribute to cumulative impact on the existing storm drainage system's ability to collect and convey stormwater runoff. (NI)*

The proposed project would not increase demand on the City's storm drainage system, nor would it result in the construction of new facilities or expansion of existing facilities, because the project area is expected to result in equal to or less stormwater runoff than under existing conditions. Thus, the proposed project would not contribute to cumulative impacts on storm drainage, regardless of the effects of approved, foreseeable, or other development projects in the City.

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[50] Caffey, Lochlin, Ox Mountain Sanitary Landfill, telephone conversation with PBS&J, January 19, 2006.

[51] Dryer, Dianne, City of Menlo Park, Public Works Environmental Program, telephone conservation with PBS&J, August 4, 2005.

UT6-CM: *The proposed project, in combination with other development served by PG&E, would not exceed existing gas and electric supply capacity. Therefore, this cumulative impact would be less than significant. (LTS)*

The proposed project plus future development within PG&E's service area would conform to the State's Title 24 energy conservation standards for new construction. Consequently, the proposed project, in combination with other cumulative development in the City, would not be expected to wastefully use gas and electricity. Existing and planned gas and electric service would be provided to meet the needs of the cumulative development customers as required by the California Public Utilities Commission, which obligates PG&E to provide service to its existing and potential customers. Since the proposed project and future cumulative development would comply with Title 24 conservation standards and would be served by PG&E, new development would not directly require the construction of new energy generation or supply facilities directly attributable to growth in the City, and there would be no substantial adverse environmental impacts related to energy demand. Therefore, the proposed project, in conjunction with future development, would have a less-than-significant cumulative impact on PG&E's capacity.