

Section 20

Utilities and Service Systems

This section discusses utilities and service systems. It describes the study area, the environmental and potential environmental impacts, and possible mitigation measures.

The Delta Plan (the Proposed Project) does not propose implementation of any particular physical project; rather, it seeks to influence, either through limited policy regulation or through recommendations, other agencies to take certain actions that will lead to achieving the dual goals of Delta ecosystem protection and water supply reliability. Those actions, if taken, could lead to physical changes in the environment. This is described in more detail in part 2.1 of Section 2A, Proposed Project and Alternatives, and in Section 2B, Introduction to Resource Sections.

The types of actions the Delta Plan could encourage could include new and/or improved utility systems such as water systems, wastewater systems, or stormwater systems, the purpose of which would be to improve water supply reliability and water quality. The impacts of these new facilities on resources such as air quality, viewsheds, and biological systems are discussed elsewhere in this Environmental Impact Report (EIR).

This section discusses whether these new facilities (and others the Delta Plan could encourage, such as new parks in the Delta) could themselves cause the need for new or expanded water, wastewater or stormwater facilities, or solid waste disposal facilities. This section also discusses whether the new facilities could cause the need for expanded electricity generation and natural gas production, and transmission facilities for electricity and natural gas. Lastly, this section discusses whether construction of new facilities could conflict with or upset existing utility lines or facilities (potential conflict with natural gas production fields is covered in Section 13, Mineral Resources).

It is unlikely that the actions the Proposed Project would encourage would materially require or result in the need for new water or wastewater treatment facilities or stormwater drainage facilities, or the expansion of existing facilities; therefore, potential impacts are **less than significant**. Regarding electricity demand, impacts would be **less than significant**. There would be **no impacts** to natural gas production. Disruption of existing utility lines would be **less than significant** with mitigation, as would impacts to potentially disrupt or conflict with existing utility lines during construction of Delta-Plan-encouraged projects.

20.1 Study Area

The study area is defined as the geographical area in which the majority of potential impacts are expected. The study area for utilities is focused on the Delta and the Suisun Marsh, but extends to other portions of California where Delta-Plan-influenced projects could get built, such as the Delta watershed and areas outside the Delta that use Delta water.

20.2 Regulatory Framework

Appendix D provides an overview of the federal, State, and local plans, policies, and regulations relating to utilities within the study area.

20.3 Environmental Setting

This section discusses utilities and services that could be affected by adopting the Delta Plan or implementing the alternatives. The utilities and services that could be affected include water supply and distribution, wastewater collection and treatment, stormwater drainage, solid waste collection and disposal, and electricity and natural gas. Many of these utilities and services are provided by counties, cities, or community services/special districts. In some cases, private entities provide services under contract to local governments.

City and county general plans, Local Agency Formation Commission (LAFCO) Municipal Service Reviews, and Internet resources served as the primary sources of information in preparing this section.

20.3.1 Delta and Suisun Marsh

20.3.1.1 Water Supply and Distribution

Water service providers in the Delta include cities and counties, special districts, and private utilities. Water service providers range in size from those with a few service connections to those with thousands of connections. Most water service providers obtain their water from surface water, groundwater, or a combination of these sources. The amount of water available to these service providers is defined by water rights, water contract agreements, groundwater pumping limitations, and the infrastructure required to treat, pump, and deliver water. Water service providers in the Delta area are listed in Table 20-1. See Section 3, Water Resources, for a more-detailed treatment of water resources in the Delta.

Table 20-1
Water Service Providers In and Near the Delta

County	Service Provider	Water Supply Source(s)
Sacramento	California-American Water Company	Groundwater
Sacramento	City of Sacramento	Surface Water and Groundwater
Sacramento	Sacramento County Water Agency	Surface Water and Groundwater
Yolo	City of West Sacramento	Surface Water
Yolo	Yolo County Flood Control and Water Conservation District	Surface Water and Groundwater
Solano	City of Benicia	Surface Water
Solano	City of Fairfield	Surface Water
Solano	City of Rio Vista	Groundwater
Solano	Maine Prairie Water District	Surface Water and Groundwater
Solano	Solano County Water Agency	Surface Water and Groundwater
Solano	Solano Irrigation District	Surface Water and Groundwater
Solano	Suisun-Solano Water Authority	Surface Water
San Joaquin	California Water Service Company	Surface Water and Groundwater
San Joaquin	City of Lathrop	Surface Water and Groundwater
San Joaquin	City of Manteca	Surface Water and Groundwater

Table 20-1
Water Service Providers In and Near the Delta

County	Service Provider	Water Supply Source(s)
San Joaquin	City of Stockton	Surface Water and Groundwater
San Joaquin	City of Tracy	Surface Water and Groundwater
San Joaquin	Mountain House Community Services District	Surface Water
San Joaquin	Stockton East Water District	Surface Water
Contra Costa	City of Antioch	Surface Water
Contra Costa	City of Brentwood	Surface Water and Groundwater
Contra Costa	City of Pittsburg	Surface Water and Groundwater
Contra Costa	Contra Costa Water District	Surface Water and Groundwater
Contra Costa	County Service Area M-28	Groundwater
Contra Costa	Diablo Water District	Surface Water
Contra Costa	Discovery Bay Community Services District	Groundwater
Contra Costa	East Contra Costa Irrigation District	Surface Water

Sources: California Water Service Company 2010; City of Lathrop 2009; City of Manteca 2011; City of Sacramento 2010; City of Stockton 2010; City of Tracy 2010; Contra Costa LAFCO 2007, 2008a; Mountain House Community Services District 2007; Sacramento LAFCO 2011a, 2011b; Solano LAFCO 2005, 2006a, 2008, 2009; Stockton East Water District 2011; Yolo County LAFCO 2005, 2009

1 **20.3.1.2 Wastewater Collection and Treatment**

2 Wastewater collection and treatment services in the Delta are provided by cities, counties, and special
3 districts. Wastewater treatment facilities with collection systems typically are located in urban areas. In
4 some rural areas where sewer service is unavailable, residents and businesses dispose of wastewater in
5 onsite septic systems. Treatment plants for individual nonindustrial developments also exist in some areas
6 to treat localized wastewater from mobile home parks, apartment complexes, and resorts.

7 Municipal sewer systems consist of sewer collection pipelines, treatment facilities, and outfall structures
8 or disposal systems. Secondary or tertiary treated effluents are typically discharged into rivers, streams,
9 creeks, and sloughs. Methods of land disposal include evaporation/percolation ponds or application to
10 irrigated agricultural lands. Recycled effluent is also used for industrial purposes or agricultural irrigation
11 during the summer months. In some cases, municipalities may provide wastewater collection
12 infrastructure and services that discharge to regional facilities owned and operated by another
13 municipality. Table 20-2 lists cities, counties, and special districts that provide wastewater collection,
14 treatment, and/or disposal services in and near the Delta.

Table 20-2
Wastewater Collection and Treatment Providers In and Near the Delta

County	Service Provider	Surface Water Discharge Point(s)
Sacramento	Courtland Sanitation District	Sacramento River
Sacramento	County Service Area No. 9 (Hood)	Sacramento River
Sacramento	Sacramento County Regional Sanitation District	Sacramento River
Sacramento	Sacramento Area Sewer District	Sacramento River (via Sacramento Regional County Sanitation District)
Yolo	City of West Sacramento	Sacramento River (via Sacramento Regional County Sanitation District)

Table 20-2
Wastewater Collection and Treatment Providers In and Near the Delta

County	Service Provider	Surface Water Discharge Point(s)
Solano	City of Benicia	Carquinez Strait
Solano	City of Rio Vista	Sacramento River
Solano	Fairfield Suisun Sewer District	Boynton Slough
San Joaquin	City of Lathrop	San Joaquin River (via Manteca)
San Joaquin	City of Lodi	Dredger Cut
San Joaquin	City of Manteca	San Joaquin River
San Joaquin	City of Stockton	San Joaquin River
San Joaquin	City of Tracy	Old River
San Joaquin	Mountain House Community Services District	Old River
Contra Costa	City of Antioch	New York Slough (via Delta Diablo Sanitation District)
Contra Costa	City of Brentwood	Marsh Creek
Contra Costa	City of Pittsburg	New York Slough (via Delta Diablo Sanitation District)
Contra Costa	Central Contra Costa Sanitation District	Suisun Bay
Contra Costa	Delta Diablo Sanitation District	New York Slough
Contra Costa	Discovery Bay Community Services District	Old River
Contra Costa	Ironhouse Sanitary District	San Joaquin River

Sources: Contra Costa LAFCO 2007, 2008b; Sacramento County LAFCO 2011; San Joaquin LAFCO 2009; Solano LAFCO 2006b; Yolo County LAFCO 2009

1 **20.3.1.3 Stormwater Drainage**

2 Stormwater management services are provided by cities, counties, and, in some cases, reclamation
3 districts and county service areas. In many areas, storm drains collect and convey runoff to pumps that lift
4 the runoff into local creeks, sloughs, or rivers. Storm drainage systems commonly comprise natural
5 drainage swales, ditches, and water courses. In urban areas, stormwater drainage systems also include
6 underground storm drain pipes, concrete-lined culverts, and detention and retention basins. Drainage
7 systems collect and convey stormwater to watercourses and detention or retention basins in order to
8 prevent localized flooding.

9 **20.3.1.4 Solid Waste Collection and Disposal**

10 Counties and cities are responsible for solid waste management planning, administration, and facility
11 approval. Local enforcement agencies, authorized under the California Integrated Waste Management
12 Act, are responsible for permitting of solid waste facilities. In locations that do not have an authorized
13 local enforcement agency, solid waste facility permitting is under the jurisdiction of the State agency,
14 CalRecycle. Many municipalities enter into franchise agreements with private waste management
15 businesses. Oversight of solid waste disposal facilities is conducted in cooperation with private collection
16 and disposal businesses and other local and regional public agencies. The planning and operation of solid
17 waste management faculties often is coordinated regionally because some communities do not have
18 landfill sites within their boundaries, making it necessary to haul waste to an out-of-county/city facility
19 for disposal. These communities utilize transfer stations and recycling facilities that are a component of
20 local waste management solutions.

- 1 Resource recovery (recycling, composting, and waste-to-energy) is implemented to comply with state
2 diversion regulations, to extend the life of landfills, to reduce environmental impacts of solid waste
3 disposal, and to reuse resources. Resource recovery activities are commonly subject to performance
4 measures and requirements in local Integrated Waste Management Plans.
- 5 Table 20-3 lists solid waste disposal facilities located in and near the Delta.

Table 20-3
Solid Waste Disposal Facilities In and Near the Delta

County	Facility
Sacramento County	The majority of solid waste collected in the county is disposed of at the Kiefer Landfill and the North Area Recovery Station. Both facilities are located outside of the Delta.
Yolo County	The majority of solid waste collected in the county is disposed of at the Yolo County Central Landfill, which is located outside of the Delta.
Solano County	The Potrero Hills Landfill, which is located in the Suisun Marsh, serves communities in the Delta located in Solano and Contra Costa counties.
San Joaquin County	San Joaquin County communities are served by three disposal facilities located outside of the Delta: Lovelace Materials Recovery Facility and Transfer Station, North County Recycling Center and Sanitary Landfill, and Foothill Sanitary Landfill.
Contra Costa	The majority of solid waste collected from communities in the Delta is disposed of at Keller Canyon Landfill, which is located outside of the Delta. Solid waste from some communities is transported to Potrero Hills Landfill in Solano County.

Sources: Contra Costa LAFCO 2008b ; Sacramento County 2010; San Joaquin County 2011; Solano County 2005; Yolo County 2009

6 **20.3.1.5 Electricity**

7 Pacific Gas and Electric Company (PG&E) provides electrical service throughout the Delta. In addition,
8 the Sacramento Municipal Utility District (SMUD) generates, transmits, and distributes electricity to a
9 900-square-mile service area that includes portions of Sacramento County located in the Delta. SMUD
10 generates electricity from several facilities, including hydroelectric plants, cogeneration plants, and
11 advanced and renewable technologies such as wind, solar, and biomass/landfill gas power. SMUD also
12 transmits and distributes power purchased on the wholesale market (Sacramento County 2010). There are
13 also several electrical peaking plants surrounding the Delta and multiple wind farm installations located
14 within the Suisun Marsh.

15 Regional transmission lines move power within California and also are connected to other western states.
16 More than 500 miles of transmission lines and more than 60 substations are located within the Delta
17 boundaries (DWR 2007, p. 7). Electric transmission lines in the Delta and Suisun Marsh are owned by
18 PG&E, SMUD, and Western Area Power Administration (DWR 2007). Major transmission line corridors
19 serving the greater metropolitan San Francisco Bay Area cross Solano County, and high-voltage
20 transmission lines owned by PG&E cross the Suisun Marsh (Reclamation et al. 2010). Transmission lines
21 are commonly located within utility easements.

22 **20.3.1.6 Natural Gas**

23 Natural gas service in the Delta is provided by PG&E, which is one of the largest combination natural gas
24 and electricity utilities in the United States (Sacramento County 2010). Natural gas is used to fuel
25 electricity-generating plants within the Delta, and there are distribution systems to convey the resource to
26 the production facilities that exist. Natural gas lines are located throughout the Delta and serve local gas

1 fields and regional pipelines. Distribution pipelines vary in size and may be located above- or below-
2 ground (DOGGR 2000). Natural gas pipelines typically are located within utility easements. Propane also
3 is used as an energy source in portions of the Delta without natural gas service, although it is not
4 delivered through a centralized distribution system (e.g., pipelines).

5 **20.3.2 Delta Watershed and Areas Using Delta Water**

6 As described in Section 2A, Proposed Project and Alternatives, facilities could be constructed, modified,
7 or reoperated in the Delta watershed and areas outside of the Delta that use Delta water, in addition to the
8 Delta. Water use could also be modified in the areas outside of the Delta that use Delta water, in addition
9 to the Delta. Those areas include a wide range of land uses, encompassing agricultural, rural residential,
10 and suburban to high-density urban uses.

11 Water and wastewater functions are developed by individual property owners in rural areas.
12 Community-wide water and wastewater services are provided in suburban and urban communities.
13 Stormwater management is generally provided by counties in rural areas and by a combination of
14 agencies in more developed areas. Facilities may be similar in both areas. Electricity and solid waste
15 disposal for household wastes are provided to all communities. In rural areas, individuals are responsible
16 for commercial and agricultural waste disposal. Natural gas is generally not available in agricultural areas.

17 **20.4 Impacts Analysis of Project and** 18 **Alternatives**

19 **20.4.1 Assessment Methods**

20 The Proposed Project (Delta Plan) and alternatives would not directly result in construction or operation
21 of projects or facilities, and therefore would result in no direct impacts to utilities and service systems.

22 The Proposed Project and alternatives could result in implementation of actions or development of
23 projects, such as facilities or infrastructure, as described in Sections 2A, Proposed Project and Alternative,
24 and 2B, Introduction to Resource Sections. Projects may include water and wastewater treatment plants;
25 conveyance facilities, including pumping plants; surface water or groundwater storage facilities;
26 ecosystem restoration projects; flood control levees; or recreation facilities. This section discusses
27 whether implementation of these types of projects and facilities could require new or physically altered
28 water treatment/production, wastewater treatment, stormwater treatment facilities, or new electricity or
29 natural gas facilities, the construction or operation of which could cause significant environmental
30 impacts. This section also discusses the potential for utility conflicts during construction.

31 The precise magnitude and extent of project-specific utilities-related impacts would depend on the type of
32 action or project being evaluated, its specific location, its total size, and a variety of project- and site
33 specific factors that are undefined at the time of preparation of this program-level study. Project-specific
34 utilities impacts would be addressed in project-specific environmental studies conducted by the lead
35 agency proposing the projects at the time the projects are proposed for implementation.

36 **20.4.2 Thresholds of Significance**

37 Based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines, an impact related
38 to utilities is considered significant if the Proposed Project would do any of the following:

- 39 ◆ Exceed wastewater treatment requirements of the applicable Regional Water Quality Control
40 Board (RWQCB).

- 1 ♦ Require or result in the construction of new water or wastewater treatment facilities or expansion
2 of existing facilities, the construction or operation of which could cause significant environmental
3 effects.
- 4 ♦ Require or result in the construction of new stormwater drainage facilities or expansion of
5 existing facilities, the construction or operation of which could cause significant environmental
6 effects.
- 7 ♦ Not have sufficient water supplies available to serve the project from existing entitlements and
8 resources, or require new or expanded entitlements.
- 9 ♦ Result in a determination by the wastewater treatment provider that serves or may serve the
10 project that it does not have adequate capacity to serve the project's projected demand in addition
11 to the provider's existing commitments.
- 12 ♦ Generate solid waste that would exceed the permitted capacity of local landfills to accommodate
13 the project's solid waste disposal needs.
- 14 ♦ Not comply with federal, state, and local statutes and regulations related to solid waste.
- 15 ♦ Not have sufficient electricity supplies available to serve the project from existing resources, or
16 require new or expanded facilities.
- 17 ♦ Require or result in the construction of new electricity generation and/or transmission facilities,
18 the construction or operation of which could cause significant environmental effects.
- 19 ♦ Not have sufficient natural gas supplies available to serve the project from existing resources, or
20 require new or expanded facilities.
- 21 ♦ Require or result in the construction of new natural gas production and/or transmission facilities,
22 the construction or operation of which could cause significant environmental effects.
- 23 ♦ Result in breakage or significantly increase the risk of breakage of existing utility lines.

24 Section 3, Water Resources, discusses the Proposed Project's potential to decrease or increase water
25 supplies and related impacts. The following is a discussion of potential impacts that generally could result
26 from the types of actions or projects the Delta Plan alternatives could encourage. As individual projects
27 are proposed, these individual projects will need to be evaluated in site-specific environmental documents
28 prepared by those agencies.

29 Natural gas generation capacity is not addressed further in this section. Review of the types of projects
30 and actions envisioned by the Proposed Project and alternatives indicates that there is little or no potential
31 for the projects or actions to affect demand for natural gas. These types of projects and actions do not use
32 natural gas. Therefore, there would be **no impact**.

33 20.4.3 Proposed Project

34 As described in Sections 2A, Proposed Project and Alternatives, and 2B, Introduction to Resource
35 Sections, the Delta Plan does not direct the construction of specific projects, nor would projects be
36 implemented under the direct authority of the Delta Stewardship Council. However, the Delta Plan seeks
37 to improve water supply reliability, improve the Delta ecosystem, improve water quality, reduce the risk
38 of floods, and protect and enhance the Delta as an evolving place by encouraging various actions that, if
39 taken, could lead to construction and/or operation of projects. Actions or projects the Delta Plan is
40 encouraging could be constructed within the Delta watershed and areas outside the Delta that use Delta
41 water. The number and location of all potential projects that could be implemented are not known at this

1 time. General categories of projects, possible components/elements within those categories and specific
2 named projects are described in Section 2B, Introduction to Resource Sections.

3 **20.4.3.1.1 Impact 20-1: Require or Result in the Construction of New Water Treatment Facilities or**
4 **the Expansion of Existing Facilities, the Construction or Operation of Which Would**
5 **Have Significant Environmental Effects or Require the Procurement of Additional Water**
6 **Supply Entitlements**

7 Construction of new water systems (e.g., diversion, treatment, and distribution facilities) or expansion of
8 existing systems is prompted by increased customer demand, typically as a result of new land
9 development and/or population growth. The Proposed Project does not include new land development
10 and/or induce population growth, and therefore would not add new customer demands to the existing
11 water systems (e.g., those identified above in Table 20-1). For a discussion of the growth-inducing effects
12 of the Proposed Project, see Section 24.1 of this EIR.

13 The types of facilities encouraged by the Proposed Project are of a type usually constructed in rural areas
14 not served by municipal water systems. Construction of these facilities may require a water supply
15 (e.g., for dust control or soil compaction), but these uses would be temporary and could be met by non-
16 municipal sources without requiring the procurement of additional water supply entitlements. Ecosystem
17 restoration projects are likely to require a water supply (e.g., to ensure wetland habitat is maintained), but
18 would use locally available water sources without requiring the procurement of additional water supply
19 entitlements. Some of the facilities encouraged by the Delta enhancement objective (e.g., picnic areas,
20 concessionaire facilities) could generate additional demand for municipal water services. These facilities,
21 however, are of a type usually constructed in rural areas not served by municipal water systems. Local
22 groundwater supplies or small “package” treatment facilities are likely to be installed. To the extent that
23 some projects occur in municipal settings, it is unlikely that the relatively small amount of water needed
24 would require an expansion of water treatment facilities. For additional discussion of water supply
25 impacts, see Chapter 3, Water Resources.

26 It is unclear at this time how implementation of the Proposed Project would result in construction and
27 operation of projects, including the location, number, capacity, operational criteria, and methods and
28 duration of construction activities. However, the Delta Plan encourages implementation of various
29 projects. These projects include the Suisun Marsh Management, Preservation, and Restoration Plan
30 (Reclamation et al. 2010), and the Sacramento Deep Water Ship Channel Dredging Project (USACE and
31 the Port of West Sacramento 2011), which have completed environmental impact assessments. Both
32 impact assessments concluded that there would be no impact on municipal utilities.

33 The following additional projects are illustrative of the types of projects that could occur under the
34 Proposed Project and their impact on water utilities:

- 35 ♦ The North Delta Flood Control and Ecosystem Restoration Project has more construction
36 activities that the Suisun Marsh Management, Preservation, and Restoration Plan
37 (Reclamation et al. 2010). However, the California Department of Water Resources (DWR 2010)
38 found that all potential impacts on utilities associated with the project would be less than
39 significant.
- 40 ♦ The City of Huntington Beach found that the Huntington Beach Seawater Desalination Project
41 may create impacts in regards to water supply (City of Huntington Beach 2005). These impacts
42 could be mitigated to a less-than-significant level by requiring the applicant to pay appropriate
43 fees for water service connections, installation, and meters to the city.
- 44 ♦ The Los Vaqueros Reservoir Expansion Environmental Impact Statement (EIS)/EIR
45 (Reclamation et al. 2009) evaluated three alternatives to increase water storage and construct a
46 new Delta intake and conveyance facilities. In this case, the lead agency found that because the

1 project does not involve development of new land uses, none of the alternatives would result in
2 population growth that would require additional utilities. Therefore, the lead agency found the
3 impacts related to the construction or expansion of facilities to be less than significant.

4 ♦ The San Francisco Public Utilities Commission (SFPUC) found that the Calaveras Dam
5 Replacement Project would not require the construction or expansion of water treatment facilities
6 because the project would not result in an increase in the demand for water treatment (SFPUC
7 2011).

8 ♦ In the case of the Bidwell-Sacramento River State Park Habitat Restoration and Outdoor
9 Recreation Facilities Development Project, the lead agency found that the project would have no
10 impact on utilities (California Department of Parks and Recreation 2008).

11 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
12 time such projects are proposed by lead agencies. However, there is no substantial evidence that this
13 impact would be significant. This conclusion is based on the review of environmental analyses of similar
14 projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably
15 plausible scenario in which a potential significant impact would occur. It is therefore concluded that this
16 impact would likely be **less than significant**. Future project-specific analyses may develop adequate
17 information to arrive at a different conclusion; however, for purposes of this program-level analysis, there
18 is no available information to indicate that another finding is warranted or supported by substantial
19 evidence.

20 20.4.3.1.2 Impact 20-2: Require or Result in the Construction of New Wastewater Treatment 21 Facilities or the Expansion of Existing Facilities, the Construction or Operation of Which 22 Would Have Significant Environmental Effects

23 Construction of new wastewater systems (e.g., collection, treatment, and discharge facilities) or expansion
24 of existing systems is prompted by increased customer demand, typically as a result of new land
25 development and/or population growth. The Proposed Project does not include new land development
26 and/or induce population growth, and therefore would not add new customer demands to the existing
27 wastewater systems (e.g., those identified in Table 20-2). For a discussion of the growth-inducing effects
28 of the Proposed Project, see Section 24.1 of this EIR.

29 The types of facilities encouraged by the Proposed Project are of a type usually constructed in rural areas
30 not served by municipal wastewater systems. Construction of these facilities may result in wastewater
31 generation (e.g., portable restrooms for construction workers), but these uses would be temporary, very
32 small (relative to municipal treatment capacity), or served by onsite septic systems. Operation of some of
33 the facilities encouraged by the Delta enhancement objective (e.g., picnic areas, concessionaire facilities)
34 could generate additional demand for municipal wastewater services, but these facilities are expected to
35 be constructed in rural areas not served by municipal wastewater systems. Onsite septic systems
36 (e.g., vault toilets often used at State Parks) are likely to be installed. To the extent that some projects
37 occur in municipal settings, it is unlikely that the relatively small amount of wastewater generated would
38 require an expansion of wastewater treatment facilities. It is unlikely that the Proposed Project would
39 result in a determination by a wastewater treatment provider that it does not have adequate capacity to
40 serve the project's projected demand in addition to the provider's existing commitments. Any new
41 wastewater discharge would comply with water treatment requirements of the applicable RWQCB.

42 It is unclear at this time how implementation of the Proposed Project would result in construction and
43 operation of projects, including the location, number, capacity, operational criteria, and methods and
44 duration of construction activities. However, the Delta Plan encourages implementation of various
45 projects. These projects include the Suisun Marsh Management, Preservation, and Restoration Plan, and

1 the Sacramento Deep Water Ship Channel Dredging Project, which have completed environmental impact
2 assessments. Both impact assessments concluded that there would be no impact on municipal utilities.

3 Although not named in the Delta Plan, the following projects are illustrative of the types that could occur
4 under the Proposed Project and their impact on wastewater utilities:

- 5 ♦ The North Delta Flood Control and Ecosystem Restoration Project has more construction
6 activities that the Suisun Marsh Management, Preservation, and Restoration Plan. However,
7 DWR (2010) found that all potential impacts on utilities associated with the project would be less
8 than significant.
- 9 ♦ The City of Huntington Beach found that the Huntington Beach Seawater Desalination Project
10 could increase demand on the local wastewater system (City of Huntington Beach 2005). These
11 impacts could be mitigated to a less-than-significant level by requiring the applicant to pay
12 appropriate fees for wastewater service connections, installation, and meters and a percentage of
13 the connection fee for wastewater to the city.
- 14 ♦ The Los Vaqueros Reservoir Expansion EIS/EIR (Reclamation et al. 2009) evaluated three
15 alternatives to increase water storage and construct a new Delta intake and conveyance facilities.
16 In this case, the lead agency found that because the project does not involve development of new
17 land uses, none of the alternatives would result in population growth that would require additional
18 utilities. Therefore, the lead agency found the impacts related to the construction or expansion of
19 facilities to be less than significant.
- 20 ♦ SFPUC found that the Calaveras Dam Replacement Project would not require the construction or
21 expansion of wastewater treatment facilities because the project would not result in an increase in
22 the demand for wastewater treatment. Similarly, the project would not generate any wastewater
23 and therefore would not result in exceedances of wastewater treatment requirements established
24 by the San Francisco Bay RWQCB (SFPUC 2011).
- 25 ♦ In the case of the Bidwell-Sacramento River State Park Habitat Restoration and Outdoor
26 Recreation Facilities Development Project, the lead agency found that the project would have no
27 impact on utilities (California Department of Parks and Recreation 2008).

28 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
29 time such projects are proposed by lead agencies. However, there is no substantial evidence that this
30 impact would be significant. This conclusion is based on the review of environmental analyses of similar
31 projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably
32 plausible scenario in which a potential significant impact would occur. It is therefore concluded that this
33 impact would likely be **less than significant**. Future project-specific analyses may develop adequate
34 information to arrive at a different conclusion; however, for purposes of this program-level analysis, there
35 is no available information to indicate that another finding is warranted or supported by substantial
36 evidence.

37 20.4.3.1.3 Impact 20-3: Require or Result in the Construction of New Stormwater Drainage 38 Facilities or the Expansion of Existing Facilities, the Construction or Operation of Which 39 Would Have Significant Environmental Effects

40 Construction of new municipal stormwater systems (e.g., drainage facilities and stormwater quality
41 structures) or expansion of existing systems is prompted by increased impervious surfaces within the
42 areas served by these systems. The types of facilities encouraged by the Proposed Project are unlikely to
43 increase impervious surface area in a substantial way, but could alter local drainage patterns in rural areas.
44 These facilities, however, are of a type usually constructed in rural areas not served by municipal
45 stormwater systems, and therefore are not expected to affect municipal systems. To the extent that some

1 projects occur in municipal settings, it is unlikely that the relatively small amount of stormwater
2 generated would require an expansion of drainage facilities. These localized changes would be addressed
3 during project-level design, and stormwater quantity and quality impacts would be mitigated in
4 accordance with federal, state, and local standards. For a discussion of the flood management effects of
5 the Proposed Project, see Section 5, Delta Flood Risk.

6 It is unclear at this time how implementation of the Proposed Project would result in construction and
7 operation of projects, including the location, number, capacity, operational criteria, and methods and
8 duration of construction activities. However, the Delta Plan encourages implementation of various
9 projects. These projects include the Suisun Marsh Management, Preservation, and Restoration Plan,
10 which has a completed environmental impact assessment. The impact assessment concluded that there
11 would be no impact on municipal utilities.

12 Although not named in the Delta Plan, the following projects are illustrative of the types that could occur
13 under the Proposed Project and their impact on stormwater utilities:

- 14 ♦ The North Delta Flood Control and Ecosystem Restoration Project has more construction
15 activities than the Suisun Marsh Management, Preservation, and Restoration Plan. However,
16 DWR (2010) found that all potential impacts on utilities associated with the project would be less
17 than significant.
- 18 ♦ The Los Vaqueros Reservoir Expansion EIS/EIR (Reclamation et al. 2009) evaluated three
19 alternatives to increase water storage and construct a new Delta intake and conveyance facilities.
20 In this case, the lead agency found that because the project does not involve development of new
21 land uses, none of the alternatives would result in population growth that would require additional
22 utilities. Therefore, the lead agency found the impacts related to the construction or expansion of
23 facilities to be less than significant.
- 24 ♦ The City of Davis found that implementation of the Davis-Woodland Water Supply Project
25 would have no impacts related to the need for additional or expanded stormwater facilities (City
26 of Davis et al. 2007).
- 27 ♦ In the case of the Bidwell-Sacramento River State Park Habitat Restoration and Outdoor
28 Recreation Facilities Development Project, the lead agency found that the project would have no
29 impact on utilities (California Department of Parks and Recreation 2008).

30 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
31 time such projects are proposed by lead agencies. However, there is no substantial evidence that this
32 impact would be significant. This conclusion is based on the review of environmental analyses of similar
33 projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably
34 plausible scenario in which a potential significant impact would occur. It is therefore concluded that this
35 impact would likely be **less than significant**. Future project-specific analyses may develop adequate
36 information to arrive at a different conclusion; however, for purposes of this program-level analysis, there
37 is no available information to indicate that another finding is warranted or supported by substantial
38 evidence.

39 20.4.3.1.4 Impact 20-4: Generate Solid Waste That Would Exceed the Permitted Capacity of Local 40 Landfills or Cause Conflicts with Federal, State, and Local Statutes and Regulations 41 Related to Solid Waste

42 Construction of facilities encouraged by the Proposed Project could temporarily increase the amount of
43 solid waste hauled to local landfills. The increased generation of solid waste would depend on the size,
44 number, location, and nature of projects, and their ability to recycle, re-use, or dispose of materials onsite.
45 Most projects in this category, however, involve substantial earthmoving activities, and do not generate

1 large amounts of construction waste (e.g., demolition debris) that would require disposal at a landfill. For
2 this reason, construction waste is unlikely to cause the permitted capacity of local landfills to be exceeded
3 or to create conflicts with federal, state, and local regulations related to solid waste.

4 Operations of new or expanded water, wastewater, and stormwater treatment facilities would generate
5 solid waste (i.e., sludge, brine cake) collected from the waters diverted into the facilities, which would
6 require disposal at solid waste facilities. Operation of Delta enhancement projects would generate solid
7 waste, for example, from picnic areas or concessionaire activities. The increased generation of solid waste
8 would depend on the size, number, location, and nature of projects, but the amount of solid waste likely to
9 be generated by these uses would be very small relative to landfill capacity and is unlikely to cause the
10 permitted capacity of local landfills to be exceeded or potentially create conflicts with federal, state, and
11 local regulations related to solid waste.

12 It is unclear at this time how implementation of the Proposed Project would result in construction and
13 operation of projects, including the location, number, capacity, operational criteria, and methods and
14 duration of construction activities. However, the Delta Plan encourages implementation of various
15 projects with potential impacts to landfill capacity. These projects include the Suisun Marsh Management,
16 Preservation, and Restoration Plan, and the Sacramento Deep Water Ship Channel Dredging Project,
17 which have completed environmental impact assessments. The Suisun Marsh impact assessment
18 concluded that there would be less-than-significant impacts to landfill capacity (Reclamation et al. 2010).
19 The Sacramento Deep Water Ship Channel impact assessment concluded that there would be no impact
20 on landfill capacity (USACE and the Port of West Sacramento 2011).

21 Although not named in the Delta Plan, the following projects are illustrative of the types that could occur
22 under the Proposed Project and their impact on solid waste facilities:

- 23 ♦ In the Los Vaqueros Reservoir Expansion EIS/EIR (Reclamation et al. 2009), the lead agency
24 found that the construction of the project could potentially lead to an increase in solid waste
25 generation during the three-year construction period, though there would be little trash hauled to
26 landfills. The lead agency found these impacts to be less than significant with the implementation
27 of mitigation measures such as development of a solid waste reduction / debris recovery plan that
28 specifies practices to reduce solid waste generation.
- 29 ♦ SFPUC found that the Calaveras Dam Replacement Project would have a less than significant
30 impact on solid waste facilities (SFPUC 2011). This is because the project would only require the
31 occasional use of offsite disposal facilities during the 4-year construction period and would not
32 substantially affect the remaining capacity of these nearby landfills. In addition, disposal onsite of
33 100 percent of excavated materials and construction and demolition debris that was not reused or
34 recycled would meet the state's goal of diverting at least 50 percent of generated solid waste from
35 being sent to a landfill.
- 36 ♦ In the EIR for the Davis-Woodland Water Supply Project (City of Davis et al. 2007), the city
37 found that the construction of the project would increase waste disposal at the Yolo County
38 Central Landfill, but that the waste generated by the project would be within the capacity of the
39 landfill. Therefore, impacts related to solid waste facilities were found to be less than significant.
- 40 ♦ The City of Huntington Beach found that implementation of the proposed desalination project
41 may increase the generation of solid waste, thereby increasing demand on solid waste disposal
42 facilities in the vicinity (City of Huntington Beach 2005). In this case, mitigation measures such
43 as coordination with the city's recycling representative to ensure that the proposed project would
44 be in compliance with the city's waste reduction and recycling program would reduce the impact
45 to a less-than-significant level.

- 1 ♦ The North Delta Flood Control and Ecosystem Restoration Project (DWR 2010) would not result
2 in a reduction in the capacity of local solid waste landfills such that potential impacts related to
3 solid waste disposal would be less than significant.
- 4 ♦ In the case of the San Luis Rey River Park Master Plan, San Diego County found that the
5 implementation of the project would result in small amounts of solid waste requiring collection
6 and disposal (San Diego County 2008). This small increase would not represent a significant
7 impact on landfill capacity. Therefore, San Diego County determined that the disposal of solid
8 waste generated by the project would result in a less than significant impact.

9 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
10 time such projects are proposed by lead agencies. However, because of the potential impacts to landfill
11 capacity, the potential impacts are considered **significant**.

12 20.4.3.1.5 Impact 20-5: Require or Result in the Development of New Electricity Generating 13 Facilities or the Expansion of Existing Facilities, the Construction or Operation of Which 14 Would Have Significant Environmental Effects

15 Construction of facilities encouraged by the Proposed Project would involve site grading and similar
16 activities requiring heavy equipment use. Energy for these activities would come from diesel fuel, and
17 therefore would not contribute to demand for electricity. Electricity would be generated by operating
18 some types of project facilities (e.g., hydropower units associated with water storage facilities). Electricity
19 would be used for operation of most of types of facilities encouraged by the Proposed Project, but most
20 operational demands (e.g., air conditioning in control rooms) would be very small in the context of
21 overall electricity demands, and would not require or result in the need to develop new electricity
22 generating facilities. Increases in electricity demand would depend on the size, number, location, and
23 nature of projects. Some of the types of facilities encouraged by the Proposed Project would be more
24 energy-intensive, especially public improvements that involve pumping or processing water such as
25 “force main” conveyance facilities, wells, water and wastewater treatment processes, and energy-
26 intensive desalination plants. Energy-intensive projects could place large new demands on local power
27 providers, but these demands can be met by the large network of interconnected electric power plants
28 distributed throughout the state. In addition, many of these types of projects would be used to enhance the
29 reliability of local water supplies, which would obviate the energy-intensive need to pump water over
30 long distances, and some projects (new/expanded reservoirs with hydroelectric facilities incorporated)
31 would generate electricity.

32 Reference EIRs for analogous projects evaluated concluded that energy demand impacts would be less
33 than significant (or no impact). For example:

- 34 ♦ SFPUC found that the Calaveras Dam Replacement Project would have no impact on electricity
35 demand (SFPUC 2011). Project-generated demand would be small in the context of the overall
36 demand within the San Francisco Bay Area and the state.
- 37 ♦ The City of Huntington Beach found that implementation of the proposed desalination project
38 would increase the demand for electricity, but the increase would be partially offset by the
39 reduction in water imports (i.e., substantially reduced pumping). Net energy demands would still
40 be substantial (35 megawatts), but represent less than 1 percent of electricity demand within
41 Orange County and Southern California and would therefore be less than significant.
- 42 ♦ The North Delta Flood Control and Ecosystem Restoration Project (DWR 2010) would result in a
43 net reduction in electricity demand because of pump decommissioning, and impacts would be less
44 than significant.

1 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
2 time such projects are proposed by lead agencies. However, there is no substantial evidence that this
3 impact would be significant. This conclusion is based on the review of environmental analyses of similar
4 projects and other, pertinent evidence cited in this EIR, and on the inability to identify a reasonably
5 plausible scenario in which a potential significant impact would occur. It is therefore concluded that this
6 impact would likely be **less than significant**. Future project-specific analyses may develop adequate
7 information to arrive at a different conclusion; however, for purposes of this program-level analysis, there
8 is no available information to indicate that another finding is warranted or supported by substantial
9 evidence.

10 **20.4.3.1.6 Impact 20-6: Create a Public Health Hazard from Utility Disruption**

11 Construction of facilities encouraged by the Proposed Project would involve site grading and similar
12 activities requiring heavy equipment use. These construction activities could result in the unintentional
13 damage to or disruption of underground utilities as a result of trenching, augering, or other ground-
14 disturbing activity. Disruption of certain utilities, such as natural gas pipelines, could result in public
15 health hazards (e.g., explosions). This impact could occur under all project types, and is more likely to
16 occur if utilities are not carefully surveyed prior to construction, including contact with local utility
17 service providers.

18 Many of the reference EIRs for analogous projects evaluated concluded that utility disruption/conflict
19 impacts would be significant without mitigation measures such as pre-construction surveys, and then
20 utility avoidance or relocation.

21 Project-level impacts would be addressed in future site-specific environmental analysis conducted at the
22 time such projects are proposed by lead agencies. However, because the potential for damage or
23 disruption exists at all construction sites, the potential impacts are considered **significant**.

24 ***20.4.3.2 Mitigation Measures***

25 Any covered action that would have one or more of the significant environmental impacts listed above
26 shall incorporate the following features and/or requirements related to such impacts.

27 With regard to covered actions implemented under the Delta Plan, these mitigation measures will reduce
28 the impacts of the Proposed Project. Project-level analysis by the agency proposing the covered action
29 will determine whether the measures are sufficient to reduce those impacts to a less-than-significant level.
30 Generally speaking, many of these measures are commonly employed to minimize the severity of an
31 impact and in many cases would reduce impacts to a less-than-significant level, as discussed below in
32 more detail.

33 With regard to actions taken by other agencies on the basis of Delta Plan recommendations (i.e., activities
34 that are not covered actions), the implementation and enforcement of these measures would be within the
35 responsibility and jurisdiction of public agencies other than the Council. Those agencies can and should
36 adopt these measures as part of their approval of such actions, but the Council does not have the authority
37 to require their adoption. Therefore, significant impacts of noncovered actions could remain significant
38 and unavoidable.

39 How mitigation measures in this EIR relate to covered and noncovered actions is discussed in more detail
40 in Section 2B, Introduction to Resource Sections.

1 20.4.3.2.1 Mitigation Measure 20-1

2 The following mitigation measures would reduce the effects of Impact 20-4:

- 3 ♦ Establish construction debris disposal fee schedules to promote recycling and minimize solid
4 waste.
- 5 ♦ Limit disposal of construction debris and other solid waste at local landfills if the landfills have
6 limited capacity.
- 7 ♦ Dispose of all construction debris at landfills and disposal facilities that are licensed for the type
8 of wastes to be disposed. If the landfills and disposal facilities are not located near future
9 construction sites, include analysis of transportation of solid waste in future environmental
10 documentation for specific projects.
- 11 ♦ Require construction contractors to prepare construction debris management plans and require
12 reuse or recycling of construction debris.
- 13 ♦ Develop project-specific solid waste plans to maximize practices that reduce and recycle solid
14 waste and sludge generated by water, wastewater, and stormwater treatment facilities; and collect,
15 recycle, or compost litter and solid waste generated at new facilities designed for visitor use (such
16 as parks and visitor centers).

17 This mitigation measure will likely reduce solid waste facility impacts to a less-than-significant level.
18 However, as discussed above, with regard to actions taken by other agencies on the basis of Delta Plan
19 recommendations (i.e., activities that are not covered actions), the implementation and enforcement of
20 these measures would be within the responsibility and jurisdiction of public agencies other than the Delta
21 Stewardship Council. In such cases, this impact could remain **significant and unavoidable**.

22 20.4.3.2.2 Mitigation Measure 20-2

23 The following mitigation measures would reduce the effects of Impact 20-6:

- 24 ♦ Relocate or modify existing water, wastewater, and stormwater facilities or electricity
25 transmission systems in a manner that does not affect current operational reliability to existing
26 and projected users.
- 27 ♦ Coordinate utility relocation and modification with utility providers and local agencies to
28 integrate potential other construction projects and minimize disturbance to the communities.
- 29 ♦ Verify utility locations through field surveys and services such as Underground Service Alert.

30 This mitigation measure will likely reduce potential utility disruption/conflict impacts to a less-than-
31 significant level. However, as discussed above, with regard to actions taken by other agencies on the basis
32 of Delta Plan recommendations (i.e., activities that are not covered actions), the implementation and
33 enforcement of these measures would be within the responsibility and jurisdiction of public agencies
34 other than the Delta Stewardship Council. In such cases, this impact could remain **significant and**
35 **unavoidable**.

36 20.4.4 No Project Alternative

37 As described in Section 2A, Proposed Project and Alternatives, the No Project Alternative is based on the
38 continuation of existing plans and policies, the continued operation of existing facilities into the future,
39 and permitted and funded projects. Seven ongoing projects have been identified as part of the No Project
40 Alternative. The list of projects included in the No Project Alternative is presented in Table 2-2.

1 With the No Project Alternative, the Delta Plan would not be in place to encourage various other projects
2 to move forward. To the extent that the absence of the Delta Plan prevents those projects from moving
3 forward, there could be fewer construction-related utility impacts in the near term and fewer construction-
4 and operations-related utility impacts over the long term. Because utility impacts are related project
5 location and specific project features that may or may not require utility service, the No Project
6 Alternative could result in construction- and operations-related utility impacts like those of the Proposed
7 Project, but these are likely to be **less than significant** except regarding solid waste disposal and utility
8 conflicts/disruption.

9 The No Project Alternative is expected to have fewer utility impacts than the Proposed Project in the near
10 term because there would be less construction and therefore the reduced utility demand from projects. The
11 No Project Alternative is expected to have fewer long-term utility impacts than the Proposed Project
12 because there would be fewer facilities in operation. Therefore, the No Project Alternative would have
13 fewer occurrences of utility impacts when compared to the Proposed Project.

14 20.4.5 Alternative 1A

15 Under Alternative 1A, the construction and operation of surface water projects (water intakes, treatment
16 and conveyance facilities, and reservoirs) would be the same as under the Proposed Project. As described
17 in Section 2A, Proposed Project and Alternative, there would be fewer groundwater projects (wells,
18 wellhead treatment, conveyance facilities), ocean desalination projects, recycled wastewater and
19 stormwater projects (treatment and conveyance facilities), and water transfers compared with the
20 Proposed Project. Water use efficiency and conservation programs also would be reduced relative to the
21 Proposed Project.

22 Projects to restore the Delta ecosystem would be reduced relative to the Proposed Project.

23 Projects and actions to improve water quality would be the same as under the Proposed Project. Flood
24 risk reduction projects also would be the same as under the Proposed Project, except that there would be
25 less emphasis on levee maintenance and modification for levees that protect agricultural land and more
26 emphasis on levees that protect water supply corridors, which could result in an overall reduction in these
27 activities. Projects to protect and enhance the Delta as an evolving place would be the same as for the
28 Proposed Project.

29 Similar impacts to utilities and service systems would occur under Alternative 1A as described for the
30 Proposed Project, but the impacts would likely be less because fewer projects would be implemented. The
31 difference in the number of or size of actions/activities is not known at this time. However, the projects
32 and other planning efforts under Alternative 1A are not expected to result in the need for additional water,
33 wastewater, stormwater, or electric utility capacity or require the procurement of additional water supply
34 entitlements. Without mitigation, Alternative 1A could cause the permitted capacity of local landfills to
35 be exceeded, or potentially create conflicts with federal, state, and local regulations related to solid waste,
36 or result in significant utility disruption/conflict impacts.

37 Overall, impacts on utilities and service systems under Alternative 1A would be **less than** under the
38 Proposed Project.

39 As compared to existing conditions, the impacts on utilities and service systems under Alternative 1A
40 would likely be **significant** for solid waste and utility conflict/disruption.

41 Mitigation measures for Alternative 1A would be the same as those described in Section 20.4.3.2.1 for the
42 Proposed Project, with the same post-mitigation less-than-significant results, if mitigation could be
43 guaranteed. Impacts would remain **significant and unavoidable** for the same reasons as the Proposed
44 Project, however.

20.4.6 Alternative 1B

Under Alternative 1B, the construction and operation of surface water projects (water intakes, treatment and conveyance facilities, and reservoirs) would be the same as under the Proposed Project. As described in Section 2A, Proposed Project and Alternative, there would be fewer groundwater projects (wells, wellhead treatment, conveyance facilities), recycled wastewater and stormwater projects (treatment and conveyance facilities), and water transfers compared with the Proposed Project. Water use efficiency and conservation programs also would be reduced relative to the Proposed Project. There would be no ocean desalination projects.

Projects to restore the Delta ecosystem would be reduced in extent relative to the Proposed Project and would not emphasize restoration of floodplains in the lower San Joaquin River.

Water quality improvement projects, including water treatment plants, conveyance facilities, and wells and wellhead treatment facilities, would be less emphasized relative to the Proposed Project, and greater emphasis would be placed on the construction and operation of wastewater treatment and recycle facilities and municipal stormwater treatment facilities.

Flood risk reduction would place greater emphasis on levee modification/maintenance and dredging than under the Proposed Project, but there would be no setback levees or subsidence reversal projects. Floodplain expansion projects would be fewer or less extensive, and use of reservoir reoperation would be reduced. Actions to protect and enhance the Delta as an evolving place would be consistent with the Economic Sustainability Plan, but the locations for new parks, as encouraged by the Proposed Project, would not be emphasized.

Similar impacts to utilities and service systems would occur under Alternative 1B as described for the Proposed Project, but the impacts would likely be less because fewer projects would be implemented. The difference in the number of or size of actions/activities is not known at this time. However, the projects and other planning efforts under Alternative 1B are not expected to result in the need for additional water, wastewater, stormwater, or electric utility capacity or require the procurement of additional water supply entitlements. Without mitigation, Alternative 1B could cause the permitted capacity of local landfills to be exceeded, or potentially create conflicts with federal, state, and local regulations related to solid waste, or result in significant utility disruption/conflict impacts.

Overall, impacts on utilities and service systems under Alternative 1B would be **less than** under the Proposed Project.

As compared to existing conditions, the impacts on utilities and service systems under Alternative 1B would likely be **significant** for solid waste and utility conflict/disruption.

Mitigation measures for Alternative 1B would be the same as those described in Section 20.4.3.2.1 for the Proposed Project, with the same post-mitigation less-than-significant results, if mitigation could be guaranteed. Impacts would remain **significant and unavoidable** for the same reasons as the Proposed Project, however.

20.4.7 Alternative 2

As described in Section 2A, Proposed Project and Alternative, Alternative 2 would place greater emphasis on groundwater, ocean desalination, water transfers, water use efficiency and conservation, and recycled water projects and less emphasis on surface water projects. The surface storage reservoirs considered under the DWR Surface Water Storage Investigation would not be encouraged; instead, surface storage in the Tulare Basin would be emphasized. Ecosystem restoration projects similar to but less extensive than those encouraged by the Proposed Project would be emphasized without the requirement to conform to the ecosystem restoration program habitat types and elevation map. Actions to improve water quality

1 would be similar to or greater than those under the Proposed Project, especially the treatment of
2 wastewater and agricultural runoff. Actions to reduce flood risk under Alternative 2 would emphasize
3 floodplain expansion and reservoir reoperation rather than levee construction and modification. The
4 stockpiling of rock and encouragement of subsidence reversal projects would be the same as under the
5 Proposed Project, as would actions to protect and enhance the Delta as an evolving place.

6 Similar impacts to utilities and service systems would occur under Alternative 2 as described for the
7 Proposed Project, but the impacts would likely be less because fewer projects would be implemented. The
8 difference in the number of or size of actions/activities is not known at this time. However, the projects
9 and other planning efforts under Alternative 2 are not expected to result in the need for additional water,
10 wastewater, stormwater, or electric utility capacity or require the procurement of additional water supply
11 entitlements. Without mitigation, Alternative 2 could cause the permitted capacity of local landfills to be
12 exceeded, or potentially create conflicts with federal, state, and local regulations related to solid waste, or
13 result in significant utility disruption/conflict impacts.

14 Overall, significant impacts on utilities and service systems under Alternative 2 would be **less than** under
15 the Proposed Project.

16 As compared to existing conditions, the impacts on utilities and service systems under Alternative 2
17 would likely be **significant** for solid waste and utility conflict/disruption.

18 Mitigation measures for Alternative 2 would be the same as those described in Section 20.4.3.2.1 for the
19 Proposed Project, with the same post-mitigation less-than-significant results, if mitigation could be
20 guaranteed. Impacts would remain **significant and unavoidable** for the same reasons as the Proposed
21 Project, however.

22 20.4.8 Alternative 3

23 As described in Section 2A, Proposed Project and Alternative, the water supply reliability projects and
24 actions under Alternative 3 would be similar to those of the Proposed Project, although there would be
25 less emphasis on surface water projects. Ecosystem restoration (floodplain restoration, riparian
26 restoration, tidal marsh restoration, and floodplain expansion) would be reduced relative to the Proposed
27 Project, and restoration on publicly owned lands, especially in Suisun Marsh and the Yolo Bypass, would
28 be emphasized. There would be more stressor management actions (e.g., programs for water quality,
29 water flows) and more management for nonnative invasive species. Water quality improvements would
30 be the same as for the Proposed Project. Actions under Alternative 3 to reduce flood risk would not
31 include setback levees or subsidence reversal but would result in greater levee modification/maintenance
32 and dredging relative to the Proposed Project. Reservoir reoperation and rock stockpiling would be the
33 same as for the Proposed Project, as would activities to protect and enhance the Delta as an evolving
34 place.

35 Similar impacts to utilities and service systems would occur under Alternative 3 as described for the
36 Proposed Project, but the impacts would be less because fewer large water supply projects would be
37 implemented. The precise difference in the number of or size of actions/activities is not known at this
38 time. However, the projects and other planning efforts under Alternative 3 are not expected to result in the
39 need for additional water, wastewater, stormwater, or electric utility capacity or require the procurement
40 of additional water supply entitlements. Without mitigation, Alternative 3 could cause the permitted
41 capacity of local landfills to be exceeded, or potentially create conflicts with federal, state, and local
42 regulations related to solid waste, or result in significant utility disruption/conflict impacts.

43 Overall, significant impacts on utilities and service systems under Alternative 3 would be **less than** under
44 the Proposed Project.

- 1 As compared to existing conditions, the impacts on utilities and service systems under Alternative 3
2 would likely be **significant** for solid waste and utility conflict/disruption.
- 3 Mitigation measures for Alternative 3 would be the same as those described in Sections 20.4.3.2.1 for the
4 Proposed Project, with the same post-mitigation less-than-significant results, if mitigation could be
5 guaranteed. Impacts would remain **significant and unavoidable** for the same reasons as the Proposed
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