

4.14 UTILITIES AND SERVICE SYSTEMS

This chapter describes the existing utilities and service systems in the EA Study Area and evaluates the potential environmental consequences of future development that could occur by adopting and implementing the proposed Housing Element Update, General Plan Consistency Update, and associated Zoning Ordinances amendments, together referred to as the “Plan Components.” Water supply, wastewater, stormwater, solid waste, and energy are each addressed in a separate section of this chapter. In each section, a summary of the relevant regulatory setting and existing conditions is followed by a discussion of project and cumulative impacts.

A. *Water*

This section outlines the regulatory setting, describes existing conditions, and discusses potential impacts of the Plan Components with regard to local water supply, treatment, and distribution.

1. **Regulatory Setting**

a. Federal and State Regulations

i. Federal Safe Drinking Water Act

The Safe Drinking Water Act authorizes the United States (U.S.) Environmental Protection Agency (EPA) to set national standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally-occurring and man-made contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the U.S. to treat water to remove contaminants, except for private wells serving fewer than 25 people. In California, the State Department of Health Services conducts most enforcement activities. If a water system does not meet standards, it is the water supplier’s responsibility to notify its customers.

ii. California Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act (Porter-Cologne) of 1969, the State Water Resources Control Board (SWRCB) has the ultimate authority over State water rights and water quality policy. Porter-Cologne also establishes nine Regional Water Quality Control Boards (RWQCBs) to oversee water quality on a day-to-day basis at the local and regional level. The RWQCBs engage in a number of water quality

functions in their respective regions. The RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater.¹

iii. California Senate Bills 610 and 221

Senate Bill (SB) 610 and SB 221 amended State law to ensure better coordination between local water supply and land use decisions and ensure adequate water supply for new development. Both statutes require that detailed information regarding water availability be provided to City and County decision-makers prior to approval of large development projects. SB 610 requires water supply assessments (WSAs) for certain types of projects, as defined by Water Code Section 10912, which are subject to the California Environmental Quality Act (CEQA).² SB 221 establishes consultation and analysis requirements related to water supply planning for residential subdivisions including more than 500 dwelling units.³ A WSA was prepared for the Plan Components by GHD on March 20, 2013. The WSA considered 14 housing sites distributed throughout the City creating water demand for both the Menlo Park Municipal Water District (MPMWD) and the Cal Water's Bear Gulch District (Cal Water BGD). While the EA has been adjusted to reflect five potential housing sites and subsequently changed the overall number of units within each water district, the analysis presented in the WSA contemplated the overall same total of housing units. The WSA is included as Appendix D of this EA.

iv. California Urban Water Management Planning Act

Through the Urban Water Management Planning Act of 1983, the California Water Code requires all urban water suppliers within California to prepare and adopt an Urban Water Management Plan (UWMP) and update it every five years. This requirement applies to all suppliers providing water to more than 3,000 customers or supplying more than 3,000 acre-feet (AF)⁴ of water annually. This Act is intended to support conservation and efficient use of urban water supplies at the local level. This Act requires that total projected water use be compared to water supply sources over the next 20 years in 5-year increments, that planning

¹ California Wetlands Information System, *Summary of the Porter-Cologne Water Quality Control Act*, http://ceres.ca.gov/wetlands/permitting/Porter_summary.html, accessed on September 28, 2012.

² Bill Number: SB 610 Chartered, http://info.sen.ca.gov/pub/01-02/bill/sen/sb_0601-0650/sb_610_bill_20011009_chaptered.html, accessed on September 28, 2012.

³ Bill Number: SB 221, Bill Analysis, http://info.sen.ca.gov/pub/01-02/bill/sen/sb_0201-0250/sb_221_cfa_20010426_132334_sen_comm.html, accessed on September 28, 2012.

⁴ One acre-foot is the amount of water required to cover 1 acre of ground (43,560 square feet) to a depth of 1-foot.

occur for single and multiple dry water years, and that plans include a water recycling analysis that incorporates a description of the wastewater collection and treatment system within the agency's service area along with current and potential recycled water uses.⁵

v. *California Groundwater Management Act*

The Groundwater Management Act of the California Water Code (Assembly Bill [AB] 3030) provides guidance for applicable local agencies to develop voluntary Groundwater Management Plans (GMP) in State-designated groundwater basins. The GMPs can allow agencies to raise revenue to pay for measures influencing the management of the basin, including extraction, recharge, conveyance, facilities' maintenance, and water quality.⁶

vi. *The Water Conservation Act of 2009*⁷

Effective January 1, 2010, SB X7-7 requires the State to achieve 20 percent reduction in urban per capita water use by December 31, 2020. In addition, SB X7-7 requires agricultural water management plans and efficient water management practices for agricultural water suppliers, and promotes expanded development of sustainable water supplies at the regional level. The portion of SB X7-7 focused on urban water management establishes processes for urban water suppliers to meet the statewide water conservation targets. Further, SB X7-7 requires Department of Water Resources (DWR) review and reporting on urban water management plans; creates a Commercial-Industrial-Institutional (CII) Task Force to develop best management practices (BMPs) for water use in this sector; requires DWR to promote implementation of regional water resource management practices through increased incentives; and requires DWR in consultation with SWRCB to develop or update statewide targets for recycled water, brackish groundwater desalination, and urban stormwater runoff.

⁵ Department of Water Resources, *About Urban Water Management*, <http://www.water.ca.gov/urbanwatermanagement/>, accessed on September 28, 2012.

⁶ Department of Water Resources Planning and Local Assistance Central District, Groundwater, *Groundwater Management*, <http://www.cd.water.ca.gov/groundwater/gwab3030.cfm>, accessed on September 28, 2012.

⁷ Department of Water Resources, Senate Bill SBX7-7 2009 Information, <http://www.water.ca.gov/waterusefficiency/sb7/>, accessed on September 28, 2012.

vii. State Updated Model Landscape Ordinance (Assembly Bill 1881, 2006)⁸

The updated Model Landscape Ordinance requires cities and counties to adopt landscape water conservation ordinances by January 31, 2010 or to adopt a different ordinance that is at least as effective in conserving water as the updated Model Ordinance (MO). The City of Menlo Park adopted Ordinance No. 968, Water Efficient Landscaping Regulations, in 2010, and revised Municipal Code Chapter 12.44, which is described below.

b. Local Regulations

i. Bay Area Water Supply and Conservation Agency⁹

The Bay Area Water Supply and Conservation Agency (BAWSCA), created on May 27, 2003, represents 26 agencies that depend on the San Francisco Regional Water System (RWS). Two major water suppliers of Menlo Park, Menlo Park Municipal Water District (MPMWD) and California Water Services (Cal Water), are both members of BAWSCA. BAWSCA's roles include coordinating water conservation, water supply, and water recycling activities for its member agencies; acquiring water and making it available to other agencies on a wholesale basis; financing improvements to the RWS; and building facilities.

ii. 2010 Urban Water Management Plan¹⁰

MPMWD and Cal Water both adopted their 2010 UWMPs in June 2011 in accordance with the SB X7-7 and the Urban Water Management Planning Act, outlined in Section 10610 of Division 6 of the California Water Code. One of the purposes of the UWMPs is to identify measures to meet SB X7-7 requirements that mandate a 20-percent reduction of per capita water use and agricultural water use throughout the State by 2020. These UWMPs evaluate the water supply capacity and the projected water demands of the service area over a 20- or 25-year planning horizon. A range of water supply scenarios were modeled, including 1) normal, 2) single-dry, and 3) multiple-dry water year conditions. The UWMPs also provide action plans in the event of a catastrophic interruption in water supplies.

⁸ Department of Water Resources, Supply and Use, Updated Model Water Efficient Landscape Ordinance AB 1881, <http://www.water.ca.gov/wateruseefficiency/landscapeordinance/>, accessed on September 27, 2012.

⁹ *Water Supply Assessment for the City of Menlo Park Housing Element Update prepared by GHD in February 2013, page 3-9.*

¹⁰ City of Menlo Park, *2010 Urban Water Management Plan*, http://www.menlopark.org/departments/pwk/MP_2010_UWMP_Final.pdf, accessed September 28, 2012.

iii. Water System Improvement Plan¹¹

The San Francisco Public Utilities Commission (SFPUC) has started the Water System Improvement Program (WSIP), approved in October 2008, to meet goals for water quality, seismic reliability, delivery reliability, and water supply. The WSIP includes capital improvements to meet a total delivery reliability goal of 265 million gallons per day (MGD) of water supply with no greater than 20 percent rationing in any one year of a drought. As part of the WSIP, the SFPUC adopted a Phased WSIP Variant for water supply, which established a mid-term water supply planning milestone for 2018 when the SFPUC is scheduled to reevaluate water demands through 2030. The SFPUC also imposed the Interim Supply Limitation (ISL), which limits the volume of water that the member agencies and San Francisco can collectively purchase from the RWS to 265 MGD, until 2018. The WSIP Regional Projects Quarterly Report for the first quarter of 2012/13 indicated all planning activities had been completed, with environmental, design, and construction work at 92 percent, 96 percent, and 62 percent complete, respectively.

iv. City of Menlo Park Municipal Code

a) Chapter 7.38, Water Conservation¹²

Chapter 7.38 of the City's Municipal Code contains regulations and restrictions on water use in order to conserve water resources and eliminate wasteful water uses. Municipal Code Section 7.38.030 contains specific requirements, such as repairing broken plumbing, sprinkler, or irrigation systems; recycling water that was used for cooling; and prohibiting the use of a hose without a positive shut-off valve for washing cars, building structures, or hard-surface areas.

b) Chapter 12.44, Water Efficient Landscaping¹³

Chapter 12.44 of the City's Municipal Code establishes water-efficient landscaping standards to conserve water use on irrigation. The provisions of this chapter apply to landscaping projects that include irrigated landscape areas exceeding 2,500 square feet when these projects are associated with new water service, subdivision improvements, grading and drainage improvements, a new construction subject to a building permit, or building additions or modifications subject to grading and drainage plan approval.

¹¹ *Water Supply Assessment* for the City of Menlo Park Housing Element Update prepared by GHD in February 2013, page 3-2.

¹² City of Menlo Park, Municipal Code Chapter 7.38, Water Conservation, <http://www.codepublishing.com/CA/menlopark/>, accessed on September 27, 2012.

¹³ City of Menlo Park, Municipal Code Chapter 12.44, Water Efficient Landscaping, <http://www.codepublishing.com/CA/menlopark/>, accessed on September 27, 2012.

2. Existing Conditions

Potable water is supplied to the EA Study Area by one of four water utility companies: the MPMWD, Cal Water BGD, O'Connor Tract Coop Water District, and Palo Alto Park Mutual Water Company, as shown in Figure 4.14-1.

The WSA assumes that all potential units under the Plan Components would be served by either MPMWD or Cal Water BGD, and therefore this section does not include O'Connor Tract Coop Water District and Palo Alto Park Mutual Water Company in the discussion. Specifically, the MPMWD provides service to potential housing Sites 1, 2, 3, 4, and 5 (894 units) and 115 second dwelling units, while Cal Water BGD serves the 118 infill housing units around the downtown area and 185 second dwelling units. Accordingly, this section summarizes the existing conditions and projected water supplies and demands for MPMWD and Cal Water BGD, based on the WSA prepared for the Plan Components in March 2013.

a. Menlo Park Municipal Water District

The MPMWD serves approximately 14,200 customers in the EA Study Area, approximately 40 percent of the City's population within the following four zones:¹⁴

1. The Lower Zone is located north and east of El Camino Real and includes the Belle Haven, Bay Road, and Willows neighborhoods.
2. The High Pressure Zone is located in northern Menlo Park between Highway 101 and the Bayfront Expressway and includes the Bohannon Industrial Park and Tyco Properties.
3. The Upper Pressure Zone is located in western Menlo Park and is geographically and hydraulically disconnected from other zones. It serves primarily the residential Sharon Heights neighborhood, the Sharon Heights Golf Course, and the Stanford Linear Accelerator.
4. The Menlo Business Park zone is located along O'Brien Drive between Willow Road and University Avenue.

¹⁴ *Water Supply Assessment for the City of Menlo Park Housing Element Update prepared by GHD in February 2013, pages 2-3 and 2-1.*

In its 2010 UWMP, MPMWD's demand projections assumed very modest residential growth and strong growth in the Commercial-Industrial-Institutional (CII) sectors. The residential growth contemplated by the Plan Components was not specifically accounted for in MPMWD's 2010 UWMP.¹⁵

The MPMWD distribution system consists of 59 miles of water mains, 4,500 metered connections, two reservoirs, and one pump station. The MPMWD also maintains fire hydrants, backflow prevention devices, flushing points, and service connections to SFPUC.¹⁶

b. Cal Water Bear Gulch District

Cal Water BGD serves approximately 57,300 customers in several Peninsula communities, including the communities of Atherton, Portola Valley, Woodside, unincorporated portions of San Mateo County, and parts of Menlo Park. The WSA estimates that Cal Water BGD serves approximately 16,600 customers in the EA Study Area. In its 2010 UWMP, Cal Water BGD projected that population in its service area would grow from 57,254 persons in 2010 to 64,573 in 2035 with an annual growth rate of 0.51 percent per year, which is slightly higher than the growth rate used in the City's UWMP.¹⁷ Cal Water BGD distribution system consists of 33 pressure zones, 57 booster pumps, 25 storage tanks and reservoirs, 1,865 hydrants, and 300 miles of main. Cal Water BGD water tanks provide storage for slightly more than 10 million gallons of potable water.¹⁸

c. Water Supply

The major water supply source for both the MPMWD and the Cal Water BGD is the San Francisco RWS, operated by the SFPUC, under the "Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County, and Santa Clara County," which was developed in July 2009. The RWS is predominantly from the Sierra Nevada, delivered through the Hetch-Hetchy aqueducts, but also includes treated water produced by the SFPUC from its local watersheds and facilities in Alameda and San Mateo Counties. The SFPUC has provided a projection of water supply

¹⁵ *Water Supply Assessment* for the City of Menlo Park Housing Element Update prepared by GHD in February 2013, page 2-3.

¹⁶ City of Menlo Park, 2011. Menlo Park Facebook Campus Project Draft EIR, page 3.16-10.

¹⁷ *Water Supply Assessment* for the City of Menlo Park Housing Element Update prepared by GHD in February 2013, pages 2-1 and 2-3.

¹⁸ BAWSCA Annual Survey – FY 2006-07, http://bawsc.org/docs/0607_AP_CalWater_BG.pdf, accessed on January 4, 2013.

reliability: a 10 percent system-wide reduction in supply in a single dry year and a 20 percent system-wide reduction in multiple dry years.

Table 4.14-1 shows the MPMWD and Cal Water BGD water supply projections in normal, single dry, and multiple dry years. The MPMWD's Individual Supply Guarantee (ISG) is 4.465 MGD (4,993 acre-feet per year [AFY]), and Cal Water's ISG is 35.68 MGD (39,967 AFY). The Cal Water BGD would receive between 11.45 and 12.85 MGD or about one third of the total ISG. In addition, the Cal Water BGD sources surface water from the Bear Gulch Creek at approximately 1,260 AFY in a normal year, 351 AFY in a single dry year, and 609 AFY in a multiple dry year. The MPMWD does not have an additional water source, but is evaluating several well sites that could produce up to 3,000 gallons per minute (GPM) in order to supplement its emergency potable and fire water supply. This groundwater supply is not included in the water supply projections in Table 4.14-1.

d. Water Demand

The WSA prepared for the Plan Components assumes that the population in the City's service area would increase by 6,800 from 2010 to 2035 based on projections from the Association of Bay Area Governments (ABAG). These projections equate to an annual growth rate of 0.8 percent, which is higher than the projections in the MPMWD and Cal Water BGD's UWMPs (i.e. .42 and .51 percent, respectively). This difference reflects some of the growth anticipated by the ABAG and the Plan Components that was not included in either of the UWMPs projections.¹⁹ The WSA assumes the multi-family demand factor of 0.1255 AFY (112 gallons per day per dwelling unit) for the Plan Components based on the City's recent El Camino Real/Downtown Specific Plan Environmental Impact Report (EIR).²⁰ The WSA also developed two implementation scenarios based on 14 potential housing sites in order to bracket the water supply implications. In this EA, Scenario 1 is presented based upon the five sites of the Plan Components. This scenario has the maximum impact on the MPMWD's water service area. It assumes 1,015 new units (127 AFY) in the MPMWD service area, which comprise 77 percent of the total potential units under the Plan Components (1,318 units). The 1,015 potential housing units include 900 units as a result of rezoning and 115 second units. The remaining 303 units (38 AFY) required to fully implement the Plan Components would be located in the Cal Water BGD's service Area.

¹⁹ *Water Supply Assessment* for the City of Menlo Park Housing Element Update prepared by GHD in March 2013, page 2-3.

²⁰ *Water Supply Assessment* for the City of Menlo Park Housing Element Update prepared by GHD in March 2013, page 4-3.

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 HOUSING ELEMENT UPDATE, GENERAL PLAN CONSISTENCY UPDATE,
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TABLE 4.14-1 WATER SUPPLY AND DEMAND COMPARISON (AFY)

	2015	2020	2025	2030	2035
MPMWD (with Plan Components)					
Demand Total	3,821	3,487	3,564	3,645	3,727
Normal Year Supply Total	4,993	4,993	4,993	4,993	4,993
<i>Difference (supply minus demand)</i>	<i>1,172</i>	<i>1,506</i>	<i>1,429</i>	<i>1,348</i>	<i>1,266</i>
Single Year Supply Total	4,141	4,141	4,141	4,141	4,141
<i>Difference (supply minus demand)</i>	<i>320</i>	<i>654</i>	<i>577</i>	<i>496</i>	<i>414</i>
Multiple Year (Second Year) Supply Total	3,596	3,596	3,596	3,596	3,596
<i>Difference (supply minus demand)</i>	<i>(226)</i>	<i>108</i>	<i>32</i>	<i>(50)</i>	<i>(132)</i>
Multiple Year (Third Year) Supply Total	3,596	3,596	3,596	3,596	3,596
<i>Difference (supply minus demand)</i>	<i>(226)</i>	<i>108</i>	<i>32</i>	<i>(50)</i>	<i>(132)</i>
Bear Gulch District (with Plan Components)					
Normal Year Demand Total	42,047	39,900	41,046	42,225	43,530
Normal Year Supply Total	42,762	42,762	42,762	42,762	42,762
<i>Difference (supply minus demand)</i>	<i>715</i>	<i>2,862</i>	<i>1,716</i>	<i>537</i>	<i>(768)</i>
Single Year Demand Total	41,746	39,540	40,675	41,817	43,134
Single Year Supply Total	35,059	35,059	35,059	35,059	35,059
<i>Difference (supply minus demand)</i>	<i>(6,687)</i>	<i>(4,481)</i>	<i>(5,616)</i>	<i>(6,758)</i>	<i>(8,075)</i>
Multiple Year (Second Year) Demand Total	36,439	35,077	36,091	37,160	38,287
Multiple Year (Second Year) Supply Total	28,522	28,522	28,522	28,522	28,522
<i>Difference (supply minus demand)</i>	<i>(7,917)</i>	<i>(6,555)</i>	<i>(7,569)</i>	<i>(8,638)</i>	<i>(9,765)</i>
Multiple Year (Third Year) Demand Total	35,404	34,548	35,552	36,610	37,762

	2015	2020	2025	2030	2035
Multiple Year (Third Year) Supply Total	28,522	28,522	28,522	28,522	28,522
<i>Difference (supply minus demand)</i>	<i>(6,882)</i>	<i>(6,026)</i>	<i>(7,030)</i>	<i>(8,088)</i>	<i>(9,240)</i>

Note: The growth anticipated by the Plan Components within Cal Water BGD's service area falls within the demand projection allowance made in Cal Water's 2010 UWMP under both Scenarios 1 and 2, and therefore this table summarizes the analysis developed for Cal Water's 2010 UWMP. For the same reason, the table does not provide a scenario-based analysis.

Source: *Water Supply Assessment* for the City of Menlo Park Housing Element Update prepared by GHD in March, 2013.

The scenario assumes buildout of the potential housing Site 4 (Hamilton Avenue) and Site 5 (Haven Avenue) by 2015. This would add 756 units to the MPMWD service area by 2015. The remaining housing units are assumed to develop at a constant rate between 2015 and 2035. The scenario assumes that the new demands on these two sites are "offset" to some extent by the existing water uses that will be replaced. Housing Site 4 (Hamilton Avenue) has an existing demand of 1.0 AFY which would help offset the Plan Components demands of 27.1 AFY.²¹ Housing Site 5 (Haven Avenue) has an existing demand of 8.2 AFY which would help offset the total Plan Components demands of 58.2 AFY.²² Because the pattern of the remaining development under the Plan Components cannot be accurately predicted, no other "offsets" are included in the demand calculations, which results in a conservative prediction of demand.

e. Water Supply and Demand Comparison

i. MPMWD

The demands associated with the Plan Components were not taken into account in the demand projection allowance made in MPMWD's 2010 UWMP. However, there is sufficient water available to meet the Plan Component-associated demands until the year 2035 under the normal and single dry year conditions, as shown in Table 4.14-1. There could be a water shortage of up to six percent (or 226 AFY) until the year 2015 in the second and third dry years when the Plan Components are taken into account. This represents a two percent increase compared to a four percent shortage (or 149 AFY) without the Plan Components. After that point, demand management per SB X7-7 would ensure that demands do not exceed supply until after 2025. By 2035 in the multiple dry year scenarios, there may be a water shortage of up to four percent

²¹ Hamilton Ave East demand is calculated as 0.1255 AFY/unit x 216 units = 27.1 AFY total.

²² Haven demand is calculated 0.1255 AFY/unit x 464 units = 58.2 AFY total.

(or 132 AFY), which is a three percent increase compared to one percent (35 AFY) without the Plan Components.

The MPMWD has prepared a Drought Contingency Plan, which contains measures that will reduce demands by up to 50 percent in the case of drought or emergency. MPMWD would implement its Drought Contingency Plan to manage the shortages in multiple dry years if necessary.

ii. Cal Water BGD

The growth anticipated by the Plan Components within the Cal Water BGD was not specifically taken into account in the demand projection allowance made in its 2010 UWMP. However, the Cal Water BGD's growth rate of 0.51 percent is slightly higher than the growth rate applied to the City's UWMP. As a result, the WSA expects that demand projection allowance made in the 2010 UWMP would be sufficient to accommodate the Plan Components. As shown in Table 4.14-1, there is sufficient water available to meet the Plan Component-associated demands until the year 2030, although very modest shortages are predicted in 2035.

There would be supply shortfalls in single and multiple dry years. However, Cal Water indicated that the shortfalls will be managed through the implementation of the development of alternative supplies and its Water Shortage Contingency Plan, which allows Cal Water to implement measures that reduce demand up to 50 percent.

3. Standards of Significance

The Plan Components would have a significant impact on water service if they would:

- a. Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- b. Have insufficient water supplies available to serve the project from existing entitlements and resources, thereby requiring new or expanded entitlements.

4. Impact Discussion

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

As discussed in Section A.4.b below and shown in Table 4.14-1, the water demand associated with the Plan Components would be served by MPWMD and Cal Water BGD within available water supplies that are planned in their 2010 UWMPs under normal year conditions. In addition, water shortages under multiple

year conditions would be managed through demand reductions of up to 50 percent. Consequently, implementation of the Plan Components would not require an additional water supply, and therefore the construction or expansion of water treatment facilities, over and above what is currently planned in the WSIP, would be unnecessary.

All development under the Plan Components would connect to an existing water distribution system, and as such the Plan Components would not require expansion of existing facilities. Installation of the water lines would occur as part of the finish grading and road layout phases of construction at the individual developer's expense.²³ Additionally, the following current General Plan program would ensure that impacts to water treatment facilities would be adequately addressed.

i. Current General Plan Land Use and Circulation Element

- “ Program I-3: The City will develop and periodically update a five-year Capital Improvement Program. Such program shall include, among others, improvements for transportation, water supply, and drainage.

In conclusion, the Plan Components would not require the construction of new facilities or the expansion of existing facilities that could result in significant environmental impacts. As a result, the impact of the Plan Components on water treatment facilities would be *less than significant*.

- b. Have insufficient water supplies available to serve the project from existing entitlements and resources, thereby requiring new or expanded entitlements.

i. MPMWD

As described above, the Plan Components would add between 90 and 122 AFY in multifamily residential demand. This is more than was described in the City's 2010 UWMP, but as shown in Table 4.14-1 above, MPMWD's water supply is adequate to meet the increased demands in normal and single dry years through the year 2035. As noted above, when the Plan Components are taken into account, there could be a water shortage of up to six percent (or 226 AFY) until the year 2015 in the second and third dry years, compared to four percent (or 149 AFY) without the Plan Components. After that point, demand managements per

²³ Virginia Parks, Associate Engineer, City of Menlo Park Public Works. Personal communication with The Planning Center | DC&E, December 13, 2012.

SB X7-7 ensure that demands do not exceed supply until after 2025. By 2035 in the multiple dry year scenarios, there may be a water shortage of up to four percent (or 136 AFY), which is a three percent increase compared to one percent (35 AFY) without the Plan Components. In sum, water supply would be adequate to meet demands in the first multiple dry year, but in the second and third dry years MPMWD could experience water shortages. However, with MPMWD's Drought Contingency Plan in place, the shortages in multiple dry years would be managed through demand reductions of up to 50 percent.

ii. Cal Water

As described above, the Plan Components would add between 34 and 66 AFY to the Cal Water BGD service area. According to the WSA, given per capita demand reductions, this increase is considered to be well within the projected growth. As shown in Table 4.14-1, there would be sufficient water available to meet demands through the year 2035 under normal circumstances. In the single and multiple dry years, shortages are projected both with and without the Plan Components. However, like MPMWD, Cal Water BGD has adopted its Water Shortage Contingency Plan and its measures, which have proved sufficient to reduce system-wide water demands in times of water shortages by 50 percent.

In addition, developments under the Plan Components would be required to comply with mandatory regulations set forth in the California Model Water Efficient Landscape Ordinance and the City's Water Conservation Codes to reduce irrigation and wasteful water use.

Furthermore, the following amended General Plan policies and program would ensure that impacts to water supply would be addressed.

a) Current General Plan Land Use and Circulation Element

- “ Policy I-H-2: The use of water-conserving plumbing fixtures in all new public and private development shall be required.
- “ Policy I-H-3: Plant material selection and landscape and irrigation design for City parks and other public facilities and in private developments shall adhere to the City's Water Efficient Landscaping Ordinance.
- “ Policy I-H-4: The efforts of the Bay Area Water Users Association to secure adequate water supplies for the Peninsula shall be supported to the extent that these efforts are in conformance with other City policies.

- “ Policy I-H-5: New wells and reservoirs may be developed by the City to supplement existing water supplies for Menlo Park during emergency and drought periods. Other sources, such as interconnections and purchase agreements with water purveyors, shall be explored and developed.
- “ Policy I-H-6: The City shall work with other regional and subregional jurisdictions and agencies responsible for ground water extraction to attempt to develop a comprehensive underground water protection program which includes the monitoring of all wells in the basin to evaluate the long term effects of water extraction. In addition, the City shall consider instituting appropriate controls within Menlo Park on the installation of new wells and on the pumping from both existing and new wells so as to prevent: ground subsidence, further salinity intrusion into the shallow aquifers, particularly in the bay-front area, and contamination of the deeper aquifers that may result from changes in the ground water level.
- “ Policy I-H-7: When possible the use of on-site reclaimed water for landscaping and any other feasible uses shall be encouraged.
- “ Program I-3: The City will develop and periodically update a five-year Capital Improvement Program. Such program shall include, among others, improvements for transportation, water supply, and drainage.

Therefore, with implementation of the General Plan the future development under the Plan Components would result in a *less-than-significant* impact on water supplies.

c. Cumulative Impacts

The geographic scope of this cumulative analysis is taken as the MPMWD and Cal Water service areas. As described above, the RWS operated by the SFPUC is the primary water source for the MPMWD and Cal Water BGD. MPMWD has sufficient Individual Supply Guarantee (ISG) to meet existing and projected demand within its service area through 2035. Cal Water BGD utilizes surface water in addition to its ISG to meet existing and projected demand within its service area through 2035. While the Plan Components would contribute to an increased cumulative demand for water supply, the increased demand would not exceed the long-term supply under normal circumstances, as discussed above. In the single and multiple dry years, shortages are projected, but with MPMWD and Cal Water BGD’s Drought Contingency Plans in place, the shortages in multiple dry years would be managed through demand reductions of up to 50 percent.

In terms of water infrastructure, the SFPUC has implemented its WSIP to meet its total delivery goal of 265 MGD of water supply. Because cumulative water demands would not require an additional water supply, the construction or expansion of water treatment facilities, over and above what is currently planned in the WSIP, would be unnecessary.

Overall, when considered along with the future development under the Plan Components, cumulative water demands would neither exceed planned levels of supply nor require building new water treatment facilities or expanding existing facilities. Therefore, the cumulative impact would be *less than significant*.

5. Impacts and Mitigation Measures

The Plan Components would not result in any significant water supply impacts; therefore, no mitigation measures are necessary.

B. Wastewater

This section describes the existing conditions and potential impacts of the Plan Components with regard to wastewater collection and treatment facilities.

1. Regulatory Setting

a. Federal Regulations

The federal government regulates wastewater treatment and planning through the Federal Water Pollution Control Act of 1972, more commonly known as the Clean Water Act (CWA), as well as through the National Pollutant Discharge Elimination System (NPDES) permit program, both of which are discussed in further detail below.

i. Clean Water Act (CWA)

The CWA regulates the discharge of pollutants into watersheds throughout the nation. Under the CWA, the U.S. EPA implements pollution control programs and sets wastewater standards.

ii. National Pollutant Discharge Elimination System

The NPDES permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the U.S. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or

mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pre-treatment, pollution prevention, self-monitoring, and other activities.

Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a wastewater treatment plant (WWTP).

b. State Regulations and Agencies

Wastewater treatment and planning is regulated at the State level. Specific regulations relevant to the Plan Components are described below.

i. *State Water Resources Control Board (SWRCB)*

On May 2, 2006 the SWRCB adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows (SSOs) by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan (SSMP). The General Waste Discharge Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system. The current WWTP in Redwood Shores, operated by the SBSA, is regulated by discharge requirements stated in Order No. R2-2012-0062.²⁴ Since this Permit will expire in September 2017, the SBSA will be required to apply for re-issuance of waste discharge requirements no later than April 3, 2017. The WWTP's discharge is also regulated under Order No. R2-2007-0077 (NPDES Permit No. CA0038849), as amended by Order No. R2-2011-0012, which supersedes all requirements on mercury and polychlorinated biphenyls (PCBs) from wastewater discharges in the region.²⁵

The San Francisco Bay RWQCB is the local division of the SWRCB. The San Francisco Bay RWQCB issues NPDES permits in the EA Study Area. NPDES permits allow the RWQCB to collect information on

²⁴ California Regional Water Quality Control Board, http://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2012/R2-2012-0062.pdf, accessed on January 17, 2013.

²⁵ California Regional Water Quality Control Board, http://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2012/R2-2012-0062.pdf, accessed on January 17, 2013.

where the waste is disposed, what type of waste is being disposed, and what entity is depositing the wastes. The RWQCB is also charged with conducting inspections of permitted discharges and monitoring permit compliance.

c. Local Regulations

i. *South Bayside Systems Authority Planning Documents*²⁶

The South Bayside Systems Authority (SBSA) has initiated a \$339 million 10-year Capital Improvement Program (CIP) in 2008 to improve the reliability and efficiency of its regional wastewater system and facilities through repair, replacement, and improvements to existing infrastructure. SBSA's expansion program, referred to as Stage 2, is contained under a separate program and is intended to bring the SBSA WWTP capacity to 29 MGD dry weather capacity and 80 MGD wet weather capacity as needed. The recently completed SBSA Conveyance System Master Planning study includes facilities expansion planning based on growth projections provided by member agencies derived from General Plans and/or master planning documents.

ii. *West Bay Sanitary District Collection System Master Plan*

The West Bay Sanitary District updated its Wastewater Collection System Master Plan in July 2011. The 2011 Master Plan assesses the conveyance capacity of the WBSD's sewer collection system pipes and pump stations, evaluates facilities that may require rehabilitation or replacement, develops a prioritized CIP, and establishes a funding plan for the proposed CIP. The CIPs are planned to be implemented over the next ten years.

iii. *West Bay Sanitary District Code of General Regulations*

The WBSD's Code of General Regulations establishes standards, conditions, and provisions for fees relating to the use of sanitary wastewater facilities of the WBSD. Article VII requires Class 1 sewer permits for residential connections, Class 2 sewer permits for non-residential connections, and Class 3 sewer permits for construction of sewer mains, pumping stations, and other wastewater facilities. In order to receive a permit, a developer must submit an application, pay all fees and charges, and satisfy requirements, such as extending the collection facilities to the vicinity of the development site. For a Class 3 permit, the WBSD Manager examines the submitted application's conformance with engineering practices and the standard specifications and policies of the WBSD and then submits it to the WBSD Board of Directors for approval. Subsequent to

²⁶ South Bayside Systems Authority, Teresa Herrera, personal correspondence with The Planning Center | DC&E, January 21, 2013.

the WBSD's acceptance of a Class 3 permit, but prior to connection of and discharge into the WBSD's wastewater facilities, a Class 1 or Class 2 permit, as applicable, must be obtained by the developer. All costs and expenses associated with the installation and connection of the building sewer shall be at the owner's expense. All work shall be performed under the inspection of, and in accordance with, the standard specifications of WBSD.

2. Existing Conditions

The WBSD provides wastewater collection and conveyance services to Menlo Park, Atherton, Portola Valley, and areas of East Palo Alto, Woodside, and unincorporated San Mateo and Santa Clara counties. The WBSD's collected wastewater is treated by SBSA, which is the Joint Powers Authority that owns and operates a regional WWTP in Redwood Shores. The SBSA also operates the pump stations that are located at the terminus of each member's collection system. The Joint Powers Authority members include WBSD and the cities of Redwood City, San Carlos, and Belmont.

The WBSD service area encompasses approximately 8,325 acres and includes approximately 20,000 service connections to serve a population of 52,900.²⁷ The WBSD conveys raw wastewater to SBSA for treatment through the Menlo Park Pump Station and force main.²⁸ The SBSA then discharges treated water to the San Francisco Bay.²⁹

a. Wastewater Collection

The WBSD operates and maintains approximately 200 miles of gravity sewer mains in size from 8 to 54 inches in diameter.³⁰ The system services over 19,000 connections, including residential, commercial, and industrial users, and contains 150 miles of private lateral sewers.³¹

The WBSD owns and operates 12 pump stations ranging in capacity from 110 to 2,500 gallons per minute (GPM).³² As a precaution, pump stations have redundant pumping equipment and standby generators, and the WBSD has additional emergency standby generators and bypass pumps as part of its mobile emergency

²⁷ West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

²⁸ West Bay Sanitary District, About Us, <http://www.westbaysanitary.org/>, accessed December 6, 2012.

²⁹ South Bayside Systems Authority, About Us, <http://www.sbsa.org/about-us/>, accessed December 31, 2012.

³⁰ West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

³¹ West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

³² West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

response equipment.³³ The average age of components in WBSD's collection system is 50 years, with a current expected life span of approximately 90 years.³⁴

The WBSD's system flows from south to north and terminates at the Menlo Park Pump Station, which is owned by the WBSD, operated by SBSA, and located at Bayfront Park near the San Francisco Bay. The Menlo Park Pump Station conveys wastewater via main line trunk to SBSA's WWTP.³⁵

b. Wastewater Treatment

The SBSA WWTP treats raw wastewater from Menlo Park and other communities and discharges to the deep water channel of the San Francisco Bay.³⁶ The WWTP is designed to remove more than 97 percent of all solids, organic material, and pathogens from the wastewater through physical and biological processes.³⁷

The SBSA's WWTP has an existing dry weather capacity of 27 MGD and wet weather capacity of 71 MGD. On average in year 2009, the WWTP treated 15 MGD in dry weather and 62 MGD in wet weather. Under its Stage 2 Expansion Program, the SBSA will increase WWTP capacity to 29 MGD dry weather capacity and 80 MGD wet weather capacity as needed.³⁸ The improvements under the CIP are intended to accommodate regional development to year 2030.³⁹

During the dry season, SBSA further treats some of the WWTP flow with coagulation and additional disinfection for use as recycled water for landscape irrigation in the SBSA service area.

³³ West Bay Sanitary District, About Us, <http://www.westbaysanitary.org/education/what-we-do>, accessed October 22, 2012.

³⁴ State Water Resources Control Board, *Order No. 2010-0014-DWQ*, http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_factsheet.pdf, accessed on September 28, 2012.

³⁵ West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

³⁶ South Bayside Systems Authority, About Us, <http://www.sbsa.org/about-us/>, accessed December 31, 2012.

³⁷ South Bayside Systems Authority, About Us, <http://www.sbsa.org/about-us/>, accessed December 31, 2012.

³⁸ South Bayside Systems Authority, Teresa Herrera, personal correspondence with The Planning Center | DC&E, January 21, 2013.

³⁹ South Bayside Systems Authority, 10-Year Capital Improvements Plan, Press Release, http://www.sbsa.org/storage/assets/CIP_Press_Release5-9-08.pdf.

c. Other Facilities

The WBSD owns four storage basins, named the Flow Equalization Facility (FEF), in approximately 20 acres of land at the northern terminus of Marsh Road in Menlo Park. The two basins closest to the Menlo Park Pump Station are currently used to provide wet weather storage for the WBSD. The WBSD's primary wet weather storage facility, Pond 1, has an estimated capacity of less than 10 million gallons. This land and these basins were part of the WBSD's wastewater treatment facilities, prior to the forming of the SBSA in 1980.⁴⁰

The WBSD and SBSA have an agreement that allows SBSA to use the FEF during wet weather events and to reimburse on an annual basis. When needed, SBSA requests that the WBSD bypass the Menlo Park Pump Station and flow directly to the FEF. When SBSA system-wide flows have decreased after the wet weather event, the WBSD-owned transfer pump station returns stored flow back to the Menlo Park Pump Station. This transfer pump station, which is operated by SBSA, has a capacity of 8,660 GPM.⁴¹

3. Standards of Significance

The Plan Components would have a significant impact on wastewater service if they would:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- b. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- c. Result in a determination by the wastewater treatment provider which 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.

4. Impact Discussion

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. Sanitary wastewater treatment requirements are established in the NPDES Permit issued by the San Francisco Bay RWQCB, which currently allows for the expansion to 29 MGD of average dry weather flow.⁴² Based on its demand projection, the SBSA does not anticipate that this expansion would be required before

⁴⁰ West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

⁴¹ West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

⁴² South Bayside Systems Authority, Teresa Herrera, personal correspondence with The Planning Center | DC&E, January 21, 2013.

the year 2030.⁴³ The NPDES Permit also sets out a framework for compliance and enforcement. As the discharger named in the NPDES Permit (Order No. R2-2012-0062), the SBSA implements and enforces a pretreatment program for effluent discharged into San Francisco Bay. SBSA proposes its WWTP upgrade through its Stage 2 Program, and the upgrade is expected to comply with RWQCB requirements as well as State standards. Additionally, as discussed below, the projected wastewater generated from potential future development under the Plan Components would not exceed the SBSA WWTP's capacity. Therefore, there would be a *less-than-significant* impact to exceeding the wastewater treatment requirements from implementation of the Plan Components.

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

Based on the WBSD's wastewater generation rate of 220 GPD per unit for single-family residential uses,⁴⁴ future development under the Plan Components could generate up to 289,960 gallons of wastewater per day (or approximately 0.29 MGD). Added to existing average demand of 15 MGD, this demand would not exceed the SBSA WWTP's existing capacity of 27 MGD nor planned capacity of 29 MGD average dry weather flow. In addition, the implementation of General Plan Policy I-H-8, which states the expansion and improvement of sewage treatment facilities to meet the needs of Menlo Park and to meet regional water quality standards shall be supported to the extent that such expansion and improvement are in conformance with other City policies, would ensure that impacts to wastewater treatment would be addressed.

Overall, because future development under the Plan Components would not substantially reduce the capacity of the wastewater treatment system, and because the facilities will be expanded to accommodate future growth in the service areas as needed, the future development under the Plan Components would not require the construction of new wastewater treatment facilities and therefore would have a *less-than-significant* impact on wastewater treatment service.

⁴³ South Bayside Systems Authority, Teresa Herrera. Personal correspondence with The Planning Center | DC&E, January 21, 2013.

⁴⁴ West Bay Sanitary District, Wastewater Collection System Master Plan, page 3-2, and City of Menlo Park, 2012. *389 El Camino Real Project Environmental Impact Report*, page 167. The WBSD has not set up a generation rate for multi-family homes. For planning purposes, this EA uses the generation rates for single-family homes, which is likely higher than those for multi-family homes. The 389 El Camino Real Project EIR also assumed the same rates to calculate wastewater flow from its multi-family residential uses.

- c. Result in a determination by the wastewater treatment provider which 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.

As discussed below in detail, buildout under the Plan Components would not require expansion of the SBSA's WWTP beyond what has been planned in the Stage 2 Program.

Future development under the Plan Components would tie into the WBSD's existing collection facilities. Installation of extension lines would comply with the WBSD Class 1 and Class 3 sewer permits, which require projects to reduce impacts to the WBSD's service capacity. As described above, the WBSD Wastewater Collection System Master Plan includes collection system improvements to support future development in its service area. These improvements would be implemented over the next ten years. The WBSD will update the Wastewater Collection System Master Plan to accommodate future growth beyond the year 2020. Additionally, project applicants will be responsible for upgrading or expanding the WBSD's collection system if the WBSD determines the demand from the project would exceed the WBSD's conveyance system capacity.⁴⁵ As a result, the impact would be a *less-than-significant*.

d. Cumulative Impacts

The geographic scope of this cumulative analysis is taken as the WBSD and SBSA service areas. As described in Chapter 4 of this EA, assuming a regional annual growth rate of 1 percent, WBSD's cumulative wastewater demand would increase by 3.2 MGD in the 21-year planning horizon.⁴⁶ Added to the existing average demand of 15 MGD, and the future development under the Plan Components demand of 0.29 MGD, the cumulative demand of 18.59 MGD would not exceed the SBSA WWTP's existing capacity of 27 MGD average dry weather flow. As described earlier, the SBSA will increase the WWTP capacity to 29 MGD dry weather capacity and 80 MGD wet weather capacity as needed.⁴⁷ Because the cumulative demand would not substantially reduce the existing or planned capacity of the SBSA's wastewater treatment system, the construction of new wastewater treatment facilities would be unnecessary. Implementation of General Plan Policy I-H-8, which states the expansion and improvement of sewage treatment facilities to meet the

⁴⁵ At the interview with The Planning Center | DC&E, the WBSD provided recommended improvements for the Plan Components. The WBSD's recommended improvements are shown in Appendix E of this EA.

⁴⁶ 15 MGD (existing demand) multiplied by 21 percent (one percent growth per year for 21 years from 2014 to 2035).

⁴⁷ South Bayside Systems Authority, Teresa Herrera, personal correspondence with The Planning Center | DC&E, January 21, 2013.

needs of Menlo Park and to meet regional water quality standards shall be supported to the extent that such expansion and improvement are in conformance with other City policies, combined with the WBSD's CIPs would ensure that the WBSD's wastewater conveyance system has sufficient capacity to accommodate the cumulative growth.

As previously stated, as the discharger named in the NPDES Permit, the SBSA implements and enforces a pretreatment program for effluent discharged into San Francisco Bay. Consequently, wastewater from cumulative development would be treated according to the wastewater treatment requirements enforced by the San Francisco RWQCB. Therefore, the Plan Components combined with regional growth in the service area would not exceed wastewater treatment requirements, and cumulative impacts to sanitary wastewater service would be *less than significant*.

5. Impacts and Mitigation Measures

The Plan Components would not result in any significant wastewater service impacts; therefore, no mitigation measures are necessary.

C. Stormwater Drainage

This section describes the existing conditions and potential impacts of the potential future development under the Plan Components with regard to stormwater drainage facilities.

1. Regulatory Setting

This section briefly describes the regulatory setting with regard to stormwater drainage in Menlo Park. Please refer to Section 4.8, Hydrology and Water Quality, of this EA, for a detailed description of the regulatory setting.

a. Federal and Regional Regulations

i. Clean Water Act and National Pollutant Discharge Elimination System

The NPDES permit program was established by the CWA) to regulate municipal and industrial discharges to surface waters of the U.S., including discharges from municipal separate storm sewer systems (MS4s).

ii. State Water Resources Control Board and Regional Water Quality Control Board

In California, the SWRCB has broad authority over water quality control issues for the State. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State

by the federal government under the CWA. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs.

iii. Statewide General Permit (Water Quality Order No. 2003-0005-DWQ)

The SWRCB elected to adopt a statewide general permit (Water Quality Order No. 2003-0005-DWQ) for Small Municipal Separate Storm Sewer System (MS4s) operators to efficiently regulate stormwater discharges under a single permit.⁴⁸ Permittees must develop and implement a Stormwater Management Plan (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable.

iv. SWRCB Construction General Permit

Construction activities that disturb one or more acres of land that could impact hydrologic resources must comply with the requirements of the SWRCB Construction General Permit (2009-0009-DWQ, which was amended by 2010-0014-DWQ in 2010).⁴⁹ Under the terms of the permit, applicants must file a complete and accurate Notice of Intent with the SWRCB. Applicants must also demonstrate conformance with applicable BMPs and prepare a Storm Water Pollution Prevention Plan (SWPPP), containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection, discharge points, and general topography both before and after construction, as well as drainage patterns across the project site. The operative Construction General Permit requires stormwater pollution prevention controls, including the imposition of minimum BMPs and the development and implementation of Rain Event Action Plans for certain sites.

v. NPDES Municipal Regional Stormwater Permit

The EA Study Area is covered under the regulations of the new Municipal Regional Stormwater NPDES Permit (MRP) issued by the RWQCB. This NPDES Permit falls under Order R2-2009-0074, adopted on October 14, 2009.⁵⁰ The municipalities have to require both private and public projects to implement post-construct stormwater controls as part of their obligations under Provision C.3 of the MRP. Above and be-

⁴⁸ State Water Resources Control Board, *Order No. 2003-0005-DWQ*, http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/final_ms4_permit.pdf, accessed on September 28, 2012.

⁴⁹ State Water Resources Control Board, *Order No. 2010-0014-DWQ*, http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_factsheet.pdf, accessed on September 28, 2012.

⁵⁰ California Regional Water Quality Control Board, San Francisco Bay Region, *Municipal Regional Stormwater NPDES Permit, Order R2-2009-0074 NPDES Permit No. CAS612008*, October 14, 2009, http://www.swrcb.ca.gov/rwqcb2/board_decisions/adopted_orders/2009/R2-2009-0074.pdf, accessed on September 28, 2012.

yond post-construction stormwater management practices, the permit also requires municipalities to adopt trash and street sweeping programs to regulate discharges into storm drain systems or directly into waters of the U.S.

vi. San Mateo Countywide Pollution Prevention Program

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) was established in 1990 to reduce the pollution washed by stormwater runoff into local creeks, the San Francisco Bay, and the Pacific Ocean.⁵¹ The SMCWPPP assists its member agencies (the 20 cities in the County and unincorporated San Mateo County) to protect stormwater quality by complying with the countywide municipal stormwater NPDES permit. The SMCWPPP also provides C.3 Stormwater Technical Guidance for developers, builders, and project applicants to design and build low impact development projects. As defined by Provision C.3.b.ii of the MRP, projects that create and/or replace 10,000 square feet or more of impervious surface, and restaurants, retail gasoline outlets, auto service facilities, and uncovered parking lots (stand-alone or part of another use) that create and/or replace 5,000 square feet or more of impervious surface are regulated by Provision C.3. Single-family homes that are not part of a larger plan of development are excluded.

b. Local Regulations

i. City of Menlo Park City-Wide Storm Drainage Study

The City prepared the City-Wide Storm Drainage Study in May 2003 that summarized the existing stormwater drainage system and drainage deficiencies, and then prioritized system repairs and upgrades to reduce storm drain problems in the city.⁵² Highest priority is given to projects that improve the level of service to areas where stormwater frequently floods properties, and lower priority is given to projects that eliminate nuisance localized ponding in the gutter. The City indicated that about 2 percent of the improvement projects have been completed.⁵³

⁵¹ San Mateo Countywide Water Pollution Prevention Program, C.3 Stormwater Technical Guidance, http://www.flowstobay.org/documents/business/new-development/2012/C3_Technical_Guidance_Aug2012_SMCWPPP_for_upload.pdf, accessed on January 3, 2013.

⁵² BKF Engineers, 2003, City-wide Storm Drainage Study. Accessed October 23, 2012 from: <http://www.menlopark.org/departments/pwk/stormdrains.pdf>.

⁵³ Virginia Parks, Associate Engineer, City of Menlo Park, Email Communication with The Planning Center | DC&E on November 14, 2012.

*ii. City of Menlo Park Municipal Code Chapter 7.42, Stormwater Management Program*⁵⁴

Chapter 7.42 of the Municipal Code aims to protect and enhance the water quality in the EA Study Area and establishes regulations and restrictions related to pollutants in storm water discharges and non-storm water discharges, including spills, dumping, or disposal of materials. To reduce pollutants in stormwater, the City requires that new development or redevelopment projects use BMPs, such as biological treatments, detentions, and rain gardens.

iii. Hydrology Report

The City of Menlo Park Public Works Department requires that a Hydrology Report be prepared by a California-registered civil engineer for all development projects with 10,000 square feet or more of impervious surface area and a Simplified Hydrology Report for significant development projects with less than 10,000 square feet of impervious surface area. The Hydrology Report should comply with the “Requirements for the Preparation of Hydrology Reports” published by the City, including existing and proposed on-site and off-site conditions, the location of the project, the hydrology calculation method used in the report, proposed storm water quality measures, and an assessment of potential off-site impacts.⁵⁵

*iv. Grading and Drainage Guidelines*⁵⁶

The Grading and Drainage Guidelines (G&D Guidelines) establish design requirements for new construction and redevelopment projects. These G&D Guidelines describe the stormwater control and treatment measures that reduce the amount of stormwater runoff and prevent sediment and pollutants from entering into the City’s storm drain system. In particular, G&D Guidelines require the post development runoff rate not exceed pre-project levels, and the retention/detention systems be designed to treat storm water runoff in the event of a ten-year storm with a time of concentration of ten minutes.

In addition, the G&D Guidelines outline requirements for G&D Plans, which the City of Menlo Park Engineering Division requires for any development that includes more than 500 square feet of affected surface. The G&D Guidelines indicate that a G&D Plan must include site plans and storm drain control plans, such

⁵⁴ City of Menlo Park, Municipal Code Chapter 7.42, Stormwater Management Program, <http://www.codepublishing.com/CA/menlopark/>, accessed on September 27, 2012.

⁵⁵ City of Menlo Park, Requirements for the Preparation of Hydrology Reports, August 20, 2006, http://www.menlopark.org/departments/pwk/Hydrology_over10k.pdf, accessed on January 3, 2012.

⁵⁶ City of Menlo Park, Grading and Drainage Guidelines, 2010, http://www.menlopark.org/departments/pwk/grade_guide.pdf, accessed on January 3, 2013.

as proposed storm drain and utility systems, frontage improvements, and irrigation plans. The City also requires G&D Plans to address erosion and sedimentation control details and include an Impervious Area Worksheet evaluating potential changes to an impervious area.

2. Existing Conditions

The City of Menlo Park's Public Works Department owns, operates, and maintains the storm drainage system. Currently, the City has 44 miles of storm drain pipe and 1,000 inlets or catch basins.⁵⁷ The City storm water drainage system consists of 17 individual systems that discharge into San Francisquito Creek, Atherton Channel, and through East Palo Alto into San Francisco Bay. The area south of Middlefield Road drains to the either the Atherton Channel or San Francisquito Creek on the southeast.⁵⁸ The area north of Middlefield Road drains to the Bay through either the Belle Haven Storm Drain system or through City of East Palo Alto Storm Drain lines.

The 2003 Citywide Storm Drainage Study reported that there is a likelihood of significant flow in the street during the 10-year storm event for most drainage systems in the City. Flow in the street reaches the outfall slower than flow through a piped system. As a result, unintentional stormwater detention occurs. This detention decreases peak flow rates through the system, but increases the duration of surface and localized flooding.

The stormwater from the EA Study Area flows into larger water bodies generally without going through a stormwater treatment plant; the City requires that all stormwater be treated on-site through BMPs such as biological treatments, detentions, and rain gardens.⁵⁹ If the geological conditions of a development site do not allow these kinds of biological treatments (e.g. clay layers), the City requires mechanical treatment be installed and maintained on-site at the owner's expense. The City conducts engineering reviews of private projects to ensure designs are consistent with City specifications.⁶⁰

⁵⁷ Virginia Parks, Associate Engineer, City of Menlo Park. Email communication with The Planning Center | DC&E on November 14, 2012.

⁵⁸ BKF Engineers, 2003. City-wide Storm Drainage Study. Accessed October 23, 2012 from: <http://www.menlopark.org/departments/pwk/stormdrains.pdf>.

⁵⁹ Virginia Parks, Associate Engineer, City of Menlo Park. Personal communication with The Planning Center | DC&E, December 13, 2012.

⁶⁰ Menlo Park, Public Works Department website, http://www.menlopark.org/departments/dep_publicworks.html, accessed October 23, 2012.

3. Standards of Significance

The Plan Components would have a significant impact on drainage facilities if they would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

4. Impact Discussion

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

Future development under the Plan Components would have the potential to cause significant impacts by increasing stormwater runoff associated with construction activities and increasing impermeable surfaces, thereby placing greater demands on the stormwater handling system.

Future development under the Plan Components would tie into the City's existing storm sewer mains and be required to utilize on-site retention to the extent impracticable. As required in the City's G&D Guidelines, the on-site retention would be designed to reduce the post development runoff rate to pre-project levels for the 10-year storm. Additionally, any development projects that include more than 500 square feet of affected surface would prepare a G&D Plan to prevent sediment and pollutants from entering into the City's storm drain system. The projects regulated by Provision C.3 and the City's Hydrology Report requirements would provide sufficient treatment area to meet the requirements for compliance with the RWQCB C.3 provisions. As a result, buildout under the Plan Components would not increase either the volume or the velocity of stormwater flowing into the City's stormwater system for the 10-year storm. Additional flows beyond the 10-year storm and localized flooding specific to the site in question that may require additional storm drainage improvements to be constructed by the specific project would be addressed in the Grading and Drainage Plans for each project. The Grading and Drainage Plans would be reviewed by the City to ensure that on-site drainage, Low Impact Development features, and retention basins are adequate to prevent on-site or off-site flooding.

In addition, the General Plan Program I-3 calls for the provision of an adequate drainage infrastructure. Under this Program, the City will develop and periodically update a five-year Capital Improvement Program. Such program shall include, among others, improvements for transportation, water supply, and drainage. With the General Plan Program I-3, City's stormwater management programs, and RWQCB C.3 provisions in place, future development would not increase demands on the stormwater handling system, and stormwater facilities would be upgraded and expanded, as necessary to support development in the EA Study Area. As a result, a *less-than-significant* impact would occur on stormwater treatment facilities.

b. Cumulative Impacts

As described above, future development under the Plan Components would not increase either the volume or the velocity of stormwater flowing into the City's stormwater system. With the General Plan Program I-3, the City's stormwater management programs, and RWQCB C.3 provisions in place, other cumulative projects would not increase demands on the stormwater handling system. Additionally, based on the 2003 Citywide Storm Drainage Study, stormwater facilities would be upgraded and expanded as necessary to support development in Menlo Park. Therefore, the Plan Components, in combination with the 1-percent regional growth, would not create or contribute runoff exceeding the capacity of the City's storm sewer system, and by extension, would not result in the need for new or expanded storm sewer infrastructure. Associated cumulative impacts would be *less than significant*.

5. Impacts and Mitigation Measures

The Plan Components would not result in any significant stormwater drainage impacts; therefore, no mitigation measures are necessary.

D. Solid Waste

This section describes existing conditions related to solid waste disposal services and the potential impacts of Plan Components.

1. Regulatory Setting

a. State Regulations

i. California Integrated Waste Management Act

California's Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939) requires that Cities and Counties divert 50 percent of all solid waste from landfills as of January 1, 2000 through source reduction, recycling, and composting. AB 939 also establishes a goal for all California counties to provide at least 15 years of ongoing landfill capacity. To help achieve this, this act requires that each City and county prepare a Source Reduction and Recycling Element to be submitted to the Department of Resources Recycling and Recovery (CalRecycle), a new department within the California Natural Resources Agency, which administers programs formerly managed by the State's Integrated Waste Management Board and Division of Recycling.

In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is based on two factors: a jurisdiction's reported total disposal of solid waste

divided by a jurisdiction's population. CalRecycle sets a target per capita disposal rate for each jurisdiction. Each jurisdiction must submit an annual report to CalRecycle with an update of its progress in implementing diversion programs and its current per capita disposal rate.⁶¹ The City of Menlo Park's target disposal rate is 7.5 pounds per person per day, and its actual disposal rate in 2011 was 5.5 pounds per person per day.⁶²

ii. California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act requires areas in development projects to be set aside for collecting and loading recyclable materials. This Act required CalRecycle to develop a model ordinance for adoption by any local agency relating to adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model, or an ordinance of their own, governing adequate areas in development projects for collection and loading of recyclable materials.

iii. CALGreen Building Code

The California Green Building Standards Code (CALGreen Code) became effective for all projects beginning after January 1, 2011. Section 4.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 50 percent of non-hazardous construction and demolition debris must be recycled or salvaged. The Code requires the Applicant to have a waste management plan for on-site sorting of construction debris. The plan:

- “ Identifies the materials to be diverted from disposal by recycling or reuse on the project, or salvaged for future use or sale.
- “ Specifies if materials will be sorted on-site or mixed for transportation to a diversion facility.
- “ Identifies the diversion facility where the material collected will be taken.
- “ Identifies construction methods employed to reduce the amount of waste generated.
- “ Specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both.

⁶¹ California Integrated Waste Management Board, <http://www.calrecycle.ca.gov/LGCentral/Basics/PerCapitaDsp.htm#Jurisdiction>, accessed on September 28, 2012.

⁶² Rebecca Fotu, City of Menlo Park. Email correspondence with The Planning Center |DC&E, January 2, 2013.

b. Local Policies and Regulations

i. *San Mateo Countywide Integrated Waste Management Plan*⁶³

The California Integrated Waste Management Act of 1989 (AB 939) requires each County prepare and adopt a Countywide Integrated Waste Management Plan (CIWMP). San Mateo County government and all the cities in the county have prepared and adopted elements that compose the CIWMP. The elements of the CIWMP are: the Source Reduction and Recycling Element (SRRE), the Household Hazardous Waste Element (HHWE), and the Non-Disposal Facility Element (NDFE).

ii. *Menlo Park Municipal Code*

Chapter 12.48 of the Municipal Code establishes landfill diversion requirements of Construction and Demolition (C&D) debris.⁶⁴ Residential projects of 1,000 square feet or greater and commercial projects of 5,000 square feet or greater are required to divert 60 percent of total generated waste tonnage through recycling, reuse, salvage, and other diversion programs. As part of a building or demolition permit application, project applicants must submit estimated tonnage of C&D debris and plans for diverting materials to the building division.

iii. *City of Menlo Park Climate Change Action Plan*⁶⁵

The City's 2009 Climate Action Plan (CAP) was developed to reduce GHG emissions by implementing various strategies and programs at the local level. The CAP identifies the City's existing GHG inventory and estimates emissions for the year 2020 under different scenarios. Based on this, the CAP proposes emission reduction targets to help meet AB 32's regional goals. The CAP also recommends short- and mid-term strategies for the community and municipal operations to meet the targets. The CAP strategies related to solid waste include 1) adopting a new mandatory commercial recycling ordinance to reduce waste to landfill and 2) adopting a Zero Waste Policy, which requires a 75-percent diversion rate by 2020 and a 90-percent

⁶³ County of San Mateo, Five-Year Countywide Integrated Waste Management Plan Review Report, http://www.co.sanmateo.ca.us/bos.dirBosAgendas/agendas2010/Agenda20100126/20100126_m_54.htm, accessed on January 3, 2013.

⁶⁴ City of Menlo Park, Municipal Code Chapter 12.48, <http://www.codepublishing.com/CA/menlopark/>, accessed on September 28, 2012.

⁶⁵ City of Menlo Park, *Climate Change Action Plan*, 2009, <http://www.menlopark.org/departments/env/CAP2009Complete.pdf>, accessed on September 27, 2012.

diversion rate by 2030. The City's CAP Assessment, prepared in 2011, recommended implementing these strategies within five years.⁶⁶

2. Existing Conditions

Recology Incorporated provides solid waste collection and conveyance service for the EA Study Area. Collected recyclables, organics, and garbage are conveyed to the Shoreway Environmental Center in San Carlos for processing and shipment. The Shoreway Environmental Center is owned by RethinkWaste (former South Bayside Waste Management Authority), which is a joint powers authority that is comprised of twelve public agencies, including Atherton, Belmont, Burlingame, East Palo Alto, Foster City, Hillsborough, Menlo Park, Redwood City, San Carlos, San Mateo, the County of San Mateo, and the West Bay Sanitary District, and operated by South Bay Recycling under a ten-year contract with RethinkWaste as of January 1, 2011.⁶⁷

As of 2011, San Mateo County produced 17 percent less trash than in 2010, from 71,840 tons to 59,300 tons. This was accompanied by a 25 percent increase in recycling and a 29 percent increase in composting of organics. RethinkWaste reported that increasing the size of recycling containers, decreasing of trash containers, and scheduling weekly collection for all three carts were the significant contributing factors for this achievement.⁶⁸

The Shoreway Environmental Center, opened on September 27, 2011, consists of a transfer station, a materials recovery facility, a public recycling center, an environmental education center, Recology offices, and South Bay Recycling offices in separate buildings on 16 acres of land.⁶⁹ Under the California State Integrated Waste Management Board (CIWMB) permission, the Shoreway has a daily capacity of 3,000 tons of solid

⁶⁶ City of Menlo Park, *Climate Action Plan Assessment*, 2011, http://www.menlopark.org/departments/env/Menlo_CAP_Assessment_Report_2010_12_14_draft_final_final6.pdf, accessed on September 27, 2012.

⁶⁷ RethinkWaste, History and Mission, <http://www.rethinkwaste.org/history-and-mission>, December 31, 2012.

⁶⁸ 2011 Annual Report, RethinkWaste, Accessed October 23, 2012 from: http://www.rethinkwaste.org/files/content/file/2011%20Annual%20Report_FINAL_Web%20Version.pdf.

⁶⁹ RethinkWaste, Shoreway Overview, <http://www.rethinkwaste.org/shoreway-facility/overview>, December 31, 2012.

waste and recyclables. Currently, it receives 1,300 tons per day, 6 percent of which is from the City of Menlo Park (roughly 300 tons per month).⁷⁰ There is no plan to expand the existing facility.

Materials not composted or recycled in San Mateo County are landfilled at the Ox Mountain Landfill (also known as Corinda Los Trancos Landfill) near the City of Half Moon Bay, San Mateo County. Ox Mountain Landfill is a Class III facility permitted to accept 3,598 tons of refuse per day and 1.15 million tons per year. In 2011, the facility accepted 2,260 tons per day or 700,600 tons per year, roughly 40 percent less than its daily permitted capacity of 3,598 tons.⁷¹ Menlo Park's city-wide waste contribution in 2011 was 32,259 tons, and 19,136 tons were deposited at Ox Mountain Landfill.⁷² As of 2011, Ox Mountain Landfill's existing capacity was approximately 20.2 million cubic yards, and Ox Mountain is expected to service the region until year 2034.⁷³

3. Standards of Significance

The Plan Components would have a significant impact on solid waste facilities if they would:

- a. Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- b. Be out of compliance with federal, State, and local statutes and regulations related to solid waste.

4. Impact Discussion

- a. Be served by a landfill with insufficient permitted capacity to accommodate the Project's solid waste disposal needs.

Solid waste from future development under the Plan Components would be transferred to Ox Mountain Landfill for ultimate disposal. As described above, Ox Mountain Landfill is permitted to receive up to 3,598 tons of waste per day and currently receives about 2,260 tons of waste per day. As of 2011, remaining capacity was approximately 20.2 million cubic yards.

⁷⁰ RethinkWaste, Hilary Gans, Operations Contracts Manager, Personal email correspondence with The Planning Center |DC&E, December 11, 2012.

⁷¹ City of Menlo Park, 2011. Menlo Park Facebook Campus Project Draft EIR.

⁷² CalRecycle, accessed on December 11, 2012.

⁷³ RethinkWaste, Hilary Gans, Operations Contracts Manager. Personal email correspondence with The Planning Center |DC&E, December 11, 2012.

In compliance with State Law SB 1016, the City would aim for the CIWMB target of 7.5 pounds of waste per person per day through the source reduction, recycling, and composting programs coordinated by Re-thinkWaste. As previously discussed, Menlo Park's disposal rate in 2011 was 5.5 pounds of waste per person per day, which was well below the CIWMB target of 7.5 pounds of waste per person per day.⁷⁴ As discussed below, with various waste reduction policies and programs in place, the City would continue to meet or perform better than the State mandated target. Assuming a disposal rate of 7.5 pounds of waste per person per day, future development under the Plan Components could generate up to 17.6 tons of waste per day.⁷⁵ The total solid waste generated from future development under the Plan Components would therefore be approximately 0.8 percent of the permitted daily capacity of Ox Mountain Landfill. Therefore, Ox Mountain Landfill has sufficient capacity to accommodate the solid waste disposal needs of future development under the Plan Components until 2034 when it is expected to close. Additionally, the following current and amended General Plan policies would ensure that impacts to solid waste would be reduced.

i. Current General Plan Land Use and Circulation Element

- Policy I-H-1: The community design should help conserve resources and minimize waste.

ii. Amended General Plan Open Space and Conservation Element

- Policy OSC-4.7: Waste Management Collaboration. Continue to support and participate in efforts such as the South Bayside Waste Management Authority, which provides waste reduction, recycling, and solid waste programs and solutions.
- Policy OSC-4.6: Waste Reduction Target. Strive to meet the California State Integrated Waste Management Board per person target of waste generation per person per day through their source reduction, reuse, and recycling programs.

Solid waste impacts under the Plan Components would therefore be *less than significant*.

b. Be out of compliance with federal, State, and local statutes and regulations related to solid waste. As discussed above, the City has complied with State requirements to reduce the volume of solid waste through recycling and reuse of solid waste. Additionally, Menlo Park has adopted a Source Reduction and

⁷⁴ Rebecca Fotu, City of Menlo Park. Email correspondence with The Planning Center |DC&E, January 2, 2013.

⁷⁵ 3,361 residents x 7.5 pound/person/day (a target disposal rate) = 35,208 pounds or 17.6 tons per day.

Recycling Element (SRRE), a Household Hazardous Waste Element (HHWE), and a Non-Disposal Facility Element (NDFE) in compliance with the California Integrated Waste Management Act. Implementation of strategies and programs from these plans allowed the City to meet the State mandated waste diversion goal of 50 percent in 2011. In addition, when the City adopts a Zero Waste Policy, future development under the Plan Components would be required to meet a 75-percent diversion rate by 2020 and a 90-percent diversion rate by 2030 through various CAP strategies. These programs are sufficient to ensure that future development in Menlo Park would not compromise the ability to meet or perform better than the State mandated target.

Construction and demolition associated with future development under the Plan Components would generate significant solid waste. At least 60 percent of this waste, however, would be expected to be diverted from landfill disposal by recycling in accordance with the City's construction debris ordinance. Therefore, future development would comply with applicable statutes and regulations and the impact would be *less than significant*.

c. Cumulative Impacts

Regional growth will increase the quantity of solid waste for disposal. Although AB 939 established a goal for all California cities to provide at least 15 years of ongoing landfill capacity, growth from other cities in San Mateo County may exceed that which was taken into account when calculating landfill capacity. However, as shown in Chapter 4.11, Population and Housing, of this EA, anticipated growth in Menlo Park is less than the expected regional growth, and therefore Menlo Park's growth would not exceed that which was taken into account when calculating landfill capacity in CIWMB plans. Additionally, implementation of existing waste reduction programs and diversion requirements, as discussed above, would reduce the potential for exceeding existing capacities of landfills. The cumulative impact would be *less than significant*.

5. Impacts and Mitigation Measures

The Plan Components would not result in any significant solid waste impacts; therefore, no mitigation measures are necessary.

E. Energy

This section evaluates potential energy impacts in accordance with CEQA Guidelines Section 15126.4(a) and Appendix F (Energy Conservation), which require a discussion of the potential energy impacts of proposed projects with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consump-

tion of energy. Impacts are assessed based on an evaluation of consumption of energy by the project. Development generally results in the consumption of energy in three forms: 1) the fuel energy consumed by construction vehicles; 2) bound energy in construction materials such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as milled lumber and glass; and 3) operational use of energy by future businesses and end users for transportation, equipment operation, and cooling of buildings. Construction materials and the operational use of energy should be addressed. Refer to Chapter 4.6, Greenhouse Gas Emissions, of this Draft EIR, for a detailed discussion about potential impacts of the Plan Components with regard to GHS emissions.

1. Regulatory Setting

a. Federal Regulations

There are no federal regulations regarding energy conservation that are applicable to the Plan Components.

b. State Regulations

i. California Public Utilities Commission

The California Public Utilities Commission (CPUC) was established by Constitutional Amendment as the California Railroad Commission in 1911 and in 1912, the Legislature passed the Public Utilities Act. This Act expanded the CPUC's regulatory authority to include natural gas, electric, telephone, and water companies as well as railroads and marine transportation companies. In 1946, the Commission was renamed the California Public Utilities Commission. The CPUC regulates privately-owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. The CPUC is responsible for assuring California utility customers have safe, reliable utility service at reasonable rates, protecting utility customers from fraud, and promoting the health of California's economy.

ii. Title 24, Part 6 of the California Code of Regulations (1978)

The Energy Efficiency Standards for Residential Buildings were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The efficiency standards apply to new construction of both residential and non-residential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided that these standards meet or exceed those provided in Title 24 guidelines, which as of January 1, 2011 include compliance with the mandatory provisions of the 2010 Cali-

ifornia Green Building Standards (CALGreen) Code.⁷⁶ On January 12, 2010, the California Building Standards Commission adopted CALGreen and became the first state in the United States to adopt a statewide green building standards code. CALGreen will require new buildings to reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and install low pollutant-emitting materials. The mandatory provisions of CALGreen were effective on January 1, 2011.

c. Local Regulations

i. *City of Menlo Park Climate Change Action Plan*⁷⁷

As described in Section D.1.b.i above, the City has a Climate Action Plan (CAP). To reduce GHG emissions, the CAP recommends various energy efficiency strategies, including adopting Green Building standards that exceed California's 2010 Green Building Code, developing an Energy Efficiency/ Renewable Energy Program, and implementing social marketing programs/campaigns to promote alternative transportation and car sharing. A Climate Action Plan Assessment, prepared in 2011, recommends implementing these strategies within five years.⁷⁸

ii. *City of Menlo Park 2010 Green Building Standards Codes*⁷⁹

Menlo Park has adopted local amendments to 2010 CALGreen, which has been enforced since January 1, 2012. Chapter 12.18 of the Menlo Park Municipal Code adopts and amends CALGreen by reference, establishing sustainable building requirements that are applicable to all newly constructed buildings or structures. Section 12.18.010 of the Menlo Park Municipal Code requires that newly constructed buildings achieve at least a 15 percent reduction in energy usage when compared to the State's mandatory energy efficiency standards.

⁷⁶ State of California, *State and Local Government Green Building Ordinances in California*, http://ag.ca.gov/globalwarming/pdf/green_building.pdf, accessed on September 28, 2012.

⁷⁷ City of Menlo Park, *Climate Change Action Plan*, 2009, <http://www.menlopark.org/departments/env/CAP2009Complete.pdf>, accessed on September 27, 2012.

⁷⁸ City of Menlo Park, *Climate Action Plan Assessment*, 2011, http://www.menlopark.org/departments/env/Menlo_CAP_Assessment_Report_2010_12_14_draft_final_final6.pdf, accessed on September 27, 2012.

⁷⁹ City of Menlo Park, *2010 Green Building Standards Codes Summary of Changes*, http://www.menlopark.org/departments/bld/2010GreenBuildingStandards_2012.pdf, accessed on February 11, 2013.

2. Existing Conditions

Grid electricity and natural gas service in Menlo Park is provided by PG&E. PG&E is a publicly traded utility company which generates, purchases, and transmits energy under contract with the California Public Utilities Commission. PG&E's service territory is 70,000 square miles in area, roughly extending north to south from Eureka to Bakersfield, and east to west from the Sierra Nevada mountain range to the Pacific Ocean.⁸⁰ PG&E's electricity distribution system consists of 141,215 circuit miles of electric distribution lines and 18,616 circuit miles of interconnected transmission lines. PG&E electricity is generated by a combination of sources such as coal-fired power plants, nuclear power plants, and hydro-electric dams, as well as newer sources of energy such as wind turbines and photovoltaic plants or "solar farms."⁸¹ "The Grid," or bulk electric grid, is a network of high-voltage transmission lines link power plants with the PG&E system. The distribution system, comprised of lower voltage secondary lines, is at the street and neighborhood level, and consists of overhead or underground distribution lines, transformers, and individual service "drops" that connect to the individual customer.⁸²

PG&E's natural gas (methane) pipe delivery system includes 42,141 miles of distribution pipelines, and 6,438 miles of transportation pipelines.⁸³ Gas delivered by PG&E originates in gas fields in California, the US Southwest, US Rocky Mountains, and from Canada.⁸⁴ Transportation pipelines send natural gas from fields and storage facilities in large pipes under high pressure. The smaller distribution pipelines deliver gas to individual businesses or residences.⁸⁵

San Mateo County electricity usage in 2011 was a total of 4,534 million Kilowatt-hours (kWh) countywide, with two-thirds of the electricity used by industry and commercial accounts, and roughly one-third of the

⁸⁰ PG&E, 2012. Company Info. <http://www.pge.com/about/company/profile/> accessed October 25, 2011.

⁸¹ Marshall, J. 2011, *Currents*. PG&E Plan(t)s New Solar Farms in Central Valley. <http://www.pgecurrents.com/2011/10/17/pge-plants-new-solar-farms-in-central-valley/>.

⁸² PG&E, n.d., PG&E's Electric System. Accessed October 25, 2012 from: http://www.pge.com/includes/docs/pdfs/shared/edusafety/systemworks/electric/pge_electric_system.pdf.

⁸³ PG&E, *Unplugged*, March 12, 2010, http://www.pgeunplugged.com/uploads/PG_E_Unplugged_March_12_2010.pdf, accessed on January 4, 2013.

⁸⁴ Western North American Natural Gas Pipelines. http://www.pge.com/pipeline/about/system_maps/western_pipelines_2011.pdf.

⁸⁵ PG&E, 2012. FAQ – General Gas System Operations, Accessed October 24, 2012 from: <http://www.pge.com/mybusiness/edusafety/systemworks/gas/faq/>.

electricity used by residential accounts.⁸⁶ The City's Climate year 2010 data shows the citywide electricity usage was 0.9 megawatts as a whole, with 0.3 megawatts used by residential accounts and 0.6 megawatts used by commercial accounts.⁸⁷ San Mateo County natural gas (methane) usage in 2011 was 92 million therms in the non-residential sector and 135 million therms in the residential sector, for a total of 227 million therms countywide.⁸⁸

3. Standards of Significance

As previously discussed, the State CEQA Guidelines (Appendix F) require a discussion of the potential energy impacts of proposed projects; however, no specific thresholds of significance for potential energy impacts are suggested in the State CEQA Guidelines.

4. Impact Discussion

Buildout under the Plan Components could bring up to 1,318 residential units to the city over the next 21 years. The new dwelling units and supporting infrastructure would require direct energy (electricity and natural gas) for lifetime operation but would not significantly increase energy demands. Historically, residential development has comprised a very small proportion of overall energy demand. Because housing Site 4 (Hamilton Avenue) and Site 5 (Haven Avenue) are currently designated commercial or industrial uses on the City's Zoning Map, in which the City anticipates more demand on energy services than residential, energy demands from future residential development on these sites would not exceed what the City has anticipated. The rest of potential housing sites would be rezoned to allow a higher residential density, but this change would not substantially increase the citywide energy demand to the extent that requires expansion or construction of power facilities.

Additionally, this future development would be required to comply with all applicable building and design requirements, including those set forth in Title 24 relating to energy conservation. Future development under the Plan Components would also be required to reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, reduce 15 percent of energy usage when compared to the

⁸⁶ California Energy Commission, 2012, San Mateo County Electricity Usage, <http://www.ecdms.energy.ca.gov/elecbycounty.aspx>, October 23, 2012.

⁸⁷ City of Menlo Park, 2010 Inventory Data with State Report Fuel, provided by Rebecca Fotu, November 19, 2012.

⁸⁸ California Energy Commission, San Mateo County Gas Usage, <http://www.ecdms.energy.ca.gov/gasbycounty.aspx>, October 23, 2012.

State's mandatory energy efficiency standards, and install low pollutant-emitting materials in compliance with the CALGreen Codes and City's Green Building Standards Codes, as described above.

When the City adopts and begins implementing the CAP's energy efficiency strategies, presumably within five years, future developments under the Plan Components would be required to comply with the Green Building standards and Energy Efficiency/Renewable Energy Programs, as well as encourage the use of alternative transportation and car sharing.

In addition, because the potential housing sites under the Plan Components are located in developed areas where PG&E's distribution infrastructure has already been installed, future development under the Plan Components would be served by existing electricity and gas lines in the vicinity of each site. When minor extensions of electrical and gas distribution systems to individual sites are necessary, individual future project sponsors would pay PG&E for such extensions. However, these extensions of the distribution system would not substantially decrease PG&E's overall capacity or interfere with normal PG&E services.

Overall, future development under the Plan Components would not require new energy supply facilities and major distribution infrastructure or capacity enhancing alterations to existing facilities, which could result in environmental impacts. Therefore, impacts would be *less than significant* and no mitigation measures are required.

CITY OF MENLO PARK
HOUSING ELEMENT UPDATE, GENERAL PLAN CONSISTENCY UPDATE,
AND ZONING ORDINANCE AMENDMENTS ENVIRONMENTAL ASSESSMENT
UTILITIES AND SERVICE SYSTEMS