

## UTILITIES AND SERVICE SYSTEMS

### 4.14 UTILITIES AND SERVICE SYSTEMS

This chapter describes the existing utilities and service systems for Menlo Park and evaluates the potential environmental consequences of adopting and implementing the proposed project.

Water, wastewater, solid waste, storm water infrastructure, and energy conservation are each addressed in separate sections of this chapter. In each section, a summary of the relevant regulatory setting and existing conditions is followed by a discussion of potential impacts and cumulative impacts from the adoption and implementation of the proposed project.

#### 4.14.1 WATER

This section is based in part by the information provided in the following two reports prepared for the proposed project and the existing Housing Element sites under the existing General Plan:

- Water Supply Evaluation Study, ConnectMenlo – General Plan and M-2 Area Zoning Update Menlo Park, California, prepared by Erler & Kalinowski, Inc., February 3, 2016.
- Water Supply Assessment for the City of Menlo Park Housing Element Update prepared by GHD, March 20, 2013.

These reports are included in Appendix I and Appendix J of this Draft EIR, respectively.

##### 4.14.1.1 ENVIRONMENTAL SETTING

#### Regulatory Framework

##### *Federal Regulations*

##### Federal Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), the principal federal law intended to ensure safe drinking water to the public, was enacted in 1974 and has been amended several times since it came into law. The SDWA authorizes the United States Environmental Protection Agency (US 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 United States 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.

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### *State Regulations*

#### California Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, which was passed in California in 1969 and amended in 2013, the State Water Resources Control Board (SWRCB) has authority over State water rights and water quality policy. This Act divided the State into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB) to oversee water quality on a day-to-day basis at the local and regional level. RWQCBs engage in a number of water quality functions in their respective regions. RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Menlo Park is overseen by the San Francisco Bay RWQCB.

#### 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). Projects required to prepare a WSA are the following:

- Residential development of more than 500 dwelling units.
- Shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor area.
- Hotel or motel, or both, having more than 500 rooms.
- Industrial, manufacturing, or processing plant, or industrial park planned to employ more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- Mixed-use project that includes one or more of the projects specified above.
- Project that would demand an amount of water equivalent to, or greater than, the amount of water required for 500 dwelling units.

SB 221 establishes consultation and analysis requirements related to water supply planning for residential subdivisions including more than 500 dwelling units.<sup>1</sup> Because this is a plan level document and no specific development project is proposed, a WSA is not required for the proposed project pursuant to the California Water Code (“CWC” or “Water Code”) Section 10910-10915. However, for information purposes and to more fully consider potential impacts to the water supply at full buildout potential under the proposed project, the City has voluntarily elected to prepare a Water Supply Evaluation (WSE)<sup>2</sup> for the proposed project that is modeled after, and in general conformance with, WSA requirements and the

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<sup>1</sup> California Department of Water Resources, Guidebook for Implementation of Senate Bill 610 and Senate Bill 221, [http://www.water.ca.gov/pubs/use/sb\\_610\\_sb\\_221\\_guidebook/guidebook.pdf](http://www.water.ca.gov/pubs/use/sb_610_sb_221_guidebook/guidebook.pdf), accessed on February 27, 2015.

<sup>2</sup> Erler & Kalinowski, Inc, 2016. Water Supply Evaluation Study, ConnectMenlo – General Plan and M-2 Area Zoning Update Menlo Park, California, prepared for City of Menlo park, February 3, 2016.

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information requested within the California Department of Water Resource's ("DWR's") *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001: To Assist Water Suppliers, Cities, and Counties in Integrating Water and Land Use Planning*. The WSE is included in Appendix I of this Draft EIR.

### 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<sup>3</sup> of water annually. The Act is intended to support conservation and efficient use of urban water supplies. The Act requires that total project water use be compared to water supply sources over the next 20 years in five-year increments, that planning 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. In September 2014 the Act was amended by SB 1420 to require urban water suppliers to provide descriptions of their water demand management measures and similar information.<sup>4</sup>

### Groundwater Management Act (1992)

The Groundwater Management Act of the California Water Code (Assembly Bill [AB] 3030), signed into law on September 26, 1992 and effective on January 1, 1993, 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.<sup>5</sup>

### Sustainable Groundwater Management Act (2014)

The Sustainable Groundwater Management Act of 2014 (SGMA) consists of three legislative bills, Senate Bill SB 1168, Assembly Bill AB 1739, and Senate Bill SB 1319. The legislation provides a framework for long-term sustainable groundwater management across California. Under the roadmap laid out by the legislation, local and regional authorities in medium and high priority groundwater basins will form Groundwater Sustainability Agencies (GSAs) that oversee the preparation and implementation of a local Groundwater Sustainability Plan (GSP). Local stakeholders have until 2017 to organize themselves in Groundwater Sustainability Agencies. Menlo Park is not required to prepare a GSP and a GSA has not yet been established for the groundwater basins in San Mateo County.<sup>6</sup> Groundwater Sustainability Plans will

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<sup>3</sup> Once acre-foot is the amount of water required to cover 1 acre of ground (43,560 square feet) to a depth of 1 foot.

<sup>4</sup> Department of Water Resources. About Urban Water Management, <http://www.water.ca.gov/urbanwatermanagement/>, accessed December 18, 2015.

<sup>5</sup> Department of Water Resources Planning and Local Assistance Central District, Groundwater, *Groundwater Management*, <http://www.cd.water.ca.gov/groundwater/gwab3030.cfm>, accessed on January 30, 2016.

<sup>6</sup> Department of Water Resources, GSA Formation Notifications; The local agencies included on the GSA Formation Table have decided to become or form groundwater sustainability agencies (GSAs), [http://www.water.ca.gov/groundwater/sgm/gsa\\_table.cfm](http://www.water.ca.gov/groundwater/sgm/gsa_table.cfm), accessed May 4, 2016.

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have to be in place and implementation begun sometime between 2020 and 2022. GSAs will have until 2040 to achieve groundwater sustainability.<sup>7</sup>

### The Water Conservation Act of 2009

The Water Conservation Act of 2009,<sup>8</sup> SB X7-7, requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita water by 20 percent by 2020, with an interim goal of a 10 percent reduction in per capita water use by 2015. Effective in 2016, urban retail water suppliers who do not meet the water conservation requirements established by this bill are not eligible for state water grants or loans. The SB X7-7 requires that urban water retail suppliers determine baseline water use and set reduction targets according to specified standards. It also requires agricultural water suppliers to prepare plans and implement efficient water management practices.

### State Updated Model Landscape Ordinance

The updated Model Landscape Ordinance requires cities and counties to adopt landscape water conservation ordinances by February 1, 2016 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 2016, and revised Municipal Code Chapter 12.44, which is described below.

### CALGreen Building Code

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as "CALGreen") was adopted as part of the California Building Standards Code (Title 24, California Code of Regulations [CCR]) to apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated in the code, throughout the State of California. CALGreen established planning and design standards for sustainable site development, including water conservation measures and requirements that new buildings reduce water consumption by 20 percent. The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011. The building efficiency standards are enforced through the local building permit process.

The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories:

- Planning and design
- Energy efficiency
- Water efficiency and conservation
- Material conservation and resource efficiency

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<sup>7</sup> UC Davis, Division of Agriculture and Natural Resources, 2014. Groundwater web page, <http://groundwater.ucdavis.edu/SGMA/>, accessed January 30, 2016.

<sup>8</sup> Department of Water Resources, Senate Bill SBX7-7 2009 Information, <http://www.water.ca.gov/wateruseefficiency/sb7/>, accessed November 11, 2014.

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- Environmental quality

### The California Plumbing Code (Part 5, Title 24, CCR)

The California Plumbing Code (Part 5, Title 24, CCR) was adopted as part of the California Building Standards Code. The general purpose of the universal code is to prevent disorder in the industry as a result of widely divergent plumbing practices and the use of many different, often conflicting, plumbing codes by local jurisdictions. Among many topics covered in the code are water fixtures, potable and non-potable water systems, and recycled water systems. Water supply and distribution shall comply with all applicable provisions of the current edition of the California Plumbing Code.

### Executive Order 29-B-15

Executive Order B-29-15, signed by Governor Brown on April 1, 2015, imposed mandatory water restrictions in California. The Order requires the SWRCB to impose restrictions to achieve a statewide 25 percent reduction in potable urban water usage through February 28, 2016 as compared to the amount used in 2013. In addition to requiring cities and towns to save water, the Order is intended to increase enforcement to prevent wasteful water use, streamline the state's drought response and invest in new technologies that will make California more drought resilient.

### Executive Order B-36-15

On November 13, 2015, Governor Brown issued Executive Order B-36-15 (EO B-36-15) that calls for an extension of restrictions to urban potable water usage until October 31, 2016, should drought conditions persist through January 2016.<sup>9</sup> EO B-36-15 is the fifth in a series of Executive Orders by Governor Brown on actions necessary to address California's severe drought conditions. On February 2, 2016 the State Water Board adopted an extended and revised emergency regulation.<sup>10</sup> The regulation extends restrictions on urban water use through October 2016 while providing urban water suppliers more flexibility in meeting their conservation requirements. It also directs staff to report back on additional flexibility once more complete water supply information is known in April 2016. The February 2016 Emergency Regulation allows suppliers flexibility in meeting their conservation requirements through adjustments and credits that allow a supplier to modify its conservation standard up to eight percentage points, based on consideration of: 1) climatic differences experienced throughout the state; 2) water-efficient growth experienced by urban areas; and 3) significant investments that have been made by some suppliers toward creating new, local, drought-resilient sources of potable water supply.<sup>11</sup> Conservation standards were able to be adjusted by submitting required information for verification through the new on-line reporting tool at the state's Drinking Water Information Clearinghouse (DRINC) Portal.<sup>12</sup> The tool was available beginning the week of February 8, 2016 through March 15, 2016. On May 9, 2016, the

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<sup>9</sup> SWRCB, 2016. Emergency Conservation Regulations, [http://www.waterboards.ca.gov/water\\_issues/programs/conservation\\_portal/emergency\\_regulation.shtml](http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/emergency_regulation.shtml) , accessed January 29, 2016.

<sup>10</sup> SWRCB, 2016. Water Conservation Portal – emergency Conservation Regulation, [http://www.waterboards.ca.gov/water\\_issues/programs/conservation\\_portal/emergency\\_regulation.shtml](http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/emergency_regulation.shtml) , accessed February 4, 2016.

<sup>11</sup> SWRCB, 2016. Fact Sheet, Extended Water Conservation Regulation, [http://www.waterboards.ca.gov/water\\_issues/programs/conservation\\_portal/docs/factsheet/adjustment\\_req\\_fs\\_final.pdf](http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/docs/factsheet/adjustment_req_fs_final.pdf)

<sup>12</sup> DRINC Portal, <http://www.drinc.ca.gov/dnn/Home.aspx> , accessed February 10, 2016

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Governor issued an Executive Order (B-37-16)<sup>13</sup> that directs the State Board to adjust and extend its emergency water conservation regulations through the end of January 2017 in recognition of the differing water supply conditions for many communities.

### State Emergency Regulations Restricting Use of Potable Water (Sections 863, 864, 865 and 866, Title 23, CCR)

Water Code section 1058.5 grants the SWRCB the authority to adopt emergency regulations in certain drought years in order to: “prevent the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion, of water, to promote water recycling or water conservation, to require curtailment of diversions when water is not available under the diverter’s priority of right, or in furtherance of any of the foregoing, to require reporting of diversion or use or the preparation of monitoring reports.”

On May 5, 2015, the SWRCB approved a resolution<sup>14</sup> resulting in adoption of emergency drought regulations<sup>15</sup> implementing the Governor’s April 1, 2015 Executive Order (EO) mandating a statewide 25 percent reduction in potable water use. The regulations require each water supplier to California cities and towns to reduce water usage compared to 2013 levels for the compliance period June 2015 through February 2016. The conservation target was to be met each month from June 2015 through February 2016, unless otherwise extended or modified. As discussed above, the restrictions on urban water use were extended through October 2016 while providing urban water suppliers more flexibility in meeting their conservation requirements.<sup>16</sup>

The Menlo Park Municipal Water District (MPMWD) is required by the SWRCB to reduce potable water use by 16 percent each month during the compliance period compared to the same month period in 2013 and must report use on a monthly basis to SWRCB, through October 2016.

The Cal Water Service Bear Gulch District (BGD) is required by the SWRCB to reduce potable water use by 36 percent each month during the compliance period compared to the same month period in 2013 and must report use on a monthly basis to SWRCB, through October 2016.

As noted above, on February 2, 2016 the SWRCB adopted Resolution 2016-007 that extended and revised emergency regulation that imposed restrictions on urban water use through October 2016 while providing urban water suppliers more flexibility in meeting their conservation requirements. Given the fact that in many years a significant portion of the State’s rainfall and snowpack occur in February and March, the SWRCB resolution directs staff to monitor and evaluate available data on precipitation, snowpack, reservoir storage levels, and other factors and report back to the Board in March and April,

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<sup>13</sup> Governor’s Executive Order B-37-16, [https://www.gov.ca.gov/docs/5.9.16\\_Executive\\_Order.pdf](https://www.gov.ca.gov/docs/5.9.16_Executive_Order.pdf), accessed May 24, 2016

<sup>14</sup> SWRCB Resolution 2015-0032, [http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/drought/docs/emergency\\_regulations/rs2015\\_0032\\_with\\_adopted\\_regs.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/docs/emergency_regulations/rs2015_0032_with_adopted_regs.pdf), accessed December 18, 2015.

<sup>15</sup> California Office of Administrative Law, Notice of Approval of Emergency Regulatory Actions, [http://www.waterboards.ca.gov/waterrights/water\\_issues/programs/drought/docs/emergency\\_regulations/oal\\_approved\\_regs2015.pdf](http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/docs/emergency_regulations/oal_approved_regs2015.pdf), accessed December 18, 2015.

<sup>16</sup> SWRCB, Water Conservation Portal - Emergency Conservation Regulation, [http://www.waterboards.ca.gov/water\\_issues/programs/conservation\\_portal/emergency\\_regulation.shtml](http://www.waterboards.ca.gov/water_issues/programs/conservation_portal/emergency_regulation.shtml), accessed May 4, 2016.

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2016 and, if conditions warrant, bring a proposal for rescission or adjustment of this regulation to the Board no later than the second regularly-scheduled May 2016 Board meeting.<sup>17</sup>

### *Local Regulations*

#### Bay Area Water Supply and Conservation Agency<sup>18</sup>

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, 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.

#### 2010 Urban Water Management Plans<sup>19,20</sup>

The City is in the process of updating the 2015 UWMP now. The City Council public hearing to adopt the 2015 Urban Water Management Plan was scheduled for May 24, 2016.<sup>21</sup> The City is required to adopt the 2015 UWMP by June 30, 2016 and submit the adopted plan to the SWRCB by July 1, 2016. Accordingly, this Draft EIR relies on the current UWMP.

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.

#### Water Shortage Contingency Plan - MPMWD

MPMWD has developed a *Water Shortage Contingency Plan* that systematically identifies ways in which MPMWD can reduce water demands during dry years. The 2010 UWMP was amended by the City Council on November 18, 2014 with an updated *Water Shortage Contingency Plan*.<sup>22</sup> The overall reduction goals in

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<sup>17</sup> SWRCB 2016. Resolution 2016-007. [http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2016/rs2016\\_0007.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2016/rs2016_0007.pdf), accessed February 4, 2016.

<sup>18</sup> *Water Supply Assessment* for the City of Menlo Park Housing Element Update prepared by GHD, March 20, 2013, page 3-9. See Appendix K of this Draft EIR.

<sup>19</sup> City of Menlo Park, *2010 Urban Water Management Plan*, <http://www.menlopark.org/DocumentCenter/View/6143>, accessed February 27, 2015.

<sup>20</sup> California Water Service Company, 2011. *2010 Urban Water Management Plan*, Bear Gulch District, June 2011.

<sup>21</sup> City of Menlo Park, 2016. *Urban Water Management Plan*, <http://www.menlopark.org/150/Urban-Water-Management-Plan>, accessed May 4, 2016.

<sup>22</sup> City of Menlo Park, 2014. *Final 2010 UWMP and Update to the Water Shortage Contingency Plan*, amended November 2014, <http://www.menlopark.org/DocumentCenter/View/6143>, accessed December 19, 2015.

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the *Water Shortage Contingency Plan* are established in five drought stages and for water demand reductions up to 50 percent. The Menlo Park City Council has the authority to declare a water shortage emergency. Emergencies are declared in five stages with specific reduction methods used for each stage. Table 4.14-1 below summarizes the consumption reduction methods that MPWMD has the authority to use, in accordance with the updated *Water Shortage Contingency Plan*.

**TABLE 4.14-1 MPMWD'S WATER SHORTAGE CONTINGENCY PLAN**

Stage	Water Use Restrictions	% Goal
1	<ul style="list-style-type: none"> <li>▪ Hoses must be equipped with a shut-off valve for washing vehicles, sidewalks, walkways, or buildings.</li> <li>▪ Broken or defective plumbing and irrigation systems must be repaired or replaced within a reasonable period.</li> <li>▪ Other measures as may be approved by Resolution of the City Council.</li> </ul>	NA
2	<ul style="list-style-type: none"> <li>▪ Continue with actions and measures from Stage 1, except where superseded by more stringent requirements.</li> <li>▪ Potable water shall not be used to water outdoor landscapes in a manner that causes runoff onto non-irrigated areas, walkways, roadways, parking lots, or other hard surfaces.</li> <li>▪ Potable water shall not be applied in any manner to any driveway or sidewalk, except when necessary to address immediate health or safety concerns.</li> <li>▪ Restaurants and other food service operations shall serve water to customers only upon request.</li> <li>▪ Use only re-circulated or recycled water to operate ornamental fountains.</li> <li>▪ Other measures as may be approved by Resolution of the City Council to achieve the overall percentage reduction</li> </ul>	Up to 20%
3	<ul style="list-style-type: none"> <li>▪ Continue with actions and measures from Stage 2, except where superseded by more stringent requirements.</li> <li>▪ Potable water shall not be used for street cleaning.</li> <li>▪ Limit outdoor irrigation to occur during specific hours, as determined by the Public Works Director, or his designee.</li> <li>▪ Other measures as may be approved by Resolution of the City Council to achieve the overall percentage reduction.</li> </ul>	Up to 30%
4	<ul style="list-style-type: none"> <li>▪ Continue with actions and measures from Stage 3, except where superseded by more stringent requirements.</li> <li>▪ No new landscaping shall be installed at new construction sites.</li> <li>▪ Limit outdoor irrigation to a set number of days per week, as determined by the Public Works Director, or his designee.</li> <li>▪ Other measures as may be approved by Resolution of the City Council to achieve the overall percentage reduction.</li> </ul>	Up to 40%
5	<ul style="list-style-type: none"> <li>▪ Continue with actions and measures from Stage 4, except where superseded by more stringent requirements.</li> <li>▪ Newly constructed pools, spas and hot tubs shall not be filled.</li> <li>▪ Existing irrigation systems shall not be expanded.</li> <li>▪ Turf irrigation is prohibited at all times.</li> <li>▪ Other measures as may be approved by Resolution of the City Council to achieve the overall percentage reduction.</li> </ul>	Up to 50%

Source: Menlo Park Municipal Water Agency *Water Shortage Contingency Plan*, 2014.

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### Water Regulations Currently in Place – City of Menlo Park (May 2015)

On May 5, 2015, the Menlo Park City Council adopted Resolution 6261 implementing additional water regulations. The resolution also allowed any MPMWD customer to apply for a Drought Response Plan (DRP) excepting the customer from the two day per week limitation on irrigation of outdoor ornamental landscapes and turf with potable water, provided that the DRP results in an equivalent or greater reduction in water use when compared to the two day per week watering limitation and achieves outdoor potable water savings equivalent to or greater than the percent reduction that MPMWD is required to achieve for overall potable water use by the State Water Resources Control Board (i.e., 16 percent reduction by February 2016, compared to water use in 2013). The following regulations are currently in place in the city:<sup>23</sup>

- Potable water to irrigate outdoor ornamental landscapes or turf shall be limited to the following two days per week schedule: 1) Odd or No Address – Mondays and Thursdays; 2) Even Address – Tuesdays and Fridays.
- Water customers may be granted an exception to the two days per week schedule upon review and approval of a Drought Response Plan that demonstrates an equivalent or greater reduction in water use.
- Irrigation of outdoor ornamental landscapes or turf is not allowed between 8 a.m. - 6 p.m.
- Must not use potable water on outdoor landscapes that causes runoff.
- Hoses must be fitted with an automatic shut-off nozzle for washing vehicles, sidewalks, driveways, walkways or buildings.
- Must not apply potable water to any driveway or sidewalk except to address immediate health or safety concerns.
- Pools, spas, and hot tubs shall be covered when not in use.
- Cannot use potable water in a decorative feature, unless the water recirculates.
- Must repair defective/broken plumbing and irrigation systems within a reasonable time period.
- Potable water shall not be used to water outdoor landscapes during and within 48 hours after measurable rainfall.
- Restaurants must serve water only upon request.

### Water Shortage Contingency Plan – Cal Water Bear Gulch District

Cal Water has developed a four stage approach to drought response that corresponds to specific levels of water supply shortage, as described in the 2010 UWMP. The four stages correspond to supply reductions ranging from 5 percent up to 50 percent. At each higher stage Cal Water will become more aggressive in requiring water use reductions from its customers. Cal Water also has a Water Supply Allocation Plan for the possibility of reduced wholesale allocations of imported water from SFPUC. When implemented, Cal

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<sup>23</sup> MPMWD, 2015. *Drought Response Plan Application*.

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Water would reduce its use of this supply proportionally in order to meet regional conservation targets and avoid wholesaler imposed penalties for overuse. Following the Governor's April 1 Executive Order and the SWRCB's mandatory water use reductions in response to the current drought, Cal Water implemented an approved Water Shortage Contingency Plan with Staged Mandatory Reductions and Drought Surcharges (WSCP). The WSCP consists of four separate components, broken into four escalating stages. Cal Water's WSCP became effective on June 1, 2015.<sup>24</sup> Each stage of the WSCP establishes certain prohibited uses of water. Cal Water moved directly into Stage 2 of the WSCP, which prohibits:

- Using potable water to wash sidewalks and driveways.
- Allowing runoff when irrigating with potable water.
- Using hoses with no shutoff nozzles to wash vehicles.
- Using potable water in decorative water features that do not recirculate the water.
- Irrigating outdoors during and within 48 hours following measureable rainfall.
- Restaurants from serving water to their customers unless the customer requests it.
- Irrigating ornamental turf on public street medians with potable water Irrigating with potable water outside of newly constructed homes and buildings in a manner inconsistent with regulations or other requirements established by the California Building Standards Commission and the Department of Housing and Community Development.
- Filling ornamental lakes or ponds with potable water.

### Water System Improvement Plan - SFPUC<sup>25</sup>

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. SFPUC's water system improvement projects, as described in the WSIP, are designed to help meet water demands during multiple dry years. As of November 2, 2015, the 48 regional WSIP projects, with a total cost of over \$3.5 billion that will benefit the wholesale customers of SFPUC (including Menlo Park), are 90 percent complete.<sup>26</sup> The current forecast to complete the overall WSIP is May 2019.

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<sup>24</sup> Cal Water BGD, 2015, Drought Response Plan, [http://www.calwatergroup.com/docs/drought\\_response\\_program.pdf](http://www.calwatergroup.com/docs/drought_response_program.pdf) , accessed December 28, 2015.

<sup>25</sup> *Water Supply Assessment* for the City of Menlo Park Housing Element Update prepared by GHD, March 20, 2013, page 3-2.

<sup>26</sup> San Francisco Public Utilities Commission, 2015, WSIP Regional Projects Quarterly Report, 1st Quarter, fiscal year 2015-2016, <http://www.sfwater.org/modules/showdocument.aspx?documentid=8111>, accessed December 19, 2015.

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### Menlo Park General Plan

The City of Menlo Park General Plan includes goals, policies, and programs relevant to the environmental factors potentially affected by the proposed project. Applicable goals, policies, and programs are identified and assessed for their effectiveness later in this chapter under Section 4.14.1.3, Impact Discussion.

### Menlo Park Municipal Code

The City of Menlo Park Municipal Code, organized by title, chapter, and section, contains all ordinances for Menlo Park. Title 7, Health and Sanitation, and Title 12, Buildings and Construction, include regulations relevant to solid waste resources in Menlo Park as discussed below.

#### Chapter 7.35, Water Conservation<sup>27</sup>

Chapter 7.35 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 7.35.020 requires the City Council to adopt by resolution a water conservation plan to mandate any water conservation measures in the event of adoption of emergency water conservation regulations by the State Water Board.

#### Chapter 12.44, Water Efficient Landscaping<sup>28</sup>

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 500 square feet for all landscape areas and 1,000 square feet for rehabilitated landscapes associated with projects requiring City review and approval.

## Existing Conditions

### *Water Service*

Potable water is supplied to the Menlo Park community by one of four water utility companies: the MPMWD, California Water Service, the O'Connor Tract Cooperative Water District, and the Palo Alto Park Mutual Water Company. Menlo Park Municipal Water District covers the Sharon Heights neighborhood and most areas on the bay side of Middlefield Road. The Menlo Park Municipal Water District also covers the SRI International campus, Menlo Park Civic Center, and a small number of nearby residences on Barron, Thurlow, and Hopkins Streets. The O'Connor Tract Cooperative Water District serves a small area of Menlo Park, roughly bounded by Euclid Avenue, Woodland Avenue, Menalto Avenue, and properties on the bay side of O'Connor Street. A small area along Euclid Avenue is served by the Menlo Park Municipal Water District. California Water Service serves the remaining, mostly central portion of Menlo Park,

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<sup>27</sup> City of Menlo Park, Municipal Code Chapter 7.35, Water Conservation, <http://www.codepublishing.com/CA/menlopark/>, accessed on December 23, 2015.

<sup>28</sup> City of Menlo Park, Municipal Code Chapter 12.44, Water Efficient Landscaping, <http://www.codepublishing.com/CA/menlopark/>, accessed on December 23, 2015.

## UTILITIES AND SERVICE SYSTEMS

including Downtown Menlo Park. A very small portion of Menlo Park is served by the Palo Alto Park Mutual Water Company. This area includes several properties on Menalto Avenue near US 101. Figure 4.14-1 shows the boundaries of the water districts serving Menlo Park.

### *Menlo Park Municipal Water District*

The MPMWD serves approximately 50 percent of the city's population within the following four zones:

- The Lower Zone includes part of the Belle Haven neighborhood, Bay Road, and Willows neighborhood. This includes the business park area located along O'Brien Drive between Willow Road and University Avenue.
- The High Zone is located in Menlo Park between US 101 and the Bayfront Expressway and includes part of the Belle Haven neighborhood and Bayfront Area business parks.
- The Upper Zone is geographically and hydraulically disconnected from other zones. It primarily serves the residential Sharon Heights neighborhood, the Sharon Heights Golf and Country Club, and the Stanford Linear Accelerator Center (SLAC) National Accelerator Laboratory.

In its 2010 UWMP, MPMWD's demand projections assumed very modest residential growth and strong growth in the Commercial-Industrial-Institutional sectors. The MPMWD distribution system consists of 59 miles of water mains, 4,200 metered connections, two reservoirs, and one pump station. The MPMWD also maintains fire hydrants, backflow prevention devices, flushing points, and service connections to the San Francisco Public Utilities Commission SFPUC, which controls access to water via the Hetch Hetchy pipeline right-of-way through Menlo Park.<sup>29</sup>

### *California Water Service Bear Gulch District*

Cal Water is an investor-owned public utility that provides water service to millions of customers in 24 separate water systems located across California. The particular system, or district, that serves portions of Menlo Park is known as the Cal Water BGD. 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 (approximately 16,600 customers). In its 2010 UWMP, Cal Water BGD projected that the population in its service area would grow from 57,254 persons in 2010 to 66,535 in 2040 with an annual growth rate of 0.54 percent per year, which is slightly higher than the growth rate used in the City's UWMP.<sup>30</sup> The Cal Water BGD distribution system consists of 57 pressure zones, 77 booster pumps, 35 storage tanks and reservoirs, 2,278 hydrants, and 289 miles of main. Cal Water BGD tanks provide storage for more than 11 million gallons of potable water.<sup>31</sup>

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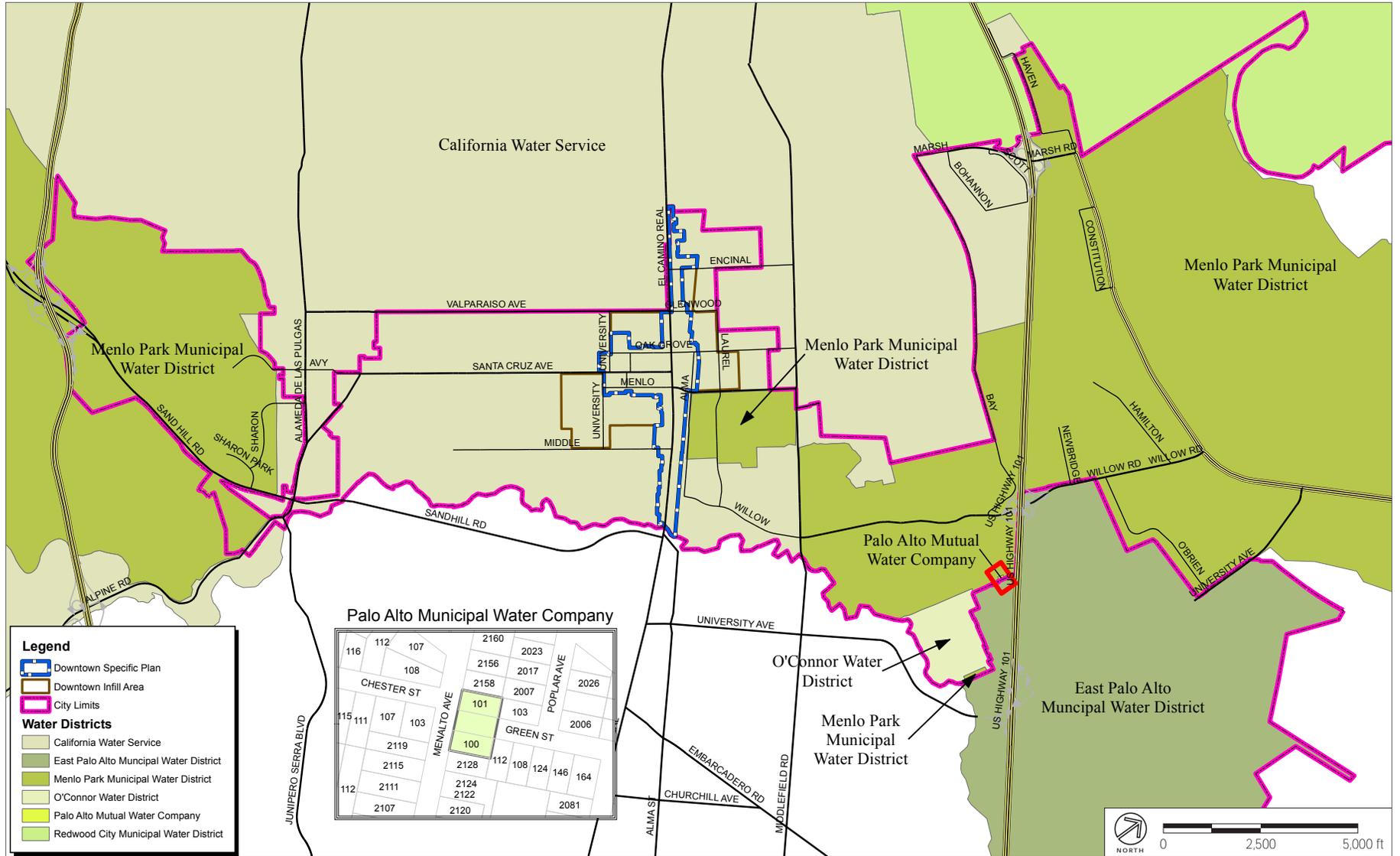
<sup>29</sup> City of Menlo Park, 2011. *Menlo Park Facebook Campus Project Draft EIR*, page 3.16-10.

<sup>30</sup> *Water Supply Assessment* for the City of Menlo Park Housing Element Update prepared by GHD, March 20, 2013, pages 2-1 and 2-3.

<sup>31</sup> BAWSCA Annual Survey – FY 2014-15. [http://bawscsca.org/uploads/userfiles/files/BAWSCA\\_AnnualSurvey\\_FY2014-15.pdf](http://bawscsca.org/uploads/userfiles/files/BAWSCA_AnnualSurvey_FY2014-15.pdf), accessed on February 27, 2015.



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Source: City of Menlo Park, 2012.

Figure 4.14-1  
Water District Map

## UTILITIES AND SERVICE SYSTEMS

### *O'Connor Tract Cooperative Water District*

The O'Connor Tract Cooperative Water District (OTCWD) is a very small water district serving approximately 300 dwelling units in a small area near Menlo Park's border with East Palo Alto. To meet the demand of these households, OTCWD operates two wells in Menlo Park. The water from these wells historically has met applicable primary quality standards for drinking water without additional treatment. Estimated water-use levels in 2005 were 120 acre-feet per year (AFY) for OTCWD with a projected 2020 usage of 150 AFY.<sup>32</sup> Per the State Water Board's current drought regulations (SWRCB Resolution 2015-0032, O'Connor, as smaller water suppliers (serving fewer than 3,000 connection), will be required to achieve a 25 percent conservation standard (savings) between June 1, 2015 and February 28, 2016, compared to the same period in 2013.

### *Palo Alto Park Mutual Water Company*

Palo Alto Park Mutual Water Company (PAPMWC) serves a very small number of residential properties located on eight parcels in the vicinity of Menalto Avenue and US 101. PAPMWC is a non-profit mutual benefit corporation that is cooperatively owned by approximately 650 property owners. The water supply for PAPMWC is derived groundwater pumped from five wells within the service area. The rates of these pumps range from 125 to 800 gallons per minute (GPM). PAPMWC operates two storage tanks for the pumped water, with capacities of 11,500 and 350,000 gallons. PAPMWC is not a public utility and only provides water to property owners within its service area.<sup>33</sup>

### *Water Service Providers Carried Forward for Further Discussion*

New development potential under the proposed project would occur in the Bayfront Area only, which is served by the MPMWD and Cal Water BGD; however, the portion of the Bayfront Area served by Cal Water BGD does not include any new development potential under proposed project.<sup>34</sup> The Bayfront Area is not served by O'Connor Tract Cooperative Water District or by Palo Alto Mutual Water Company (see Figure 4.14-1, Water Districts Map, and Figure 3-3, Bayfront Area, in Chapter 3, Project Description of this Draft EIR). O'Connor Tract Cooperative Water District and Palo Alto Mutual Water Company serve small portions of the city, outside of the Bayfront Area. As a result, water supply and demand is not further discussed for the O'Connor Tract Cooperative Water District or the Palo Alto Mutual Water Company. Under the proposed project, existing development potential under the existing General Plan for the remainder of the city, located outside of the Bayfront Area, would be carried forward through the 2040 buildout horizon. This area is served by Cal Water BGD. Therefore, the impacts related to water supply of the MPMWD and Cal Water BGD are carried forward for further discussion in this Draft EIR.

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<sup>32</sup> The O'Connor Tract Co-Operative Water Company has levels of Manganese above the Secondary drinking water standard. There is no health risk associated with this exceedance.  
<http://nebula.wsimg.com/fe76804f0beef5b4102236993a4b7fe4?AccessKeyId=C8A9A01A616314B1C39E&disposition=0&alloworigin=1>, accessed May 4, 2016.

<sup>33</sup> Palo Alto Park Mutual Water Company, <http://www.paloaltoparkmutualwatercompany.com/>, accessed February 27, 2015.

<sup>34</sup> A portion of the Bayfront Area bounded by Highway 101, Marsh Road, and the Dumbarton Rail is served by California Water Service Company. However, this area is not subject to land use changes in the proposed project.

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### *Water Supply Evaluation*

For new development potential in the Bayfront Area under proposed project the City, as previously stated, has voluntarily elected to prepare a WSE<sup>35</sup> that is modeled after and in general conformance with WSA requirements pursuant to SB 610 and SB 221 described in the Regulatory Setting in Section 4.14.1.1 above. The purpose of the WSE is to evaluate whether the MPMWD has sufficient water supply to meet current and planned water demand within its service area, specifically the demands associated with the project's proposed changes to the Bayfront Area, during normal and dry years over the proposed project's 24-year buildout horizon. The WSE is included in Appendix I of this Draft EIR.

As discussed above, although new development potential within the Bayfront Area is limited to the portions of the Bayfront Area served by MPMWD, water supply and demand for the Cal Water BGD service area for the existing development potential under the existing General Plan is also addressed below. The basis for the discussion of supply and demand within Cal Water BGD's service area is, in part, the WSA that was prepared for the 2013 Housing Element Update Environmental Assessment (WSA-HE)<sup>36</sup> and the 2010 UWMP for Cal Water BGD. The 2013 WSA-HE is included in Appendix J of this Draft EIR.

Accordingly, the remainder of this section summarizes the existing conditions and projected water supplies and demands for MPMWD and Cal Water BGD.

### *Water Supply*

The major water supply source for both the MPMWD and the Cal Water BGD is the San Francisco Regional Water System (RWS), operated by the SFPUC, under the 2009 "Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County, and Santa Clara County." The source water of the RWS is predominantly from the Tuolumne River watershed in the Sierra Nevada Mountains, 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. In June 2009, the City of Menlo Park (and California Water Service Company [i.e., Cal Water]) entered into an agreement with the SFPUC that implemented a new system for allocating water during water shortages, such as drought years. This allocation system accounts for usage by both wholesale and retail customers in the SFPUC service area and specific reductions in use would be determined by water availability and projected demand at the time a water shortage is declared.

The Water Supply Agreement with SFPUC provides 184 million gallons per day (MGD) to wholesale customers during normal water years. This volume, referred to as the "Supply Assurance" is subject to reduction during periods of water shortage due to drought, emergencies, or other scenarios resulting in a water shortage. Each wholesale customer's share of the 184 MGD is referred to as their Individual Supply Guarantee (ISG). Although the Agreement expires in 2034, the Supply Assurance and ISGs continue in perpetuity. The Agreement also recognizes the SFPUC's decision made in October 2008 to (a) defer any consideration of an increase to the 184 MGD Supply Assurance until 2018, (b) place an interim limit on

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<sup>35</sup> Erler & Kalinowski, Inc, 2016. Water Supply Evaluation Study, ConnectMenlo – General Plan and M-2 Area Zoning Update Menlo Park, California, prepared for City of Menlo park, February 3, 2016. See Appendix J of this Draft EIR.

<sup>36</sup> *Water Supply Assessment* for the City of Menlo Park Housing Element Update prepared by GHD, March 20, 2013, See Appendix K of this Draft EIR.

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sales of 184 MGD for all wholesale customers, (c) establish interim supply allocations (ISAs) for each wholesale customer through 2018, and (d) develop an environmental enhancement surcharge to be applied to wholesale agencies that exceed their ISA, if total use by SFPUC's retail customers and wholesale customers exceeds 265 MGD.

The MPMWD Individual Supply Guarantee (ISG) is 4.465 MGD (4,993 AFY or 1,630 million gallons per year [MGY]), and the Cal Water ISG is 35.68 MGD (39,967 AFY or 13,020 MGY). Cal Water BGD receives between 11.45 and 12.85 MGD or about one-third of the total Cal Water ISG. In addition, the Cal Water BGD obtains surface water from the Bear Gulch Creek at approximately 1,260 AFY in a normal 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.

The ISAs will last only until 2018 and will only be used as a basis for applying the surcharge. Therefore, although the establishment of the ISAs may potentially increase the cost of water supplied by SFPUC to MPMWD or Cal Water if either agency exceeds its ISA at a time when collective deliveries from the Regional System exceed 265 MGD, the ISAs will not affect MPMWD's ISG of 4.465 MGD or Cal Water's ISG of 35.68 MGD. Therefore, projected water supplies to MPMWD and Cal Water from SFPUC that are identified in the 2010 UWMPs, (as well in the ConnectMenlo WSE, which references the Draft 2015 UWMP for MPMWD), and rely on the ISGs for MPMWD and Cal Water, have not been modified based upon the provisions of the new Water Supply Agreement.

### *MPMWD Supply*

Thus, the MPMWD's projected water supply from SFPUC during a normal water year is 1,630 million gallons (MG). During single dry years, the MPMWD 2015 UWMP (in draft) estimates that annual deliveries from SFPUC will be reduced to 1,281 MG.<sup>37</sup> During the second and third dry years of a multiple-year drought, the 2015 UWMP estimates that annual deliveries from SFPUC will be reduced to 1,108 MG.

### *Cal Water Bear Gulch District Supply*

In a normal year Cal Water BGD receives between 11.45 and 12.85 MGD<sup>38</sup> or about one-third of the total Cal Water ISG from SFPUC, as indicated in the 2010 UWMP. Cal Water's ISG is allocated by Cal Water among three districts: Bear Gulch, Mid-Peninsula, and South San Francisco. The amount available to the BGD in any given year varies, and depends on the availability of local supplies in the three districts. During multiple dry years, the 2010 UWMP estimates (see Table 5.2-3 therein) the ISG supply available to Bear Gulch can be reduced to 79 percent of the total available during normal years. In addition to the SFPUC imported water, surface water supplies approximately five percent (1,206 AFY in a normal year) of the Bear Gulch District's water requirements. It is collected from the Bear Gulch Creek, which drains a 1,500-acre watershed owned by Cal Water, through two diversion facilities and is stored in Bear Gulch Reservoir prior to use. This surface water is treated at the outlet of the Bear Gulch Reservoir prior to entry into the distribution system. The 2010 UWMP estimates this surface water supply can be reduced to about 48

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<sup>37</sup> Based on Table 11 of the WSE, February 3, 2016.

<sup>38</sup> Equivalent to 4.179 to 4.690 MGY, or 12,820 to 14,390 AFY

## UTILITIES AND SERVICE SYSTEMS

percent of normal during the multiple dry years. It is estimated the total water supply for Cal Water BGD (SFPUC plus surface supplies) can be reduced to about 76 percent of normal in multiple dry years.

### *Water Shortage Contingency Plans*

The 2009 Water Supply Agreement includes a Water Shortage Allocation Plan (WSAP) that addresses shortages of up to 20 percent of system-wide use. The Tier One Shortage Plan of the WSAP allocates water from the SFPUC's RWS between San Francisco and the wholesale customers, during system-wide shortages of 20 percent or less. The WSAP also anticipated a Tier Two Shortage Plan, adopted by the wholesale customers, which would allocate the available water from the RWS among the wholesale customers.

As discussed above, as part of their UWMPs, the MPMWD and Cal Water BGD have prepared Water Shortage Contingency Plans, which describe measures to reduce water demand by up to 50 percent in the case of drought or emergency in their respective service areas. As noted, in response to the current drought and state regulations mandating demand reductions, MPMWD updated its Water Shortage Contingency Plan November 2014 and the City Council approved new water reduction regulations May 2015. Also in response to the current drought and corresponding state regulations, Cal Water BGD implemented an approved Water Shortage Contingency Plan with Staged Mandatory Reductions and Drought Surcharges, effective on June 1, 2015.

### *Water Demand*

#### MPMWD

##### Existing Water Demand

As reported in the WSE,<sup>39</sup> total annual water use for MPMWD was approximately 1,030 MG in 2014, which was a decrease relative to 2013 and a departure from the increase in water use observed between 2011 and 2013. Prior to 2011, water use had decreased since 2007; this decrease is thought to reflect impacts of the 2007-2009 drought, as well as the economic downturn that resulted in lower residential and non-residential water use.

Average annual water use within the Bayfront Area from 2010 through 2014 was approximately 195 MG, with annual water use ranging from 162 MG in 2012 to 224 MG in 2010.<sup>40</sup>

##### Future Water Demand *without* Proposed Project

The projected future water demand of the existing General Plan buildout within MPMWD's service area is reported in the draft 2015 UWMP, which was available during preparation of the WSE. Projected water

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<sup>39</sup> Erler & Kalinowski, Inc, 2016. Water Supply Evaluation Study, ConnectMenlo – General Plan and M-2 Area Zoning Update Menlo Park, California, prepared for City of Menlo park, February 3, 2016. Table 5.

<sup>40</sup> Erler & Kalinowski, Inc, 2016. Water Supply Evaluation Study, ConnectMenlo – General Plan and M-2 Area Zoning Update Menlo Park, California, prepared for City of Menlo park, February 3, 2016. Table 1.

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demands within MPMWD are provided in the WSE<sup>41</sup> in five year increments for 2020 through 2040. It is estimated that annual water demands associated with the City's existing General Plan buildout are approximately 1,310 MG in 2020 and 1,240 MG in 2040. The anticipated decline in water demands between 2020 and 2040 in spite of growth in total population and jobs is largely due to:

- Decreasing projected water use in the industrial sector; and
- Increased water efficiency in the residential and non-residential sectors as a result of plumbing code updates and planned MPMWD conservation efforts.

The WSE<sup>42</sup> identifies other planned projects within MPMWD's water service area, not included in the existing General Plan buildout, that are included in the Draft 2015 UWMP and the 2015 DSS Model.<sup>43</sup> These projects (Facebook expansion and New Magnet High School) were identified on the basis of information provided by the City's Planning Division on September 9, 2015 during preparation of the WSE. Potential annual water demands associated with these projects is approximately 31 MG.

Therefore, it is estimated that annual water demand will be approximately 1,271 MG in 2040 within MPMWD's service area (i.e., 1,240 MG for buildout of the existing General Plan plus 31 MG for other planned projects), excluding the proposed project.

### Future Water Demand *with* Proposed Project

The proposed project includes a net increase in new development east of Highway 101 within the Bayfront Area of approximately:

- 2.3 million non-residential square feet, including offices, life-sciences buildings, and other commercial uses;
- 400 hotel rooms;
- 4,500 multi-family residential units;
- Two transit centers; and
- 61 acres of landscaped open space.

As described in the WSE, the average annual water use for the new development potential under the proposed project was estimated based on: (1) the application of well-established methodologies for estimating indoor and outdoor water use factors on a "per square foot" or "per unit" basis, and (2) assumptions regarding water efficiency for certain end uses based on conformance with the City requirements. These project-specific water use factors were then applied to each new land use anticipated in the Bayfront Area. A summary of the resulting water use projections at buildout are

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<sup>41</sup> Erler & Kalinowski, Inc, 2016. Water Supply Evaluation Study, ConnectMenlo – General Plan and M-2 Area Zoning Update Menlo Park, California, prepared for City of Menlo park, February 3, 2016. Table 6.

<sup>42</sup> Erler & Kalinowski, Inc, 2016. Water Supply Evaluation Study, ConnectMenlo – General Plan and M-2 Area Zoning Update Menlo Park, California, prepared for City of Menlo park, February 3, 2016. Table 7.

<sup>43</sup> Demand Side Management Least Cost Planning Decision Support System (DSS). The DSS Model is used to project both long-range water demands and conservation savings. To forecast water demands, the DSS Model relies on demographic and employment projections, combined with the effects of natural fixture replacement due to the implementation of plumbing codes to forecast future demands.

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provided in the WSE.<sup>44</sup> Based on methodologies described in the WSE, the annual water use associated with the new development potential under the proposed project is projected to be 343 MG at buildout.

Therefore, adding the estimated water demand (343 MG per year) for the proposed project’s new development potential and the estimated amount without the proposed project’s new development potential (1,271 MG), yields an expected water demand in 2040 within MPMWD’s service area of approximately 1,614 MG. Future water demands in the MPMWD service area, with the proposed project’s new development potential, are summarized in Table 4.14-2.

**TABLE 4.14-2 TOTAL PROJECTED FUTURE WATER DEMANDS FOR MPMWD**

Water Demand Estimate	Projected Future Water Demand (MG)				
	2020	2025	2030	2035	2040
Water Demand of Existing General Plan <sup>a</sup>	1,310	1,286	1,265	1,251	1,240
Water Demand for Other Planned Projects <sup>b</sup>	31	31	31	31	313
<b>Total Water Demand without Proposed Project</b>	<b>1,341</b>	<b>1,317</b>	<b>1,296</b>	<b>1,282</b>	<b>1,271</b>
Project Water Demand <sup>c</sup>	0	86	172	257	343
<b>Total Water Demand with Proposed Project</b>	<b>1,341</b>	<b>1,403</b>	<b>1,468</b>	<b>1,539</b>	<b>1,614</b>

Notes:

a. The total projected District-wide water demand between 2010 and 2040 is based on water demand projections within the MPMWD’s draft 2015 UWMP (see WSE; Table 6)

b. The total estimated water demand for currently planned projects is 31 MG (see WSE; Table 7);

c. The proposed project is expecting buildout by 2040 over a 25-year horizon; therefore, project demands are phased throughout 2020 to 2040 to reflect phased buildout of the proposed project.

Source: WSE, February 3, 2016; Table 8 (from 2015 Urban Water Management Plan, prepared by the City of Menlo Park, draft).

### *Cal Water Bear Gulch District*

Taking into account the requirements of SBx7-7, Cal Water’s 2010 UWMP for the BGD reported the following:

- A computed baseline use of 238 gallons per capita per day (gpcd), based on water use in the period from 2000 until 2009;
- An adopted 2015 interim target of 214 gpcd; and
- An adopted 2020 target of 190 gpcd.

In order to calculate future demands, Cal Water multiplied the SBx7-7 targets by the projected population within its BGD service area. This resulted in gross future water demand projections. In order to estimate how these demands would be spread across the various water use sectors, Cal Water used the ratio of individual deliveries for each class of demand (e.g., residential, CII, landscape), to the total historic deliveries. This ratio was applied to the total adjusted baseline demand resulting in the projected

<sup>44</sup> Erler & Kalinowski, Inc, 2016. Water Supply Evaluation Study, ConnectMenlo – General Plan and M-2 Area Zoning Update Menlo Park, California, prepared for City of Menlo park, February 3, 2016. Table 2.

## UTILITIES AND SERVICE SYSTEMS

deliveries. The 2010 UWMP (Table 5.2-4 therein) reports total water demand projections in the BGD ranged from 13,839 AFY (4,510 MGY) in 2015 to 14,160 AFY (4,614 MGY) in 2040 in a normal hydrologic year.

### *Comparison of Supply and Demand*

#### MPMWD

##### Normal Hydrologic Year

As shown on Table 4.14-3, and in the WSE,<sup>45</sup> MPMWD is expected to have adequate water supplies during normal years to meet its total annual projected demands including the proposed project demand (343 MG per year) based on MPMWD's 2010 UWMP and 2015 UWMP in development. The projected water supply from 2020 through 2040 is 1,630 MGY during normal years. Anticipated water demand of the proposed project plus demand from buildout of the existing General Plan and other planned projects in the MPMWD service area is projected to range from 1,341 MGY in 2020 to 1,614 MGY in 2040. At its largest, anticipated water demand is 16 MGY below the projected supply.

##### Single Dry Year

During single-dry years, the WSE concludes MPMWD is expected to have a 4.5 percent shortfall in water supplies to meet its total annual projected demands through 2020 either with or without the proposed project demand (0 MG in 2020). By 2040, MPMWD's total annual water demand, including the project demand from new development potential, is estimated to exceed total annual supply by approximately 333 MG, which results in a total water supply shortfall of 21 percent.<sup>46</sup> Without the proposed project's new development potential, there is sufficient supply to meet the anticipated demand during single dry years in 2040. Therefore, the proposed project creates an incremental shortfall of approximately 21 percent in 2040 compared to the without-project conditions (see Table 4.14-3).

##### Multiple Dry Years

During multiple-dry years in 2020, MPMWD's total annual water demand, either including or excluding the proposed project demand, is projected to exceed the total annual supply by approximately 233 MGY, which results in a total water supply shortfall of 17 percent. In 2040, MPMWD's total annual water demand, including the project demand, is projected to exceed the total annual supply by approximately 506 MG, which results in a total water supply shortfall of 31 percent. Without the proposed project's new development potential, the multiple dry year shortfall in 2040 is projected to be 13 percent, or 163 MG. Therefore, in 2040, the proposed project's new development potential creates an incremental shortfall of approximately 18 percent compared to the without-project conditions, during multiple dry years (see Table 4.14-3).

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<sup>45</sup> Erler & Kalinowski, Inc, 2016. Water Supply Evaluation Study, ConnectMenlo – General Plan and M-2 Area Zoning Update Menlo Park, California, prepared for City of Menlo park, February 3, 2016. Tables 8, 10, and 13.

<sup>46</sup> Erler & Kalinowski, Inc, 2016. Water Supply Evaluation Study, ConnectMenlo – General Plan and M-2 Area Zoning Update Menlo Park, California, prepared for City of Menlo park, February 3, 2016. Tables 11.

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**TABLE 4.14-3 INCREMENTAL IMPACT OF THE PROJECT ON MPMWD'S WATER SUPPLY AND DEMAND IN NORMAL AND DRY YEARS**

		Without Proposed Project			With Proposed Project			
		[A]	[B]	[C] C = (A - B) / B	[D]	[E] E = (A - D) / D	[F] F = E - C	
		Total Potable Supply (MG) <sup>a</sup>	Potable Demand (MG) <sup>b</sup>	Supply Shortfall (% of Demand)	Potable Demand (MG) <sup>b</sup>	Supply Shortfall (% of Demand)	Incremental Shortage	
	Year							
<b>2020</b>	Normal	1,630	1,341	No Shortfall	1,341	No Shortfall	0%	
	SDY	1,281	1,341	4.5%	1,341	4.5%	0%	
	MDY	Year 1	1,281	1,341	4.5%	1,341	4.5%	0%
		Year 2	1,108	1,341	17%	1,341	17%	0%
		Year 3	1,108	1,341	17%	1,341	17%	0%
<b>2025</b>	Normal	1,630	1,317	No Shortfall	1,403	No Shortfall	0%	
	SDY	1,281	1,317	2.7%	1,403	8.7%	6%	
	MDY	Year 1	1,281	1,317	2.7%	1,403	8.7%	6%
		Year 2	1,108	1,317	16%	1,403	21%	5%
		Year 3	1,108	1,317	16%	1,403	21%	5%
<b>2030</b>	Normal	1,630	1,296	No Shortfall	1,468	No Shortfall	0%	
	SDY	1,281	1,296	1.1%	1,468	13%	12%	
	MDY	Year 1	1,281	1,296	1.1%	1,468	13%	12%
		Year 2	1,108	1,296	14%	1,468	24%	10%
		Year 3	1,108	1,296	14%	1,468	24%	10%

**UTILITIES AND SERVICE SYSTEMS**

**TABLE 4.14-3 INCREMENTAL IMPACT OF THE PROJECT ON MPMWD'S WATER SUPPLY AND DEMAND IN NORMAL AND DRY YEARS**

		Without Proposed Project			With Proposed Project			
		[A]	[B]	[C] C = (A - B) / B	[D]	[E] E = (A - D) / D	[F] F = E - C	
		Total Potable Supply (MG) <sup>a</sup>	Potable Demand (MG) <sup>b</sup>	Supply Shortfall (% of Demand)	Potable Demand (MG) <sup>b</sup>	Supply Shortfall (% of Demand)	Incremental Shortage	
Year								
2035	Normal	1,630	1,282	No Shortfall	1,539	No Shortfall	0%	
	SDY	1,281	1,282	0.1%	1,539	17%	17%	
	MDY	Year 1	1,281	1,282	0.1%	1,539	17%	17%
		Year 2	1,108	1,282	14%	1,539	28%	14%
		Year 3	1,108	1,282	14%	1,539	28%	14%
2040	Normal	1,630	1,271	No Shortfall	1,614	No Shortfall	0%	
	SDY	1,281	1,271	No Shortfall	1,614	21%	21%	
	MDY	Year 1	1,281	1,271	No Shortfall	1,614	21%	21%
		Year 2	1,108	1,271	13%	1,614	31%	18%
		Year 3	1,108	1,271	13%	1,614	31%	18%

Notes: SDY = single dry year, MDY = multiple

Source: WSE, February 3, 2016, Table 13. Projected available water supplies during normal, single dry and multiple dry years are from MPMWD's 2015 UWMP (in development), and are documented in Tables 10, 11 and 12 of the WSE. Values for projected water demand with and without proposed project are calculated in Table 8 of WSE.

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### *Cal Water Bear Gulch District*

The growth anticipated by the existing General Plan development potential outside the Bayfront Area partially falls within the Cal Water BGD. Cal Water BGD's 2010 UWMP projects water demands using a unit demand methodology based on land uses and population projections in the General Plans of cities it serves, including Menlo Park. For purposes of the impact analyses in this Draft EIR it is conservatively assumed that the growth anticipated by the existing General Plan development potential outside the Bayfront area was not *specifically* taken into account in the demand projection allowance made in Cal Water BGD's 2010 UWMP. However, it is noted that Cal Water BGD's 2010 UWMP projected that population in its service area would grow from 57,773 persons in 2015 to 66,535 in 2040. This is an annual growth rate of 0.61 percent per year, which is higher than the growth rate used in the MPMWD's 2010 UWMP.

### Normal Hydrologic Year

According to the 2010 UWMP, based on the availability of normal year supplies, there will be a supply deficiency of approximately 2,100 AF in 2040. Cal Water will only purchase enough SFPUC water to meet customer demand in any given year. The projected demand is based on the SBx7-7 target demand, which assumes that each Cal Water district reaches its individual demand goals.

### Single Dry Year

In general, and from historical operational records, Cal Water BGD's demand has shown to increase during a single-dry years as compared to normal years. The water demand increases due to maintenance of landscape and other high water uses that would normally be supplied by precipitation. According to the SFPUC reliability analysis provided to BAWSCA for the 2010 UWMP, there could be a 10 percent system-wide cutback during single dry years. Under the Tier 2 allocation plan, Cal Water could see a reduction in SFPUC supply of up to 17 percent. A 10 percent system-wide cutback in SFPUC supplies results in an estimated supply shortfall of approximately 4,500 AF (13 percent shortfall) in 2020 and 9,400 AF (27 percent shortfall) in 2040. Historically, the 2010 UWMP notes that SFPUC supplies have not been reduced this dramatically in the first year of a drought. Under normal circumstances SFPUC has adequate carryover storage in the RWS to provide an increased level of service in single dry years. If the hydrologic conditions were severe enough, Cal Water would expect SFPUC to request a voluntary reduction in purchases. Cal Water would respond accordingly by requesting additional conservation by its customers through implementation of the *Water Shortage Contingency Plan*.

### Multiple Dry Years

Based on the years chosen for the analysis in the 2010 UWMP, Cal Water's three Peninsula Districts (including BGD) had lower demands during the multiple dry year period than in either the single dry or normal hydrologic years. According to the SFPUC reliability analysis provided to BAWSCA for the 2010 UWMP, there could be a 10 percent system-wide cutback during the first year of a multiple dry year period, and a 20 percent cutback in years two and three. As noted above, a 10 percent system-wide

## UTILITIES AND SERVICE SYSTEMS

cutback results in a 17 percent reduction in SFPUC supplies to Cal Water, while a 20 percent cutback results in a 34 percent reduction in SFPUC supplies. There is a supply shortfall of about 45 AF (less than 0.1 percent shortfall) in 2020 if a 10 percent system-wide reduction is required. If the cutback reaches 20 percent Cal Water could see a shortfall of about 6,500 AF (23 percent shortfall) beginning in 2020 and up to 9,700 AF (34 percent shortfall) in 2036. These shortfalls would need to be met through a combination of customer demand reductions resulting from the implementation of the *Water Shortage Contingency Plan*.

### 4.14.1.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would have a significant impact on water service if:

1. There were insufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements were needed.
2. It would require or result in the construction of new water facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

### 4.14.1.3 IMPACT DISCUSSION

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<b>UTIL-1</b>	<b>Implementation of the proposed project would have sufficient water supplies available to the serve the study area from existing entitlements, conservation plans and resources, and would not require new or expanded entitlements.</b>
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### MPMWD

As described above, the existing development potential in the Bayfront Area would add 343 MGY demand at buildout in 2040 to the MPMWD service area. This demand would be added incrementally over the project time horizon, from 0 MG in 2020 to 343 MG in 2040. As shown in Table 4.14-3 above, MPWMD's water supply is adequate to meet the increased demands in normal years through the buildout year 2040.

During single-dry years, by 2040, MPMWD's total annual water demand, including the demand of the existing development potential under the proposed project, is estimated to exceed total annual supply by approximately 333 MG, which results in a total water supply shortfall of 21 percent. Without the proposed project's existing development potential there is sufficient water supply to meet projected demand through 2040. Therefore, the proposed project creates an incremental shortfall of approximately 21 percent in 2040 compared to the without-project conditions.

During multiple-dry years, by 2020, MPMWD's total annual water demand, either including or excluding the proposed project's demand (0 MG in 2020), is projected to exceed the total annual supply by approximately 233 MGY, which results in a total water supply shortfall of 17 percent. In 2040, MPMWD's total annual water demand, *including* the proposed project demand, is projected to exceed the total annual supply by approximately 506 MGY, which results in a total water supply shortfall of 31 percent.

## UTILITIES AND SERVICE SYSTEMS

Without the proposed project, the multiple dry year shortfall in 2040 is projected to be 13 percent. Therefore, in 2040, the proposed project creates an incremental shortfall of approximately 18 percent compared to the without-project conditions, during multiple dry years.

In sum, MPMWD could experience water shortages at project buildout (2040) during single (21 percent shortfall) and multiple dry years (31 percent shortfall). However, with MPMWD's *Water Shortage Contingency Plan* in place, the shortages in multiple dry years would be managed through demand reductions of up to 50 percent.

In addition, as part of the Zoning update, the project includes green and sustainable building standards in the Bayfront Area. These standards require all new buildings within the Bayfront Area to be maintained without the use of well water and include dual plumbing systems for the use of recycled water. Under the Zoning update, no potable water shall not be used for decorative features, unless the water is recycled, and single pass cooling systems are prohibited. Also, future development with a gross floor area of 100,000 square feet or more must submit a proposed water budget for review by the City's Public Works Director prior to certification of occupancy. New buildings with 250,000 square feet of gross floor area or more are required to use an alternate water source for all City-approved non-potable applications.

Therefore, impacts to the MPMWD would be *less than significant*.

### Cal Water Bear Gulch District

The 2010 UWMP estimates Cal Water could see a supply shortfall of up to 9,700 AF in 2036 (combined for all three districts: Bear Gulch, Mid-Peninsula, and South San Francisco) if a 20 percent system-wide reduction from SFPUC's RWS is required. This magnitude of shortfall represents 34 percent shortfall to Cal Water as a function of projected supply and a 25 percent shortfall as a function of projected demand.<sup>47</sup> System wide shortfalls would need to be met through customer demand reductions resulting from the implementation of the *Water Shortage Contingency Plan*. Table 3-2 in Chapter 3, Project Description, of this Draft EIR, shows the population growth attributable to the existing General Plan is 2,580 people, and population growth attributable to all reasonably foreseeable cumulative projects in the city is 3,300 people at the buildout horizon year (2040). For purposes of analysis, using the very conservative assumption that all this population growth is attributable to the Cal Water BGD service territory and is not accounted for in the population/demand growth projections in the 2010 UWMP, the total resulting incremental water demand in the Cal Water territory would be 408 MG,<sup>48</sup> or 1504 AF (in 2040). This incremental water demand represents an additional five (5) percent shortfall on top of the 34 percent shortfall projected during multiple dry years in the Cal Water service territory. With Cal Water's *Water Shortage Contingency Plan* in place, shortages in multiple dry years would be managed through demand reductions of up to 50 percent, or more.<sup>49</sup>

Therefore, impacts to the Cal Water supply would be *less than significant*.

<sup>47</sup> Cal Water BGD 2010 UWMP, Table 5.2-6.

<sup>48</sup> 5,880 x 190 gpcd [2020 target for Cal Water [ 2010 UWMP] x 365 days/yr = 408 MGy.

<sup>49</sup> Cal Water BGD 2010 UWMP, Table 5.5-3

## UTILITIES AND SERVICE SYSTEMS

### Summary

In addition to the implementation of the water shortage contingency plans of the water supply retailers, the proposed zoning changes encourage water conservation and the potential development of recycled water sources. The proposed Land Use (LU) Element, which would be affirmed as part of the proposed project, and existing Section II, Open Space/Conservation (OSC) of the Open Space/Conservation, Noise and Safety Elements, contain general goals, policies, and programs that would require local planning and development decisions to consider impacts to the environment related to water supply and demand. The following General Plan goals, policies and a program would serve to minimize water consumption and help to maintain a balance between water supply and demand:

- **Goal OSC-1:** Maintain, protect and enhance open space and natural resources.
  - **Policy OSC-1.11: Sustainable Landscape Practices.** Encourage the enhancement of boulevards, plazas and other urban open spaces in high-density and mixed-use residential developments, commercial and industrial areas with landscaping practices that minimize water usage.
- **Goal OSC-2:** Provide Parks and Recreation Facilities.
  - **Policy OSC-2.7: Conservation of Resources at City Facilities.** Reduce consumption of water, energy, landfilled waste, and fossil fuels in the construction, operations and maintenance of City owned and/or operated facilities.
- **Goal OSC-4:** Promote sustainability and climate action planning.
  - **Policy OSC-4.2: Sustainable Building.** Promote and/or establish environmentally sustainable building practices or standards in new development that would conserve water and energy, prevent stormwater pollution, reduce landfilled waste, and reduce fossil fuel consumption from transportation and energy activities.
- **Goal OSC-5:** Ensure healthy air quality and water quality.
  - **Policy OSC-5.3: Water Conservation.** Encourage water-conserving practices in businesses, homes and institutions.
    - **Program OSC-5.A: Expand Water Conservation Programs.** Expand the Menlo Park Municipal Water District's conservation programs through education, social marketing methods, establishing standards, and providing incentives
- **Goal LU-4:** Promote the development and retention of business uses that provide goods or services needed by the community that generate benefits to the City, and avoid or minimize potential environmental and traffic impacts.
  - **Policy LU-4.5: Business Uses and Environmental Impacts.** Allow modifications to business operations and structures that promote revenue generating uses for which potential environmental impacts can be mitigated.
- **Goal LU-7:** Promote the implementation and maintenance of sustainable development, facilities and services to meet the needs of Menlo Park's residents, businesses, workers, and visitors.

## UTILITIES AND SERVICE SYSTEMS

- **Policy LU-7.1 Sustainability.** Promote sustainable site planning, development, landscaping, and operational practices that conserve resources and minimize waste.
- **Policy LU-7.4 Water Protection.** Work with regional and local jurisdictions and agencies responsible for ground water extraction to develop a comprehensive underground water protection program in accordance with the San Francisquito Creek Watershed Policy, which includes preservation of existing sources and monitoring of all wells in the basin to evaluate the long term effects of water extraction.
- **Policy LU-7.5: Reclaimed Water Use.** Implement use of adequately treated “reclaimed” water (recycled/nonpotable water sources such as, graywater, blackwater, rainwater, stormwater, foundation drainage, etc.) through dual plumbing systems for outdoor and indoor uses, as feasible.

The experience of the past four years of drought (2012 to 2016), and the water conservation response actions taken by the state and the City,<sup>50</sup> demonstrate that sufficient water supplies would be available to serve the proposed project from existing entitlements and resources and new or expanded entitlements would not be required during single- and multiple-dry years. In addition, future development under the proposed project, as part of the City’s project approval process, would be required to comply with existing regulations, including General Plan policies and Zoning requirements that have been prepared to minimize impacts related to water supplies as listed above. The City, throughout the 2040 buildout horizon, would implement the General Plan program that requires the expansion of the Menlo Park Municipal Water District’s conservation programs as listed above. Therefore, the adoption of the proposed project would result in less-than-significant impact with respect to water supplies during single- and multiple-dry years.

### Applicable Regulations:

- California Water Conservation Act of 2009 (SB X7-7)
- California Plumbing Code that requires water conserving fixtures
- California Emergency Regulations Restricting Use of Potable Water (CCR Title 23, Sections 863, 864, 865 and 866)
- 2009 Water Shortage Allocation Plan between the SFPUC and its wholesale customers, adopted as part of the Water Supply Agreement
- SFPUC’s Water Supply Improvement Program
- City of Menlo Park Municipal Code: Chapter 7.35, Water Conservation; Chapter 12.44, Water Efficient Landscaping
- City of Menlo Park City Council Resolution 6261 (May 2015) Regarding Emergency Water Conservation Regulations
- MPMWD and Cal Water BGD water supply and demand management strategies and water shortage contingency plans identified in the Urban Water Management Plans

**Significance Without Mitigation:** Less than significant.

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<sup>50</sup> SWRCB, 2016. Water Conservation Portal – Conservation Reporting, accessed on May 4, 2016.

## UTILITIES AND SERVICE SYSTEMS

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<b>UTIL-2</b>	<b>Implementation of the proposed project would require or result in the construction of new water facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.</b>
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The MPMWD receives 100 percent of its potable water from the SFPUC. The City does not own or operate a water treatment plant (WTP). Through 2040, Cal Water's planned water supply is greater than 91 percent from SFPUC; less than 9 percent from local surface diversions. The water purchased from the SFPUC may be treated at one or more WTPs operated by SFPUC. SFPUC treats water to meet all applicable drinking water standards. SFPUC periodically makes improvements to its WTPs in order to improve system reliability and accommodate projected growth in its regional service areas. For example, the WSIP includes capacity expansion and other improvements to the Tesla Treatment Facility (completed in 2013), Sunol Valley WTP (completed in 2014) and Harry Tracy WTP (97 percent complete).<sup>51</sup> The WSIP also includes many projects to improve the Regional Water System distribution lines and storage reservoirs. As a result, adoption and implementation of the proposed project would not prompt a need to expand treatment facilities or regional water system conveyance and storage facilities in order to meet its demand and this impact would be *less than significant*.

Project-level infrastructure improvements may be necessary during buildout of the project. For example, existing local distribution lines within the City may be undersized for future projects and improvements under the proposed project and could require replacement with larger diameter pipes. In addition, the Bayfront Area reportedly has inadequate storage for fire flow and emergency supplies, and MPMWD distribution system does not have adequate hydraulic connectivity to the Upper zone to alleviate this shortage. Potential environmental impacts could result from construction and operation of pipeline improvements and additional water storage capacity; however, such impacts would be project-specific. Any new or expanded local water distribution facilities would require permitting and review in accordance with CEQA, which would ensure environmental impacts are disclosed and mitigated to the extent possible. Therefore, in accordance with the applicable regulations listed below, adoption of the proposed project would result in *less-than-significant* impacts with respect to adequate water facilities and service.

### Applicable Regulations:

- California Water Conservation Act of 2009 (SB X7-7)
- California Plumbing Code that requires water conserving fixtures
- California Emergency Regulations Restricting Use of Potable Water (CCR Title 23, Sections 863, 864, 865 and 866)
- 2009 Water Shortage Allocation Plan between the SFPUC and its wholesale customers, adopted as part of the Water Supply Agreement
- SFPUC's Water Supply Improvement Program
- City of Menlo Park Municipal Code: Chapter 7.35, Water Conservation; Chapter 12.44, Water Efficient Landscaping
- City of Menlo Park City Council Resolution 6261 (May 2015) Regarding Emergency Water Conservation Regulations

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<sup>51</sup> SFPUC, WSIP, Regional Projects Quarterly Report, 4th Quarter, FY 2014/2015, <http://sfsewers.org/Modules/ShowDocument.aspx?documentID=7612>, accessed October 23, 2015.

## UTILITIES AND SERVICE SYSTEMS

- MPMWD and Cal Water BGD water supply and demand management strategies and water shortage contingency plans identified in the 2010 Urban Water Management Plans

**Significance Without Mitigation:** Less than significant.

### 4.14.1.4 CUMULATIVE IMPACT DISCUSSION

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<b>UTIL-3</b>	<b>Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to water service.</b>
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This section analyzes potential cumulative impacts to water supply that could occur from the adoption and implementation of the proposed project in combination with past, present, and other reasonably foreseeable projects in the surrounding area (as addressed in the ConnectMenlo WSE and the UWMPs). The geographic scope of this cumulative analysis is the SFPUC retail and wholesale service area. The MPMWD's 2010 and 2015 (in draft) UWMPs, and the WSE prepared for the proposed project, indicate that sufficient water supply exists to meet demand in normal years for existing development potential. The last four years of drought have demonstrated that existing water supplies from SFPUC were also sufficient to serve the City during the current multiple-year drought period. The WSE (2016), the UWMPs, the Water Shortage Allocation Plan of the Water Supply Agreement between SFPUC and wholesale customers, the WSIP, the MPMWD and Cal Water BGD water shortage contingency plans, and mandatory state emergency water use restrictions also indicate that there are plans and programs in place to ensure sufficient water during future single- and multiple-dry years. Similarly, the cumulative water supply needs of the proposed project in combination with past, present, and reasonably foreseeable projects in the SFPUC wholesale service territory during normal, single-, and multiple-dry years could be met by 1) State voluntary and mandatory water conservation and water efficiency measures, 2) SFPUC voluntary and mandatory water conservation and water efficiency measures, 3) City water conservation measures called for in the municipal code and emergency conservation ordinance, 4) BAWSCA's long-term water supply strategy, and 5) SFPUC's WSIP improvements. Cumulative projects would contribute to additional water demands. However, future projects would be subject to substantially the same water conservation efforts, water efficiency measures, and water supply improvements to balance supply and demand as would the proposed project. In particular, cumulative projects within the SFPUC wholesale service area would be subject to State and SFPUC voluntary and mandatory conservation measures to reduce usage, the BAWSCA's long-term water supply strategy to enhance supplies, and the SFPUC's WSIP projects to improve the regional water system reliability and capacity. In addition, cumulative projects within the Bayfront Area would be required to comply with the green and sustainable building standards included in the Zoning regulations.

Physical impacts to the environment as a result of infrastructure improvements would be restricted to the study area and therefore, would not result in a greater cumulative impact. As discussed under UTIL-2, potential environmental impacts would be project-specific. Any new or expanded local water distribution facilities would require permitting and review in accordance with CEQA, which would ensure environmental impacts are disclosed and mitigated to the extent possible.

## UTILITIES AND SERVICE SYSTEMS

With conservation measures described above, there would be adequate water supplies to serve the proposed project in combination with other reasonably foreseeable projects in the SFPUC wholesale service area. Therefore, in accordance with the applicable regulations listed below, cumulative impacts would be *less than significant*.

### **Applicable Regulations:**

- California Water Conservation Act of 2009 (SB X7-7)
- California Plumbing Code that requires water conserving fixtures
- California Emergency Regulations Restricting Use of Potable Water (CCR Title 23, Sections 863, 864, 865 and 866)
- 2009 Water Shortage Allocation Plan between the SFPUC and its wholesale customers, adopted as part of the Water Supply Agreement
- SFPUC's Water Supply Improvement Program
- City of Menlo Park Municipal Code: Chapter 7.35, Water Conservation; Chapter 12.44, Water Efficient Landscaping
- City of Menlo Park City Council Resolution 6261 (May 2015) Regarding Emergency Water Conservation Regulations
- MPMWD and Cal Water BGD water supply and demand management strategies and water shortage contingency plans identified in the Urban Water Management Plans

**Significance Without Mitigation:** Less than significant.

### 4.14.2 SANITARY WASTEWATER (SEWER)

This section describes the existing regulatory setting and conditions as well as potential impacts of adopting and implementing the proposed project with regard to wastewater collection and treatment facilities. Wastewater collection services in the city and proposed project study area are provided by West Bay Sanitary District (WBSD). Wastewater treatment services are provided by Silicon Valley Clean Water (SVCW; formerly the South Bayside Systems Authority ([SBSA]) at their Waste Water Treatment Plant (WWTP) located in Redwood City.

#### 4.14.2.1 ENVIRONMENTAL SETTING

##### Regulatory Framework

###### *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.

## UTILITIES AND SERVICE SYSTEMS

### Clean Water Act

The Federal Water Pollution Act of 1972, more commonly known as the Clean Water Act (CWA), regulates the discharge of pollutants into watersheds throughout the nation. It is the primary federal law governing water pollution. Under the CWA, the US EPA implements pollution control programs and sets wastewater standards. The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

### National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the Clean Water Act to regulate municipal and industrial discharges to surface waters of the United States. 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 connections 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 pretreatment, 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 sewage treatment plant.

Operation of the SVCW WWTP and its wastewater collection system is regulated by Waste Discharge Requirements (WDRs; NPDES No. CA0038369) found in RWQCB Order No. R2-2012-0062 effective October 1, 2012, and expiring September 30, 2017. The discharger's wastewater collection system consists of four pump stations which receive wastewater from the "satellite" wastewater collection systems of four municipal jurisdictions (West Bay Sanitary District, City of Belmont, City of San Carlos and City of Redwood City). The effluent from the WWTP is also subject to two other NPDES permits: 1) the WDRs for mercury and polychlorinated biphenyls (PCBs) from municipal and industrial wastewater discharges to San Francisco Bay (NPDES No. CA0038849); and 2) waste discharge requirements for nutrients from municipal wastewater discharges to San Francisco Bay (NPDES No. CA0038873). The three NPDES permits enable SVCW to discharge treated wastewater into San Francisco Bay.

### *State Regulations*

#### State Water Resources Control Board

On May 2, 2006 the State Water Resources Control Board (SWRCB) adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than one 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 Sanitary Sewer Master Plan. The General Waste Discharge

## UTILITIES AND SERVICE SYSTEMS

Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system.

The SWRCB has delegated authority to nine Regional Water Quality Control Boards (RWQCBs) to enforce these requirements within their region. The San Francisco Bay RWQCB issues and enforces NPDES permits applicable to the WBSD wastewater collection system in Menlo Park and the SVCW WWTP in Redwood City.

### Sanitary District Act of 1923

The Sanitary District Act of 1923 (Health and Safety Code Section 6400 et seq.) authorizes the formation of sanitation districts and enforces the Districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater. The Act was amended in 1949 to allow the districts to also provide solid waste management and disposal services, including refuse transfer and resource recovery.

### *Regional Regulations*

### Silicon Valley Clean Water Planning Documents

Silicon Valley Clean Water (SVCW; formerly the South Bayside Systems Authority [SBSA]) 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. The CIP 2015 Update published in June 2015 extends the original 10-year CIP to a \$792 million 15 year CIP.<sup>52</sup> The CIP is a living document and will continue to be reviewed annually, refined and updated as needed.

The SVCW Conveyance System Master Plan, published in August 2011, includes facilities expansion planning based on growth projections provided by member agencies derived from General Plans and/or master planning documents. The SVCW WWTP currently is permitted for 29 million gallons per day (MGD) dry weather capacity and 71 MGD wet weather capacity. The CIP Update in 2013 reflected the results of a capacity Study (Brown & Caldwell, 2013) that identified four new projects needed for SVCW to reliably treat its wet weather flow. Expansion projects (known as “Stage 2”) are not included in the 2015 CIP. The SVCW’s Stage 2 expansion program is contained under a separate program. The 2015 CIP Update notes that “a ‘Stage 2 Capacity’ Fund was established to pay for capital projects that increase SVCW treatment capacity. The CIP further notes that each year, if the funds held in reserves fall below targeted levels (10 percent of the operating plus capital budgets, plus \$1 million), SVCW is to consider budget adjustments in order to return to the target level. The SVCW, a Joint Powers Authority (JPA), has the ability to amend its reserve policy at any time.

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<sup>52</sup> SVCW, 2015. Silicon Valley Clean Water Capital Improvement Program 2015 Update, June 2015; <http://www.svcw.org/programs/Shared%20Documents/Final%202015%20CIP%20Update%2007152015.pdf>, accessed December 2, 2015.

## UTILITIES AND SERVICE SYSTEMS

### 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.

### 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 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.

### *Local Regulations*

#### Menlo Park General Plan

The City of Menlo Park General Plan includes goals, policies, and programs relevant to the environmental factors potentially affected by the proposed project. Applicable goals, policies, and programs are identified and assessed for their effectiveness later in this chapter under Section 4.14.3.3, Impact Discussion.

## Existing Conditions

This section describes the environmental setting and potential impacts of the proposed project with regard to wastewater collection and treatment facilities.

### *Sanitary Sewer*

The West Bay Sanitary District (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. Small areas along Haven Avenue are served by the Fair Oaks Sewer Maintenance District (FOSMD), and small portions of the Willows neighborhood in the O'Connor area are served by East Palo Alto Sanitary District (EPASD). Wastewater from the EPASD is treated by the City of Palo Alto's Regional Water Quality Control Plant. WBSD collected wastewater is treated by Silicon Valley Clean Water

## UTILITIES AND SERVICE SYSTEMS

(SVCW), which is a Joint Powers Authority that owns and operates the regional Waste Water Treatment Plant (WWTP) in Redwood Shores. The SVCW also operates the pump stations that are located at the terminus of each member's collection system. The Joint Powers Authority governing members include WBSD and the cities of Redwood City, San Carlos, and Belmont.

### Wastewater Collection

The WBSD service area encompasses approximately 8,325 acres and includes approximately 19,000 service connections to serve a population of 52,900.<sup>53</sup> The WBSD operates and maintains approximately 200 miles of gravity sewer mains in size from 6 to 54 inches in diameter.<sup>54</sup> The system serves more than 19,000 connections, including residential, commercial, and industrial users, and contains 150 miles of private lateral sewers.<sup>55</sup> The WBSD conveys raw wastewater to SVCW for treatment through the Menlo Park Pump Station and force main.<sup>56</sup> The SVCW then discharges treated water to the San Francisco Bay.

The WBSD's Base Wastewater Flow (BWF; "dry weather flow"), as measured during the 2009/10 flow monitoring program, is 4.6 MGD. This BWF translates to approximately 87 gallons per capita per day (gpcd), which is within the industry standard and closely matches the WBSD's design criteria of 85 gpcd.<sup>57</sup>

The WBSD owns and operates 12 pump stations ranging in capacity from 110 to 2,500 gallons per minute (GPM).<sup>58</sup> 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 response equipment.<sup>59</sup> The 2015-2016 Capital Assets Fund for WBSD includes \$4 million of pipeline replacement projects (as scheduled in the Collection System Master Plan 2011, updated in 2013).<sup>60, 61</sup> This Capital Fund Budget also includes a \$3,250,000 CIP carryover (unspent) from CIP projects in progress from Fiscal Year (FY) 2014-2015. These expenditures enable the District to maintain the goal of replacing more than 1.5 percent (or about three miles) of the system's aging pipelines each year.

The Capital Fund expenses also include the building of Emergency Capital Reserves and Capital Project Reserves. The budget proposal includes the utilization of approximately \$960,000 of the Capital Projects reserve to accommodate the pre-payment of Stage 2 Capacity at the Silicon Valley Clean Water treatment facility. This will require the allocation of \$320,000 per year in this FY and the following two FYs to replenish the target level of \$3.5 million.

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<sup>53</sup> West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

<sup>54</sup> West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

<sup>55</sup> West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

<sup>56</sup> West Bay Sanitary District, About Us. <http://www.westbaysanitary.org/>, accessed February 27, 2015.

<sup>57</sup> West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

<sup>58</sup> West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

<sup>59</sup> West Bay Sanitary District, What We Do? <http://www.westbaysanitary.org/education/what-we-do>, accessed February 27, 2015.

<sup>60</sup> West Bay Sanitary District, 2013. 2012 Hydraulic Model Recalibration Effort and Updated CIP (Updated 2011 Collection System Master Plan), Technical Memorandum from West Yost Associated, dated February 21, 2013; [https://westbaysanitary.org/wsbd-prod/resources/825/2011\\_Master\\_Plan\\_Update\\_of\\_2013.pdf](https://westbaysanitary.org/wsbd-prod/resources/825/2011_Master_Plan_Update_of_2013.pdf), accessed December 4, 2015.

<sup>61</sup> West Bay Sanitary District, 2015. General Fund and Capital Asset Fund Budgets & Reserves, FY 2015-16, approved June 10, 2015. <https://westbaysanitary.org/wp-content/uploads/2015/06/WBSD-FY2015-16-Approved-Budget-061515-a.pdf>. accessed December 4, 2015.

## UTILITIES AND SERVICE SYSTEMS

The WBSD's system flows from the hills to the bay and terminates at the Menlo Park Pump Station, which is owned by the WBSD, operated by SVCW, and located at the entrance to Bedwell Bayfront Park near the San Francisco Bay. The Menlo Park Pump Station conveys wastewater via the main line trunk to SVCW's WWTP.<sup>62</sup>

### Wastewater Treatment

The SVCW WWTP treats raw wastewater from Menlo Park and other communities and discharges to the deep water channel of the San Francisco Bay. 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.<sup>63</sup>

The SVCW's WWTP has an existing dry weather capacity of 29 MGD and wet weather capacity of 71 MGD. As reported by the RWQCB,<sup>64</sup> from July 2008 through June 2011, the average monthly flow was 15.9 MGD, and the maximum daily flow was 48.8 MGD. Both rates are well within the 29 MGD average dry weather design flow and 71 MGD peak wet weather design flow. Under its Stage 2 Expansion Program, the SVCW will increase WWTP capacity to 80 MGD wet weather capacity as needed.<sup>65</sup> The improvements under the SVCW's CIP are intended to improve the conveyance system, treatment processes and capacity. The current \$792 million 15 year CIP is a living document and will continue to be reviewed annually, refined and updated as needed. The CIP and the Stage 2 Expansion Program are designed to accommodate regional development. During the dry season, SVCW further treats some of the WWTP flow with coagulation and additional disinfection for use as recycled water for landscape irrigation in the SVCW service area.

### Other Facilities

The WBSD owns four storage basins, named the Flow Equalization Facility (FEF), on approximately 20 acres at the bayside 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 SVCW in 1980.<sup>66</sup>

The WBSD and SVCW have a lease agreement that allows SVCW to use the FEF during wet weather events. When needed, SVCW requests that the WBSD bypass the Menlo Park Pump Station and flow directly to the FEF. When SVCW system-wide flows have decreased after the wet weather event, the

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<sup>62</sup> West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

<sup>63</sup> Silicon Valley Clean Water, Facilities web page, <http://www.svcw.org/facilities/sitePages/wastewater%20treatment.aspx>, accessed December 4, 2015.

<sup>64</sup> RWQCB, 2012. Order No R2-2012-0062; Waste Discharge Requirements, NPDES No. CA0038369, for South Bayside System Authority Wastewater Treatment Plant, [http://www.waterboards.ca.gov/sanfranciscobay/board\\_decisions/adopted\\_orders/2012/R2-2012-0062.pdf](http://www.waterboards.ca.gov/sanfranciscobay/board_decisions/adopted_orders/2012/R2-2012-0062.pdf), accessed December 4, 2015.

<sup>65</sup> Teresa Herrera, Silicon Valley Clean Water. Personal correspondence with PlaceWorks, January 21, 2013.

<sup>66</sup> West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

## UTILITIES AND SERVICE SYSTEMS

WBSD-owned transfer pump station returns stored flow back to the Menlo Park Pump Station. This transfer pump station, which is operated by SVCW, has a capacity of 8,660 GPM.<sup>67</sup>

### 4.14.2.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would have a significant impact on wastewater service if it would:

1. Exceed wastewater treatment requirements of the applicable RWQCB.
2. 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.
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

### 4.14.2.3 IMPACT DISCUSSION

This section analyzes the proposed project's potential impacts to wastewater collection and treatment facilities.

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<b>UTIL-4</b>	<b>Implementation of the proposed project would not exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board.</b>
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The RWQCB Order Number R2-2012-002 (NPDES No. CA0038369) prescribes treatment requirements and discharge limits, and sets out a framework for compliance and enforcement applicable to the SVCW WWTP and its wastewater conveyance system, as well as municipal wastewater collection systems such as the WBSD that contribute influent to the WWTP.

This NPDES Order currently indicates dry weather facility design flow of up to 29 MGD, and wet weather design flow of up to 71 MGD.

Assuming 90 percent of the net increase in water demand for the proposed project (see Water Supply section 4.14.1; Table 4.14-2) becomes wastewater, the estimated net increased wastewater generation rate from the proposed project at buildout will be 309 million gallons per year (or 0.85 MGD). This increase in wastewater generation (i.e., a maximum of approximately 0.85 MGD) would not be significant relative to currently available excess dry weather design flow capacity of 13 MGD (29 MGD design flow minus 16 MGD current average flow equals 13 MGD).

Pursuant to the RWQCB Order, the WWTP routinely (daily, weekly, monthly, etc.) monitors its effluent for numerous chemical and biological parameters in four different main process sample streams. Test results are submitted periodically to the RWQCB to verify compliance with effluent discharge limits. This

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<sup>67</sup> West Bay Sanitary District, 2011. *Wastewater Collection System Master Plan*, prepared by West Yost Associates.

## UTILITIES AND SERVICE SYSTEMS

monitoring allows for a very good assessment of the performance of WWTP processes. The SVCW facility also implements an approved pretreatment program specified in the NPDES permit, which includes approved local limits as required by the NPDES permit. The permit requires the Discharger (SVCW) to evaluate its local limits, such as those established by the other entities contributing to the WWTP, to ensure compliance with updated effluent limits. These local limits are approved as part of the pretreatment program required by the NPDES Permit. The SVCW WWTP is required to monitor the permitted discharges into the collection system in order to evaluate compliance with the RWQCP's permit conditions. In addition, the SVCW's Pollution Prevention Program,<sup>68</sup> as reported annually to the RWQCB, further minimizes pollutants of concern that enter the system.

The proposed Land Use (LU) Element, which would be affirmed as part of the proposed project, and existing Section II, Open Space/Conservation (OSC) of the Open Space/Conservation, Noise and Safety Elements, contain general goals, policies, and programs that would require local planning and development decisions to consider impacts to wastewater treatment and capacity. The following General Plan goals, policies and programs would serve to minimize potential adverse impacts associated with RWQCB requirements for wastewater collection and treatment:

- **GOAL LU-7: Sustainability.** Promote the implementation and maintenance of sustainable development, facilities and services to meet the needs of Menlo Park's residents, businesses, workers, and visitors.
  - **Policy LU-7.6: Sewage Treatment Facilities.** Support expansion and improvement of sewage treatment facilities to meet Menlo Park's needs, as well as regional water quality standards, to the extent that such expansion and improvement are in conformance with other City policies.
    - **Program LU-7.A: Green Building Operation and Maintenance.** Employ green building and operation and maintenance best practices, including increased energy efficiency, use of renewable energy and reclaimed water, and install drought-tolerant landscaping for all projects.
- **Goal LU-4:** Promote the development and retention of business uses that provide goods or services needed by the community that generate benefits to the City, and avoid or minimize potential environmental and traffic impacts.
  - **Policy LU-4.5: Business Uses and Environmental Impacts.** Allow modifications to business operations and structures that promote revenue generating uses for which potential environmental impacts can be mitigated.
- **Goal OSC-5:** Ensure Healthy Air Quality and Water Quality.
  - **Policy OSC-5.3: Water Conservation.** Encourage water-conserving practices in businesses, homes and institutions.
    - **Program OSC-5.A: Expand Water Conservation Programs.** Expand the Menlo Park Municipal Water District's conservation programs through education, social marketing methods, establishing standards, and providing incentives.

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<sup>68</sup> Silicon Valley Clean Water, 2014. *Annual Pollution Prevention Program Report for SVCW (2014)*, <http://swrcb2a.waterboards.ca.gov/pub/rwqcb2/Staff/Parrish%20James/FEB%202015%20P2%20REPORTS/Final%20SVCW%202014%20P2%20Report%20with%20attachments.pdf> , accessed December 4, 2015.

## UTILITIES AND SERVICE SYSTEMS

In addition, as part of the Zoning update, the project includes green and sustainable building standards in the Bayfront Area. These standards require all new buildings within the Bayfront Area to be maintained without the use of well water and include dual plumbing for the use of recycled water. Under the Zoning update, no potable water shall not be used for decorative features, unless the water is recycled, and single pass cooling systems are prohibited. Further, future development with a gross floor area of 100,000 square feet or more must submit a proposed water budget for review by the City's Public Works Director prior to certification of occupancy. New buildings with 250,000 square feet of gross floor area or more are required to use an alternate water source for all City-approved non-potable applications.

Future development under the proposed project, as part of the City's project approval process, would be required to comply with existing regulations, including General Plan policies and Zoning regulations, that have been prepared to minimize impacts related to wastewater treatment as listed above. The City, throughout the 2040 buildout horizon, would implement the General Plan programs that require the expansion of the Menlo Park Municipal Water District's conservation programs and future development to employ green building best practices as listed above. In accordance with the General Plan policies, the Zoning regulations, and applicable regulations, wastewater generated from potential future development under the proposed project would not exceed the wastewater treatment requirements or capacity of the SVCW WWTP. Therefore, the adoption of the proposed project would result in *less-than-significant* impacts with respect to the San Francisco RWQCB wastewater treatment requirements.

### Applicable Regulations:

- San Francisco RWQCB NPDES Permit (Order No. R2-2012-0062) for operation of the RWQCP
- SWRCB Order No. 2006-0003-DWQ for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems
- SWRCB Order No. WQ 2013-0058-EXEC revising SWRCB Order No. 2006-0003-DWQ
- San Francisco RWQCB NPDES Permit No. CA0038849 for waste discharge requirements for mercury and PCBs from municipal and industrial wastewater discharges to San Francisco Bay
- San Francisco RWQCB NPDES Permit No. CA0038873 for waste discharge requirements for nutrients from municipal and industrial wastewater discharges to San Francisco Bay
- Silicon Valley Clean Water JPA Pollution Prevention Program
- West Bay Sanitary District Code of General Regulations

**Significance Without Mitigation:** Less than significant.

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<b>UTIL-5</b>	<b>Implementation of the proposed project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.</b>
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## Silicon Valley Clean Water WWTP

Operation of the SVCW WWTP and its wastewater conveyance system is governed by WDRs found in RWQCB Order Number R2-2012-0062 (NPDES No. CA0038369). This Order lists a dry weather facility design flow of 29 MGD, and a wet weather design flow of 71 MGD. The NPDES permit does not have a

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limitation on the flow quantity. The SVCW reports the treatment plant has a capacity limit of 80 MGD, though there are some process bottlenecks that would need to be resolved to get the plant capacity to 80 MGD.<sup>69</sup> Therefore, the WWTP design is not necessarily limited to the peak wet weather flow (PWWF) of 71 MGD mentioned in the NPDES.

As reported by the RWQCB, from July 2008 through June 2011, the average monthly flow at the SVCW WWTP was 15.9 MGD, and the maximum daily flow was 48.8 MGD. Both rates are well within the 29 MGD average dry weather design flow and 71 MGD peak wet weather design flow. Under its Stage 2 Expansion Program, the SVCW will increase WWTP capacity to 80 MGD wet weather capacity as needed.

Under the assumption 90 percent of the net increase in water demand for the proposed project (see Water Supply section 4.14.1; Table 4.14-2) becomes wastewater, the estimated net increased wastewater generation rate from the proposed project at buildout will be 309 million gallons per year (or 0.85 MGD). This increase in wastewater generation (i.e., a maximum of approximately 0.85 MGD) would not be significant relative to currently available excess dry weather design flow capacity of 13 MGD (29 MGD design flow minus 16 MGD current average flow = 13 MGD). Compared with current conditions, Table 4.14-2 shows water demand without the proposed project is projected to decrease through the buildout year (2040).

In general, conveyance systems and treatment plants are designed and constructed to accommodate future capacity expansion including additional base flows due to approved growth plus estimated wet weather flows. The SVCW Conveyance System Master Plan, published in August 2011, includes facilities expansion planning based on growth projections provided by member agencies derived from general plans and/or master planning documents.

The improvements under the SVCW's CIP are intended to improve the conveyance system, treatment processes and capacity. The current \$792 million 15 year CIP is a living document and will continue to be reviewed annually, refined and updated as needed. The CIP and the Stage 2 Expansion Program are designed to accommodate regional development.

While the increase wastewater flows from implementation of the proposed project would add to the capacity demands on the WWTP and its conveyance system, the effect is not substantial and would be integrated into the ongoing planning and budgeting processes to improve the conveyance system, treatment processes and capacity.

The design and planning of operation, maintenance and capital improvements to the WWTP is expected to continue in the future, independent of the proposed project. Environmental impacts from construction of any expanded or new wastewater treatment facilities that are deemed necessary through the planning process would be addressed in the CEQA review conducted by the lead agency for such facility expansion or development (i.e., SVCW). Therefore, an evaluation of possible environmental effects of any future expansion/development of such facilities at this time would be speculative and beyond the scope of this Draft EIR.

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<sup>69</sup> Silicon Valley Clean Water, 2011. Conveyance System Master Plan, Volume 2, August 2011, [http://www.svcw.org/projects/63%20inch%20pipeline/CSMP\\_Aug\\_2011\\_Vol\\_2\\_Final.pdf](http://www.svcw.org/projects/63%20inch%20pipeline/CSMP_Aug_2011_Vol_2_Final.pdf), accessed December 4, 2015.

## UTILITIES AND SERVICE SYSTEMS

After buildout, the study area would continue to be provided with wastewater conveyance and treatment services from the SVCW. Existing infrastructure would be preserved in place and, if necessary, treatment and conveyance systems (e.g., force mains and pump stations) would be improved and/or replaced in accordance with the ongoing planning and budgeting processes.

In addition, the proposed Land Use (LU) Element, which would be affirmed as part of the proposed project, and existing Section II, Open Space and Conservation (OSC), of the Open Space/Conservation, Noise and Safety Elements, contain general goals, policies, and programs that would require local planning and development decisions to consider impacts to wastewater collection and treatment. The following General Plan goals, policies and programs would serve to minimize the need for new or expanded wastewater facilities/services, and help ensure any environmental impacts from expanded/new facilities would be addressed:

- **Goal OSC-5:** Ensure Healthy Air Quality and Water Quality.
  - **Policy OSC-5.3: Water Conservation.** Encourage water-conserving practices in businesses, homes and institutions.
    - **Program OSC-5.A: Expand Water Conservation Programs.** Expand the Menlo Park Municipal Water District’s conservation programs through education, social marketing methods, establishing standards, and providing incentives.
- **Goal LU-4:** Promote the development and retention of business uses that provide goods or services needed by the community that generate benefits to the City, and avoid or minimize potential environmental and traffic impacts.
  - **Policy LU-4.5: Business Uses and Environmental Impacts.** Allow modifications to business operations and structures that promote revenue generating uses for which potential environmental impacts can be mitigated.
- **GOAL LU-7:** Promote the implementation and maintenance of sustainable development, facilities and services to meet the needs of Menlo Park’s residents, businesses, workers, and visitors.
  - **Policy LU-7.6: Sewage Treatment Facilities.** Support expansion and improvement of sewage treatment facilities to meet Menlo Park’s needs, as well as regional water quality standards, to the extent that such expansion and improvement are in conformance with other City policies.
    - **Program LU-7.A: Green Building Operation and Maintenance.** Employ green building and operation and maintenance best practices, including increased energy efficiency, use of renewable energy and reclaimed water, and install drought-tolerant landscaping for all projects.

In addition, as part of the Zoning update, the project includes green and sustainable building standards in the Bayfront Area. These standards require all new buildings within the Bayfront Area to be maintained without the use of well water and include dual plumbing for the use of recycled water. Under the Zoning update, no potable water shall not be used for decorative features, unless the water is recycled, and single pass cooling systems are prohibited. Further, future development with a gross floor area of 100,000 square feet or more must submit a proposed water budget for review by the City’s Public Works Director

## UTILITIES AND SERVICE SYSTEMS

prior to certification of occupancy. New buildings with 250,000 square feet of gross floor area or more are required to use an alternate water source for all City-approved non-potable applications.

Future development under the proposed project, as part of the City's project approval process, would be required to comply with existing regulations, including General Plan policies and Zoning regulations that have been prepared to promote water conservation and minimize impacts related to wastewater generation as listed above. The City, throughout the 2040 buildout horizon, would implement the General Plan programs that require the expansion of the Menlo Park Municipal Water District's conservation programs and future development to employ green building best practices as listed above. In addition, as described above, future development under the proposed project would not substantially reduce the capacity of the wastewater treatment system. Further, wastewater facilities will be expanded to accommodate future growth in the service areas as needed in accordance with CIPs. Therefore, the adoption of the proposed project would result in *less-than-significant* impacts with respect to the need for new or expanded wastewater collection facilities.

**Significance Without Mitigation:** Less than significant.

### West Bay Sanitary District

The WBSD Base Wastewater Flow (BWF); "dry weather flow", as measured during the 2009/10 flow monitoring program, is 4.6 MGD. Assuming 90 percent of the net increase in indoor water demand for the proposed project (see Table 4.14-2) becomes wastewater, the estimated net increased wastewater generation rate from the proposed project at buildout will be 309 million gallons per year (or 0.85 MGD). This increase in wastewater generation (i.e., a maximum of approximately 0.85 MGD) would represent 18 percent of the current dry weather flow.

The 2015-2016 FY Capital Assets Fund for WBSD includes \$4 million of pipeline replacement projects (as scheduled in the Collection System Master Plan 2011,<sup>70</sup> updated in 2013). This Capital Fund Budget also includes a \$3,250,000 CIP carryover (unspent) from CIP projects in progress from FY 2014-2015. These expenditures enable the District to maintain the goal of replacing more than 1.5 percent (or about three miles) of the system's aging pipelines each year.

If the WBSD repairs 1.5 percent of the system or 3 miles of pipe per year, and replacement of 1.5 percent of the system achieves ¾ percent Infiltration & Inflow (I&I) reduction, the WBSD should expect to reduce peak wet weather I&I by 177,000 GPD or by 1.8 MGD in ten years.<sup>71</sup> This reduction would lower predicted PWPF to 21.8 MGD in ten years. The WBSD has established sufficient funding to achieve this level of replacement.

The RWQCB requires the WBSD prepare a CIP to provide hydraulic capacity of key collection system elements under peak flow conditions. A short- and long-term capital improvement plan (CIP) is required

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<sup>70</sup> WBSD, 2011. Sanitary Sewer Master Plan, [https://westbaysanitary.org/wsbd-prod/resources/824/WBSD\\_Master\\_Plan\\_2011.pdf](https://westbaysanitary.org/wsbd-prod/resources/824/WBSD_Master_Plan_2011.pdf), accessed December 4, 2015.

<sup>71</sup> West Bay Sanitary District, 2013. 2012 Hydraulic Model Recalibration Effort and Updated CIP ('Updated 2011 Collection System Master Plan'), Technical Memorandum from Wet U=Yost Associated, dated February 21, 2013; [https://westbaysanitary.org/wsbd-prod/resources/825/2011\\_Master\\_Plan\\_Update\\_of\\_2013.pdf](https://westbaysanitary.org/wsbd-prod/resources/825/2011_Master_Plan_Update_of_2013.pdf), accessed December 4, 2015.

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to address identified hydraulic deficiencies including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I&I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding. The WBSD shall develop a schedule of completion dates for all portions of the CIP. This schedule shall be reviewed and updated at least every two years.

The WBSA prepared a *Sewer System Management Plan (SSMP)*<sup>72</sup> in compliance with requirements of the RWQCB and the SWRCB following the guidelines in the SSMP Development Guide prepared by the RWQCB in cooperation with the Bay Area Clean Water Agencies (BACWA). The WBSD must also comply with RWQCB Sanitary Sewer Overflow (SSO) electronic reporting requirements issued in November 2004. Section 8 of the SSMP discusses the WBSA's capacity management.

The WBSD proactively re-assessed the capacity of its wastewater collection system in December of 2009 and completed the re-assessment project in early 2011 as part of the *Sanitary Sewer Master Plan 2011* (Master Plan) prepared West Yost & Associates. The Annual Flow Monitoring Study utilized 16 temporary flow monitors that captured both wet and dry weather flows. Flow measurements were used to determine peaking factors caused by inflow and infiltration. Based on land use designations/population projections from available planning documents, the Master Plan projected both dry weather flows and wet weather flows, and then evaluated, based on a consistent design storm size, whether the WBSD's trunk sewers had sufficient capacity to convey these flows. The Master Plan also included a chapter on Capacity Analysis, which included hydraulic capacity analysis results, recommended projects, and conceptual costs.

The Master Plan recommended five priority sewer projects to be completed in the next ten years, and six long term capacity improvement projects to meet the WBSD's surcharge criteria under the applied design storm. The WBSD prioritized these projects as part of its CIP.

This work will provide a risk-based, prioritized long-term CIP that replaces existing facilities and aims to reduce potential infiltration and inflow into the system. Additionally, the WBSD does perform periodic Flow Monitoring on the collection system to ensure prioritized CIP's are scheduled accordingly, as new flow data becomes available it will be inserted into the hydraulic model for analysis and confirmation of proposed future projects.

The design and planning of operation, maintenance and capital improvements to the WBSD collection system is expected to continue in the future, independent of the proposed project. Environmental impacts from construction of any expanded or new wastewater collection facilities that are deemed necessary through the planning process would be addressed in the CEQA review conducted by the lead agency for such facility expansion or development (i.e., WBSD). Therefore, an evaluation of possible environmental effects of any future expansion/development of such facilities at this time would be speculative and beyond the scope of this Draft EIR.

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<sup>72</sup> WBSD, 2015. Sewer System Management Plan, August 2015, <https://westbaysanitary.org/education/what-we-do/ssmp>, accessed December 4, 2015.

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After buildout, the study area would continue to be provided with wastewater collection services from the WBSD, which will have been continuously subject to the *System Evaluation and Capacity Assurance Plan* required by the RWQCB. Existing infrastructure would be preserved in place and, as needed, extensions and/or replacement of sewer pipes/lift stations would be installed to provide wastewater service to portions of the study area. Potential construction-related impacts from such project-level improvements would be evaluated during project-level analysis, as needed.

Future development under the proposed project, as part of the City's project approval process, would be required to comply with existing regulations, including General Plan policies and Zoning regulations, listed above (UTIL-4), that have been prepared to promote water conservation and minimize impacts related to wastewater generation. The City, throughout the 2040 buildout horizon, would implement the General Plan programs that require the expansion of the Menlo Park Municipal Water District's conservation programs and future development to employ green building best practices as listed above (UTIL-4). Therefore, the adoption of the proposed project would result in *less-than-significant* impacts with respect to the need for new or expanded wastewater collection facilities.

**Significance Without Mitigation:** Less than significant.

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<b>UTIL-6</b>	<b>Implementation of the proposed project would not result in the determination by the wastewater treatment provider, which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.</b>
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### Silicon Valley Clean Water WWTP

RWQCB Order No. R2-2012-0062 lists a dry weather facility design flow of 29 MGD, and a wet weather design flow of 71 MGD for the SVCW WWTP. As reported by the RWQCB, from July 2008 through June 2011, the average monthly flow at the SVCW WWTP was 15.9 MGD, and the maximum daily flow was 48.8 MGD. Both rates are well within the 29 MGD average dry weather design flow and 71 MGD peak wet weather design flow.

Assuming 90 percent of the net increase in water demand for the proposed project at buildout (343 MGY; see Table 4.14-2) becomes wastewater, the estimated net increased wastewater generation rate from the proposed project at buildout will be 309 million gallons per year (or 0.85 MGD). This increase in wastewater generation would not be significant relative to currently available excess dry weather design flow capacity of 13 MGD (29 MGD design flow minus 16 MGD current average flow equals 13 MGD). Compared with current conditions, Table 4.14-2 indicates that the water demand without the proposed project is projected to decrease through the buildout year (2040).

Future development under the proposed project, as part of the City's project approval process, would be required to comply with existing regulations, including General Plan policies and Zoning regulations, listed above (UTIL-4), that have been prepared to promote water conservation and minimize impacts related to wastewater generation. The City, throughout the 2040 buildout horizon, would implement the General

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Plan programs that require the expansion of the Menlo Park Municipal Water District's conservation programs and future development to employ green building best practices. In addition, as stated above, future development under the proposed project would not substantially reduce the capacity of the wastewater treatment system. Further, facilities will be expanded to accommodate future growth in the service areas as needed in accordance with CIPs. Therefore, the adoption of the proposed project would result in *less-than-significant* impacts with respect to SVCW WWTP's wastewater treatment capacity.

**Significance Without Mitigation:** Less than significant.

### West Bay Sanitary District

The WBSD Base Wastewater Flow (BWF); "dry weather flow", as measured during the 2009/10 flow monitoring program, is 4.6 MGD. The estimated net increased wastewater generation rate from the proposed project at buildout will be 309 million gallons per year (or 0.85 MGD). This increase in wastewater generation (0.85 MGD) would represent 18 percent of the current dry weather flow.

As discussed above (UTIL-5), in accordance with RWQCB requirements and the Wastewater Collection System Master Plan, WBSD implements a risk-based, prioritized long-term CIP (as well as a short-term CIP) that replaces existing facilities and aims to reduce potential infiltration and inflow into the system. Additionally, the WBSD perform periodic Flow Monitoring on the collection system to ensure prioritized CIP's are scheduled accordingly, as new flow data becomes available it will be inserted into the hydraulic model for analysis and confirmation of proposed future projects.

The Master Plan recommended five priority sewer projects to be completed in the next ten years, and six long term capacity improvement projects to meet the WBSD's surcharge criteria under the applied design storm. The WBSD prioritized these projects as part of its CIP.

The design and planning of operation, maintenance and capital improvements to the WBSD collection system is expected to continue in the future, independent of the proposed project. After buildout, the study area would continue to be provided with wastewater collection services from the WBSD, which will have been continuously subject to the *System Evaluation and Capacity Assurance Plan* required by the RWQCB. Existing infrastructure would be preserved in place and, as needed, in accordance with the CIP, extensions and/or replacement of sewer pipes/lift stations would be installed to provide wastewater service to portions of the study area.

Future development under the proposed project 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. The WBSD will update the *Wastewater Collection System Master Plan* to accommodate future growth beyond the year 2020.<sup>73</sup> 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.

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<sup>73</sup> West Bay Side Sanitary District, 2016. Documents Web page, <https://westbaysanitary.org/about-us/documents/>, accessed on May 4, 2016.

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In addition, future development under the proposed project, as part of the City's project approval process, would be required to comply with existing regulations, including General Plan policies and Zoning regulations, listed above (UTIL-4), that have been prepared to promote water conservation and minimize impacts related to wastewater generation. The City, throughout the 2040 buildout horizon, would implement the General Plan programs that require the expansion of the Menlo Park Municipal Water District's conservation programs and future development to employ green building best practices, listed above (UTIL-4). Therefore, adoption of the proposed project would result in *less-than-significant* impacts with respect to WBSD's wastewater treatment capacity.

**Significance Without Mitigation:** Less than significant.

### 4.14.2.4 IMPACT DISCUSSION

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<b>UTIL-7</b>	<b>Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects would result in less than significant cumulative impacts with respect to wastewater service.</b>
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The geographic scope of this cumulative analysis is taken as the WBSD and SVCW service areas. Assuming a regional annual growth rate of 1 percent, SVCW's cumulative wastewater demand would increase by 3.84 MGD in the 24-year planning horizon.<sup>74</sup> Added to the existing average demand of approximately 16 MGD, and the future development under the proposed project demand of 0.85 MGD, the cumulative demand of 20.66 MGD would not exceed the SVCW WWTP's existing capacity of 29 MGD average dry weather flow. Moreover, Table 4.14-2 shows water demand (and therefore wastewater demand) will actually decrease from current conditions through 2040 within the Bayfront Area.

Because the cumulative demand would not substantially reduce the existing or planned capacity of the SVCW's wastewater treatment system, the construction of new wastewater treatment facilities would be unnecessary. As previously stated, as the discharger named in the NPDES Permit, SVCW implements and enforces a pretreatment program for effluent discharged into San Francisco Bay. Consequently, wastewater from cumulative development would not exceed effluent limits of the applicable RWQCB WDR (Order 2012-0063; NPDES No. 0038369).

In addition, future development under the proposed project, as part of the City's project approval process, would be required to comply with existing regulations, including General Plan policies and Zoning regulations, listed above (UTIL-4), that have been prepared to promote water conservation and minimize impacts related to wastewater generation. Specifically, Policy LU-7.6 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. The City, throughout the 2040 buildout horizon, would implement the General Plan programs that require the expansion of the Menlo Park Municipal Water District's conservation programs and future development to employ green building best practices listed above

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<sup>74</sup> 16 MGD (existing demand) multiplied by 24 percent (assuming one percent growth per year, which approximates the regional rate estimated by ABAG, for the 24 years from 2016 to 2040).

## UTILITIES AND SERVICE SYSTEMS

(UTIL-4). Also, the WBSD's CIPs, would ensure that the WBSD's wastewater collection system has sufficient capacity to accommodate the cumulative growth. Therefore, adoption of the proposed project would result in *less-than-significant* impacts with respect to wastewater service.

**Significance Without Mitigation:** Less than significant.

### 4.14.3 SOLID WASTE

#### 4.14.3.1 ENVIRONMENTAL SETTING

##### Regulatory Setting

###### *State Regulations*

###### California Integrated Waste Management Act

California's Integrated Waste Management Act of 1989, AB 939, subsequently amended by SB 1016, set a requirement for cities and counties throughout the State to divert 50 percent of all solid waste from landfills by January 1, 2000 through source reduction, recycling, and composting. To help achieve this, the Act required that each city and county prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of on-going landfill capacity.

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. The California Integrated Waste Management Board was replaced by the California Department of Resources Recycling and Recovery (CalRecycle) in 2010. 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. In 2013, the statewide residential per capita disposal rate was 4.4 pounds per resident per day, and the statewide employee per capita disposal rate was 10.2 pound per employee per day.<sup>75</sup>

In 2011, AB 341 was passed that sets a State policy goal of not less than 75 percent of solid waste that is generated to be source reduced, recycled, or composted by the year 2020. CalRecycle was required to submit a report to the legislature by January 1, 2014 outlining the strategy that will be used to achieve this policy goal.

###### California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act require 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

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<sup>75</sup> Calrecycle, California's Statewide Per Resident, Per Employee, and Total Disposal Since 1989, <http://www.calrecycle.ca.gov/Igcentral/GoalMeasure/DisposalRate/Graphs/Disposal.htm>, accessed on February 27, 2015.

## UTILITIES AND SERVICE SYSTEMS

recyclable materials as part of development projects. Local agencies are required to adopt the model, or an ordinance of their own, providing for adequate areas in development projects for the collection and loading of recyclable materials.

### Mandatory Commercial Organics Recycling

In October of 2014 Governor Brown signed AB 1826<sup>76</sup> requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. Greenhouse gas (GHG) emissions result from the decomposition of organic wastes in landfills. Mandatory recycling of organic waste is aimed at helping achieve California's aggressive recycling and GHG emission goals. The implementation schedule is as follows:

- **January 1, 2016:** Local jurisdictions shall have an organic waste recycling program in place. Jurisdictions shall conduct outreach and education to inform businesses how to recycle organic waste in the jurisdiction, as well as monitoring to identify those not recycling and to notify them of the law and how to comply.
- **April 1, 2016:** Businesses that generate eight cubic yards of organic waste per week shall arrange for organic waste recycling services.
- **January 1, 2017:** Businesses that generate four cubic yards of organic waste per week shall arrange for organic waste recycling services.
- **August 1, 2017 and Ongoing:** Jurisdictions shall provide information about their organic waste recycling program implementation in the annual report submitted to CalRecycle. (See above for description of information to be provided.)
- **Fall 2018:** After receipt of the 2016 annual reports submitted on August 1, 2017, CalRecycle shall conduct its formal review of those jurisdictions that are on a two-year review cycle.
- **January 1, 2019:** Businesses that generate four cubic yards or more of commercial solid waste per week shall arrange for organic waste recycling services.
- **Fall 2020:** After receipt of the 2019 annual reports submitted on August 1, 2020, CalRecycle shall conduct its formal review of all jurisdictions.
- **Summer/Fall 2021:** If CalRecycle determines that the statewide disposal of organic waste in 2020 has not been reduced by 50 percent of the level of disposal during 2014, the organic recycling requirements on businesses will expand to cover businesses that generate two cubic yards or more of commercial solid waste per week. Additionally certain exemptions, previously discussed, may no longer be available if this target is not met.

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<sup>76</sup> Calrecycle, 2016. Mandatory Commercial Organics Recycling, <http://www.calrecycle.ca.gov/recycle/commercial/organics/>, accessed February 4, 2016.

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### Global Warming Solutions Act of 2006, Scoping Plan<sup>77</sup>

The California Global Warming Solutions Act of 2006 (also known as AB 32) Scoping Plan, which was adopted by the Air Resources Board (ARB), included a Mandatory Commercial Recycling Measure. The Mandatory Commercial Recycling Measure focuses on diverting commercial waste as a means to reduce greenhouse gas (GHG) emissions, with the goal of reducing GHG emissions by five million metric tons of carbon dioxide equivalents (MTCO<sub>2e</sub>), consistent with the 2020 targets set by AB 32. To achieve the Measure's objective, the commercial sector will need to recycle an additional 2 to 3 million tons of materials annually by the year 2020.

CalRecycle adopted this Measure at its January 17, 2012 monthly public meeting. The regulation was approved by the Office of Administrative Law on May 7, 2012 and became effective immediately. On June 27, 2012, the Governor signed SB 1018, which included an amendment requiring both businesses that generate 4 cubic yards or more of commercial solid waste per week and multi-family residences with five or more units to arrange for recycling services. This requirement became effective on July 1, 2012.

### CAL Green Building Code

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, California Code of Regulations [CCR], known as "CALGreen") was adopted as part of the California Building Standards Code to apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout the State of California, unless otherwise indicated in this code. 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. This Code requires that project applicants prepare a Waste Management Plan (WMP), for on-site sorting or construction debris, which is submitted to the City of Menlo Park for approval.

The WMP is required to include the following:

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

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<sup>77</sup> CalRecycle, <http://www.calrecycle.ca.gov/Recycle/Commercial/>, accessed on February 27, 2015.

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## UTILITIES AND SERVICE SYSTEMS

### *Regional Regulations*

#### San Mateo Countywide Integrated Waste Management Plan<sup>78</sup>

The California Integrated Waste Management Act of 1989 (AB 939) requires each County to 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 comprise 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).

### *Local Regulations*

#### Menlo Park General Plan

The City of Menlo Park General Plan includes goals, policies, and programs relevant to the environmental factors potentially affected by the proposed project. Applicable goals, policies, and programs are identified and assessed for their effectiveness later in this chapter under Section 4.14.3.3, Impact Discussion.

#### Menlo Park Municipal Code

The City of Menlo Park Municipal Code, organized by title, chapter, and section, contains all ordinances for Menlo Park. Title 7, Health and Sanitation, and Title 12, Buildings and Construction, include regulations relevant to solid waste resources in Menlo Park as discussed below.

#### Chapter 7.04, Garbage and Rubbish Disposal

Chapter 7.04 describes the responsibilities and requirements for owners, occupants and service providers regarding solid waste collection, storage, recycling and disposal.

#### Chapter 7.06, Refuse and Garbage Collection Service Areas

Chapter 7.06 establishes service areas and describes the process of determining and allocating charges for service.

#### Chapter 7.10, Reusable Bag Ordinance

Chapter 7.10 specifies that Chapter 4.114, "Reusable Bags," of Title 4, "Sanitation and Health," of the San Mateo County Ordinance Code, and any amendment thereto approved by the Menlo Park city council, is adopted in its entirety by reference and made effective in the city.

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<sup>78</sup> County of San Mateo, Five-Year Countywide Integrated Waste Management Plan Review Report, December 2009, [http://www.co.sanmateo.ca.us/bos.dir/BosAgendas/agendas2010/Agenda20100126/20100126\\_att1\\_54.pdf](http://www.co.sanmateo.ca.us/bos.dir/BosAgendas/agendas2010/Agenda20100126/20100126_att1_54.pdf), accessed on February 27, 2015.

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### Chapter 12.48, Recycling and Salvaging of Construction and Demolition Debris

Chapter 12.48 establishes landfill diversion requirements of Construction and Demolition (C&D) debris.<sup>79</sup> 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.

### City of Menlo Park Climate Change Action Plan<sup>80</sup>

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 diversion rate by 2030. The City's CAP Assessment, prepared in 2011, recommended implementing these strategies within five years.<sup>81</sup> The most recent update to the City's CAP was published in October 2015.<sup>82</sup> This updated CAP reports that 1 percent of Menlo Park GHG emissions are attributable to solid waste. Strategies to be implemented between 2015 and 2020 include consider changes to City's solid waste, recycling, and organics collection franchise that encourage zero waste and decrease waste to landfill.

## Existing Conditions

Recology Incorporated provides solid waste collection and conveyance service for the City of Menlo Park. 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.<sup>83</sup>

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<sup>79</sup> City of Menlo Park, Municipal Code Chapter 12.48, <http://www.codepublishing.com/CA/menlopark/>, accessed on February 27, 2015.

<sup>80</sup> City of Menlo Park, *Climate Change Action Plan*, 2009, <http://www.menlopark.org/DocumentCenter/View/1346>, accessed on February 27, 2015.

<sup>81</sup> City of Menlo Park, *Climate Action Plan Assessment*, 2011, <http://www.menlopark.org/DocumentCenter/View/1343>, accessed on February 27, 2015.

<sup>82</sup> City of Menlo Park, *Climate Action Plan Update and Status Report*, October 2015, <http://ca-menlopark.civicplus.com/ArchiveCenter/ViewFile/Item/4299>, accessed on May 4, 2016.

<sup>83</sup> RethinkWaste, About Us, <http://www.rethinkwaste.org/about/about-us>, accessed on December 8, 2015.

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The Shoreway Environmental Center 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. Shoreway serves as a regional solid waste and recycling facility for the receipt, handling and transfer of refuse, recyclables and organic materials collected from the RethinkWaste service area (southern and central San Mateo County). The primary goal of RethinkWaste is to provide cost effective waste reduction, recycling, and solid waste programs to member agencies through franchised services and other recyclers to meet and sustain a minimum of 50-percent diversion of waste from landfill as mandated by California State Law, AB 939.

As of 2014, the RethinkWaste service area (San Mateo County) produced 22 percent less trash disposed in a landfill than in 2010, from 75,223 tons to 58,553 tons. This was accompanied by a two (2) percent increase in recycling and a 28 percent increase in composting of organics.<sup>84</sup>

Materials not composted or recycled at Shoreway are landfilled at the Ox Mountain Landfill (also known as Corinda Los Trancos Landfill) near the City of Half Moon Bay, San Mateo County.

In 2014, Menlo Park's per capita solid waste disposal rate for residents was 4.9 pounds per day (PPD); the per capita disposal rate target for residents according to CalRecycle is 7.5 PPD.<sup>85</sup> The City's per capita solid waste disposal rate for employees in 2014 was 4.8 PPD; the CalRecycle per capita disposal rate target for employees is 9.2 PPD.

CalRecycle<sup>86</sup> reports that in 2014 a total of 29,124 tons of solid waste from Menlo Park was disposed at 15 different landfills. Seventy-four percent (74.4 percent; 21,658 tons) of Menlo Park's solid waste in 2014 went to the Ox Mountain Landfill (also called Corinda Los Trancos Landfill) (21,658 tons). The three landfills receiving the second, third and fourth largest amount of solid waste from Menlo Park in 2014 were:

- Monterey Peninsula Landfill (3,988 tons)
- Recology Hay Road Landfill (1,075 tons)
- Potrero Hills Landfill (903 tons).

### *Ox Mountain Landfill*

The Ox Mountain Landfill is a sanitary landfill located in Half Moon Bay, California. It has a permitted throughput capacity of 3,598 tons per day. Its remaining permitted capacity is 26,898,089 cubic yards. The Ox Mountain Landfill has an estimated "cease operation date" of January 1, 2018, according to CalRecycle.<sup>87</sup> Ox Mountain is expected to service the region until year 2034.<sup>88</sup>

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<sup>84</sup> RethinkWaste, 2014 Annual Report, [http://www.rethinkwaste.org/uploads/media\\_items/2014-annual-report.original.pdf](http://www.rethinkwaste.org/uploads/media_items/2014-annual-report.original.pdf), accessed on December 8, 2015.

<sup>85</sup> CalRecycle Jurisdiction Diversion/DisposalRate Summary, <http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionPost2006.aspx>, accessed December 8, 2015.

<sup>86</sup> CalRecycle Jurisdiction Disposal by Facility Report, <http://www.calrecycle.ca.gov/LGCentral/Reports/Viewer.aspx?P=ReportYear%3d2014%26ReportName%3dReportEDRSJurisDisposalByFacility%26OriginJurisdictionIDs%3d299>, accessed December 8, 2015.

<sup>87</sup> CalRecycle, Ox Mountain "Facility Site summary Details: (41-AA-0002)" <http://www.calrecycle.ca.gov/SWFacilities/Directory/41-AA-0002/Detail/>, accessed May 5, 2016.

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### *Monterey Peninsula Landfill*

The Monterey Peninsula Landfill is located in Marina, California. It has a permitted throughput capacity of 3,500 tons per day. Its remaining permitted capacity is 48,560,000 cubic yards. It has an estimated “cease operation date” of February 28, 2107.<sup>89</sup>

### *Recology Hay Road Landfill*

The Recology Hay Landfill is located in Vacaville, California. It has a permitted throughput capacity of 2,400 tons per day. Its remaining permitted capacity is 30, 433,000 cubic yards. It has an estimated “cease operation date” of January 1, 2077.<sup>90</sup>

### *Potrero Hills Landfill*

The Potrero Hills Landfill is located in Suisun city, California. It has a permitted throughput capacity of 4,330 tons per day. Its remaining permitted capacity is 13,872,000 cubic yards. It has an estimated “cease operation date” of February 14, 2048.<sup>91</sup>

## 4.14.3.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would have a significant impact on solid waste service if:

1. Would not be served by a landfill(s) with sufficient permitted capacity to accommodate the proposed project’s solid waste disposal needs.
2. Would be out of compliance with federal, State, and local statues and regulations related to solid waste.

## 4.14.3.3 IMPACT DISCUSSION

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<b>UTIL-8</b>	<b>Implementation of the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the proposed project’s solid waste disposal needs.</b>
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In 2014, CalRecycle reported that while the overall total of 29,124 tons of solid waste from Menlo Park was disposed at 15 different landfills, the majority (74.4 percent or 21,658 tons) went to one landfill (Ox Mountain Landfill). The three landfills (Monterey, Recology: Hay Road and Potrero) that received the

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<sup>88</sup> RethinkWaste, Hilary Gans, Operations Contracts Manager. Personal email correspondence with PlaceWorks December 11, 2012.

<sup>89</sup> CalRecycle, “Monterey Peninsula Landfill (27-AA-0010)”, <http://www.calrecycle.ca.gov/SWFacilities/Directory/27-AA-0010/Detail>, accessed December 8, 2015.

<sup>90</sup> CalRecycle, “Recology Hay Road Landfill (48-AA-0002)”<http://www.calrecycle.ca.gov/SWFacilities/Directory/48-AA-0002/Detail/>, accessed December 8, 2015.

<sup>91</sup> CalRecycle, “Potrero Hills Landfill (48-AA-0075)” <http://www.calrecycle.ca.gov/SWFacilities/Directory/48-AA-0075/Detail/>, accessed December 8, 2015.

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second, third and fourth most waste accounted for 20.5 percent (or 5,966 tons) combined. Table 4.14-4 compares the maximum daily capacity and estimated closure date for each of the four facilities.

**TABLE 4.14-4 LANDFILLS’ EXISTING DAILY CAPACITY AND ESTIMATED CLOSURE DATE**

Landfill Facility	Daily Capacity (tons/day)	Estimated Closure Year
Ox Mountain Landfill	3,598	2034
Recology: Hay Road Landfill	2,400	2077
Monterey Peninsula Landfill	3,500	2107
Potrero Hills Landfill	4,330	2048

Source: CalRecycle.

The City’s disposal rate per resident in 2014 was 4.9 pounds of solid waste per person per day (ppd), which was below the CalRecycle target of 7.2 ppd per resident. The disposal rate per business employee in the City in 2014 was 4.8 ppd, which was below the CalRecycle target rate of 9.2 ppd per employee. The City’s disposal rates for both residents and employees have been below target rates since 2007.<sup>92</sup>

As shown in Table 3-2, in Chapter 3, Project Description, of this Draft EIR, the proposed project’s new development potential in the Bayfront Area at buildout would generate 11,570 new residents and 5,500 new employees and combined with the existing General Plan would result in 14,150 residents and 9,900 employees. For analysis purposes, solid waste generation is assumed to be the actual 2014 per capita generation rates of 4.9 ppd for residents and 4.8 ppd for employees. Accordingly, the total solid waste generated by the proposed project’s residents and employees is estimated to be 116,855 ppd, or 58.3 tons per day.

The total estimated solid waste generation rate for the proposed project of 58.3 tons per day is less than 1.5 percent of the daily capacity (i.e., tons/day) of the Ox Mountain landfill. The solid waste generated from buildout of the proposed project is also less than 2 percent of the permitted daily capacity of the landfill with the smallest daily capacity (i.e., 2,400 tons/day) of any of the four landfills shown on Table 4.14-4. As such, buildout of the proposed project would have a *less-than-significant* impact with regard to daily capacity at each of the landfill facilities.

One of the four landfills that receive the majority of the City’s solid waste, Ox Mountain, is likely to reach its permitted maximum capacity prior to 2040, the proposed project buildout horizon year, as shown in the Table 4.14-4. However, the other three landfills are not estimated to close until 2048 (Potrero Hills Landfill), 2077 (Recology: Hay Road Landfill) and 2107 (Monterey Peninsula Landfill), respectively. In addition, there are 15 other landfills that received waste from Menlo Park in 2014. If one or more of the

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<sup>92</sup> The per capita disposal rate target is also known as “the 50 percent equivalent per capita disposal target.” It is the amount of disposal Menlo Park would have had during the 2003 – 2006 base period (designated by CalRecycle) if it had been exactly at a 50 percent diversion rate. It is calculated by CalRecycle using the average base period per capita generation for Menlo Park (in pounds), then dividing this generation average in half to determine the 50 percent equivalent per capita disposal target. The target is an indicator for comparison with that jurisdiction’s annual per capita per day disposal rate beginning with the 2007 program year.

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four landfills on Table 4.14-4 were unavailable in the future, it is likely Menlo Park's solid waste volume would be increased at one or more of the other landfills that already serve Menlo Park.

Additionally, future development would be required to comply with the CBC Section 4.408, which requires a minimum of 50 percent of non-hazardous construction and demolition debris to be recycled or salvaged. Per Section 4.408 of the CALGreen building code (Part 11, Title 24, CCR), the future development under the proposed project would be required to prepare a WMP which is submitted to the City for approval, in order to ensure that it meets the diversion requirement for reused or recycled C&D debris.

In addition, the proposed Land Use (LU) Element, which would be affirmed as part of the proposed project, and existing Section II, Open Space and Conservation (OSC) of the Open Space/Conservation, Noise and Safety Elements, contain general goals and policies that would require local planning and development decisions to consider impacts from solid waste generation. The following General Plan goals and policies would serve to minimize potential adverse impacts associated with solid waste collection and disposition, and would serve to reduce the need for new or expanded landfills:

- **Goal OSC-4:** Promote sustainability and climate action planning.
  - **Policy OSC-4.2: Sustainable Building.** Promote and/or establish environmentally sustainable building practices or standards in new development that would conserve water and energy, prevent stormwater pollution, reduce landfilled waste, and reduce fossil fuel consumption from transportation and energy activities.
  - **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.
  - **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-4.8: Waste Diversion.** Develop and implement a zero waste policy, or implement standards, incentives, or other programs that would lead the community towards a zero waste goal.
- **Goal LU-4:** Promote the development and retention of business uses that provide goods or services needed by the community that generate benefits to the City, and avoid or minimize potential environmental and traffic impacts.
  - **Policy LU-4.5: Business Uses and Environmental Impacts.** Allow modifications to business operations and structures that promote revenue generating uses for which potential environmental impacts can be mitigated.
- **GOAL LU-7:** Promote the implementation and maintenance of sustainable development, facilities and services to meet the needs of Menlo Park's residents, businesses, workers, and visitors.
  - **Policy LU-7.1: Sustainability.** Promote sustainable site planning, development, landscaping, and operational practices that conserve resources and minimize waste.

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## UTILITIES AND SERVICE SYSTEMS

Also, as part of the Zoning update, the project includes green and sustainable building standards in the Bayfront Area that require all applicants to submit a zero-waste management plan to the City. The zero-waste management plan must clearly outline the applicants plan to reduce, recycle, and compost waste from demolition, construction and occupancy phases of the building. Zero waste is defined as 90 percent overall diversion of non-hazardous waste from landfill and incineration.

Future development under the proposed project, as part of the City's approval process, would be required to comply with existing regulations, including General Plan policies and Zoning regulations that have been prepared to minimize impacts related to solid waste disposal needs. In addition, adherence with applicable regulations listed below would ensure solid waste generated by the proposed project would not exceed the landfill capacity available to the City. Therefore, adoption of the proposed project would result in *less-than-significant* impacts with respect to solid waste disposal needs.

### Applicable Regulations:

- California Integrated Waste Management Act
- Global Warming Solutions Act of 2006, Scoping Plan
- CAL Green Building Code
- City of Menlo Park Municipal Code – Chapter 7.10, Reusable Bag Ordinance; Chapter 12.48, Recycling and Salvaging of Construction and Demolition Debris.

**Significance Without Mitigation:** Less than significant.

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### UTIL-9                      Implementation of the proposed project would comply with federal, State, and local statutes and regulations related to solid waste.

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As discussed above, the City has complied with State requirements to reduce the volume of solid waste through recycling and reuse of solid waste. The City's per capita disposal rate is below the target rate established by CalRecycle. The City also has established solid waste recycling requirements in its Municipal Code.

Future development under the proposed project, as part of the City's approval process, would be required to comply with existing regulations, including General Plan policies and Zoning regulations, listed above in UTIL-8, that have been prepared to minimize impacts related to adequate waste collection and disposal facilities. In accordance with the applicable regulations listed below, adoption and implementation of the proposed project would comply with applicable statutes and regulations related to solid waste. Therefore, adoption of the proposed project would result in a *less-than-significant* impact with respect to compliance with federal, State, and local statutes and regulations related to solid waste

### Applicable Regulations:

- California Integrated Waste Management Act
- Global Warming Solutions Act of 2006, Scoping Plan
- CAL Green Building Code

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- City of Menlo Park Municipal Code – Chapter 7.10, Reusable Bag Ordinance; Chapter 12.48, Recycling and Salvaging of Construction and Demolition Debris.

**Significance Without Mitigation:** Less than significant.

### 4.14.3.4 CUMULATIVE IMPACT DISCUSSION

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<b>UTIL-10</b>	<b>Implementation of the proposed project, in combination with past, present, and reasonably foreseeable development, would result in significant impacts with respect to solid waste.</b>
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Buildout of the study area 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 projects within the city, and from other cities in the region, may exceed that which was taken into account when calculating landfill capacity. Also, because Ox Mountain Landfill, one of the four landfill facilities that combined take approximately 95 percent of the City's solid waste (in 2014) is expected to close 2034, Menlo Park or other jurisdictions that use the same facilities may eventually experience insufficient future capacity at a specific landfill to accommodate existing or increased population and employment levels.

Three of the four main landfills serving the city are estimated to close in 2048 (Potrero Hills Landfill), 2077 (Recology: Hay Road Landfill) and 2107 (Monterey Peninsula Landfill), respectively. In addition, there are 15 landfills that received waste from Menlo Park in 2014. If one or more of the main four landfills serving Menlo Park in 2014 were unavailable in the future, it is likely Menlo Park's solid waste volume could be increased at one or more of the other landfills that already serve the city.

As shown in Chapter 4.11, Population and Housing, of this Draft EIR, additional growth as a result of the potential new development under the proposed project would exceed the regional growth projections by as many as 14,150 new residents and 9,900 new employees. Although implementation of existing waste reduction programs and diversion requirements discussed under UTIL-9 and UTIL-10, would reduce the potential for exceeding existing capacities of landfills, the potential lack of landfill capacity for disposal of solid waste would have a *significant* impact in context with the cumulative setting.

**Impact UTIL-10:** Implementation of the proposed project, when considered with the other jurisdictions that divert solid waste to the Ox Mountain Landfill, could result in potential lack of landfill capacity for disposal of solid waste under cumulative conditions.

**Mitigation Measure UTIL-10:** The City shall continue its reduction programs and diversion requirements in an effort to further reduce solid waste that is diverted to the landfill and lower its per capita disposal rate. In addition, the City shall monitor solid waste generation volumes in relation to capacities at receiving landfill sites to ensure that sufficient capacity exists to accommodate future growth. The City shall seek new landfill sites to replace the Ox Mountain landfill, at such time that this landfill is closed.

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**Significance With Mitigation:** Less than significant. The proposed development in Menlo Park would be required to comply with the City's regulations that have been prepared to reduce solid waste and therefore, reduce impacts related to landfill capacity. For this reason, and because the growth under the proposed project would occur incrementally over a period of 24-years, impacts related to landfill capacity would be less than significant with implementation of Mitigation Measure UTIL-10.

### 4.14.4 STORMWATER INFRASTRUCTURE

This section outlines the regulatory setting, describes environmental setting, and discusses potential impacts of adopting and implementing the proposed project with regard to stormwater infrastructure.

#### 4.14.4.1 ENVIRONMENTAL SETTING

##### Regulatory Setting

###### *Federal Regulations*

###### Clean Water Act and National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the United States including discharges from municipal separate storm sewer systems (MS4s).

###### *State Regulations*

###### State Water Resources Control Board and Regional Water Quality Control Board

In California, the State Water Resources Control Board (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 Regional Water Quality Control Boards (RWQCBs).

###### Statewide General Permit

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.<sup>93</sup> Permittees must develop and implement a Stormwater Management Plan (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable.

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<sup>93</sup> State Water Resources Control Board, *Order No. 2003-0005-DWQ*, [http://www.swrcb.ca.gov/water\\_issues/programs/stormwater/docs/final\\_ms4\\_permit.pdf](http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/final_ms4_permit.pdf), accessed on December 18, 2015.

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### 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).<sup>94</sup> 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.

### NPDES Municipal Regional Stormwater Permit

The proposed project 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 R2-2015-0049, adopted on November 19, 2015.<sup>95</sup> 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 beyond 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 United States.

### 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.<sup>96</sup> 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.

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<sup>94</sup> 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](http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_factsheet.pdf), accessed on December 18, 2015.

<sup>95</sup> California Regional Water Quality Control Board, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit, Order R2-2015-0049 NPDES Permit No. CAS612008, November 19, 2015, [http://www.waterboards.ca.gov/rwqcb2/water\\_issues/programs/stormwater/Municipal/R2-2015-0049.pdf](http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/stormwater/Municipal/R2-2015-0049.pdf)

<sup>96</sup> 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](http://www.flowstobay.org/documents/business/new-development/2012/C3_Technical_Guidance_Aug2012_SMCWPPP_for_upload.pdf), accessed on February 27, 2015.

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### *Regional Regulations*

#### San Francisco Bay Basin Water Quality Control Plan

The San Francisco Bay Regional Water Quality Control Board (RWQCB) oversees a Water Quality Control Plan for the San Francisco Bay Basin (the Basin Plan) that designates “beneficial” uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan, which includes wetlands in and near Menlo Park.<sup>97</sup> The Basin Plan centers on watershed management, a strategy for protecting water quality by examining all inputs into drainages and downstream water bodies. Accordingly, compliance with the Basin Plan involves adherence to stormwater control requirements for land use activities in Menlo Park.

### *Local Regulations*

#### Menlo Park General Plan

The City of Menlo Park General Plan includes goals, policies, and programs relevant to the environmental factors potentially affected by the proposed project. Applicable goals, policies, and programs are identified and assessed for their effectiveness later in this chapter under Section 4.14.4.3, Impact Discussion.

#### City of Menlo Park Municipal Code

The City of Menlo Park Municipal Code, organized by title, chapter, and section, contains all ordinances for Menlo Park. Title 7, Health and Sanitation, include regulations relevant to stormwater management in Menlo Park as discussed below.

#### Chapter 7.42, Stormwater Management Program<sup>98</sup>

Chapter 7.42 of the Municipal Code aims to protect and enhance the water quality 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.

#### 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

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<sup>97</sup> California Regional Water Quality Control Board San Francisco Bay Region (Region 2), 2007. San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan).

<sup>98</sup> City of Menlo Park, Municipal Code Chapter 7.42, Stormwater Management Program, <http://www.codepublishing.com/CA/menlopark/>, accessed on December 18, 2015.

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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.<sup>99</sup>

### Grading and Drainage Guidelines<sup>100</sup>

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 run-off 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 new construction or redevelopment that increases impervious areas by more than 500 square feet. The G&D Guidelines indicate that a G&D Plan must include existing and proposed calculations showing site grading and drainage features. The grading and drainage design for the project shall control stormwater runoff and pollutants using the San Mateo County's C.3 Stormwater Technical Guidance criteria. The City also requires G&D Plans to include erosion and sedimentation control details and include an Impervious Area Worksheet evaluating existing and proposed impervious areas.

### 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.<sup>101</sup> 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.

### Middlefield Road Storm Drain Study (2003)

The Storm Drainage Study, dated May 6, 2003, determined that the existing storm drain system in Middlefield Road has limited flow capacity and system deficiencies. The existing storm drain system discharges to San Francisquito Creek at two locations, Middlefield Road and the intersection of Baywood Avenue and Woodland Avenue, through 36-inch and 48-inch outfalls respectively.

Since the 2003 Study was prepared, various projects have been completed that affect the existing storm drain system. The Middlefield Road study was designed to analyze the existing infrastructure and provide engineering recommendations to improve the drainage flows and reduce or eliminate street flooding. The

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<sup>99</sup> City of Menlo Park, *Requirements for the Preparation of Hydrology Reports*, August 20, 2006, <http://www.menlopark.org/documentcenter/view/1010>, accessed on December 18, 2015.

<sup>100</sup> City of Menlo Park, *Land Development Guidelines*, 2014, <http://www.menlopark.org/documentcenter/view/4694>, accessed on February 27, 2015.

<sup>101</sup> BKF Engineers, 2003, *City-wide Storm Drainage Study*, <http://www.menlopark.org/documentcenter/view/1017>, accessed on December 18, 2015.

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project includes locating the utilities within the street, analyzing of the existing pipe inverts and clearances, identifying the physical constraints, and proposing alternative solutions that reduce flooding along Middlefield Road.<sup>102</sup>

### Existing Conditions

#### *Watershed and Creek Systems*

Menlo Park is located within the approximately 45-square-mile San Francisquito Creek watershed, which includes portions of both Santa Clara County and San Mateo County. The uppermost elevations of the watershed are west of Highway 35 (locally known as Skyline Boulevard), and its lowest points are in East Palo Alto where San Francisquito Creek empties into the San Francisco Bay. The southernmost edge of the watershed is in the Los Trancos Regional Preserve near Palo Alto, and its northern most edge is Sweeny Ridge in the Golden Gate National Recreation Area. A map of the San Francisquito Watershed is provided as Figure 4.8-1.

Water flows west to east through natural creeks and streams and channelized waterways. In the undeveloped marshes, water flows through Flood Slough and Ravenswood Slough. In general, the creek flows in a northeasterly direction, and ultimately drains into the San Francisco Bay. San Francisquito Creek flows through Menlo Park largely in its natural alignment, and it forms the southern boundary of the City limits. Riparian vegetation around the creek spans a 25- to 75-meter-wide space, depending on adjacent land use and topography, consisting primarily of willow, bay laurels, redwoods, alders, cottonwoods, dogwoods, valley oaks, and coast live oaks.

#### *Storm Drain System*

The City's storm drain system is maintained by the Menlo Park Public Works Department and consists of 17 individual systems that serve 17 drainage areas, as described in the city-wide study conducted in 2003 by BKF Engineers. The City has 44 miles of storm drain pipe and 1,000 inlets or catch basins.<sup>103</sup> The area north of Middlefield Road drains to the Bay through either the Belle Haven Storm Drain system or through the City of East Palo Alto storm drain lines. The area south of Middlefield Road drains to either Atherton Channel on the northwest or San Francisquito Creek on the southeast. Significant portions of the system are not capable of providing conveyance of a 10-year storm event.<sup>104</sup> Common issues include undersized storm drain lines, bubble-up storm drain systems, and areas without storm drains. 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.

As noted above, the City conducted a study in 2003 evaluating deficiencies in the storm system design and limited flow capacity along Middlefield Road and proposed alternatives to reduce flooding.

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<sup>102</sup> City of Menlo Park, Middlefield Road Storm Drain Study web page, <http://www.menlopark.org/268/Middlefield-Road-Storm-Drain-Study>, accessed on May 4,, 2016.

<sup>103</sup> Virginia Parks, Associate Engineer, City of Menlo Park. Email communication with PlaceWorks on November 14, 2012.

<sup>104</sup> BKF Engineers, 2003. City-Wide Storm Drainage Study.

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Improvements to address flooding along Middlefield Road as well as drainage channel improvements to Atherton Channel are planned in the future.

The City requires that all stormwater be treated on-site through Low Impact Development (LID) features such as biological treatments, detentions, and rain gardens.<sup>105</sup> 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.<sup>106</sup>

### *Flood Hazard Areas*

A map of the locations that are within the 100-year and 500-year floodplain is shown on Figure 4.8-3 in Chapter 4.8, Hydrology and Water Quality, of this Draft EIR. As shown, most of the Bayfront Area, specifically much of the area between Constitution Drive and US Highway 101 (US 101), is within the 100-year floodplain that is subject to tidal flooding from San Francisco Bay.<sup>107</sup> In addition, some portions of Menlo Park, including the Bayfront Area, between Middlefield Road and US 101 are within the 100-year floodplain due to overflow from San Francisquito Creek.<sup>108</sup>

In addition, there are three smaller areas of Menlo Park, including the Bayfront Area, that are subject to 500-year flood hazards. These areas are: 1) northwest of San Francisquito Creek between Middlefield Road and Elm Street to approximately 400 feet west of Santa Monica Avenue; 2) south of the US 101 and Marsh Road interchange to approximately 450 feet south of the rail line; and 3) the area bounded by Ivy Drive to the north, Willow Road to the east, US 101 to the south, and Sevier Avenue to the east.

The San Francisquito Creek Joint Powers Authority in conjunction with the United States Army Corps of Engineers and the Santa Clara Valley Water District, are implementing improvements to provide 100-year flood protection for flood-prone reaches of San Francisquito Creek both upstream and downstream from US 101.<sup>109</sup> The goal is to eliminate the need for more than 8,400 properties to contribute to the National Flood Insurance Program because of overflows from San Francisquito Creek and San Francisco Bay tides.

The first portion of the San Francisquito Creek improvement project, which includes the section from San Francisco Bay to US 101, is scheduled to begin in 2016 (depending on permit approval); the Final EIR was completed in October 2012. The project will reduce flood risks along a flood-prone reach of the creek

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<sup>105</sup> Virginia Parks, Associate Engineer, City of Menlo Park. Personal communication with PlaceWorks, December 13, 2012.

<sup>106</sup> Menlo Park, Public Works Department website, <http://www.menlopark.org/195/Public-Works>, accessed on February 27, 2015.

<sup>107</sup> Federal Emergency Management Agency (FEMA). Various FIRM Maps Including 06081C0306E to 06081C309E., <http://msc.fema.gov/portal>, accessed on December 18, 2015.

<sup>108</sup> San Francisquito Creek Joint Powers Authority (SFCJPA). San Francisquito Creek Floodplain Mapping – 100-year Fluvial Flood Inundation Map. At [http://www.sfcjpa.org/documents/Corps\\_of\\_Engineers\\_100-year\\_floodplain\\_map.pdf](http://www.sfcjpa.org/documents/Corps_of_Engineers_100-year_floodplain_map.pdf), accessed on December 18, 2015.

<sup>109</sup> San Francisquito Creek Joint Powers Authority. Projects Overview. <http://sfcjpa.org/web/projects/projects-overview/>, accessed December 18, 2015

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downstream of US 101 and will reduce flood risks from Bay tides and 50 years of future sea level rise. The following tasks will be completed:<sup>110</sup>

- Widen the creek to convey a 100-year storm flow, coupled with a 100-year tide and 25 inches of sea level rise.
- Excavate sediment that has built up over several decades and replace it with a marsh plan.
- Remove an abandoned levee to allow high creek flows into the Palo Alto Baylands south of the creek, thus reinstating a natural connection to the Bay for the first time in over 75 years.
- Construct floodwalls aligned to Caltrans' US 101 bridge over the creek in the area confined by homes and businesses.

Cities and unincorporated communities in San Mateo County, including Menlo Park, generate runoff that flows into the Bayfront Canal via the Atherton Channel and six other drainage basins. Historically, flooding has occurred in the neighborhoods near the Bayfront Canal (Redwood City) and Atherton Channel (Menlo Park), particularly during storms that coincide with high tides.<sup>111</sup> As configured as of 2013, the Bayfront Canal and Atherton Channel do not have enough detention capacity to prevent flooding in low lying areas. In addition, during storms that coincide with high tides, the Canal and Channel cannot discharge sufficient stormwater flows to the Bay due to hydraulic limitations.

The Bayfront Canal and Atherton Channel Improvement Project will include installing a culvert to direct water to the Ravenswood Ponds; making open channel improvements upstream and downstream of the culvert; and installing water control structures within and around the Ravenswood Ponds to allow the flow from the culvert to move between the ponds and ultimately to the Bay.<sup>112</sup> The project will be implemented by the Association of Bay Area Governments (ABAG) and is expected to be completed in January 2018. In addition, the City of Redwood City is partnering with the Coastal Conservancy to integrate the Salt Pond Restoration Project with the Bayfront Canal/Atherton Channel Flood Improvement Project.<sup>113</sup> When complete, this project would restore 15,100 acres of industrial salt ponds to tidal wetlands and other habitats and serve as stormwater detention for the Bayfront Canal and Atherton Channel drainage areas.

### 4.14.4.2 STANDARDS OF SIGNIFICANCE

Implementation of the proposed project would have a significant stormwater-related impact if it would require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.

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<sup>110</sup> San Francisquito Creek Joint Powers Authority. Projects Overview. <http://sfcjpa.org/web/projects/active/s.f.-bay-to-highway-101/>, accessed December 18, 2015 .

<sup>111</sup> Bay Area Integrated Regional Water Management Plan, 2013. Bayfront Canal Flood Management and Habitat Restoration Project. <http://bairwmp.org/projects/bayfront-canal-flood-management-and-habitat-restoration-project>, accessed December 18, 2015.

<sup>112</sup> Moffat & Nichol, 2014. *Bayfront Canal Flood Improvements – Project Description*. Dated March 6, 2014.

<sup>113</sup> Bay Area Integrated Regional Water Management Plan, 2016. Bayfront Canal Flood Management and Habitat Restoration Project. Accessed on May 5, 2016 at <http://bairwmp.org/projects/bayfront-canal-flood-management-and-habitat-restoration-project>.

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### 4.14.4.3 IMPACT DISCUSSION

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**UTIL-11**            **Implementation of the proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects.**

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In general, an increase in impervious surfaces with new development and redevelopment under the proposed project could result in an increase in stormwater runoff which could exceed the capacity of existing or planned stormwater drainage systems. Under existing conditions, portions of the City's storm drainage systems are not capable of containing the runoff from 10-year storm events. In addition, changes in existing drainage patterns could increase the rate and/or amount of stormwater runoff.

However, the existing development potential in the city and the new development potential under the proposed project involves parcels in the Bayfront Area that have already been developed and are covered with impervious surfaces. Therefore, post-development runoff rates would not be significantly different than pre-development rates. In addition, implementation of LID guidelines and engineering review of drainage calculations and development plans by the Menlo Park Public Works Department would ensure that there are no significant increases in peak flow rates or runoff volumes. The City requires detention of stormwater runoff such that discharges do not exceed existing flow rates.

As discussed previously, all new and redevelopment projects that create or replace 10,000 square feet or more of impervious space (or 5,000 square feet of impervious space for uncovered parking areas, restaurants, auto service facilities, and retail gasoline outlets) are considered regulated projects and would be required to comply with the C.3 provisions of the MRP requirements and implement various post-construction BMPs and LID features that include site design, stormwater treatment, runoff retention, and peak flow management. Future development under the proposed project that create or replace one acre or more of impervious surface, post-project stormwater peak flows discharged from the site must not exceed pre-project flow rates, if the site is in a HM (Hydro-modification) area.<sup>114</sup> These measures would minimize the amount of stormwater runoff from the new sites.

The proposed Land Use (LU) Element, which would be affirmed as part of the proposed project, and existing Section II, Open Space and Conservation (OSC) of the Open Space/Conservation, Noise and Safety Elements, contain general goals, policies, and programs that would require local planning and development decisions to consider impacts to stormwater infrastructure. The following General Plan goals, policies and programs would serve to minimize potential adverse impacts associated with stormwater runoff rate issues:

- **Goal OSCS-1:** Maintain, Protect and Enhance Open Space and Natural Resources.
  - **Policy OSC-1.6: South Bay Salt Pond Restoration Project and flood management project.** Continue to support and participate in federal and State efforts related to the South Bay Salt Pond Restoration Project and flood management project. Provide public access to the Bay for scenic

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<sup>114</sup> Some areas of Menlo Park south of El Camino Real (State Route 82) are within the area subject to HM requirements.

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enjoyment and recreation opportunities as well as conservation education opportunities related to the open Bay, the sloughs and the marshes.

- **Policy OSCS-1.7: San Francisquito Creek Joint Powers Authority.** Continue efforts through San Francisquito Creek Joint Powers Authority to enhance the value of the creek as a community amenity for trails and open space, conservation and educational opportunities.
- **Goal S-1:** Assure a safe community.
  - **Policy S-1.25: Creeks and Drainage-ways.** Seek to retain San Francisquito and Atherton creeks/channels in their natural state in order to prevent undue erosion of creek banks. Protect creek-side habitat and provide maintenance access along creeks where appropriate.
  - **Policy S-1.26: Erosion and Sediment Control.** Continue to require the use of best management practices for erosion and sediment control measures with proposed development in compliance with applicable regional regulations.
  - **Policy S-1.27: Regional Water Quality Control Board (RWQCB) Requirements.** Enforce stormwater pollution prevention practices and appropriate watershed management plans in the RWQCB general National Pollutant Discharge Elimination System requirements, the San Mateo County Water Pollution Prevention Program and the City's Stormwater Management Program. Revise, as necessary, City plans so they integrate water quality and watershed protection with water supply, flood control, habitat protection, groundwater recharge, and other sustainable development principles and policies.
- **Goal LU-4:** Promote the development and retention of business uses that provide goods or services needed by the community that generate benefits to the City, and avoid or minimize potential environmental and traffic impacts.
  - **Policy LU-4.5: Business Uses and Environmental Impacts.** Allow modifications to business operations and structures that promote revenue generating uses for which potential environmental impacts can be mitigated.
- **Goal LU-6:** Preserve open-space lands for recreation; protect natural resources and air and water quality; and protect and enhance scenic qualities
  - **Policy LU-6.11: Baylands Preservation.** Allow development near the Bay only in already developed areas.
    - **Program LU-6.A: San Francisquito Creek Setbacks.** Establish Zoning Ordinance requirements for minimum setbacks for new structures or impervious surfaces within a specified distance of the top the San Francisquito Creek bank.
- **Goal LU-7:** Promote the implementation and maintenance of sustainable development, facilities and services to meet the needs of Menlo Park's residents, businesses, workers, and visitors.
  - **Policy LU-7.5: Reclaimed Water Use.** Implement use of adequately treated "reclaimed" water (recycled/nonpotable water sources such as, graywater, blackwater, rainwater, stormwater, foundation drainage, etc.) through dual plumbing systems for outdoor and indoor uses, as feasible.

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- **Program LU-7.A: Green Building and Maintenance.** Employ green building and operation and maintenance best practices, including increased energy efficiency, use of renewable energy and reclaimed water, and install drought-tolerant landscaping for all projects.

Additionally, as part of the Zoning update, the project includes green and sustainable building standards in the Bayfront Area. These standards require all new buildings within the Bayfront Area to include dual plumbing for the use of recycled water. Further, the Zoning update include development regulations that require new development within the Bayfront Area to provide a minimum amount of open space equal to 25 percent of the lot area, and require appropriate areas for landscaping, which would reduce surface water runoff.

Any increase in peak flow rates shall be handled on-site by retention to treat excess flow for the 10-year storm event. Any retained on-site stormwater would eventually be routed to existing storm drains. Future development under the proposed project, as part of the City's approval process, would be required to comply with existing regulations, including General Plan policies and Zoning regulations that have been prepared to minimize impacts related to stormwater drainage facilities. The City, throughout the 2040 buildout horizon, would implement the General Plan programs that require establishing Zoning Ordinance requirements for minimum setbacks for new structures or impervious surfaces near the San Francisquito Creek bank and employing green building best practices. In addition, the Grading and Drainage Plans for each future project would be reviewed by the City to ensure that on-site drainage, LID features, and retention basins are adequate to prevent on-site or off-site flooding. As a result of implementation of these measures, including compliance with the C.3 provisions of the MRP, and because the majority of sites would be either infill projects or would be located within existing storm drainage systems, development under the proposed project would not require significant expansions of the existing stormwater drainage infrastructure. Because the City requires no net increase in stormwater flow rates, adoption of the proposed project would result in *less-than-significant* with respect to future development runoff.

**Significance Without Mitigation:** Less than significant.

### 4.14.4.4 CUMULATIVE IMPACT DISCUSSION

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<b>UTIL-12</b>	<b>Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less-than-significant cumulative impacts with respect to stormwater infrastructure.</b>
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The geographic context used for the cumulative assessment of water quality and hydrology impacts is the San Francisquito Creek Watershed, which encompasses the entire study area. Cumulative impacts can occur when impacts that are significant or less than significant from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area.

As discussed previously, new development and redevelopment under the proposed project would require conformance with State and local policies that would reduce hydrology and related stormwater utility impacts to *less-than-significant* levels. When applicable, any additional new development within the City

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would be subject, on a project-by-project basis, to independent CEQA review as well as policies in the Menlo Park General Plan, design guidelines, zoning regulations, and other applicable City requirements that reduce impacts related to stormwater hydrology. More specifically, potential changes related to stormwater flows, drainage, impervious surfaces, and flooding would be minimized via the implementation of stormwater control measures, retention, infiltration, LID measures, and review by the City's Public Works Department to integrate measures to reduce potential flooding impacts. All cumulative projects would be subject to similar permit requirements and would be required to comply with City ordinances and to be consistent with the General Plan, as well as numerous water quality regulations that control construction related and operational discharge of stormwater. For these reasons, impacts on hydrology, from future development under the proposed project, are not cumulatively considerable and the cumulative impact would be *less than significant*.

**Significance Without Mitigation:** Less than significant.

### 4.14.5 ENERGY CONSERVATION

In order to assure that energy implications are considered in project decisions, Appendix F, Energy Conservation, of the CEQA Guidelines, requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. However, no specific thresholds of significance for potential energy impacts are suggested in the State CEQA Guidelines. This section provides a general description of the regulatory setting addressing existing electric and natural gas services and infrastructure, and supply and demand in Menlo Park.

#### 4.14.5.1 ENVIRONMENTAL SETTING

##### Regulatory Framework

###### *Federal Regulations*

###### Energy Independence and Security Act of 2007

Signed into law in December 2007, this Act is an energy policy law that contains provisions designed to increase energy efficiency and the availability of renewable energy. The Act contains provisions for increasing fuel economy standards for cars and light trucks, while establishing new minimum efficiency standards for lighting as well as residential and commercial appliance equipment.

###### Energy Policy Act of 2005

Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. This Act includes tax incentives for the following: energy conservation improvements in commercial and residential buildings; fossil fuel production and clean coal facilities; and construction and operation of nuclear power plants, among other things. Subsidies are also included for geothermal, wind energy, and other alternative energy producers.

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### Natural Gas Pipeline Safety Act of 1968

The Natural Gas Pipeline Safety Act of 1968 authorizes the Department of Transportation (DOT) to regulate pipeline transportation of flammable, toxic, or corrosive natural gas and other gases as well as the transportation and storage of liquefied natural gas. The Pipeline and hazardous materials Safety Administration (PHMSA) within DOT develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6 million mile pipeline transportation system. DOT's and PHMSA's regulations governing natural gas transmission pipelines, facility operations, employee activities, and safety are found at 49CFR Part 40, 40CFR Part 190, 40CFR Part 191, 49CFR Part 192, 49CFR Part 193 and 49CFR Part 199.

### National Energy Policy

Established in 2001 by the National Energy Policy Development Group, this policy is designed to help the private sector and state and local governments promote dependable, affordable, and environmentally sound production and distribution of energy for the future. Key issues addressed by the energy policy are energy conservation, repair and expansion of energy infrastructure, and ways of increasing energy supplies while protecting the environment.

### *State Regulations*

#### California Public Utilities Commission

In September 2008, the California Public Utilities Commission (CPUC) adopted the Long Term Energy Efficiency Strategic Plan, which provides a framework for energy efficiency in California through the year 2020 and beyond. It articulates a long-term vision, as well as goals for each economic sector, identifying specific near-term, mid-term, and long-term strategies to assist in achieving these goals. This Plan sets forth the following four goals, known as Big Bold Energy Efficiency Strategies, to achieve significant reductions in energy demand:

- All new residential construction in California will be zero net energy by 2020;
- All new commercial construction in California will be zero net energy by 2030;
- Heating, Ventilation and Air Conditioning (HVAC) will be transformed to ensure that its energy performance is optimal for California's climate; and
- All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

With respect to the commercial sector, the Long Term Energy Efficiency Strategic Plan notes that commercial buildings, which include schools, hospitals, and public buildings, consume more electricity than any other end-use sector in California. The commercial sector's five billion-plus square feet of space accounts for 38 percent of the state's power use and over 25 percent of natural gas consumption. Lighting, cooling, refrigeration, and ventilation account for 75 percent of all commercial electric use, while space heating, water heating, and cooking account for over 90 percent of gas use. In 2006, schools and colleges were in the top five facility types for electricity and gas consumption, accounting for approximately 10 percent of state's electricity and gas use.

## UTILITIES AND SERVICE SYSTEMS

The CPUC and the California Energy Commission (CEC) have adopted the following goals to achieve zero net energy (ZNE) levels by 2030 in the commercial sector:

- **Goal 1:** New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030.
- **Goal 2:** 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation.
- **Goal 3:** Transform the commercial lighting market through technological advancement and innovative utility initiatives.

### California Energy Code

The State of California provides a minimum standard for energy conservation through Title 24 of the California Code of Regulations (CCR), commonly referred to as the “California Energy Code” (CEC). The CEC was adopted by the California Energy Resources Conservation and Development Commission in June 1977 and revised in 2008 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On May 31, 2012, the CEC adopted the 2013 Building and Energy Efficiency Standards, which went into effect on January 1, 2014. Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

### CALGreen Building Code

On July 17, 2008, the California Building Standards Commission adopted the nation’s first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as “CALGreen”) was adopted as part of the California Building Standards Code (Title 24, California Code of Regulations). CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011. The building efficiency standards are enforced through the local building permit process. The Code was updated again in 2013, effective January 1, 2014, except energy based measures whose implementation was delayed until July 1, 2014.

The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories:

- Planning and design
- Energy efficiency
- Water efficiency and conservation
- Material conservation and resource efficiency
- Environmental quality

## UTILITIES AND SERVICE SYSTEMS

The provisions of CALGreen apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated in this code, throughout the State of California. Compliance with the CALGreen Code is not a substitution for meeting the certification requirements of any green building program. CALGreen requires new buildings to reduce water consumption by 20 percent, divert 50 percent of construction waste from landfills, and install low pollutant-emitting materials.

### 2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. Though these regulations are now often viewed as “business-as-usual,” they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

### Governor’s Green Building Executive Order

In 2004, Executive Order (EO) S-20-04 was signed by the Governor, committing the State to take aggressive action to reduce state building electricity usage by retrofitting, building, and operating the most energy and resource-efficient buildings by taking all cost-effective measures described in the Green Building Action Plan for facilities owned, funded or leased by the State and to encourage cities, counties and schools to do the same. It also calls for State agencies, departments, and other entities under the direct executive authority of the Governor to cooperate in taking measures to reduce grid-based energy purchases for State-owned buildings by 20 percent by 2015, through cost-effective efficiency measures and distributed generation technologies. These measures should include, but are not limited to:

- Designing, constructing and operating all new and renovated State-owned facilities paid for with state funds as “LEED Silver” or higher certified buildings;
- Identifying the most appropriate financing and project delivery mechanisms to achieve these goals;
- Seeking out office space leases in buildings with a US EPA Energy Star rating; and
- Purchasing or operating Energy Star electrical equipment whenever cost-effective.

### State Greenhouse Gas Regulations

The Governor’s GHG Reduction Executive Order S-3-05 was signed on June 1, 2005, and set GHG reduction targets for the State. Soon after, AB 32, the Global Warming Solutions Act (2006) was passed by the California state legislature on August 31, 2006, to place the State on a course toward reducing its contribution of GHG emissions. In response to AB 32, the California Air Resources Board (CARB) developed a Scoping Plan outlining California’s approach to achieving the goal of reducing GHG emissions to 1990 levels by 2020. The final Scoping Plan was adopted by CARB on December 11, 2008. CARB approved the first 5-year Update to the Climate Change Scoping Plan on May 22, 2014, as required by AB 32. For a detailed discussion on these regulations, see Chapter 4.6, Greenhouse Gas Emissions, of this Draft EIR.

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### Renewable Portfolio Standard

Signed into law in 2011, SB X1-2 directs CPUC's Renewable Energy Resources Program to increase the amount of electricity generated from eligible renewable energy resources per year to an amount that equals at least 20 percent of the total electricity sold to retail customers in California per year by December 31, 2013, 25 percent by December 31, 2016 and 33 percent by December 31, 2020. SB X1-2 codifies the 33 percent by 2020 renewable portfolio standard (RPS) goal established pursuant to the Global Warming Solutions Act of 2006. This new RPS applies to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must adopt the new RPS goals of 20 percent of retail sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement being met by the end of 2020.

### California Energy Benchmarking and Disclosure

Assembly Bill 1103 (2007) requires that electric and gas utilities maintain records of the energy consumption data of all nonresidential buildings to which they provide service and that by January 1, 2009, upon authorization of a nonresidential building owner or operator, an electric or gas utility shall upload all of the energy consumption data for the specified building to the US EPA Energy Star Portfolio Manager in a manner that preserves the confidentiality of the customer. This statute further requires a nonresidential building owner or operator disclose Energy Star Portfolio Manager benchmarking data and ratings, for the most recent 12-month period, to a prospective buyer, lessee, or lender. Enforcement of the latter requirement began on January 1, 2014.

On October 8, 2015, the Governor signed AB 802 which would revise and recast the above provisions. The new law directs the Energy Commission to establish a statewide energy benchmarking and disclosure program, and enhances the Commission's existing authority to collect data from utilities and other entities for the purposes of energy forecasting, planning and program design. Among the specific provisions, AB 802 would require utilities to maintain records of the energy usage data of all buildings to which they provide service for at least the most recent 12 complete months. Beginning no later than January 1, 2017, the bill would require each utility, upon the request and the written authorization or secure electronic authorization of the owner, owner's agent, or operator of a covered building, as defined, to deliver or provide aggregated energy usage data for a covered building to the owner, owner's agent, operator, or to the owner's account in the Energy Star Portfolio Manager, subject to specified requirements. The bill would also authorize the commission to specify additional information to be delivered by utilities for certain purposes.

### *Local Regulations*

#### Menlo Park General Plan

The City of Menlo Park General Plan includes goals, policies, and programs relevant to the environmental factors potentially affected by the proposed project. Applicable goals, policies, and programs are identified and assessed for their effectiveness later in this chapter under Section 4.14.5.3, Impact Discussion.

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### City of Menlo Park Municipal Code

The City of Menlo Park Municipal Code, organized by title, chapter, and section, contains all ordinances for Menlo Park. Title 12, Buildings and Construction, include regulations relevant to energy conservation in Menlo Park as discussed below.

### City of Menlo Park 2013 Green Building Standards Codes<sup>115</sup>

Menlo Park has adopted local amendments to 2013 CALGreen, which has been enforced since January 1, 2014. 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.

### City of Menlo Park Climate Change Action Plan<sup>116</sup>

The City has a Climate Action Plan (CAP) to reduce GHG emissions. The most recent update to the City's CAP was published in October 2015<sup>117</sup>. The CAP recommends various renewable energy, energy efficiency and energy conservation strategies over the five period from 2015 - 2020, including:

- Complete installation of Solar PV on four City buildings
- Complete installation of four Electric Vehicle (EV) charging stations at City public parking locations
- Complete energy efficient upgrades and renewable energy installation at city facilities
- Consider Community Choice Energy (CCE) options to gain additional renewable power in Menlo Park's portfolio
- Incorporate Zero Net Energy and LEED Silver requirements into Planning requirements and Building Codes to increase efficiency in new buildings
- Implement Energy Star ratings requirement, or other performance tracking methodology, into Planning requirements for new buildings
- Consider developing an energy efficient/renewable energy plan for commercial and residential sector to re-invigorate energy upgrades for existing buildings
- Re-invigorate a social marketing program to increase biking, public transit, and walking in the community
- Implement CCE, if selected as an option
- Support Transportation Commission's car sharing program
- Support Bicycle Commission's bike sharing program
- Consider program to increase Caltrain ridership by downtown employees
- Encourage local food production through social marketing, education, and community garden programs

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<sup>115</sup> City of Menlo Park, *2013 Green Building Standards Codes Summary of Changes*, <http://www.menlopark.org/DocumentCenter/Home/View/93> accessed on May 4, 2016.

<sup>116</sup> City of Menlo Park, *Climate Change Action Plan*, 2009, <http://www.menlopark.org/DocumentCenter/View/1346>, accessed on February 27, 2015.

<sup>117</sup> City of Menlo Park, *Climate Action Plan Update and Status Report*, October 2015, <http://ca-menlopark.civicplus.com/ArchiveCenter/ViewFile/Item/4299>

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- Consider large scale renewable energy generation within Menlo Park (such as solar farm on a portion of open space, or large number of solar roof-top installations)
- Consider fuel switching strategies to move residential and commercial energy from natural gas and other fuels to renewable electricity portfolio
- Consider replacement of all remaining City non-LED street lights with LED fixtures
  - Consider height and density limit adjustments to promote active and public transportation Existing Conditions

Grid electricity and natural gas service in Menlo Park is provided by Pacific Gas & Electric (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.<sup>118</sup>

On January 26, 2016, the Menlo Park City Council approved joining Peninsula Clean Energy (PCE) to provide additional renewable power. PCE is a community choice energy (CCE) program, also known sometimes as community choice aggregation.<sup>119</sup> CCE programs allow local governments to pool the electricity demands of their communities, purchase power with higher renewable content, and reinvest in local infrastructure. PG&E will still deliver the power, maintain the lines, and bill customers, but the power will be purchased by "Peninsula Clean Energy" in San Mateo County. PCE plans to have an "ECO 50" and "ECO 100" program that includes 50 percent and 100 percent renewable energy, respectively.

### *Electricity*

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." "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.

PG&E produces or buys its energy from a number of conventional and renewable generating sources, which travel through PG&E's electric transmission and distribution systems. The power mix PG&E provided to customers in 2014 consisted of non-emitting nuclear generation (21 percent), large hydroelectric facilities (8 percent) and eligible renewable resources (27 percent), such as wind, geothermal, biomass, solar and small hydro<sup>120</sup>. The remaining portion came from natural gas/other (24 percent) and unspecified power (21 percent). Unspecified power refers to electricity that is not traceable to specific generation sources by any auditable contract trail. In addition, PG&E has plans to increase the

<sup>118</sup> PG&E, 2012. Company Info. <http://www.pge.com/about/company/profile/> accessed on February 1, 2016

<sup>119</sup> Peninsula Clean Energy, 2016. <http://www.peninsulacleanenergy.com/>, accessed on May 4, 2016.

<sup>120</sup> PG&E, 2015. PG&E's 2014 Power Mix,

[http://pge.com/includes/docs/pdfs/myhome/myaccount/explanationofbill/billinserts/11.15\\_PowerContent.pdf](http://pge.com/includes/docs/pdfs/myhome/myaccount/explanationofbill/billinserts/11.15_PowerContent.pdf) , accessed May 4, 2016.

## UTILITIES AND SERVICE SYSTEMS

use of renewable power. For instance, PG&E purchases power from customers that install small-scale renewable generators (e.g., wind turbines or photovoltaic cells) up to 1.5 megawatts in size. In 2014, PG&E served 28 percent of their retail electricity sales with renewable power. PG&E's percentage of renewable power currently under contract for 2020 is 37percent.<sup>121</sup>

In 2013 PG&E's projected annual electricity demand growth between 2012 and 2024 is 1.25 percent.<sup>122</sup> In 2015 PG&E's preliminary projected average annual electricity demand growth (mid-demand forecast) between 2013-2026 is 1.26 percent.<sup>123</sup> Within the San Francisco Bay planning area (Zone 1) of PG&E's service area the preliminary projected average annual electricity demand growth between 2013-2026 is 1.41 percent. Energy providers in the State project demand by assuming future economic growth and taking into account projects such as the proposed project Update.

The existing electrical system in the study area consists of overhead and underground facilities.

### *Natural Gas*

PG&E's natural gas (methane) pipe delivery system includes 42,141 miles of distribution pipelines, and 6,438 miles of transportation pipelines. Gas delivered by PG&E originates in gas fields in California, the US Southwest, US Rocky Mountains, and from Canada. 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.

PG&E gas transmission pipeline systems serve approximately 4.2 million gas customers in northern and central California. The system is operated under an inspection and monitoring program. The system operates in real time on a 24-hour basis, and includes leak inspections, surveys, and patrols of the pipelines. A new program, the Pipeline 2020 program, aims to modernize critical pipeline infrastructure, expand the use of automatic or remotely-operated shut-off valves, catalyze development of next-generation inspection technologies, develop industry-leading best practices, and enhance public safety partnerships with local communities, public officials, and first responders.

The PG&E gas transportation pipeline nearest the Bayfront Area, where the new development potential is proposed, primarily runs north along Highway 101 (Bayshore Freeway) until Second Avenue where it continues north along Broadway Street.<sup>124</sup> Distribution gas pipelines are located throughout the project study area.

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<sup>121</sup> California Public Utilities Commission (CPUC), 201. California Renewables Portfolio Standard (RPS), [http://www.cpuc.ca.gov/RPS\\_Homepage/](http://www.cpuc.ca.gov/RPS_Homepage/), accessed on May 4, 2016.

<sup>122</sup> California Energy Commission (CEC), 2013. California Energy Demand 2014-2024 Preliminary Forecast, CEC-200-2013-004-SD-V2, May 2013

<sup>123</sup> CEC, 2015. California Energy Demand 2016-2026, Preliminary Electricity Forecast, CEC-200-2015-003, June 2015, [http://docketpublic.energy.ca.gov/PublicDocuments/15-IEPR-03/TN205141\\_20150623T153206\\_CALIFORNIA\\_ENERGY\\_DEMAND\\_20162026\\_PRELIMINARY\\_ELECTRICITY\\_FOREC.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/15-IEPR-03/TN205141_20150623T153206_CALIFORNIA_ENERGY_DEMAND_20162026_PRELIMINARY_ELECTRICITY_FOREC.pdf), accessed May 4, 2016.

<sup>124</sup> Pacific Gas & Electric, 2014. Gas Transmission System Map web page, <http://www.pge.com/en/safety/systemworks/gas/transmissionpipelines/index.page>, accessed February 1, 2016.

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### 4.14.5.2 STANDARDS OF SIGNIFICANCE

As previously discussed, Appendix F, Energy Conservation, of the CEQA Guidelines, requires 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 or for the City of Menlo Park. Therefore, this EIR analysis determined that impacts would be significant if implementation of the proposed project would result in a substantial increase in natural gas and electrical service demands that would require the new construction of energy supply facilities and transmission infrastructure or capacity enhancing alterations to existing facilities paralleling the threshold determinations for other utility and service systems under Appendix G, Environmental Checklist of the CEQA Guidelines. To further the intent of Appendix F, Energy Conservation, relevant, potential impacts listed in that appendix are also incorporated in the evaluation.

Appendix F lists the following possible impacts to energy conservation that should be considered to the extent they are applicable and relevant to a particular project:

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials maybe discussed.
2. The effects of the project on local and regional energy supplies and on requirements for additional capacity.
3. The effects of the project on peak and base period demands for electricity and other forms of energy.
4. The degree to which the project complies with existing energy standards.
5. The effects of the project on energy resources.
6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

The analysis included in Section 4.14.5.3 below focuses on discussions related to possible impact numbers 2, 4, 5 and 6 listed above. Focus on these potential impacts was done because they are relevant and applicable to the programmatic analysis in this Draft EIR, and the development allowed under the proposed project does not represent a unique or energy-intensive use that would be substantially different than other similar projects.

### 4.14.5.3 IMPACT DISCUSSION

This section analyzes the proposed project's potential impacts and cumulative impacts to electric and natural gas services and infrastructure, supply and demand, and energy conservation.

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**UTIL-13      Implementation of the proposed project would not result in a substantial increase in natural gas and electrical service demands, and would not require new energy supply facilities and transmission infrastructure or capacity enhancing alterations to existing facilities.**

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New development under the proposed project would continue to be served by PG&E or PCE when it commences transmission of energy over PG&E facilities. New electrical and gas distribution lines may be required to replace existing lines when realignment is required under future development; however, such replacement/realignment is speculative at this time and any individual development projects would be subject to independent CEQA review and permitting ensuring any associated environmental impacts would be addressed. The projected increase in development would result in a long-term increase in energy demand associated with the operation of lighting and space heating/cooling in the added building space, and vehicle travel. In addition, construction activities associated with development require the use of energy (e.g., electricity and fuel) for various purposes such as the operation of construction equipment and tools, as well as excavation, grading, demolition, and construction vehicle travel.

### Construction

Even with energy saving practices in place (as discussed below), new electrical connections, switches and/or transformers might be required to serve new structures and/or carry additional loads within the study area. Similarly, new gas distribution lines and connections may be necessary. These are infrastructure improvements that would be addressed for future individual development projects. Most of the work would be in existing public rights-of-way or facilities. Although creation of new or re-located gas and electric lines could create short-term construction-related environmental effects (e.g., noise, dust, traffic, temporary service interruption, etc.), the work would be subject to compliance with the City's and PG&E's regulations and standard conditions for new construction related to infrastructure improvements. For example, these regulations and conditions would require gas and electric line construction to include best management practices that require construction areas to minimize dust generation, limit construction noise to daytime hours to limit impacts to sensitive receptors, and use modern equipment to limit emissions. Also, any such work would be subject to compliance with applicable regulations and standard conditions of approval for construction projects, including City permits/review for construction (e.g., grading permits, private development review, encroachment permits, etc.). Construction vehicles would consume fuel. As discussed in Chapter 4.6, Greenhouse Gas Emissions, of this Draft EIR the US EPA adopted the Heavy-Duty National Program to establish fuel efficiency and GHG emission standards in the heavy-duty highway vehicle sector, which includes combination tractors (semi-trucks), heavy-duty pickup trucks and vans, and vocational vehicles (including buses and refuse or utility trucks). These standards include targets for gallons of fuel consumed per mile beginning in model year 2014. These standards are being extended through model year 2018 through current rulemaking by the US EPA. While construction activities require a commitment of energy sources, these efficiency standards improve energy security and innovation in clean energy technology and further the goal of conserving energy in the context of project development. As a result, adoption of the proposed project would result in *less-than-significant* impacts with respect to construction related impacts of future development.

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### Operational

The proposed increase in development would result in a long-term increase in energy demand, associated with the operation of lighting and space heating/cooling in the added building space, and vehicle travel. In addition, construction activities associated with development require the use of energy (e.g., electricity and fuel) for various purposes such as the operation of construction equipment and tools, as well as excavation, grading, demolition, and construction vehicle travel.

#### *Development Energy Impacts*

Proposed new development would be constructed using energy efficient modern building materials and construction practices, in accordance with CalGreen Building Code, CPUC's Long Term Energy Efficiency Strategic Plan (2008), and Chapter 12.18 of the Menlo Park Municipal Code which contains the Green Building Ordinance. The new buildings also would use new modern appliances and equipment, in accordance with the 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608). Under these requirements, future development under the proposed project would use recycled construction materials, environmentally sustainable building materials, building designs that reduce the amount of energy used in building heating and cooling systems as compared to conventionally built structures, and landscaping that incorporates water efficient irrigation systems, all of which would conserve energy.

As an infill effort, the proposed project inherently furthers objectives of energy conservation by focusing activities in areas of existing infrastructure and services. In addition, the proposed Land Use (LU) Element and Circulation (CIRC) Elements, which would be affirmed as part of the proposed project, and existing Section II, Open Space/Conservation (OSC) of the Open Space/Conservation, Noise and Safety Elements, contain goals, policies, and programs that would require local planning and development decisions to consider impacts to energy resources. The following General Plan goals, policies and programs would serve to increase energy conservation and minimize potential impacts associated with energy use:

- **Goal LU-4:** Promote the development and retention of business uses that provide goods or services needed by the community that generate benefits to the City, and avoid or minimize potential environmental and traffic impacts.
  - **Policy LU-4.5: Business Uses and Environmental Impacts.** Allow modifications to business operations and structures that promote revenue generating uses for which potential environmental impacts can be mitigated.
- **Goal LU-6:** Preserve open-space lands for recreation; protect natural resources and air and water quality; and protect and enhance scenic qualities.
  - **Policy LU-6.9: Pedestrian and Bicycle Facilities.** Provide well-designed pedestrian and bicycle facilities for safe and convenient multi-modal activity through the use of access easements along linear parks or paseos.
- **Goal LU-7:** Promote the implementation and maintenance of sustainable development, facilities and services to meet the needs of Menlo Park's residents, businesses, workers, and visitors.

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- **Policy LU-7.1: Sustainability.** Promote sustainable site planning, development, landscaping, and operational practices that conserve resources and minimize waste.
- **Policy LU-7.9: Green Building.** Support sustainability and green building best practices through the orientation, design, and placement of buildings and facilities to optimize their energy efficiency in preparation of State zero-net energy requirements for residential construction in 2020 and commercial construction in 2030.
  - **Program LU-7.A: Green Building and Maintenance.** Employ green building and operation and maintenance best practices, including increased energy efficiency, use of renewable energy and reclaimed water, and install drought-tolerant landscaping for all projects.
  - **Program LU-7.C: Sustainability Criteria.** Establish sustainability criteria and metrics for resource use and conservation and monitor performance of projects of a certain minimum size.
  - **Program LU-7.D: Performance Standards.** Establish performance standards in the Zoning Ordinance that requires new development to employ environmentally friendly technology and design to conserve energy and water, and minimize the generation of indoor and outdoor pollutants.
  - **Program LU-7.E: Greenhouse Gas Emissions.** Develop a Greenhouse Gas (GHG) standard for development projects that would help reduce communitywide GHG emissions to meet City and Statewide reduction goals.
- **Goal OSC-2: Provide parks and Recreation Facilities.**
  - **Policy OSC-2.7: Conservation of Resources at City Facilities.** Reduce consumption of water, energy, landfilled waste, and fossil fuels in the construction, operations and maintenance of City owned and/or operated facilities.
- **Goal OSCS-4: Promote sustainability and climate action planning.**
  - **Policy OSC-4.1: Sustainable Approach to Land Use Planning to Reduce Resource Consumption.** Encourage, to the extent feasible, (1) a balance and match between jobs and housing, (2) higher density residential and mixed-use development to be located adjacent to commercial centers and transit corridors, and (3) retail and office areas to be located within walking and biking distance of transit or existing and proposed residential developments.
  - **Policy OSC-4.2: Sustainable Building.** Promote and/or establish environmentally sustainable building practices or standards in new development that would conserve water and energy, prevent stormwater pollution, reduce landfilled waste, and reduce fossil fuel consumption from transportation and energy activities.
  - **Policy OSC-4.3: Renewable Energy.** Promote the installation of renewable energy technology, such as, on residences and businesses through education, social marketing methods, establishing standards and/or providing incentives.
  - **Policy OSC-4.4: Vehicles Using Alternative Fuel.** Explore the potential for installing infrastructure for vehicles that use alternative fuel, such as electric plug in recharging stations.

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- **Policy OSC-4.5: Energy Standards in Residential and Commercial Construction.** Encourage projects to achieve a high level of energy conservation exceeding standards set forth in the California Energy Code for Residential and Commercial development.
- **Policy OSC-4.9: Climate Action Planning.** Undertake annual review and updates, as needed, to the City's Climate Action Plan (CAP).
- **Policy OSC-4.10: Energy Upgrade California.** Consider actively marketing and providing additional incentives for residents and businesses to participate in local, State, and/or Federal renewable or energy conservation programs.
- **Goal CIRC-1:** Provide and maintain a safe, efficient, attractive, use-friendly circulation system that promotes a healthy, safe, and active community and quality of life throughout Menlo Park.
  - **Policy CIRC-1.7: Bicycle Safety.** Support and improve bicyclist safety through roadway maintenance and design efforts.
  - **Policy CIRC-1.8: Pedestrian Safety.** Maintain and create a connected network of safe sidewalks within the public right of way ensure that appropriate facilities, traffic control, and street lighting are provided for pedestrian safety and convenience, including for sensitive populations.
  - **Policy CIRC-1.9: Safe Routes to Schools.** Support Safe Routes to School programs to enhance the safety of school children who walk and bike to school.
- **Goal CIRC-2:** Increase accessibility for and use of streets by pedestrians, bicyclists, and transit riders.
  - **Policy CIRC-2.7: Walking and Biking.** Provide for the safe, efficient, and equitable use of streets by pedestrians and bicyclists through appropriate roadway design and maintenance, effective traffic law enforcement, and implementation of the City's Comprehensive Bicycle Development Plan and the El Camino Real/Downtown Specific Plan.
  - **Policy CIRC-2.11: Design of New Development.** Require new development to incorporate design that prioritizes safe pedestrian and bicycle travel and accommodates senior citizens, people with mobility challenges, and children.
- **Goal CIRC-5:** Support local and regional transit that is efficient, frequent, convenient, and safe.
  - **Policy CIRC-5.1: Transit Service and Ridership.** Promote improved public transit service and increased transit ridership, especially to employment centers, commercial destinations, schools, and public facilities.
  - **Policy CIRC-5.2: Transit Proximity to Activity Centers.** Promote the clustering of as many activities as possible within easy walking distance of transit stops, and locate any new transit stops as close as possible to housing, jobs, shopping areas, open space, and parks.
  - **Policy CIRC-5.3: Rail Service.** Promote increasing the capacity and frequency of commuter rail service, including Caltrain; protect rail rights-of-way for future transit service; and support efforts to reactivate the Dumbarton Corridor for transit, pedestrian, bicycle, and emergency vehicle use.
    - **Program CIRC-5.A: Long-Term Transit Planning.** Work with appropriate agencies to agree on long-term peninsula transit service that reflects Menlo Park's desires and is not disruptive to the city.

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- **Goal CIRC-6:** Provide a range of transportation choices for the Menlo Park Community.
  - **Policy CIRC-6.1: Transportation Demand Management.** Coordinate Menlo Park's transportation demand management efforts with other agencies providing similar services within San Mateo and Santa Clara Counties.
  - **Policy CIRC-6.2: Funding Leverage.** Continue to leverage potential funding sources to supplement City and private monies to support transportation demand management activities of the City and local employers.
  - **Policy CIRC-6.3: Shuttle Service.** Encourage increased shuttle service between employment centers and the Downtown Menlo Park Caltrain station.
  - **Policy CIRC-6.4: Employers and Schools.** Encourage employers and schools to promote walking, bicycling, carpooling, shuttles, and transit use.

Additionally, as part of the Zoning update, the project includes green and sustainable building standards in the Bayfront Area. These standards require all new buildings within the Bayfront Area to comply with specific green building requirements for LEED certification, providing outlets for Electric Vehicle charging, on-site renewable energy generation (electrical and natural gas), and enrollment in EPA Energy Star Building Portfolio Manager.

Future development under the proposed project, as part of the City's project approval process, would be required to comply with existing regulations, including General Plan policies and Zoning regulations that have been prepared to promote energy conservation and efficiency by implementing sustainable building practices and reducing automobile dependency. The City, throughout the 2040 buildout horizon, would implement the General Plan programs that require the development of a Greenhouse Gas (GHG) standard for development projects and the coordination with appropriate agencies to agree on long-term peninsula transit service. Furthermore, continued implementation of the CAP, compliance with the CALGreen Building Code, and the other applicable state and local energy efficiency measures cited above, significant energy conservation and savings would be realized from future development under the proposed project. Therefore, adoption of the proposed project would result in *less-than-significant* impacts with respect to increase in natural gas and electrical service demands.

### *Transportation Energy Impacts*

As an infill development, the proposed project inherently furthers objectives of energy conservation related to transportation by focusing activities in areas of existing infrastructure and services. Transportation features that are priorities of the proposed project are evident in the proposed Circulation element. These features promote non-motorized transportation within and to the anticipated development within the Bayfront Area, as well as the city-wide, thereby potentially reducing energy consumption that would otherwise be related to motorized vehicle use (i.e., automobiles). Chapter 4.13, Transportation and Circulation, of this Draft EIR, provides an evaluation of the expected traffic and transit trips generated by the proposed project. As discussed, the proposed project would generate an increase in typical weekday trips consisting of vehicular, transit and walk/bike trips that would vary between 2016 and 2040. As discussed above, the US EPA adopted standards that include targets for gallons of fuel consumed per mile beginning in model year 2014. These standards are being extended through model

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year 2018 through current rulemaking by the US EPA. While future transportation would require a commitment of energy sources, these efficiency standards improve energy security and innovation in clean energy technology further the goal of conserving energy in the context of project development. As with impacts of future development discussed above, buildout of the proposed project and compliance with Zoning regulations and General Plan goals and policies listed above would ensure that adoption of the proposed project would result in *less-than-significant* impacts with respect to energy impacts from transportation.

### *Utility Scale Energy Impacts*

The proposed project would be within the 70,000-square-mile PG&E service territory for electricity and natural gas generation, transmission and distribution. PG&E continues to expand its renewable energy portfolio. Due to the study area's size and location within an urban development, buildout of the proposed project would not significantly increase energy demands within the service territory and would not require new energy supply facilities. In addition, energy projections of energy providers within the State anticipate growth from development such as what would be allowed under the proposed project. As a result, as PG&E updates their long-range plans, they will incorporate the projected growth in Menlo Park. Where new transportation/transmission infrastructure is required, as discussed above under future construction energy impacts, new development under the proposed project would be subject to separate environmental review and would be required to comply with applicable regulations for construction projects, including construction permits/review for construction within public rights-of-way (e.g., grading permits, private development review, encroachment permits, etc.). Accordingly, the adoption of the proposed project would result in *less-than-significant* impacts with respect to new energy supply facilities and transportation/transmission infrastructure, or capacity-enhancing alterations to existing facilities.

**Significance Without Mitigation:** Less than significant.

#### 4.14.5.4 CUMULATIVE IMPACT DISCUSSION

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UTIL-14	<b>Implementation of the proposed project, in combination with past, present, and reasonably foreseeable projects, would result in less than significant cumulative impacts with respect to energy conservation.</b>
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The discussion under UTIL-13 described the proposed project's impacts in relationship to the PG&E service territory and therefore, includes a discussion of cumulative impacts.

**Significance Without Mitigation:** Less than significant.

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