

4.8 PUBLIC UTILITIES

4.8.1 Introduction

This section describes the utility systems and facilities within the project area and potential impacts resulting from implementation of the McKinley Village Project (proposed project). Utilities and service systems considered in the analysis include water supply, wastewater treatment and collection, and solid waste collection and disposal. This section also describes the existing energy resources derived from petroleum products, electricity, and natural gas available within the project site and analyzes impacts related to energy resources resulting from implementation of the proposed project. Consideration is given to on-site as well as off-site infrastructure facilities.

In response to the Notice of Preparation (NOP), the Sacramento Municipal Utilities District (SMUD) requested the EIR address impacts on overhead and/or underground transmission and or distribution of line easements, electrical load needs/requirements, energy efficiency, utility line routing, utility infrastructure expansion, and climate change. This section addresses the existing energy resources within the project area and analyzes associated impacts resulting from the implementation of the proposed project. Climate change is addressed in Section 4.1, Air Quality and Climate Change.

Concerns expressed in response to the NOP included the impact of the proposed project on the current water infrastructure system including water and drainage system capacity; storm scenarios due to climate change, ground water and water table pollution, and the effect on the East Sacramento system. This is of concern to local residents who commented, as many have recently experienced flooding in neighborhoods located near the proposed project site. This section addresses and analyzes the project's potential impacts to water supply and wastewater treatment and collection. Section 4.5, Hydrology, Water Quality and Drainage, addresses impacts related to stormwater, storm drainage, and flood hazards.

A copy of the NOP and letters received in response to it are included in Appendix A.

Documents referenced to prepare this section include: the Sacramento 2030 General Plan (City of Sacramento 2009a), the Sacramento 2030 General Plan Master EIR (MEIR) (City of Sacramento 2009b), the Preliminary Sewer Plan for McKinley Village (Wood Rodgers 2013a), the Preliminary Drainage Plan for McKinley Village (Wood Rodgers 2013b), and the City of Sacramento 2010 Urban Water Management Plan (City of Sacramento 2011).

4.8.2 Environmental Setting

This section describes the existing water and wastewater systems for the City of Sacramento (City) and the project area, as well as solid waste collection and disposal and other public utilities related to the proposed project. In addition, this section describes the existing energy supply and project-related energy consumption.

Water Supply

Supply Sources

The City of Sacramento is the water purveyor for the proposed project. The City relies on both surface water and groundwater for municipal and industrial uses. Water to serve the project would come from surface water sources. The City's water supply is obtained from three sources:

- Surface water obtained from the American River
- Surface water obtained from the Sacramento River
- Groundwater.

The City owns and operates two water diversion and treatment facilities: the E.A. Fairbairn Water Treatment Plant (FWTP) and the Sacramento River Water Treatment Plant (SRWTP). The FWTP diverts water from the American River, and the SRWTP diverts water from the Sacramento River. In 2003, the City finished an expansion of the SRWTP increasing its maximum capacity from 110 million gallons per day (mgd) to 160 mgd. An expansion of the FWTP was finished in May 2005. The expansion increased the maximum capacity of the FWTP from 100 mgd to 200 mgd (City of Sacramento 2009b).

The City of Sacramento has a Sacramento River permit (Permit 992) to divert up to 225 cubic feet per second (cfs) and 81,800 acre-feet year (AFY) from the Sacramento River. In addition the City has four water right permits authorizing diversions of up to 589,000 AFY of American River water. However, the City's American River water rights scale and the maximum diversion for the year 2035 is 245,000 AFY (City of Sacramento 2009b). The City's maximum annual diversion allowance (expressed in AFY) is shown in Table 4.8-1.

**Table 4.8-1
Maximum Annual Diversion Allowed per Year**

Year	Sacramento River	American River	Combined Diversion
2010	81,800	170,500	227,500
2015	81,800	189,000	252,000

**Table 4.8-1
Maximum Annual Diversion Allowed per Year**

Year	Sacramento River	American River	Combined Diversion
2020	81,800	208,500	278,000
2025	81,800	228,000	304,000
2030	81,800	245,000	326,800
2035	81,800	245,000	326,800

Source: City of Sacramento 2011.

Notes:

1. Data obtained from Schedule A of the 1957 Water Rights Settlement Contract between the U.S. Bureau of Reclamation and the City.
2. The City may divert up to 81,800 acre-feet per year (AFY) from the Sacramento River as long as the total combined diversion from both the Sacramento and American Rivers does not exceed the Maximum Combined Diversion.
3. The City may divert up to the Maximum Diversion from the American River as long as the total combined diversion from both the Sacramento and American rivers does not exceed the Maximum Combined Diversion.

The City overlies two sub-basins of the Sacramento Valley Groundwater Basin. According to the City's 2010 Urban Water Management Plan (UWMP) (City of Sacramento 2011), the City currently operates 25 municipal supply wells and 5 irrigation wells north of the American River, and 2 municipal supply wells and 9 irrigation wells south of the American River. The City pumps groundwater from both sub-basins, although approximately 95% of the amount pumped by the City is pumped from the North American sub-basin. The City pumped 17,772 acre-feet (af) of groundwater from the North American sub-basin and 665 af from the South American sub-basin for potable water consumption in 2010 (City of Sacramento 2011).

In 2010, the City of Sacramento supplied potable water to approximately 136,713 water customers in the City of Sacramento water service area. The potable water customers are primarily residential, with approximately 92% of the City's customers being residential; approximately 7% commercial/institutional, and 1% irrigation. In addition to supplying water to domestic retail customers, the City also provides water on a wholesale and wheeling basis to other districts and purveyors (City of Sacramento 2011).

Storage

The City operates ten storage reservoirs, each with a capacity of 3 million gallons (mg), except for the Florin Reservoir, which has a capacity of 15 mg. In addition to the reservoirs, the treatment plants together maintain an on-site storage of over 32 mg. This water is used to meet the water demand for fire flows, emergencies, and peak hours. The amount of storage capacity currently existing in the City is adequate to serve emergency situations, even at full projected buildout of the City (City of Sacramento 2009b).

Water Conservation

Water conservation practices were institutionalized through City ordinances as early as 1967 and have consistently evolved. In 1991, the City became a signatory to the California Urban Water Conservation Council's Memorandum of Understanding (MOU). The purpose of the MOU is to expedite implementation of reasonable water conservation measures in urban areas and to establish appropriate assumptions for use in calculating estimates of reliable future water conservation savings (City of Sacramento 2009b).

The City's water conservation program currently includes the following: residential plumbing retrofit; system water audits; leak detection and repair; conservation programs for large landscape, commercial, industrial and institutional accounts; rebate programs for high-efficiency washing machines and ultra-low flush toilets; public information and school education programs; a water waste prohibition ordinance; and a water conservation coordinator (City of Sacramento 2009b). Previous passage of Assembly Bill 2572 mandates the installation of water meters on all water service connections not later than the year 2025. All new water connections would include water meters.

Availability

According to the 2010 UWMP, the City of Sacramento has long-term surface water entitlements that exceed current demand and can serve buildout of the General Plan.

Minimum Supply Available for the Next 3 Years

The California Water Code requires that the City estimate the minimum water supply available at the end of the 12, 24, and 36 months, assuming the driest 3-year historic supply shortage. The City has three sources of supply: the American River, Sacramento River, and groundwater. As previously described, the American River supply is subject to diversion limitations (Conference Years and Hodge Flow). The 3-year minimum water supply was assumed to be 1990 through 1992. Table 4.8-2 presents the City's most recent data on the estimated minimum water supply needed through 2013.

Table 4.8-2
Estimated Minimum Water Supply for 2011–2013

Water Supply Sources	Projected Minimum Water Supply		
	2011	2012	2013
Sacramento River	81,800	81,800	81,800
American River	174,500	178,000	181,500
Groundwater	20,000	20,000	20,000
Total (AFY)	276,300	279,800	283,300

Source: City of Sacramento 2011.

Note: American River projected minimum water supply based on Fairbairn WTP diversion limitations due to extremely dry year and Hodge Flow conditions. Sacramento River projected minimum water supply based on City's Sacramento River permit.

Supplies and Demands for Normal Water Year

The water demands through 2035 are estimated based on the historical daily use criteria, water use targets, and population projections. The projected normal water year supply and demands are summarized in Table 4.8-3. Supply totals represent the City's total surface and groundwater entitlements, while demand totals represent the City's maximum projected demands at buildout of the General Plan (including retail, wholesale, and wheeling deliveries).

Table 4.8-3
Supply and Demand Comparison – Average Year (Guidebook Table 32)

	2015	2020	2025	2030	2035
Supply Totals	290,800	310,300	329,800	346,800	346,800
Demand Totals ¹	172,589	185,788	217,886	249,984	260,984
Difference	118,211	124,512	111,914	96,816	85,816

Source: City of Sacramento 2011.

Notes:

"Guidebook Table 32" refers to Table 32 in the *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan* (Department of Water Resources).

¹ Includes Retail and Maximum Wholesale/Wheeling Deliveries.

Supplies and Demands for a Single-Dry Water Year

Any demand reductions due to future water conservation measures are not included in the single-dry year demand estimates. The projected single-dry year supply and demands are summarized in Table 4.8-4. Supply totals represent the City's total surface and groundwater entitlements, while demand totals represent the City's maximum projected demands (including retail, wholesale, and wheeling deliveries).

**Table 4.8-4
Supply and Demand Comparison – Single-Dry Year (Guidebook Table 33)**

	2015	2020	2025	2030	2035
Supply Totals	290,800	310,300	329,800	346,800	346,800
Demand Totals ¹	172,589	185,788	217,886	249,984	260,984
Difference	118,211	124,512	111,914	96,816	85,816
Difference as Percent of Supply	41%	40%	34%	28%	25%
Difference as Percent of Demand	68%	67%	51%	39%	33%

Source: City of Sacramento 2011.

Notes: "Guidebook Table 32" refers to Table 33 in the *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan* (Department of Water Resources).

¹ Includes Retail and Maximum Wholesale/Wheeling Deliveries.

The single-dry year assumptions are as follows:

- Sacramento River, 81,800 AFY available.
- American River under extremely dry year, 50,000 AFY available at the FWTP diversion; the remainder of the American River entitlements may be diverted at the SRWTP. The total entitlement varies depending on the buildup schedule in the Settlement Contract. American River entitlements are:
 - Year 2015: 189,000 AFY
 - Year 2020: 208,500 AFY
 - Year 2025: 228,000 AFY
 - Year 2030 and thereafter: 245,000 AFY.
- Groundwater: 20,000 AFY available.

As shown in Table 4.8-4, the City's water supply entitlements exceed demand during the single-dry years through 2035.

Supply and Demand for Multiple-Dry Water Year Periods

This section projects the impact of a multiple-dry year period. Any demand reductions due to future water conservation measures are not included in the multiple-dry year demand estimates. Table 4.8-5 provides estimates of the projected multiple-dry year water demand condition. Supply totals represent the City's total surface and groundwater entitlements, while demand

totals represent the City’s maximum projected demands (including retail, wholesale, and wheeling deliveries). The multiple-dry-year water supply was assumed to be 1990 through 1992.

The multiple-dry year assumptions are as follows:

- First Year
 - Sacramento River, 81,800 AFY available
 - American River, 245,000 AFY available
 - Groundwater, 20,000 AFY available.

**Table 4.8-5
Supply and Demand Comparison – Multiple-Dry Year (Guidebook Table 34)**

		2015	2020	2025	2030	2035
Multiple-Dry Year First Year Supply	Supply Totals	290,800	310,300	329,800	346,800	346,800
	Demand Totals ¹	172,589	185,788	217,886	249,984	260,984
	Difference	118,211	124,512	111,914	96,816	85,816
	Difference as Percent of Supply	41%	40%	34%	28%	25%
	Difference as Percent of Demand	68%	67%	51%	39%	33%
Multiple-Dry Year Second Year Supply	Supply Totals	290,800	310,300	329,800	346,800	346,800
	Demand Totals ¹	172,589	185,788	217,886	249,984	260,984
	Difference	118,211	124,512	111,914	96,816	85,816
	Difference as Percent of Supply	41%	40%	34%	28%	25%
	Difference as Percent of Demand	68%	67%	51%	39%	33%
Multiple-Dry Year Second Year Supply	Supply Totals	290,800	310,300	329,800	346,800	346,800
	Demand Totals ¹	172,589	185,788	217,886	249,984	260,984
	Difference	118,211	124,512	111,914	96,816	85,816

**Table 4.8-5
Supply and Demand Comparison – Multiple-Dry Year (Guidebook Table 34)**

		2015	2020	2025	2030	2035
	Difference as Percent of Supply	41%	40%	34%	28%	25%
	Difference as Percent of Demand	68%	67%	51%	39%	33%

Source: City of Sacramento 2011.

Notes: "Guidebook Table 32" refers to Table 34 in the *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan* (Department of Water Resources).

¹ Includes Retail and Maximum Wholesale/Wheeling Deliveries.

- Second Year
 - Sacramento River, 81,800 AFY available
 - American River, 245,000 AFY available
 - Groundwater, 20,000 AFY available.
- Third Year
 - Sacramento River, 81,800 AFY available
 - American River, 245,000 AFY available
 - Groundwater, 20,000 AFY available.

As shown in Table 4.8-5, the City's water supply entitlements exceed demand during the multiple-dry years through 2035.

Extremely Severe Drought

An extremely severe drought would be an event in excess of the UWMP guidance and would have a very low probability. For the purposes of the 2010 UWMP, an extremely severe drought is one that would prohibit the City from diverting off the American River. This type of drought would result in the City relying on the SRWTP and groundwater solely, and the combined production capacity of the two would be 180 mgd. The projected maximum day demand for the years 2015 and 2020 are expected to be 259 mgd and 253 mgd, respectively, if the City does not bring on additional wholesale and wheeling customers. Demands would have to be reduced by about 30% to safely serve demands.

Drought Planning Summary

In summary, on an annual basis, under all drought conditions, the City possesses sufficient water supply entitlements to meet the demands of its customers up to the year 2035, which includes buildout of the General Plan. It is important to note that this assumes that wells and surface water treatment capacity would be rehabilitated and expanded as needed.

Water Transmission, Treatment, and Distribution Facilities

The City's Department of Utilities (DOU) is responsible for providing and maintaining water, sewer collection, storm drainage, and flood control services along with solid waste removal for residents and businesses within the City limits. The Sacramento Area Sewer District (SASD) provides sewer collection services to residents and businesses within the City limits as well. Storm drainage and flood control are addressed in Section 4.5, Hydrology, Water Quality and Drainage.

The City's existing distribution system consists of two water supply and water treatment plants (WTPs), two pressure zones, groundwater wells, storage tanks, pumping facilities, and distribution/transmission pipelines (City of Sacramento 2011).

Surface Water Treatment

The City treats surface water diverted from the Sacramento and American rivers through the SRWTP and the FWTP, respectively.

Sacramento River Water Treatment Plant

The SRWTP began operation in 1924 with an initial capacity of 32 mgd, and treats water diverted approximately 0.5 mile downstream of the American River confluence. A new intake structure, located approximately 700 feet downstream of the old intake structure, was completed in 2003. Other expansions and modifications completed by the City since the 1920s have increased the plant's design capacity to 160 mgd. Currently, due to the conditions of the existing facilities and hydraulic constraints, the SRWTP's reliable capacity is limited to 135 mgd. Design is underway to rehabilitate the older facilities at the SRWTP to bring the capacity back to 160 mgd. The SRWTP currently has three treatment trains consisting of disinfection, grit removal, coagulation, flocculation, sedimentation, and filtration; all three-process trains are recombined after filtration before post-chlorination (City of Sacramento 2011).

Fairbairn Water Treatment Plant

The FWTP is located approximately 7 miles upstream of the confluence of the American and Sacramento rivers. The FWTP began operation in 1964 and has a current design capacity of 200 mgd following the expansion completed in late 2005. Currently, the California Department of Public

Health has permitted a capacity of 160 mgd. However, the amount of water diverted is further limited by the Hodge Flow Criteria (minimum flow that would preserve and protect the in-stream resources of the lower American River). Generally, during the time of peak demand, most often in June, July, or August, the Hodge Flow Criteria could limit the diversion rate at the FWTP to 100 mgd. Treatment consists of disinfection, grit removal, coagulation, flocculation, sedimentation, and filtration. Filtered water is recombined before postchlorination (City of Sacramento 2011).

Groundwater Wells

The City currently operates 27 municipal groundwater supply wells; 25 wells are located in the northern portion of the City, north of the American River, while the remaining 2 are located south of the American River. Fourteen additional wells are operated separately from the drinking water system and are used to meet irrigation demands of City parks. The total pumping capacity of the City's municipal supply wells is approximately 20.7 mgd, assuming 90% of the production capacity is available (City of Sacramento 2011).

Distribution and Storage Facilities

Pressure Zones

High service pumps at each of the WTPs pump water directly into the distribution system creating a pressure zone that encompasses the majority of the City. The Bell Avenue Booster Pump Station is an in-system booster pump station that creates a small pressure zone in the northeastern part of the City (City of Sacramento 2011).

Storage Facilities

The City currently has 16 storage facilities. Eleven distributed storage tanks are located throughout the City, while 5 clearwells are located at the WTPs (two at FWTP and 3 at SRWTP). Ten of the storage tanks located throughout the City have a capacity of 3 mg each, while one storage tank (Florin Reservoir) has a capacity of 15 mg, for a cumulative storage capacity of 45 mg. The combined plant clearwells have a nominal capacity of approximately 45 mg and a usable capacity of 32 mg (City of Sacramento 2011).

Pumping Facilities

The City currently operates high lift pump stations at both the SRWTP and the FWTP. The City also has an additional ten pump stations located at each storage tank within the distribution system, except for the Freeport Storage Tank (City of Sacramento 2011).

Transmission and Distribution Mains

The City maintains just over 1,760 miles of transmission and distribution system mains ranging in size from 4 to 60 inches in diameter (City of Sacramento 2011).

City Water Infrastructure

The City operates pumping facilities throughout the City. Water mains are separated by the City into two distinct categories: distribution mains are typically 4 inches to 12 inches in diameter and utilized for water services, fire services, and fire hydrants; transmission mains larger than 12 inches are used to convey large volumes of water from the treatment plants to selected points throughout the distribution system and to transfer water to and from the storage reservoirs to meet fluctuating daily and seasonal demands (City of Sacramento 2009b).

Project Area Water Infrastructure

The City would provide surface water to serve the project. The proposed project would tie into the existing City water line connections at Alhambra Boulevard and C Street to create a “looped” system. Connection to an existing water main at C Street would be provided through the extension of a new 8-inch water main within the proposed extension of 40th Street. A second connection would be provided through the installation of a 8-inch water main through the Union Pacific Railroad (UPRR) embankment at Alhambra Boulevard to connect to an existing 8-inch water main at the intersection of Alhambra Boulevard and B Street immediately south of the project site. From the north side of the UPRR to connect to the existing 8-inch line is approximately 230 feet. All on-site water lines would be within proposed roadways and would be between 6 inches and 8 inches in diameter.

Wastewater Collection and Treatment

Wastewater treatment for all development within the City is provided by the Sacramento Regional Wastewater Treatment Plant (SRWWTP), which is owned and operated by the Sacramento Regional County Sanitation District (SRCSD). The SRCSD is responsible for the regional conveyance, wastewater treatment, and wastewater disposal for all waters collected by the City DOU, SASD (formerly County Services District [CSD-1]), and the cities of Citrus Heights, Elk Grove, Folsom, Rancho Cordova, Sacramento, and West Sacramento, and the communities of Courtland and Walnut Grove (SRCSD 2008). Local wastewater collection trunk lines and pumping facilities within the City are operated by the City DOU and the SASD. The wastewater collection service area boundaries of the DOU encompass approximately two-thirds of the area within the City limits, including the project site. The DOU operates two different types of sewer systems: combined sewer systems (CSS) and separated sewer systems. The CSS

collects and transports both wastewater and stormwater within the same facilities, and separated sewer systems provide separate wastewater and stormwater collection facilities.

Wastewater Collection

All wastewater flows from the project site within the separated sewer system would be directed into the CSS for transport to SRCSD regional conveyance facilities and ultimately the SRWWTP for treatment. As discussed in Section 4.5 Hydrology, Water Quality and Drainage, stormwater generated on the project site would be conveyed to existing Sump 99 (storm drainage pump station), which is part of the City's separated stormwater system. Sump 99 is located southeast of the project site at the northeast corner of Lanatt Street and C Street/Elvas Avenue. The City DOU has identified a Sump 99 electrical upgrade project (Wood Rodgers 2013a). Local drainage and stormwater facilities are addressed further in Section 4.5.

Combined Sewer System

The CSS is a collection and conveyance system designed to convey domestic sewage, commercial and industrial wastewater, and surface stormwater runoff in a single pipeline for treatment at a regional wastewater treatment facility. Wastewater generated by the proposed project would be collected on site and pumped via an on-site sanitary sewer lift station through a proposed sewer line force main that would exit the project site at Alhambra Boulevard and discharge to an existing 42-inch CSS pipe at McKinley Boulevard/ E Street, approximately 1,450 feet south of the project site. The proposed project would include an on-site sewer storage tank to meter wastewater during high flow events in the CSS. The proposed project also would include a separated wastewater and storm drain system on site. Wastewater services would be provided by the City of Sacramento, and wastewater generated by the project would be treated at the SRWWTP in Elk Grove.

Sacramento Regional County Sanitation District

The SRCSD provides large pipeline conveyance of wastewater from SASD, the cities of Citrus Heights, Elk Grove, Folsom, and West Sacramento, unincorporated areas of the County, and the City of Sacramento to the WTP. The local interceptors that transport wastewater from the local residences and businesses flow into much larger regional pipelines maintained by SRCSD. SRCSD conveys wastewater through the large regional pipes into the WTP operated and maintained by SRCSD. After wastewater is treated and de-chlorinated, the treated effluent is discharged into the Sacramento River.

SRCSD is currently implementing large-scale improvements to the regional interceptor system to correct existing deficiencies and in anticipation of growth over the next 15 years. Improvements include the construction and extension of several interceptors and force mains.

Sacramento Regional Wastewater Treatment Plant

SRCSO is in the process of expanding the SRWWTP to accommodate 250 mgd of Average Dry Weather Flows (ADWF) and maintaining the 400 mgd for Average Wet Weather Flows (AWWF). The facility's current ADWF is approximately 165 mgd, with a permitted capacity of 181 mgd for ADWF. These expansions are projected to accommodate all projected regional growth through the year 2020 (City of Sacramento 2009b).

The discharge permit adopted for the SRWWTP in 2000 contains new, more stringent requirements at both the state and federal levels that are designed to restrict discharges of toxic pollutants into surface waters. Water recycling is a compliance strategy currently being used by SRCSO. Biosolids recycling technologies may also be implemented. The allowable total maximum daily loads of pollutants discharged into the Sacramento River, as well as elevated temperature of discharges into the Sacramento River, will be monitored.

Off-Site Improvements

The City DOU has identified a Sump 99 electrical upgrade project to improve reliability of Sump 99. As noted above, the project also includes construction of off-site water and wastewater pipes and a detention basin, as shown in Figure 4.5-4 included in Section 4.5 Hydrology, Water Quality and Drainage.

Solid Waste

The waste stream generated in the City of Sacramento is in excess of 1.13 million tons per year and includes everything from recycling to construction demolition material to garden refuse. The City collects approximately 30% of this waste, and the remainder is collected by private parties, including franchised haulers and individual residents (City of Sacramento 2012a).

The proposed project is within the service boundaries of the City of Sacramento Recycling and Solid Waste Division. The Recycling and Solid Waste Division provides garbage, recycling, yard waste collection, and street sweeping to more than 124,000 residential customers in the City of Sacramento. The division collects approximately 250,000 tons of waste and material, and sweeps more than 150,000 miles of public right-of-way (ROW) every year. Yard waste comprises 80,000 tons of the annual material collection, with about 25,000 tons picked up just during leaf season. Recycling amounts to 35,000 tons of material a year (City of Sacramento 2013).

Sacramento Regional Solid Waste Authority

The Sacramento Regional Solid Waste Authority (SWA) was formed in December 1992 to assume the responsibilities for the solid waste, recycling, and disposal needs in the Sacramento area. Current members include the City of Sacramento, the City of Citrus Heights, and the

unincorporated area of Sacramento County. The SWA regulates commercial solid waste collection by franchised haulers through ordinances. The Sacramento County Waste Management and Recycling Division provide staffing for the SWA.

Sacramento Department of Utilities, Recycling, and Solid Waste Division

The Sacramento Department of Utilities, Recycling, and Solid Waste Division collects all of the single-family residential solid waste and a small portion of the commercial solid waste in the City of Sacramento. Most of the refuse collected by the City is then transported to the Sacramento Recycling and Transfer Station and, ultimately, to the Lockwood Landfill in Sparks, Nevada. The Sacramento Recycling and Transfer Station is limited to accepting 2,500 tons of solid waste per day, under its Solid Waste Facilities Permit (Permit No. 34-AA-0195). The transfer station currently accepts approximately 1,700 tons per day from the City. The Lockwood Landfill is owned and operated by a private firm, Waste Management Inc., and is the primary location for the disposal of waste by the City. The Lockwood Landfill does not have maximum daily disposal limits and has a remaining capacity of approximately 32.5 million tons, which is currently expected to be enough capacity to remain open until the year 2035. The Lockwood Landfill is planned for an expansion that would increase the landfill's capacity enough to continue operation for at least the next 100 years in order to accommodate planned future growth (Waste Management 2011).

Various Commercial Franchised Haulers

Commercial solid waste in the City of Sacramento is collected by 1 of 14 franchised haulers (County of Sacramento 2013). The commercial solid waste collected by private franchised haulers are sent to private transfer stations to be processed and disposed at various facilities, including the Sacramento County Kiefer Landfill, Yolo County Landfill, and L and D Landfill. The franchised private haulers are under an agreement with the SWA.

Energy

Energy Consumption

A majority of consumable energy in California is provided in the form of electricity and natural gas. In addition, various petroleum products are consumed for transportation purposes.

Electricity

Electricity supply in California involves a complex grid of power plants and transmission lines located in the western United States, Canada, and Mexico. Approximately 22% of the California's electricity is imported from the 11 western-most states, Canada, and Mexico.

Based upon data and reports compiled by the California Energy Commission (CEC), in 2011, Californians consumed 272,300 gigawatt hours of electricity. California produces roughly 70% of

its electricity from power plants located within the state and from plants that are outside of the state, but owned by California utilities. About 30% is imported electricity from the Pacific Northwest and the American Southwest. In 2010, the total electricity imported was 92,130 gigawatt hours (CEC 2013a).

Electricity usage in California varies substantially by the type or function of the building, type of construction materials used, and the efficiency of each electrical device within the building. The average annual usage of electricity is roughly 13 kilowatts (kWh)/square foot for all commercial buildings. California's massive electricity generation system generates over 290,000 gigawatt-hours each year, transported over the state's 32,000 miles of transmission lines. Supply is further complicated by the fact that the peak demand for electricity is significantly higher than the off-peak demand. Electricity use is still expected to increase an average of 1.25% annually with peak demand growing at a rate of 1.35% per year. The higher peak-hour demand for electricity is largely influenced from air conditioning units being used during the daytime in hotter/drier areas of the state.

Since deregulation in 1998, the CEC has licensed more than 78 power plants—57 projects representing 19,885 megawatts (MW) are on-line; 9 projects totaling 3,900 MW are under construction; 12 projects totaling 4,289.5 MW are in pre-construction; and 2 projects totaling 679 MW are on hold but “available” for construction. In addition, the CEC has 7 proposed projects under review (both conventional and renewable) totaling more 3,600 MW (CEC 2013b).

Natural Gas

In 2012, California used almost 23,323 million therms of natural gas. The natural gas was used to produce electricity (46%), in industrial uses (15%), in residential uses (21%), in commercial uses (9%), and in mining (9%). Approximately 15% of the natural gas was produced within California, with the balance imported from the Rockies, Southwest, and Canada (CEC 2013c).

Natural gas usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all gas-consuming devices within a building.

California Energy Supply

California's major sources of energy are petroleum products (i.e., gasoline, diesel, and oil), electricity, and natural gas. The CEC indicates that California's petroleum resources come from the following three sources: (1) in-state (37%); (2) foreign sources (45%); and (3) Alaska (16%). As previously stated, 15% of the natural gas used in California was produced in state, with the balance imported from the Rockies, Southwest, and Canada. Electricity production by resource type in California in 2010 included, natural gas at 53.4%, coal at 1.7%, nuclear at 15.7%,

hydroelectric at 14.6%, and renewable at 14.6%. Import electricity from the northwest and southwest accounts for approximately 8% and 21%, respectively (CEC 2013d).

California Energy Use Patterns

Detailed information about energy use in the project area is limited; therefore, state-level and county trends are relied upon to characterize energy consumption at the local level. In 2010, the approximate total consumption of energy within state was 272,645 million kWh. Tables 4.8-6 and 4.8-7 illustrate SMUD/Pacific Gas and Electric (PG&E), Sacramento County, and California electricity and natural gas consumption.

**Table 4.8-6
California Utility Electricity Consumption for 2011**

Entity	Residential	Nonresidential	Total
	<i>kWh (millions)</i>	<i>kWh (millions)</i>	<i>kWh (millions)</i>
SMUD	4,537	5,804	10,341
Sacramento County	4,570	6,062	10,632
California	89,094	183,552	272,645

Source: CEC 2013e.

Note: Kilowatt-hour (kWh): The most commonly used unit of measure telling the amount of electricity consumed over time, which is one kilowatt (1,000 watts) of electricity supplied for 1 hour.

**Table 4.8-7
California Natural Gas Consumption for 2011**

Entity	Residential	Nonresidential	Total
	<i>Therm (millions)</i>	<i>Therm (millions)</i>	<i>Therm (millions)</i>
PG&E	2,124	2,628	4,752
Sacramento County	220	108	329
California	5,185	7,739	12,924

Source: CEC 2013f.

City of Sacramento

This section addresses the City of Sacramento's energy sources, as well as the local efforts to conserve energy and use energy more efficiently. Although these terms are used interchangeably, it is useful to differentiate between energy efficiency and energy conservation. Energy efficiency means using less energy/electricity to perform the same function. Conservation means "doing without" in order to save energy rather than using less energy to do the same thing. For example, turning off lights, turning down the air conditioner, and making fewer vehicle trips are all

conservation measures. Installing lighting that uses less electricity, additional insulation, and switching to a vehicle with better gas mileage are energy efficiency measures.

PG&E provides natural gas services to the City of Sacramento. Northern California-sourced gas supplies come primarily from gas fields in the Sacramento Valley. In 2011, PG&E's customers obtained on average 108 million cubic feet per day of California source-gas (California Gas and Electric Utilities 2012). To promote the safe and reliable maintenance and operation of utility facilities, the California Public Utilities Commission (CPUC) has mandated specific clearance requirements between utility facilities and surrounding objects or construction activities.

SMUD provides electric power for the City of Sacramento. SMUD is the sixth largest publicly owned utility in the country in terms of customers served. SMUD's energy programs are known throughout the state, nation and world. SMUD gets electricity from a variety of sources, including hydrological dams; cogeneration plants; and advanced renewable sources such as wind, solar and biomass/landfill gas power; and obtains additional energy on the wholesale market.

4.8.3 Regulatory Background

Federal Regulations

Water

Federal Water Pollution Control Act

The Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), otherwise known as the Clean Water Act (CWA), sets forth national goals that waters shall be "fishable, swimmable" waters (CWA Section 101 (a)(2)). To enforce the goals of the CWA, the U.S. Environmental Protection Agency (U.S. EPA) established the National Pollutant Discharge Elimination System (NPDES) program. NPDES is a national program for regulating and administering permits for discharges to receiving waters, including non-point sources. Under Section 1251 (b) of the CWA, Congress and the U.S. EPA must recognize and preserve the primary responsibilities and rights of states concerning the reduction of pollution in water resources.

Safe Drinking Water Act

The Safe Drinking Water Act of 1974 gave the U.S. EPA the authority to set standards for contaminants in drinking water supplies. The U.S. EPA was required to establish primary regulations for the control of contaminants that affected public health and secondary regulations for compounds that affect the taste, odor, and aesthetics of drinking water. Under the provisions of SDWA, the California Department of Health Services (DHS) has the primary enforcement

responsibility. Title 22 of the California Administrative Code establishes DHS authority, and stipulates state drinking water quality and monitoring standards.

Wastewater

National Pollution Discharge Elimination System Permit

Discharge of treated wastewater to surface water(s) of the United States, including wetlands, require a NPDES permit. In California, the Regional Water Quality Control Boards (RWQCB) administer the issuance of these federal permits. Obtaining an NPDES permit requires preparation of detailed information, including characterization of wastewater sources, treatment processes, and effluent quality. Whether or not a permit may be issued, the conditions of a permit are subject to many factors such as basin plan water quality objectives, impaired water body status of the receiving water, historical flow rates of the receiving water, effluent quality and flow, the air quality State Implementation Plan (SIP), the California Toxics Rule, and established total maximum daily loading rates for various pollutants. These factors are highly specific to the potential discharge point. Obtaining an NPDES permit is generally considered difficult in inland areas and may not be possible in sensitive areas.

Federal and State Clean Water Act

The Porter–Cologne Water Quality Control Act gives the ultimate authority over California water rights and water quality policy to the California State Water Resource Control Board (SWRCB). The Porter–Cologne Act also established nine RWQCBs to ensure that water quality on local/regional levels is maintained. The subject property is under the jurisdiction of the Central Valley Regional Water Quality Control Board (CVRWQCB).

U.S. Environmental Protection Agency's National Combined Sewer Overflow Control Policy

The Combined Sewer Overflow (CSO) Control Policy establishes a consistent national approach for controlling discharges from the CSOs to the nation's waters through the NPDES permit program. The CSO Control Policy mandates that permittees with CSOs should submit appropriate documentation demonstrating implementation of the nine minimum controls, which consist of:

1. Proper operation and regular maintenance programs for the sewer system and the CSOs;
2. Maximum use of the collection system for storage;
3. Review and modification of pretreatment requirements to assure CSO impacts are minimized;
4. Maximization of flow to the publicly owned treatment works for treatment;
5. Prohibition of CSOs during dry weather;

6. Control of solid and floatable materials in CSOs;
7. Pollution prevention;
8. Public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts; and
9. Monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

Electricity and Natural Gas

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) regulates and oversees the energy industries in the interests of the American public. The Energy Policy Act of 2005 gave FERC additional responsibilities including interstate commerce, licenses and inspections, energy markets, and penalizing energy organizers and individuals who violate FERC rules in the energy markets.

State Regulations

Water

Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (Porter–Cologne) gives the ultimate authority over California water rights and water quality policy to the California SWRCB. The Porter–Cologne also established nine RWQCBs to ensure that water quality on local/regional levels is maintained. The subject property is under the jurisdiction of the CVRWQCB.

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610–10656). The act requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 AFY shall prepare and adopt a UWMP. Water suppliers are to prepare a UWMP within a year of becoming an urban water supplier and update the plan at least once every 5 years. The act also specifies the content that is to be included in an UWMP. It is the intention of the legislature to permit levels of water management planning commensurate with the number of customers served and the volume of water supplied. The act states that urban water suppliers should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple-dry years. The act also states that the management of urban water demands and the efficient use of water shall be actively pursued to protect both the people of the state and their water resources.

Drinking Water Quality

It is the responsibility of the California DHS to implement the Federal Safe Drinking Water Act, as well as California statutes and regulations related to drinking water. The DHS inspects and provides regulatory oversight to public water systems within California, to ensure their compliance. The CVRWQCB protects the beneficial uses, including municipal drinking water supply, of state waters in the Sacramento area.

In accordance with Title 22 of the California Code of Regulations, public water system operators regularly monitor their drinking water sources for microbiological, chemical, radiological, and aesthetic contaminants to ensure that they do not exceed the primary maximum contaminant levels. The amount of contaminants in drinking water needs to be disclosed to the public annually, by the water supplier, in a consumer confidence report. It is the responsibility of the water supplier to produce and distribute the report and the responsibility of the U.S. EPA to prepare annual summary reports of water system compliance.

Water Supply Availability

In 2003, Senate Bill (SB) 610 and SB 221 were signed into law by Governor Gray Davis. These laws intend to coordinate local land use and water supply planning. SB 610 requires each public water system that would supply water to a proposed project determine whether the projected water demand associated with the proposed project could be met when existing and planned future uses are considered. For the purposes of SB 610, Water Code Section 10912 (a)(2) requires all projects with a water demand equivalent to 500 or more dwelling units, or which include over 250,000 square feet of commercial office building, to obtain a Water Supply Assessment (WSA). In addition, SB 610 requires a quantification of water received by the water provider (City of Sacramento) in prior years from water rights, water supply entitlements, and water service contracts. Because the proposed project would include 328 dwelling units, preparation of a WSA is not required.

Wastewater

General Waste Discharge Requirements for Sanitary Sewer Systems

The General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems were adopted by the SWRCB in May 2006. These WDRs require local jurisdictions to develop a sewer system management plan (SSMP) that addresses the necessary operation and emergency response plans to reduce sanitary sewer overflows. The WDRs require that the local jurisdiction approve the SSMP, and the Sacramento City Council approved the City's SSMP on April 21, 2009.

Solid Waste**California Integrated Waste Management Act—AB 939**

To minimize the amount of solid waste that must be disposed of by transformation (i.e., recycling) and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25% of all solid waste from landfill facilities by January 1, 1995, and 50% by January 1, 2000. Solid waste plans are required to explain how each city's AB 939 plan will be integrated within the respective county plan. They must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal. Cities and counties that do not meet this mandate are subject to \$10,000–per-day fines.

Energy**California Energy Commission**

The CEC is the state's primary energy policy and planning agency. Created by the Legislature in 1974, the CEC has five major responsibilities: forecasting future energy needs and keeping historical energy data; licensing thermal power plants 50 MW or larger; promoting energy efficiency through appliance and building standards; developing energy technologies and supporting renewable energy; and planning for and directing state response to energy emergencies. With the signing of the Electric Industry Deregulation Law in 1998 (AB 1890), the CEC's role includes overseeing funding programs that support public interest energy research; advancing energy science and technology through research, development, and demonstration; and providing market support to existing, new and emerging renewable technologies (CEC 2013g).

California Public Utilities Commission

The CPUC regulates privately owned electric, telecommunications, natural gas, water, and transportation companies, in addition to household goods movers and rail safety. The CPUC is responsible for ensuring that customers have safe, reliable utility service at reasonable rates, protecting against fraud and promoting the health of California's economy (CPUC 2013).

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24 Building Standards)

The CEC administers Title 24 Building Standards, which were established in 1978 in response to a legislative mandate to reduce California's energy consumption. Standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. California's building efficiency standards are updated on an

approximately 3-year cycle. The 2013 Standards will continue to improve upon the current 2008 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2013 Standards will go into effect on January 1, 2014, following approval of the California Building Standards Commission (CEC 2013h).

Warren–Alquist Energy Resources Conservation and Development Act

The Warren–Alquist Act gives statutory authority over energy resources to the CEC. The CEC regulates energy resources coordinating research into energy supply and demand problems and to reduce the increase of energy consumption.

Local Regulations

Water

City of Sacramento Water Forum Purveyor Specific Agreement

The City's surface water diversions at the FWTP are subject to limitations specified in the City's Water Forum Purveyor Specific Agreement (WFPSA). Under this agreement, in extremely dry years the City would limit its diversion of City water at the FWTP to not greater than 155 cfs and not greater than 50,000 AFY. In all other years, the City may divert water from the river at the FWTP up to the full capacity of the expanded FWTP (310 cfs), so long as the flow in the river, bypassing the diversion at the FWTP, is greater than Hodge Flows, the minimum flows necessary to preserve and protect the in-stream resources. When flow bypassing the diversion at the FWTP is less than Hodge Flows, City diversion may not be greater than 120 cfs (77 mgd) January through May, 155 cfs (100 mgd) June through August, 120 cfs in September, and 100 cfs (65 mgd) October through December. The City's WFPSA also includes provisions regarding potential future revision of these limitations if it can be determined that doing so would not adversely impact in-stream resources.

City of Sacramento Design Standards

Section 13 of the City's Design Standards sets forth requirements regarding the design and operation of water distribution facilities. Those requirements include standards for pipe design, fire hydrants, and specific requirements for residential, commercial, and industrial water service.

City of Sacramento Urban Water Management Plan

The City developed and adopted a UWMP in November 2006 to ensure the conservation and efficient use of available water supplies and to ensure an appropriate level of reliability in its water service sufficient to meet the needs of its customers. The City adopted an updated UWMP in 2010 based on their recently adopted 2030 General Plan. The State Department of

Water Resources approved the City's 2010 UWMP in December 2011. Information from the 2010 UWMP was used for this analysis.

Wastewater

Sacramento City Code

Chapter 13.08 of the Sacramento City Code sets requirements for permitted discharges to the sewer service system. There are provisions for charges and fees for customers, pretreatment, private sewer or storm drain lines, structures overlying public utilities, swimming pools and fish ponds, air conditioning and refrigeration devices, interruptions and discontinuation of service, inspections, and construction of sewer and storm drain facilities.

Combined Sewer System Development Fee

The DOU adopted the Combined Sewer Development Fee to finance capital improvement projects that mitigate impacts to the CSS. This ordinance mandates that all projects within the CSS area will be required to pay a fee for sanitary sewer flows above the existing flows from the project site. The fee amount is based on the amount of equivalent single-family dwelling (ESD) units that the project generates; \$119.45 per ESD for the first 25 ESD, plus \$2,980.86 per ESD in excess of 25 (City of Sacramento 2012b).

Sacramento Regional County Sanitation District

In 2004, the SRCSD passed the Sewer Impact Fee Ordinance requiring fees to be paid to the SRCSD for any users connecting to or expanding sewer collection systems, to mitigate the impact on the SRWWTP and conveyance systems.

Solid Waste

Sacramento Regional Solid Waste Authority

The Sacramento Regional Solid Waste Authority (SWA) is a joint powers authority of the County and the cities of Sacramento and Citrus Heights. The SWA Board of Directors consists of elected officials from the County and the member cities. The SWA regulates commercial solid waste collection by franchised haulers through SWA ordinances. Among other things, SWA ordinances require franchised haulers to achieve 30% recycling and to offer recycling programs to multifamily complexes.

Based on available information, the City currently diverts 62% of all solid waste from landfill facilities.

Sacramento Municipal Code

Chapter 17.72, Recycling and Solid Waste Disposal Regulations, of the Sacramento City Code provides regulations concerning recycling and solid waste disposal. Policies within the Code include guidelines regarding the location, size, and design features of recycling and trash enclosures, which are necessary to lengthen the lifespan of landfills and meet state mandated goals for waste reduction.

Construction and Demolition Debris Ordinance

The City's Construction and Demolition (C&D) Ordinance regulates building permits with valuation greater than \$100,000, and all down-to-the-ground demolitions. Passed in January 2009, the C&D Ordinance requires permit holders to recycle certain material from debris generated on a project site. This debris must be hauled by the permit holder, waste generator, or franchised hauler to an SWA-certified mixed C&D facility. Fines will be given to those that do not comply with the ordinance.

Sacramento 2030 General Plan

The following goals and policies from the Sacramento 2030 General Plan Utilities (U) Element are applicable to utilities and service systems.

GOAL U1.1 High-Quality Infrastructure and Services. Provide and maintain efficient, high quality public infrastructure facilities and services throughout the city.

Policy U1.1.5 Timing of Urban Expansion. The City shall assure that new public facilities and services are phased in conjunction with the approved urban development it is intended to service.

Policy U1.1.6 Growth and Level of Service. The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth.

GOAL U2.1 High-Quality and Reliable Water Supply. Provide water supply facilities to meet future growth within the City's Place of Use and assure a high-quality and reliable supply of water to existing and future residents.

Policy U2.1.8 New Development. The City shall ensure that water supply capacity is in place to granting building permits for new development.

Policy U2.1.10 Landscaping. The City shall continue to require the use of water-efficient landscaping in all new development.

GOAL U3.1 Adequate and Reliable Sewer and Wastewater Facilities. Provide adequate and reliable sewer and wastewater facilities that collect, treat, and safely dispose of wastewater.

Policy U3.1.2 New Developing Areas. The City shall ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future.

GOAL U5.1 Solid Waste Facilities. Provide adequate solid waste facilities, meet or exceed State law requirements, and utilize innovative strategies for economic and efficient collection, transfer, recycling, storage, and disposal of refuse.

Policy U5.1.7 Diversion of Waste. The City shall encourage recycling, composting, and waste separation to reduce the volume and toxicity of solid wastes sent to landfill facilities.

Goal U6.1 Adequate Level of Service. Provide for the energy needs of the city and decrease dependence on nonrenewable energy sources through energy conservation, efficiency, and renewable resource strategies.

Policy U6.1.5 Energy Consumption per Capita. The City shall encourage residents and businesses to consume 25 percent less energy by 2030 compared to the baseline year of 2005.

Policy U6.1.7 Solar Access. The City shall ensure, to the extent feasible, that sites, subdivisions, landscaping, and buildings are configured and designed to maximize solar access.

Policy U 6.1.8 Other Energy Generation Systems. The City shall promote the use of locally shared solar, wind, and other energy generation systems as part of new planned developments.

4.8.4 Impacts and Mitigation Measures

Methods of Analysis

This section evaluates project impacts on the existing utilities and service systems that would serve the project site. The Sacramento 2030 General Plan and MEIR, Preliminary Sewer Plan for McKinley Village (Wood Rodgers 2013a), and Preliminary Drainage Plan for McKinley Village (Wood Rodgers 2013b), and the City of Sacramento 2010 Urban Water Management Plan (City of Sacramento 2011) were all referenced to evaluate the project's potential effects on existing utilities and service systems.

Water

The analysis of impacts to water supply services was based on a consideration of the water demand generated by the proposed project compared to the thresholds of significance listed below. The expected water demand for the proposed project was determined based on water demand factors for proposed land uses on project site. Table 4.8-8 shows the anticipated water demand for the proposed project.

**Table 4.8-8
Proposed Project Water Demand**

Proposed Use	Demand Factor (AFY)	Acres of Proposed Development	Total Demand (AFY)
Residential	3.05	30.1	91.8
Parks and Recreation	3.89	3.4	13.2
Public streets	.09	11.7	1.05
Total			106.05

Source: City of Sacramento 2006.

Wastewater

The analysis of impacts to wastewater services was based on a consideration of the wastewater treatment demand generated by the proposed project compared to the thresholds of significance discussed below. The equivalent single-family dwelling (ESD) unit refers to the average wastewater flow generated by an ESD, which is approximately 400 gpd (Gulseth pers. comm. 2013). Table 4.8-9 shows the projected volume of wastewater generated based on ESD equivalent factors provided by the City of Sacramento DOU (Gulseth, pers. comm. 2013).

**Table 4.8-9
Proposed Project Wastewater Generation**

Proposed Use	Units	ESD Equivalent Factor (1 ESD = 400 gpd) ¹	Average Wastewater (gpd)	Peak Flow (gpd) (Peaking Factor = 3.3) ¹
Single-Family Residential	328	1.0 ESD	131,200	432,960
Recreation Center	1.0 acre	6.0 ESD/acre	2,400	7,920
Total			133,600 gpd	440,880

Source: ¹Gulseth, pers. comm. 2013.

Note: 1.0 acre was assumed for the recreation center, which represents a conservative estimate.

Solid Waste

The analysis of impacts to solid waste services is based on a consideration of the solid waste that would be generated by the proposed project compared to the thresholds of significance listed below. Table 4.8-10 shows the projected volume of solid waste generated by the proposed project based on solid waste generation rates provided by the California Department of Resources Recycling and Recovery (CalRecycle) and the City's 2030 General Plan. The City is currently achieving a 62% solid waste diversion rate (City of Sacramento 2009b). This analysis assumes that the proposed project would divert the same amount of waste to recycling and composting.

**Table 4.8-10
Proposed Project Solid Waste Generation**

Proposed Use	Unit of Measurement	Generation Rate	Waste Generated (Approx.)	Waste Sent to Landfills (Approx.)
Single-Family Residential ¹	328 units	1.1 tons/unit/year	361 tons/yr	137 tons/yr
Recreation Center ²	1 acre (43,560 sf)	3.12 lb/100 sf/day	225 tons/yr	85 tons/yr
Total			586 tons/yr	222. tons/yr

Sources:

¹City of Sacramento 2009b.

²CalRecycle 2013.

Notes:

1.0 acre was assumed for the recreation center, which represents a conservative estimate.

lb = pound

sf = square feet

Electricity/Natural Gas

Potential electricity and natural gas services were evaluated by comparing existing capacity and facilities for the services against future demands associated with the proposed project. The analysis of SMUD and PG&E's ability to supply electricity and natural gas, respectively, was based on personal communications and information contained in the City's 2030 General Plan MEIR.

Thresholds of Significance

Consistent with Appendix G of the CEQA Guidelines, thresholds of significance adopted by the City in applicable general plans and previous environmental documents, and professional judgment, a significant impact would occur if the proposed project would do any of the following:

- increase demand for potable water in excess of existing supplies;
- result in inadequate capacity in the City's water supply facilities to meet the water supply demand, so as to require the construction of new water supply facilities;

- result in the determination that adequate water or wastewater capacity is not available to serve the project's demand in addition to existing commitments;
- require or result in either the construction of new wastewater treatment facilities or stormwater drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental impacts;
- require or result in either the construction of new solid waste facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects; or
- require or result in the construction of new energy production and/or transmission facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Project-Specific Impacts and Mitigation Measures

4.8-1: The proposed project could result in an increased demand for potable water in excess of existing supplies. Based on the analysis below the impact is *less than significant*.

The proposed project site is currently vacant and undeveloped; therefore, implementation of the proposed project is expected to result in an increased demand for water supply. As shown in Table 4.8-9, the development of the proposed project would result in a total water demand of 106.05 AFY (0.095 mgd). The City of Sacramento is the water service provider in the project area. Water to serve the project site would be supplied through surface water from the Sacramento and American rivers. As discussed earlier in the Environmental Setting section, the City's water supply entitlements currently exceed demand during the multiple-dry years through 2035. Development within the City and the associated increase in water demand was previously assumed in the City's MEIR, which concluded that the City has sufficient water supplies to meet the demand associated with buildout of the 2030 General Plan. Development within the City was also included in the analysis of water supply and demand included in the City's 2010 UWMP. Thus, the water demand associated with the proposed project, 106.05 AFY as shown in Table 4.8-8 is .03 % of the City's current available water supply of 346,800 AFY. The project would not exceed the City's available water supply or result in inadequate capacity to serve the project's water demands in addition to existing commitments. In addition, the City shall ensure that water supply capacity is in place to granting building permits for new development, per Policy U2.1.8 and per Policy U2.1.10, the proposed project would incorporate water-efficient landscaping to the extent feasible to reduce the overall demand for landscape irrigation.

Therefore, the project would have a **less-than-significant impact** related to increased demand for water supply.

Mitigation Measures

None required.

4.8-2: The proposed project could result in inadequate capacity in the City's water supply facilities to meet demand requiring the construction of new water supply facilities. Based on the analysis below the impact is *less than significant*.

As noted previously, the City of Sacramento is designated as the water service provider for the project site. Future extension of the City's water distribution infrastructure to serve the project site would be necessary. This would require the construction of infrastructure both on and off the project site that would be funded by the project applicant. The proposed project would tie into the existing City water line connections at Alhambra Boulevard and C Street to create a "looped" system. Connection to an existing water main at C Street would be provided through the extension of a new 8-inch water main within the proposed extension of 40th Street. A second connection would be provided through the installation of an 8-inch water main through the UPRR embankment at Alhambra Boulevard to connect to an existing 8-inch water main at the intersection of Alhambra Boulevard and B Street, immediately south of the project site. From the north side of the UPRR to connect to the existing 8-inch line is approximately 230 feet. All on-site water lines would be within proposed roadways and would be between 6 inches and 8 inches in diameter. All water supply infrastructure associated with the project would be evaluated and approved by the DOU prior to any on-site water conveyance improvements. The City's existing water infrastructure and conveyance system has adequate capacity to serve the project site.

The proposed project's estimated water demand of 106.05 AFY (0.095 mgd) would require treatment prior to delivery to the project site. As discussed in the Environmental Setting section, the SRWTP and the FWTP have a combined reliable capacity of 295 mgd. The proposed project's estimated water demand is 0.03% of the City's treatment capacity. Thus, sufficient capacity exists to serve the proposed project, and the proposed project would not result in inadequate capacity nor require construction of new water treatment facilities. In addition, the project would be required to pay applicable connection fees for the upkeep and expansion of treatment facilities. Therefore the project's impact on water supply treatment and distribution facilities would be **less than significant**.

Mitigation Measures

None required.

4.8-3: The proposed project could exceed existing wastewater capacity to serve the project's demand in addition to existing commitments. Based on the analysis below the impact is *less than significant*.

Sewer service is not provided to the proposed project site, which is currently vacant and undeveloped. As shown in Table 4.8-9 above, the proposed project would develop approximately 328 residential units and a community recreation center that would have an average dry weather flow (ADWF) of approximately 246,000 gpd (0.246 mgd) and a peak dry weather flow (PDWF) of approximately 440,880 gpd (0.440 mgd). According to the Preliminary Sewer Plan prepared for the proposed project (Wood Rodgers 2013a), the project site would have a Peak Wet Weather Flow (PWWF) of 0.313 mgd. These flows would be required to be pumped from the site via a pump station and force main to the City's CSS. The pump station would be located at the west side of the project site and pump flows south under the UPRR to a 42-inch pipe located at the intersection of Alhambra Boulevard and McKinley Boulevard. Per the City of Sacramento, there is adequate capacity within the existing 42-inch CSS pipe to accept the 0.313 PWWF mgd produced by the proposed project (Wood Rodgers 2013a). Sewer flows would ultimately be conveyed to the SRWWTP for treatment prior to being discharged into the Sacramento River. The SRCSD is in the process of expanding the SRWWTP to accommodate 250 mgd of ADWF and maintain the 400 mgd capacity for Average Wet Weather Flows (AWWF). The expansion is anticipated to accommodate all projected regional growth through the year 2020 (City of Sacramento 2009b). The SRWWTP's current ADWF is approximately 165 mgd, with a permitted capacity of 181 mgd for ADWF and a daily PWWF of 392 mgd. Thus, the SRWWTP currently has an excess capacity of 16 mgd for ADWF, which is expected to increase upon completion of the SRWWTP expansion.

As previously stated, the proposed project is anticipated to have an ADWF of 0.246 mgd. As the SRWWTP currently has an excess capacity of 16 mgd, which is expected to increase upon completion of the SRWWTP expansion, adequate capacity is currently available and is expected to remain available in the future to serve the proposed project. In addition, the project has been designed to meet ultimate capacity of the project, per Policy U3.1.2. The project would be required to pay connection fees to mitigate the impact on the SRWWTP and conveyance systems, pursuant to the SRCSD's Sewer Impact Fee Ordinance.

The SRWWTP has adequate capacity to provide wastewater services to serve the proposed project without adverse impacts to current service levels. The treatment plant would not need to be expanded to accommodate the project. Therefore, the project's impact would be **less than significant**.

Mitigation Measure

None required.

4.8-4: The proposed project could require or result in either the construction of new water or wastewater treatment facilities or storm water drainage facilities or the expansion

of existing facilities, the construction of which could cause significant environmental impacts. Based on the analysis below the impact is *less than significant*.

As discussed under Impact 4.8-2 above, the City's water treatment plants, the SRWTP and the FWTP, have sufficient capacity to serve the proposed project and implementation of the proposed project would result in a less-than-significant impact to water treatment facilities.

As discussed under Impact 4.8-3 above, sewer flows would be conveyed to the SRWWTP for treatment prior to being discharged into the Sacramento River. As noted earlier, the SRWWTP has adequate capacity to accommodate wastewater generated by the proposed project, and the impact would be less than significant. In addition, pursuant to the SRCSD's Sewer Impact Fee Ordinance, the project would be required to pay connection fees to mitigate the impact on the SRWWTP and conveyance systems.

Sanitary Sewer

As discussed in Impact 4.8-3 above and in Section 4.5, Hydrology, Water Quality and Drainage, sewer flows associated with the proposed project would be pumped from the site via a pump station and force main to the City's CSS. The pump station would be located at the west side of the project site and pump flows south under the UPRR embankment south to Alhambra Boulevard at the intersection of Alhambra Boulevard and McKinley Boulevard. As discussed in the Preliminary Sewer Plan for the project (Wood Rodgers 2013a), the sewer system would also require a sewage detention tank. During high flows, excess sewer would be detained on site in a 6,300 cubic feet (minimum) subsurface detention tank (Wood Rodgers 2013a) located in the western portion of the site.

The sewage pump station and sewage detention tank would be located underground and would be located in the same general area as the stormwater detention ponds and stormwater pump station. All sewage infrastructure would be kept separate from the stormwater drainage systems. During peak wet weather flows when the City's CSS is at capacity, the sewage would not be pumped via the force main to the 42-inch pipe on Alhambra Boulevard. Instead, excess flows would be detained on site in the sewage detention tank. Assuming the pipes are flowing half full, there is an additional volume of approximately 30,000 gallons of available storage within the pipes and manholes that could be utilized during large storm events. Before the ultimate facilities can be constructed, the City requires a detailed pump station, force main, and detention tank design report be provided.

Storm Drainage

As discussed in Section 4.5, stormwater associated with the proposed project would be directed to a separate storm sewer system (i.e., via Sump 99), that includes detention basins and a

storm drainage pump station. The system has been designed to ensure stormwater flows from the proposed project would not result in additional stress on the separated drainage system. Stormwater would be directed to on-site detention basins and/or pumped to Sump 99. During peak flows to Sump 99, the on-site storm drainage pump station would turn off and flows would be detained in the on-site detention basins. After peak flows subside, the on-site drainage pump station would resume pumping to Sump 99. This would ensure that the existing drainage area of Sump 99 is not impacted by the project drainage system.

The project's stormwater drainage system would include two detention basins with a total volume of approximately 8 acre-feet and a pump station with a 10 cubic feet per second (cfs) pump capacity which would convey water to the City's existing Sump 99 through a newly constructed force main (see Figure 4.5-4 in Section 4.5). The DOU has identified an electrical upgrade project for Sump 99 (Wood Rodgers 2013b). The project includes modifying Sump 99 (or providing funding to the City for such modifications) for the electrical upgrade project to the extent that the City has not already undertaken such modification. It should be noted that the physical environmental impacts related to construction of off-site water infrastructure have been addressed in the other technical sections of this Draft EIR.

Because the project falls within the CSS area, it would be required to pay the City's CSS Development Fee to the DOU. All projects within the CSS are required to pay a fee for sanitary sewer flows above the existing flows from the project site. The fee amount is based on the amount of ESD units that the project generates; \$119.45/ESD for the first 25 ESD, plus \$2,980.86 per ESD in excess of 25 (City of Sacramento 2012b). Payment of the CSS fees allows the City to finance capital improvement projects that mitigate impacts to the CSS. Payment of development fees to the DOU would ensure that the project's impacts to wastewater facilities would remain **less than significant**.

Mitigation Measures

None required.

4.8-5: The proposed project could require the expansion or construction of new solid waste facilities which could cause significant environmental effects. Based on the analysis below the impact is *less than significant*.

The proposed project would contribute to an increase in demand for solid waste hauling and disposal services in the area associated with development of new residences and the community recreation center. As shown in Table 4.8-9, the proposed project is anticipated to generate approximately 586 tons of solid waste each year, 222 tons of which would be sent to landfills. Waste hauling and disposal services would be provided by the City and private franchised haulers. The City, a franchised hauler of the Sacramento Regional SWA, collects all

of the single-family residential waste and approximately one-third of the commercial waste within the City. Private franchised haulers collect the remaining commercial waste.

A number of landfills that operate in the Sacramento region, as well as landfills outside the region, serve Sacramento's solid waste needs. As noted in the environmental setting information for solid waste, the City generates over 1.13 million tons of refuse per year. Most of the refuse collected by the City is transported to the Sacramento Recycling and Transfer Station and, ultimately, to the Lockwood Landfill in Sparks, Nevada. The Sacramento Recycling and Transfer Station is limited to accepting 2,500 tons of solid waste per day, under its Solid Waste Facilities Permit (Permit No. 34-AA-0195). The transfer station currently accepts approximately 1,700 tons per day from the City. The Lockwood Landfill, a Class I landfill with a total capacity of approximately 302.5 million cubic yards, currently receives approximately 5,000 tons of solid waste per day, including waste from the City of Sacramento (Nevada Division of Environmental Protection 2013). The Lockwood Landfill does not have maximum daily disposal limits and has a remaining capacity of approximately 32.5 million tons, which is currently expected to be enough capacity to remain open until the year 2035. In addition, the Lockwood Landfill is planned for an expansion that would increase the landfill's capacity enough to continue operation for at least the next 100 years in order to accommodate planned future growth (Waste Management 2011).

In addition to the Lockwood Landfill, the City utilizes the Kiefer Landfill for solid waste disposal needs. The Kiefer Landfill is the primary municipal solid waste disposal facility in Sacramento County and the only landfill facility in Sacramento County permitted to accept household waste from the public. Categorized as a Class III facility, the Kiefer Landfill accepts waste from the general public, businesses, and private waste haulers. As of 2005, the Kiefer Landfill had a remaining capacity of 112,900,000 cubic yards (96%). The permitted capacity for the landfill is 117 million cubic yards (10,815 tons/day) and the estimated closure date for the landfill is 2064 (CalRecycle 2013a). Furthermore, the City is currently proposing to develop a new transfer station designed to handle up to 2,000 tons of solid waste per day to serve the northern areas of the City. The new transfer station would accommodate growth in the City over the next 20 to 30 years (City of Sacramento 2012a).

The 2030 General Plan MEIR states that with the remaining capacity and expected lifespan at the Lockwood and Kiefer landfills, combined with the continued use of the existing transfer stations and development of at least one new transfer station in the north area, the increase in solid waste generated by development under the General Plan would not exceed capacity of the landfills. The General Plan includes Policies U.5.1.11 to U.5.1.17, which provide long-term objectives for minimizing the city's contribution to solid waste by providing additional encouragement and education regarding recycling and development of new techniques for solid waste disposal. In addition, AB 939 mandates the reduction of solid waste disposal in landfills, and the City is currently achieving a 62% diversion rate (City of Sacramento 2009b). Thus,

implementation of the Solid Waste Authority and Sacramento recycling requirements would only continue to significantly reduce potential impacts on landfill capacity.

Therefore, because sufficient capacity is available to serve the proposed project, the project's impact related to increased demand for solid waste services would be **less than significant**.

Mitigation Measures

None required.

4.8-6: Operation of the proposed project could require or result in the construction of new energy production and/or transmission facilities or expansion of existing facilities. Based on the analysis below the impact is *less than significant*.

PG&E provides natural gas service to customers in the surrounding area. Because PG&E's demand projections are continuously updated, and PG&E's system has ample capacity to ensure continued levels of service to all customers within the region, it is anticipated PG&E has capacity to serve the project without jeopardizing other existing or projected service commitments (City of Sacramento 2009b). Section 4.1, Air Quality and Climate Change, address the project's consistency with the City's Climate Action Plan and the project's proposed energy conservation plans.

SMUD has also reviewed the proposed project and has indicated that it is able to provide electricity to serve the project. Electrical infrastructure is already in place surrounding the project area and the project would tie into existing overhead and underground facilities. Additional off-site extensions would not be necessary.

Because PG&E and SMUD are currently providing natural gas and electricity to the project area and are able to adequately serve any future growth, and because sufficient infrastructure is in place to accommodate future development within the project site, impacts related to increased demand on electric and natural gas infrastructure would be **less than significant**.

Mitigation Measures

None required.

Cumulative Impacts

This cumulative impact analyses does not rely on any list of specific pending, reasonably foreseeable development proposals in the general vicinity of the proposed project.

The cumulative context for water supply, wastewater treatment, solid waste and energy is buildout of the City's 2030 General Plan (City of Sacramento 2009a) as well as buildout within the specific service area of each utility provided, including recently approved and reasonably foreseeable development within the boundaries of the SRWTP and FWTP service area for water; recently approved and reasonably foreseeable development within the boundaries of the SRCSD service area for wastewater; recently approved and reasonably foreseeable development within the SWA service area for solid waste; and recently approved and reasonably foreseeable development within the PG&E and SMUD service areas for energy.

4.8-7: The proposed project could contribute to a cumulative increase in demand for water supply in excess of existing supplies. Based on the analysis below the impact is *less than significant*.

Implementation of the proposed project would contribute to an increased demand for potable water in the City of Sacramento. The 2030 General Plan determined that the increase in demand for water supply associated with buildout of the general plan was less than significant because the City's existing water right permits and USBR contract would be sufficient to meet the total retail and wholesale water demand projected for buildout of the general plan. The cumulative impact is less than significant.

Therefore, the project's cumulative contribution would not be considerable, resulting in a **less-than-significant cumulative impact**.

Mitigation Measures

None required.

4.8-8: The proposed project could contribute to a cumulative increase in the demand for water and wastewater treatment, which could result in inadequate capacity and require the construction of new facilities. Based on the analysis below the impact is *less than significant*.

Water Treatment

As noted in Impact 4.8-7 above, the City has sufficient water supply entitlements to meet the demand associated with buildout of the 2030 General Plan. However, the MEIR concluded that implementation of the 2030 General Plan would result in an increase in demand for potable water in excess of the City's existing diversion and treatment capacity. Thus, the project's contribution to a cumulative increase in the City's demand for potable water, which could result in the need for construction of new water supply facilities, would be considered a potentially significant cumulative impact. As discussed in the impact discussion above, the proposed

project's estimated demand for water treatment is 0.03% of the City's treatment capacity. Therefore, because the proposed project's incremental contribution to the cumulative water treatment demand impact would be so small and insignificant, the project's contribution would not be considerable, and the cumulative impact is considered **less than significant**.

Wastewater Treatment

Buildout of the 2030 General Plan would increase wastewater treatment demand by approximately 25.7 mgd ADWF. The increase in wastewater flows due to buildout of the 2030 General Plan was included in the SRCSD 2020 Master Plan. The projected population-based total flows are therefore within the planned SRWWTP buildout capacity of 350 mgd, and capacity would be available to serve the project in addition to other service provider commitments. However, the cumulative impact in the MEIR was determined to be potentially significant due to potential deficits in the existing conveyance infrastructure.

The planned expansion of the SRWWTP described by the SRCSD 2020 Master Plan (SRCSD 2013a) would accommodate the additional 0.133 mgd ADWF generated by the proposed project, as well as other cumulative development anticipated under the 2030 General Plan. To ensure that the proposed project does not contribute to additional stress on wastewater collection and treatment systems, during high flows, excess sewer would be detained on site in a 6,300 cubic feet (minimum) detention tank. The project's contribution to wastewater treatment would be very small and would not be considerable enough to contribute to the potential deficits in the existing conveyance infrastructure. Therefore, the project's incremental contribution to the cumulative impact would not be considerable and the cumulative impact would be **less than significant**.

Mitigation Measures

None required.

4.8-9: The proposed project could contribute to a cumulative increase in storm water runoff which could result in either the construction of new storm water drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental impacts. Based on the analysis below the impact is *less than significant*.

Buildout of the City's 2030 General Plan would result in the conversion of undeveloped or vacant land to impervious surfaces, increasing the rate and amounts of stormwater runoff discharged to drainage infrastructure and local waterways. However, the MEIR found that development assumed to occur under the 2030 General Plan would not result in a significant cumulative impact and as a result not require the construction or expansion of any new regional

facilities. This was considered a less-than-significant cumulative impact. Therefore, the project's incremental contribution would be **less than significant**.

Mitigation Measures

None required.

4.8-10: The proposed project could contribute to a cumulative increase in solid waste, which could result in either the construction of new solid waste facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects. Based on the analysis below the impact is *less than significant*.

Buildout of the 2030 General Plan, including the project site, would generate an additional 282,950 tons of solid waste per year, an estimated 145,475 tons of which would be diverted for recycling with the implementation of mandatory diversion programs. The Lockwood Landfill has a total capacity of approximately 302.5 million cubic yards and has a remaining capacity of approximately 32.5 million tons, which is currently expected to be enough capacity to remain open until the year 2035. In addition, the Lockwood Landfill is planned for an expansion that would increase the landfill's capacity enough to continue operation for at least the next 100 years in order to accommodate planned future growth. Cumulative development contributing to the landfill was determined to result in a less than significant cumulative impact. Therefore, the project's incremental contribution would be a **less than significant impact**.

Mitigation Measures

None required.

4.8-11: The proposed project could contribute to a cumulative increase in energy demand, which could result in the need for construction of new energy production and/or transmission facilities or expansion of existing facilities. Based on the analysis below the impact is *less than significant*.

Buildout of cumulative development under the City's 2030 General Plan would result in permanent and continued increase in demand for electricity and natural gas services. Future development in the City, as well as areas in the region serviced by SMUD and PG&E, would increase residential, commercial, and office needs for electricity and natural gas. This was determined to be a less-than-significant cumulative impact.

Therefore, the proposed project's incremental contribution would be **less than significant**.

Mitigation Measures

None required.

4.8.5 Sources Cited

California Gas and Electric Utilities. 2012. *2012 California Gas Report*. July 2012. Accessed August 2013. <http://www.pge.com/pipeline/library/regulatory/downloads/cgr12.pdf>.

CalRecycle (California Department of Resources Recycling and Recovery). 2013a. Facility/Site Summary Details: Sacramento County Landfill (Kiefer) (34-AA-0001). Accessed August 14, 2013. <http://www.calrecycle.ca.gov/SWFacilities/Directory/34-AA-0001/Detail/>.

CalRecycle, 2013b. Service Sector: Estimated Solid Waste Generation and Disposal Rates. Last updated January 16, 2013. Accessed August 28, 2013. <http://www.calrecycle.ca.gov/wastechar/wastegenrates/Service.htm>.

CEC (California Energy Commission). 2013a. "Electricity Sector Overview." Accessed July 2013. <http://www.energyalmanac.ca.gov/electricity/overview.html>.

CEC. 2013b. "Energy Facility Status." Accessed July 2013. http://www.energy.ca.gov/sitingcases/all_projects.html.

CEC. 2013c. "Energy Almanac, California Natural Gas." Accessed July 2013. http://energyalmanac.ca.gov/naturalgas/2013-05-30_California_Natural_Gas.pdf.

CEC. 2013d. "Energy Almanac: California's Major Energy Sources." Accessed July 2013. http://energyalmanac.ca.gov/overview/energy_sources.html.

CEC. 2013e. "Energy Consumption Data Management System, Electricity Consumption by County." Accessed July 2013. <http://www.ecdms.energy.ca.gov/elecbycounty.aspx>.

CEC. 2013f. "Energy Consumption Data Management System, Gas Consumption by County." Accessed July 2013. <http://www.ecdms.energy.ca.gov/gasbycounty.aspx>.

CEC. 2013g. "About the California Energy Commission." Accessed August 2013. <http://www.energy.ca.gov/commission/index.html>.

CEC. 2013h. "Building Energy Efficiency Program." Accessed August 2013. <http://www.energy.ca.gov/title24/>.

- CEC. 2013i. "Energy Tracking Progress." Accessed August 2013.
http://www.energy.ca.gov/renewables/tracking_progress/documents/energy_efficiency.pdf.
- City of Sacramento, 2006. SB 610/SB 221 Water Supply Assessment and Certification Form. December 4, 2006.
- City of Sacramento. 2009a. *City of Sacramento 2030 General Plan*. March 2009.
- City of Sacramento. 2009b. *City of Sacramento 2030 General Plan Master EIR*. Prepared by PBS&J. March 2009.
- City of Sacramento, 2011. *2010 Urban Water Management Plan*. October 2011.
- City of Sacramento. 2012a. *Aspen 1-New Brighton Draft Environmental Impact Report*. SCH. No. 2010072058. Prepared by Raney Planning and Management Inc. Sacramento, California: Raney Planning and Management Inc. July 2012.
- City of Sacramento. 2012b. "Fee Details." Accessed August 2013.
www.cityofsacramento.org/dsd/reference/fees/one-deets-std.cfm?id=39.
- County of Sacramento. 2013. "Waste Management & Recycling." Accessed July 2013.
www.wmr.saccounty.net/Pages/Businesses-GarbageServices.aspx.
- CPUC (California Public Utilities Commission). 2013. "CPUC Mission."
<http://www.cpuc.ca.gov/PUC/aboutus/pucmission.htm>.
- Gulseth, G. 2013. Wastewater generation rates. Email from G. Gulseth (City of Sacramento Department of Utilities) to K. Roberts (Dudek). September 9, 2013.
- Nevada Division of Environmental Protection, Bureau of Waste Management. 2013. "Lockwood Regional Landfill." Accessed August 2013.
http://ndep.nv.gov/bwm/landfill_lockwood.htm.
- SRCSD (Sacramento Regional County Sanitation District). 2008. "All About SRCSD." Accessed August 2013. <http://srcsd.com/about.php>.
- SRCSD. 2013a. *2020 Master Plan*. Accessed August 2013. <http://srcsd.com/pdf/2020MP/exec-sum.pdf>.
- SRCSD. 2013b. Consolidated Ordinance. Accessed August 2013.
<http://www.srcsd.com/pdf/ord/consolidated-final-2013.pdf>.

Waste Management Inc. 2011. Permit Modification Application—Permit Number SW214R01, Lockwood Regional Landfill, Storey County, Nevada. December 29, 2011.

Wood Rodgers. 2013a. *Preliminary Sewer Plan for McKinley Village*. June 20, 2013. Prepared for Encore McKinley Village LLC. Sacramento, California: Wood Rodgers.

Wood Rodgers. 2013b. *Preliminary Drainage Plan for McKinley Village*. June 24, 2013. Prepared for Encore McKinley Village LLC. Sacramento, California: Wood Rodgers.