3.14 UTILITIES AND SERVICE SYSTEMS

This section of the Project (PEIR) addresses existing utility and infrastructure systems within the Project Area. The analysis discusses the ability of existing or planned systems to accommodate the proposed Project in terms of distribution and supply and identifies potential environmental impacts that could result from the need for new or expanded systems.

Information provided in this section includes analysis based on review of Solano and Yolo County planning documents and federal and State utility information, among other sources. Section 3.1, *Hydrology*, includes discussion regarding large-scale impacts associated with drainage patterns, flooding, and erosion. Section 3.2, *Water Quality,* discusses groundwater and surface water quality in the Project Area, including potential changes in runoff, groundwater recharge and quality, and degradation of existing water quality.

Thresholds for measuring the Project's environmental impacts in this PEIR are drawn from California Environmental Quality Act (CEQA) Guidelines Appendix G standards (OPR, 2013). The following Appendix G impact topics are not addressed in this PEIR because the Project has no potential to affect them:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (Central Valley Regional Water Quality Control Board).
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments

For further discussion of Appendix G thresholds, see Significance Criteria, below.

3.14.1 Setting

Environmental Setting

Project Area Conditions

Solid Waste

Solano County

Two privately owned landfills receive non-recyclable solid waste generated in the county: the Potrero Hills Landfill located near State Route (SR) 12 and Suisun City, and the Hay Road Landfill located on SR 113 east of Vacaville. The Potrero Hills Landfill will reach its near-term capacity in 2013, but may be expanded to reach its long-term capacity in 2049. The Hay Road Landfill is expected to reach capacity in 2070. These two landfills are the only facilities accepting solid waste in Solano County (County of Solano, 2008a, p. PF-20). Green waste is accepted at both of these facilities, as well as at recycling facilities in American Canyon, Martinez, and Benicia (County of Solano, 2014, p. 9).

Yolo County

Solid waste is accepted within the county at the Yolo County Central Landfill located northeast of the City of Davis. This landfill is expected to close in 2081. The Esparto Convenience Center receives waste, but only from residential municipal disposers. The University of California, Davis (UC Davis) Landfill also provides solid waste disposal and green waste processing, but only for waste generated on the campus and Medical Facility in Sacramento. Green waste is accepted at the Yolo County Central Landfill, Grover Landscape Services Composting Facility in Zamora, Davis Waste Removal's Green Material Facility (accepts material generated in or near the City of Davis) (County of Yolo, 2009a, pp. PF-34 to PF-35).

Pipelines

Six pipelines cross the Project alignment, as listed in **Table 3.14-1**. Five of these pipelines are gas transmission lines and one is a hazardous liquid pipeline. The exact depth at which the pipelines are buried is not known, but Federal regulations require they be buried at least 30 inches below ground, 48 inches below soil in navigable streams, and 1 foot from any other underground structure not associated with the transmission line (US DOT, 2014c; 49 Code of Federal Regulations (CFR) Section 192.325, Section 192.327).

Table 3.14-1 Pipelines in Project Area

Pipeline #	Type	Reach	Location
1	Gas	Duncan-Giovannoni Reach	Crosses Project Area near intersection of Road and Wintu Way.
2	Gas	MacQuiddy (Lester)	Crosses Project Area approximately 3.04 miles downstream of I-505.
3	Gas	I-80 to Old Davis Road Reach	Runs parallel to railway approximately 0.60 miles downstream of I-80.
4	Gas	I-80 to Old Davis Road Reach	Runs parallel to railway approximately 0.63 miles downstream of I-80.
5	Gas	Old Davis Road to Mace Reach	Crosses Project Area approximately 1.94 miles downstream of I-80.
6	Hazardous Liquid	Mace to Road 106A Reach	Crosses Project Area adjacent to Road 106A South.

Source: National Pipeline Mapping System, 2015.

The Solano and Yolo County General Plans and General Plan EIRs do not identify any major water or sewer pipelines crossing the Project Area (County of Solano, 2008a; County of Solano, 2008b, p. 4.5-2, Exhibit 4.5-1 and p. 4.5-13). Detailed pipeline maps from the water and sewer management plans for the cities of Winters and Davis do not identify any city water or sewer pipelines crossing the Project Area (City of Winters, 2006, Figures ES-1, 1-2, 5-2; City of Davis, 2010, Figure 2-1; City of Davis, 2012, p. 4-5, Attachment 4-1).

Electrical Lines

Nineteen electrical power lines cross over Putah Creek or are within the Project Area, as listed in **Table 3.14-2**. Of these, four are high-voltage power lines (very tall, tower-mounted, high-voltage, long-distance transmission lines, which typically carry voltages over 200kV) while the remaining 15 are low-voltage power lines (shorter, pole-mounted distribution lines, which typically carry voltages of 16 kV or less) (CPUC, 2015, p. 1). By State regulation, the height of the lines is at least 15 feet above the ground and water areas of the creek (CPUC, 2012, General Order 95, Section III, Table 1, Case Nos. 4 and 11).

Storm Drains

Much of the Project Area is located within agricultural areas with minimal infrastructure, and occasional small roadway or agricultural storm drains exist within the Project Area. Municipal stormwater drains are present in the City of Winters and Davis, but exact locations of these drains are not described here because maps for specific drains are not readily available.

Table 3.14-2 Electrical Lines in Project Area

Power Line #	Voltage	Reach	Location
1	LV	Winters Putah Creek Nature Park	Crosses Winter Putah Creek Nature Park Project, City of Winters.
2	LV	Winters Putah Creek Nature Park	Crosses Project Area near intersection of Putah Creek Road and Johnson Road.
3	LV	Winters Putah Creek Nature Park	Crosses Project Area near I-505 South.
4	LV	East of 505	Crosses Project Area approximately 500 feet downstream of I-505 North.
5	LV	East of 505	Crosses Project Area near intersection of Putah Creek Road and Boyce Road.
6	LV	East of 505	Runs along north bank of Project Area approximately 0.36 miles downstream of I-505.
7	HV	Upper McNamara	Crosses Project Area approximately 1.73 miles downstream of I-505.
8	HV	Upper McNamara	Crosses Project Area approximately 1.73 miles downstream of I-505.
9	LV	Lower McNamara	Crosses Project Area approximately 2.73 miles downstream of I-505.
10	LV	MacQuiddy (Lester)	Crosses Project Area approximately 3.58 miles downstream of I-505
11	LV	Glide Ranch	Runs along the north bank of Project Area approximately 0.45 miles downstream of Road 95A.
12	LV	I-80 to Old Davis Road	Crosses Project Area near railway approximately 0.60 miles downstream of I-80.
13	LV	Old Davis Road to Mace	Crosses Project Area near Mace Blvd south.
14	LV	Mace to Road 106A	Crosses Project Area approximately 0.58 miles downstream of Mace Blvd.
15	HV	Mace to Road 106A	Crosses Project Area adjacent to Road 106A South.
16	HV	Mace to Road 106A	Crosses Project Area adjacent to Road 106A South.
17	LV	Road 106A to Yolo Bypass Wildlife Area	Crosses Project Area approximately 0.66 miles downstream of Road 106A.
18	LV	Road 106A to Yolo Bypass Wildlife Area	Crosses Project Area approximately 0.1 miles downstream of Levee Road (North Fork). (Crosses again approximately 1.33 miles downstream of Road 106A [South Fork].)
20	LV	Road 106A to Yolo Bypass Wildlife Area	Runs along southern bank of Project Area at the easternmost boundary of the Project.

Notes: HV: High Voltage (over 200kV) LV: Low Voltage (16 kV or less)
Source: Google Earth, 2014.

Project Area Conditions by Reach

NAWCA/Mariani

No electrical lines or pipelines are located in this reach.

Duncan-Giovannoni

A natural gas pipeline crosses the Project Area near the intersection of Road and Wintu Way.

Winters Putah Creek Nature Park

This reach contains three low-voltage electrical lines: one crosses the Project Area near Winter Putah Creek Nature Park in the City of Winters, another crosses the Project Area near intersection of Putah Creek Road and Johnson Road, and the third crosses the Project Area near I-505 South.

East of 505

This reach is crossed by three low-voltage electrical lines. One crosses the Project Area approximately 500 feet downstream of I-505 North, another crosses the Project Area near intersection of Putah Creek Road and Boyce Road, and the third runs along the north bank of Project Area approximately 0.36 miles downstream of I-505.

Warren

No electrical lines or pipelines are located in this reach.

Upper McNamara

This reach is crossed by two high-voltage electrical lines. The two lines are located near each other and cross the Project Area approximately 1.73 miles downstream of I-505.

Lower McNamara

This reach contains one low-voltage electrical line, which crosses the Project Area approximately 2.73 miles downstream of I-505.

MacQuiddy (Lester)

A natural gas pipeline crosses the Project Area approximately 3.04 miles downstream of I-505. A low-voltage electrical line crosses the Project Area approximately 3.58 miles downstream of I-505.

Russell Ranch

No electrical lines or pipelines are located in this reach.

Stevenson Bridge

No electrical lines or pipelines are located in this reach.

Glide Ranch

This reach contains one low-voltage electrical line, which runs along the north bank of Project Area approximately 0.45 miles downstream of Road 95A.

Nishikawa

No electrical lines or pipelines are located in this reach.

Olmo-Hammond-UCD

No electrical lines or pipelines are located in this reach.

I-80 to Old Davis Road

This reach contains two natural gas pipelines. Both run parallel to the railway line, with one approximately 0.60 miles downstream of Interstate 80 (I-80) and the other approximately 0.63 miles downstream of I-80. This reach contains one low-voltage electrical line that crosses the Project Area near the railway line approximately 0.60 miles downstream of I-80.

Old Davis Road to Mace

A natural gas pipeline crosses the Project Area approximately 1.94 miles downstream of I-80. A low-voltage electrical line crosses the Project Area near Mace Boulevard South.

Mace to Road 106A

A hazardous liquid pipeline crosses the Project Area adjacent to Road 106A South. The reach also is crossed by one low-voltage electrical line and two high-voltage lines. The low-voltage line crosses the Project Area approximately 0.58 miles downstream of Mace Boulevard. The two high-voltage lines are located near each other and cross the Project Area adjacent to Road 106A South.

Road 106A to Yolo Bypass Wildlife Area

This reach is crossed by three low-voltage electrical lines. One crosses the Project Area approximately 0.66 miles downstream of Road 106A, another crosses the Project Area

approximately 0.1 miles downstream of Levee Road (North Fork) and then crosses again approximately 1.33 miles downstream of Road 106A (South Fork), and the third low-voltage line runs along southern bank of Project Area at the easternmost boundary of the Project Area.

Regulatory Setting

Federal Regulations

U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration

The U.S. Department of Transportation's (US DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) Office of Pipeline Safety (OPS) is the federal safety authority for ensuring the safe, reliable, and environmentally sound operations of the U.S. pipeline transportation system. The OPS promotes pipeline safety communication and education and provides information on both federal and state pipeline safety programs and regulations (US DOT, 2014a).

State Regulations

Porter-Cologne Water Quality Control Act of 1969

Under the 1969 Porter-Cologne Water Quality Control Act, primary responsibility for the protection of water quality in California rests with the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) (County of Solano, 2008b, p. 4.9-22). The SWRCB sets statewide policy for the implementation of State and Federal laws and regulations relating to stormwater. The jurisdiction of the Central Valley RWQCB (CVRWQCB) extends from the Oregon border, over the valley and foothills from Redding to Fresno, through the Central Valley, to the border with Los Angeles County, and includes the Project Area. For additional discussion of the role of SWRCB and CVRWQCB in water quality and stormwater regulation, see Section 3.1, *Hydrology,* and Section 3.2, *Water Quality,* of this PEIR.

California Integrated Waste Management Act

The California Integrated Waste Management Act (Assembly Bill (AB) 939) was established in 1989 to address decreasing landfill capacity by mandating waste reduction. All jurisdictions were required to divert 25 percent of all solid waste from landfill facilities by 1995 and 50 percent by 2000. Some county jurisdictions had difficulty reaching mandates initially due to complex methodology in calculating diversion rates. As a result, the legislation was amended in 2007 (Senate Bill (SB) 1016),

introducing a new disposal-based measurement system of pounds per person per year (County of Solano, 2008a, pp. PF-21 to PF-22; CalRecycle, 2012). The Act also requires each county to prepare a County Integrated Waste Management Plan (CIWMP) to plan how meet the Act's diversion requirements (County of Yolo, 2009a, PF-36).

State Pipeline Safety Regulation

Pipeline safety related to construction activities in California are regulated by Government Code section 4216 *et. seq.* These statutes require that before excavation activities, excavators must contact the regional notification center at least two working days but not more than 14 calendar days, prior to excavation if an area reasonably should be known to contain pipelines. The regional notification center for the Project Area is Underground Service Alert of Northern/Central California and Nevada (Common Ground Alliance, 2015). The statutes also prescribe specific tools and methods for excavators to determine the exact location of pipelines that may be in conflict with the excavation.

Local Regulations (If Applicable)

Solano County General Plan

The following policies from the Solano County General Plan are relevant to utilities issues related to the proposed Project.

> Policy PF.P-27: Require responsible waste management practices, including recycling and composting. Coordinate with service providers to compost green waste and encourage local farmers to use this (County of Solano, 2008a pp. PF-22 to PF- 23).
>
> Policy PF.I-29: Expand waste minimization efforts, including household recycling, food waste and green waste recycling, business paper recycling, and construction and demolition recycling. Require commercial and industrial recycling. Require building projects to recycle or reuse a minimum of 50 percent of unused or leftover building materials (County of Solano, 2008a pp. PF-24).
>
> Policy PF.P-49: Use parallel or existing rights-of-way for gas, electric, and telephone utility alignments in a manner that avoids heavily developed areas.
>
> Policy PF.P-50: Locate, design, and construct transmission lines in a manner that minimizes disruption of natural vegetation, agricultural activities, scenic areas, and avoids unnecessary scarring of hill areas.

Policy PF.P-51: Encourage undergrounding of local utility distribution lines where feasible (County of Solano, 2008a, p. PF-40).

Solano Countywide Integrated Waste Management Plan

The Solano County Integrated Waste Management Division currently operates under a CIWMP adopted in 1996, which established solid waste planning strategies for the County. The County's CIWMP is a regional solid waste planning document for all seven incorporated jurisdictions (Benicia, Dixon, Fairfield, Rio Vista, Suisun City, Vacaville, and Vallejo) and the unincorporated County area. The plan's siting element was updated in July 2011 (County of Solano, 2015).

Yolo County General Plan

The following policies from the Yolo County General Plan are relevant to utilities issues related to the proposed Project.

Policy PF-9.1: Meet or exceed State waste diversion requirements.

Policy PF-9.4: Prioritize disposal and processing capacity at the landfill for waste materials generated within Yolo County, but accept waste materials from outside the county when capacity is available and the rates cover the full cost of disposal and processing.

Policy PF-9.8: Require salvage, reuse or recycling of construction and demolition materials and debris at all construction sites (County of Yolo, 2009a, PF-38).

Policy PF-11.1: Encourage the development of power generating and transmission facilities in appropriate alignments and locations, sufficient to serve existing and planned land uses.

Policy PF-11.3: Require utility lines to follow field edges to minimize impacts on agricultural operations.

Policy PF-11.4: Pipelines that cross agricultural areas shall be buried at a depth that avoids conflicts with expected agricultural practices (Yolo County, 2009, p. PF-44).

Yolo Countywide Integrated Waste Management Plan

The Yolo County Integrated Waste Management Division currently operates under a CIWMP adopted in 1995, which provides the goals, objectives and guidelines for the

county and cities to meet state solid waste diversion requirements (County of Yolo 2009a, PF-36 to PF-37). The CIWMP established solid waste planning strategies for the County, as well as for all four Yolo County cities, University of California, Davis (UC Davis), and the unincorporated County area. This plan is currently undergoing a 5-year review to determine whether the plan's documents need to be revised. The Plan's siting element was updated in January 2013 (County of Yolo, 2015).

3.14.2 Significance Criteria

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines Appendix G standards of significance (OPR, 2013). For the purposes of this PEIR, an impact to utilities is considered significant if implementation of the proposed project may result in any of the following:

1. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
2. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
3. Noncompliance with federal, State, and local statutes and regulations related to solid waste.

3.14.3 Impacts and Mitigation Measures

General Impacts and Mitigation Measures

Impact 3.14-1: Potential Impacts on Storm Water Drainage Facilities.

As described in Section 3.1, *Hydrology*, the Project would not create impervious surfaces that would increase stormwater runoff. Project activities would have no effect on flow regimes that could affect stormwater because flow regimes are controlled by Monticello Dam and regulated by the Putah Creek Accord. Thus, Project activities would not result in an increase in stormwater that would require construction of new stormwater facilities or the expansion of existing facilities.

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measures 3.1-2 and 3.1-3 (see Section 3.1, *Hydrology*) would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore the Project would have a **less-**

than-significant impact on stormwater drainage facility capacity, construction, or functioning.

Impact 3.14-2: Impacts to Landfills.

The Project would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only up to six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. The only waste likely to be generated by Project activities would be green waste removed through brush clearing and removal of invasive plant species and weeds, which would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact to landfills.

Impact 3.14-3: Impacts to Pipelines and Electrical Lines.

By State regulation, the height of electrical lines is at least 15 feet above the ground and water areas of a creek (CPUC, 2012, General Order 95, Section III, Table 1, Case Nos. 4 and 11). Project construction activities would not occur at a height that could damage overhead electrical transmission wires.

Project grading is not expected to occur at a depth likely to encounter buried pipelines. However, a small possibility exists that construction activities involving digging or excavation could inadvertently damage one of the pipelines crossing underneath the Project Area (see Table 3.14-1), which could result in short-term and long-term impacts such as work injuries, as well as property damage, unintentional fire or explosions, and environmental damage through the spill of hazardous liquids or gases (US DOT, 2014b). Mitigation Measure 3.14-1 would avoid such an impact by requiring identification of pipeline locations before excavation activities begin, and detailing procedures to avoid damage during Project excavation near pipelines. Therefore, Project impacts would be **less than significant.**

Mitigation Measure 3.14-1: Locate and Avoid Buried Pipelines.

In accordance with State Government Code Section 4216 *et seq.* and guidance issued by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA), the Project applicant and excavator will contact the regional notification center at least two working days, but not more than 14 calendar days, prior

to commencing that excavation. If practical, the excavator shall delineate the area to be excavated with white paint or other suitable markings. The regional notification center for the Project Area is Underground Service Alert of Northern/Central California and Nevada. Contact shall be made with the regional notification center either by phone by dialing 811 or 1-800-227-2600 or through the center's website at http://usanorth811.org/ (Common Ground Alliance, 2015; USA North 811, 2015).

In accordance with Government Code Section 4216.4, if consultation with the regional notification center indicates a Project excavation is near a pipeline, then the excavator shall determine the exact location of the pipeline by excavating with hand tools before using any power-operated or power-driven excavating or boring equipment. However, power-operated or power-driven equipment may be used for the removal of any existing pavement if there are no subsurface installations contained in the pavement.

If documented notice of the intent to use vacuum excavation devices, or power-operated or power-driven excavating or boring equipment has been provided to the pipeline operator, and it is mutually agreeable with the operator and the excavator, the excavator may utilize vacuum excavation devices, or power-operated or power-driven excavating or boring equipment within the approximate location of a pipeline.

If the exact location of the pipeline cannot be determined by hand excavating, the excavator shall request the pipeline operator to provide additional information, to enable the excavator to determine the exact location of the installation. (The contact phone number of the subsurface installation operator may be obtained from the regional notification center.)

In the event Project activities discover damage or cause damage to a pipeline installation, including all breaks, leaks, nicks, dents, gouges, grooves, or other damage, to lines, conduits, coatings, or cathodic protection, the Project applicant and excavator shall immediately notify the pipeline operator. If a pipeline is damaged and the operator cannot be contacted, the excavator shall call 911 emergency services.

Site-Specific Impacts and Mitigation Measures

NAWCA/Mariani

Storm Water Drainage Facilities

As was analyzed in Section 3.1, *Hydrology*, occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of

the channel alignment. Implementation of Mitigation Measure 3.1-2 would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have **no impact** related to landfill capacity.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. No mapped pipelines are located in this reach, but Mitigation Measure 3.14-1 would be implemented for an added level of protection in the event the regional pipeline notification center has access to new or additional pipeline information beyond that available to the lead agency at the time this PEIR was written. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

Duncan-Giovannoni

Stormwater Drainage Facilities

As was analyzed in Section 3.1, *Hydrology*, occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-2 would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact on landfill capacities.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. This reach contains one natural gas pipeline, which crosses the Project Area near the intersection of Road and Wintu Way. Implementation of Mitigation Measure 3.14-1 would minimize and avoid Project pipeline impacts by requiring identification of pipeline locations before excavation activities begin, and detailing procedures to avoid damage during Project excavation near pipelines. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

Winters Putah Creek Nature Park

Stormwater Drainage Facilities

Several municipal drains for the City of Winters are located in this reach, but because restoration activities have already been completed for this reach, proposed Project activities would only involve maintenance and would not alter stormwater drainage systems. In the far upstream portion of the reach, a large municipal drain is located in an area that may be subject to some Project construction activities. However, construction would be performed in a manner to avoid any impacts to the drain, which is a 4-foot diameter concrete pipe with a concrete splashway that would not be practical to modify or relocate. Therefore, in this reach, the Project would have **no impact** on stormwater facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during

Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact to landfill capacity.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. No mapped pipelines are located in this reach, but Mitigation Measure 3.14-1 would be implemented for an added level of protection in the event the regional pipeline notification center has access to new or additional pipeline information beyond that available to the lead agency at the time this PEIR was written. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

East of 505

Stormwater Drainage Facilities

As was analyzed in Section 3.1, *Hydrology*, occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-2 would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not

affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact related to landfill capacities.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. No mapped pipelines are located in this reach, but Mitigation Measure 3.14-1 would be implemented for an added level of protection in the event the regional pipeline notification center has access to new or additional pipeline information beyond that available to the lead agency at the time this PEIR was written. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

Warren

Stormwater Drainage Facilities

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-2 would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater drainage facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact to landfill capacities.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. No mapped pipelines are located in this reach, but Mitigation Measure 3.14-1 would be implemented for an added level of protection in

the event the regional pipeline notification center has access to new or additional pipeline information beyond that available to the lead agency at the time this PEIR was written. Therefore, Project impacts would be **less than significant.**

Upper McNamara

Stormwater Drainage Facilities

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-2 would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater drainage facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact to landfill capacities.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. No mapped pipelines are located in this reach, but Mitigation Measure 3.14-1 would be implemented for an added level of protection in the event the regional pipeline notification center has access to new or additional pipeline information beyond that available to the lead agency at the time this PEIR was written. Therefore, Project impacts would be **less than significant.**

Lower McNamara

Stormwater Drainage Facilities

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-2 would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater drainage facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact to landfill capacity.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. No mapped pipelines are located in this reach, but Mitigation Measure 3.14-1 would be implemented for an added level of protection in the event the regional pipeline notification center has access to new or additional pipeline information beyond that available to the lead agency at the time this PEIR was written. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

MacQuiddy (Lester)

Stormwater Drainage Facilities

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-2 would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant.

Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater drainage facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact to landfill capacities.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. This reach contains one natural gas pipeline, which crosses the Project Area approximately 3.04 miles downstream of I-505. Implementation of Mitigation Measure 3.14-1 would minimize and avoid Project pipeline impacts by requiring identification of pipeline locations before excavation activities begin, and detailing procedures to avoid damage during Project excavation near pipelines. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

Russell Ranch

Stormwater Drainage Facilities

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-2 would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater drainage facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during

Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact to landfill capacities.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. No mapped pipelines are located in this reach, but Mitigation Measure 3.14-1 would be implemented for an added level of protection in the event the regional pipeline notification center has access to new or additional pipeline information beyond that available to the lead agency at the time this PEIR was written. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

Stevenson Bridge

Stormwater Drainage Facilities

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-2 would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater drainage facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not

affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact to landfill capacities.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. No mapped pipelines are located in this reach, but Mitigation Measure 3.14-1 would be implemented for an added level of protection in the event the regional pipeline notification center has access to new or additional pipeline information beyond that available to the lead agency at the time this PEIR was written. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

Glide Ranch

Stormwater Drainage Facilities

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-2 would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on storm water drainage facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact to landfill capacities.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. No mapped pipelines are located in this reach, but Mitigation Measure 3.14-1 would be implemented for an added level of protection in

the event the regional pipeline notification center has access to new or additional pipeline information beyond that available to the lead agency at the time this PEIR was written. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

Nishikawa

Stormwater Drainage Facilities

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-2 would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater drainage facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact to landfill capacities.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. No mapped pipelines are located in this reach, but Mitigation Measure 3.14-1 would be implemented for an added level of protection in the event the regional pipeline notification center has access to new or additional pipeline information beyond that available to the lead agency at the time this PEIR was written. Therefore, Project impacts to pipelines would be **less than significant.**

Olmo-Hammond-UCD

Stormwater Drainage Facilities

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measures 3.1-2 and 3.1-3 in this reach would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on storm water drainage facilities.

Landfill Capacities

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact related to landfill capacities.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. However, construction activities involving digging or excavation could inadvertently damage one of the pipelines crossing underneath the Project Area (see Table 3.14-1), which could result in work injuries, as well as property damage, unintentional fire or explosions, and environmental damage through the spill of hazardous liquids or gases (US DOT, 2014b). No mapped pipelines are located in this reach, but Mitigation Measure 3.14-1 would be implemented for an added level of protection in the event the regional pipeline notification center has access to new or additional pipeline information beyond that available to the lead agency at the time this PEIR was written. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

I-80 to Old Davis Road

Stormwater Drainage Facilities

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-3 in this reach would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater drainage facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact related to landfill capacities.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. However, construction activities involving digging or excavation could inadvertently damage one of the pipelines crossing underneath the Project Area (see Table 3.14-1), which could result in work injuries, as well as property damage, unintentional fire or explosions, and environmental damage through the spill of hazardous liquids or gases (US DOT, 2014b). This reach contains two natural gas pipelines. Both run parallel to the railway line, with one approximately 0.60 miles downstream of I-80 and the other approximately 0.63 miles downstream of I-80. Implementation of Mitigation Measure 3.14-1 would minimize and avoid Project pipeline impacts by requiring identification of pipeline locations before excavation activities begin, and detailing procedures to avoid damage during Project excavation near pipelines. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

Old Davis Road to Mace

Stormwater Drainage Facilities

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-3 in this reach would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater drainage facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact related to landfill capacities.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. Construction activities involving digging or excavation could inadvertently damage one of the pipelines crossing underneath the Project Area (see Table 3.14-1), which could result in work injuries, as well as property damage, unintentional fire or explosions, and environmental damage through the spill of hazardous liquids or gases (US DOT, 2014b). This reach contains one natural gas pipeline, which crosses the Project Area approximately 1.94 miles downstream of I-80. Implementation of Mitigation Measure 3.14-1 would minimize and avoid Project pipeline impacts by requiring identification of pipeline locations before excavation activities begin, and detailing procedures to avoid damage during Project excavation near pipelines. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

Mace to Road 106A

Stormwater Drainage Facilities

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-3 in this reach would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater drainage facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact related to landfill capacities.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. However, construction activities involving digging or excavation could inadvertently damage one of the pipelines crossing underneath the Project Area (see Table 3.14-1), which could result in work injuries, as well as property damage, unintentional fire or explosions, and environmental damage through the spill of hazardous liquids or gases (US DOT, 2014b). This reach contains one hazardous liquid pipeline, which crosses the Project Area adjacent to Road 106A South. Implementation of Mitigation Measure 3.14-1 would minimize and avoid Project pipeline impacts by requiring identification of pipeline locations before excavation activities begin, and detailing procedures to avoid damage during Project excavation near pipelines. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

Road 106A to Yolo Bypass Wildlife Area

Stormwater Drainage Facilities

Occasional small roadway or agricultural storm drains within the Project Area may need to be modified or replaced as a result of the channel alignment. Implementation of Mitigation Measure 3.1-3 in this reach would ensure that such activities are performed in a manner so that impacts related to stormwater drainage systems remain less than significant. Therefore, in this reach, the Project would have a **less-than-significant** impact on stormwater drainage facilities.

Landfill Capacity

As described in Impact 3.14-2, above, Project activities in this reach would not generate substantial amounts of solid waste. Any solid waste generated incidentally during Project activities (e.g., beverage containers, empty containers, or other incidental trash) would be bagged and disposed of at waste facilities off-site. With only about six workers accessing the Project Area each day, this incidental solid waste would not be in an amount likely to impact landfill capacities. Green waste generated by Project brush clearing and removal of invasive plant species and weeds would be disposed of either on-site after suitable treatment or at local composting/recycling facilities and would not affect landfill capacities. Therefore, the Project would have a **less-than-significant** impact related to landfill capacity.

Pipelines and Electrical Lines

Project construction activities would not occur at a height that could damage overhead electrical transmission wires. No mapped pipelines are located in this reach, but Mitigation Measure 3.14-1 would be implemented for an added level of protection in the event the regional pipeline notification center has access to new or additional pipeline information beyond that available to the lead agency at the time this PEIR was written. Therefore, Project impacts to pipelines and electrical lines would be **less than significant.**

Table 3.14-3 Summary of Utilities Impacts and Mitigation Measures

Reach	Impact 3.14-1 Stormwater Drainage Capacity	Impact 3.14-2 Landfill Capacity	Impact 3.14-3 Pipelines and Electrical Lines	Applicable Mitigation Measures
NAWCA/Mariani	SM	NI	SM	MM 3.1-2, MM 3.14-1
Duncan-Giovannoni	SM	NI	SM	MM 3.1-2, MM 3.14-1
Winters Putah Creek Nature Park	NI	NI	NI	n/a
East of 505	SM	NI	SM	MM 3.1-2, MM 3.14-1
Warren	SM	NI	SM	MM 3.1-2, MM 3.14-1
Upper McNamara	SM	NI	SM	MM 3.1-2, MM 3.14-1
Lower McNamara	SM	NI	SM	MM 3.1-2, MM 3.14-1
MacQuiddy (Lester)	SM	NI	SM	MM 3.1-2, MM 3.14-1
Russell Ranch	SM	NI	SM	MM 3.1-2, MM 3.14-1
Stevenson Bridge	SM	NI	SM	MM 3.1-2, MM 3.14-1
Glide Ranch	SM	NI	SM	MM 3.1-2, MM 3.14-1
Nishikawa	SM	NI	SM	MM 3.1-2, MM 3.14-1
Olmo-Hammond-UCD	SM	NI	SM	MM 3.1-2 MM 3.14-1
I-80 to Old Davis Road	SM	NI	SM	MM 3.1-2 MM 3.14-1
Old Davis Road to Mace	SM	NI	SM	MM 3.1-2 MM 3.14-1
Mace to Road 106A	SM	NI	SM	MM 3.1-2 MM 3.14-1
Road 106A to YBWA	SM	NI	SM	MM 3.1-2 MM 3.14-1

Note: NI = No Impact, LS = Less than Significant Impact, SM = SM = Significant but mitigatable to less than significant with measures identified in this section.