

20.1 Summary Comparison of Proposed Project

A summary comparison of important impacts on public services and utilities is provided in Figure 20-0. This figure provides information on the magnitude of the most pertinent and quantifiable impacts on public services and utilities that are expected to result from the proposed project compared against the approved project. The incremental values indicate the change in acreage or other impact metric attributable to the proposed project. These incremental values, together with consideration of the severity of the underlying impacts as set forth in the Final EIR/EIS, are the basis for making both NEPA and CEQA impact significance findings. The incremental analysis addresses whether the proposed project, compared with the approved project, will lead to any new significant environmental effects or to any substantial increase in the severity of previously identified significant effects. The incremental difference between the original impacts and the newly anticipated impacts is then considered against the backdrop of the original significance determinations for the impacts as described in the Final EIR/EIS.

Figure 20-0. Comparison of Impacts on Public Services and Utilities

Chapter 20 – Public Services and Utilities		Approved Project	Proposed Project (Total)	Proposed Project (Increment)
Impact UT-6: Effects on regional or local utilities as a result of constructing the proposed water conveyance facilities	Number of transmission lines, pipelines, aqueducts, or wells affected	30	35	5
	Miles of agricultural canals affected	44	52	8
		Significant and unavoidable/ adverse	Remains significant and unavoidable/ adverse. No change to the findings for the proposed project.	Significant and unavoidable/ adverse

As depicted in Figure 20-0, the proposed project would not result in new impacts or a substantial increase in the severity of previously identified public services and utilities resource impacts. This chapter contains the information necessary to make the Final EIR/EIS adequate for the approved project as revised.

1 **20.2 Environmental Setting/Affected Environment**

2 **20.2.1 Affected Environment**

3 The description of the Existing Conditions of public services and utilities that would be affected by
4 construction, operations, and maintenance of the proposed project is the same as described in Final
5 EIR/EIS Chapter 20, *Public Services and Utilities*, Section 20.1 *Environmental Setting/Affected*
6 *Environment*. The Final EIR/EIS provides a discussion of public services and utilities that could be
7 affected, which include law enforcement, fire protection, emergency response, hospitals and medical
8 service facilities, public schools, libraries, solid waste management, water supply and treatment,
9 wastewater treatment, energy (electricity and natural gas), and communications. The modifications
10 to the approved project would be located entirely within the previously analyzed project area, and
11 consequently, the Existing Conditions have not changed.

12 **20.3 Environmental Consequences**

13 This section describes the potential direct (both temporary and permanent) and indirect effects of
14 the proposed project on public services and utilities within the Plan Area. The focus of this
15 assessment is on determining the incremental effect on public services and utilities that is
16 attributable to these modifications. With the exception of focusing on the incremental effects, the
17 methods of analysis and determination of effects is the same as indicated in the Final EIR/EIS.

18 This analysis discusses potential impacts resulting from construction of the water conveyance
19 facilities. Some impact topics addressed in the Final EIR/EIS are not addressed herein because the
20 change in the footprint of the water conveyance facilities would not result in a changed impact.
21 Topics not addressed in this chapter include impacts from operations and maintenance of the
22 proposed project, as well as and implementation of Environmental Commitments 3, 4, 6–12, 15, and
23 16. These impacts are fully disclosed in the Final EIR/EIS and would not change if the footprint
24 changes described for the proposed project were constructed.

25 Where mitigation measures identified in the Final EIR/EIS remain sufficient, such sufficiency is
26 noted. The methods applied to the gathering of data and the analysis of impacts on public services
27 and utilities are the same as indicated in the Final EIR/EIS.

28 **20.3.1 Effects and Mitigation Approaches**

29 **20.3.1.1 No Action Alternative**

30 Under the No Action Alternative, the new Byron Tract Forebay, reusable tunnel material (RTM)
31 storage, and other footprint changes described for the proposed project would not occur. For the
32 purposes of this Supplemental EIR/EIS, the No Action Alternative, against which this proposed
33 project is compared, is consistent with the No Action Alternative Early Long-Term in the Final
34 EIR/EIS. No differing effects on public services and utilities would result along the proposed project
35 alignment from what was previously described in the No Action Alternative Early Long-Term in the
36 Final EIR/EIS, if the No Action Alternative were to occur.

1 **20.3.1.2 Proposed Project**

2 **Impact UT-1: Increased Demand on Law Enforcement, Fire Protection, and Emergency**
3 **Response Services from New Workers in the Plan Area as a Result of Constructing the**
4 **Proposed Water Conveyance Facilities**

5 ***RTM Storage***

6 Changes related to moving RTM storage areas under the proposed project would not affect the
7 number of workers required to construct the proposed water conveyance facilities.

8 ***Byron Tract Forebay and Conveyance***

9 Construction of the water conveyance facilities under the proposed project, including the newly
10 proposed Byron Tract Forebay and conveyance, will be similar to the approved project. Increased
11 service demands would be experienced in the communities in which new construction workers
12 relocate and in the areas in which construction would take place.

13 ***Increased Public Service Demands Associated with Workers Relocating to the Study Area***

14 The increase in public service demands associated with workers relocating to the study area under
15 the proposed project would be approximately the same as under the approved project and would
16 not result in a permanent increase in population that could tax the ability to provide adequate law
17 enforcement, fire protection services, and medical services.

18 Because the construction population would primarily come from the existing five-county labor force
19 which is already served by law enforcement agencies and medical/emergency response services
20 (hospitals) in the Plan Area (Appendix 20A, *Details of Public Services and Utilities Supporting the Plan*
21 *Area*, Tables 20A-1 to 20A-3, of the Final EIR/EIS), and because the minor increase in demand from
22 the worker population that would move into the area to fill specialized jobs (e.g., tunnel
23 construction) would be spread across the large multi-county study area, construction of the
24 proposed project is not anticipated to result in an increased demand on law enforcement, fire
25 protection, or medical services.

26 ***Increased Public Service Demands Associated with Construction Work Areas and Activities***

27 The increase of public service demands associated with constructing water conveyance facilities
28 under the proposed project could result in additional demand for law enforcement, fire protection,
29 or emergency medical services, especially near major construction sites. However, this impact
30 would remain the same as under the approved project.

31 As part of the proposed project, DWR would implement the same environmental commitments as
32 discussed under the approved project (as described in Appendix 3B, *Environmental Commitments,*
33 *AMMs, and CMs*). Incorporation of these environmental commitments, 24-hour onsite private
34 security at construction sites, development of a hazardous material plan; a spill prevention,
35 containment, and countermeasure plan; and a fire prevention and control plan, would minimize the
36 potential for construction related accidents and reduce potential effects associated with increased
37 service demands from large-scale construction in the Plan Area.

1 **NEPA Effects:** Overall, the proposed project would not increase the demand on law enforcement, fire
2 protection, and emergency response services either due to an increased worker population or due to
3 construction-related hazards. The effect would not be adverse.

4 **CEQA Conclusion:** As with the approved project, construction jobs under the proposed project
5 would not result in an increased demand for law enforcement, fire protection, and medical services.
6 This is because the minor increase in demand would be spread across a large multi-county area.
7 Incorporation of environmental commitments (described in Appendix 3B, *Environmental*
8 *Commitments, AMMs, and CMs*) would minimize construction-related accidents associated with
9 hazardous materials spills, contamination, and fires, and provide for onsite security at construction
10 sites would minimize potential effects related to the potential for construction-related accidents,
11 and increased demand for public services associated with construction property protection.
12 Environmental commitments would also be incorporated to reduce potential exposure of hazardous
13 materials to the human and natural environment, thereby minimizing the potential demand for fire
14 or emergency services.

15 Construction of the proposed project would not require new or physically altered governmental
16 facilities since it would not cause a marked increase in the worker population in the Plan Area, nor
17 would it increase the potential for construction-related hazards. This impact would remain the same
18 as under the approved project and would be less than significant. No mitigation is required.

19 **Incremental Impact:** The potential for an increased demand for law enforcement, fire
20 protection, and medical services under the proposed project would be similar to the potential of
21 the approved project. The impact would be less than significant. No mitigation is required.

22 **Impact UT-2: Displacement of Public Service Facilities as a Result of Constructing the** 23 **Proposed Water Conveyance Facilities**

24 **NEPA Effects:** There are no public facilities in the proposed tunnel alignment of the proposed
25 project, nor would it require the construction or major alteration of such facilities. Therefore, this
26 effect would not be adverse.

27 **CEQA Conclusion:** As with the approved project, construction of the proposed water conveyance
28 facilities under the proposed project would not require the construction or major alteration of
29 public service facilities. Therefore, this impact would remain the same as under the approved
30 project and would be less than significant. No mitigation is required.

31 **Incremental Impact:** The potential for the displacement of public service facilities under the
32 proposed project would be similar to the potential of the approved project. The impact would be
33 less than significant. No mitigation is required.

34 **Impact UT-3: Effects on Public Schools as a Result of Constructing the Proposed Water** 35 **Conveyance Facilities**

36 Construction of the proposed water conveyance facilities under the proposed project would require
37 approximately the same number of construction workers as the approved project, most of whom are
38 expected to come from the existing five-county labor force. Because most of the proposed projects
39 construction jobs would be filled by workers from within the existing five-county labor force, it is
40 anticipated that school-aged children from those families would already have planned to attend
41 schools in school districts within the Plan Area and there would be no increase demand for public
42 school services from these workers.

1 **NEPA Effects:** Construction workforce needs of the proposed project water conveyance facilities
2 would be similar to the approved project, and is not anticipated to result in a substantial increase in
3 demand for public schools in the Plan Area and would not create a need for new or physically
4 altered public schools because any increase in the population due to the necessary construction
5 workforce would be temporary and would represent a small incremental increase in the projected
6 regional population. Most of the project construction jobs would be filled by workers from within
7 the existing five-county labor force and any incremental increase in school-age children of
8 construction personnel moving into the area for specialized jobs (e.g., tunnel construction) required
9 by construction of the proposed project would likely be distributed through a number of schools
10 within the Plan Area. There would be no adverse effect.

11 **CEQA Conclusion:** The majority of construction jobs are expected to be filled by workers from the
12 existing five-county labor force. Any increase in school-age children of construction personnel
13 moving into the area for specialized construction jobs (e.g., tunnel construction) would likely be
14 distributed through a number of schools within the Plan Area. This increase in school enrollment
15 would not be substantial enough to exceed the capacity of any individual district, or to warrant
16 construction of a new facility or alteration of an existing facility within the Plan Area. The impact
17 would be the same as the impact under the approved project and would be less than significant. No
18 mitigation is required.

19 **Incremental Impact:** The potential for effects on public schools under the proposed project
20 would be similar to the potential of the approved project. The impact would be less than
21 significant. No mitigation is required.

22 **Impact UT-4: Effects on Water or Wastewater Treatment Services and Facilities as a Result of** 23 **Constructing the Proposed Water Conveyance Facilities**

24 **RTM Storage**

25 Changes related to moving RTM storage areas under the proposed project would not impact water
26 or wastewater treatment services and facilities.

27 **Byron Tract Forebay and Conveyance**

28 Under the proposed project, construction of the water conveyance facilities would require water
29 supply and wastewater treatment services. Potable water supply needed for construction was
30 calculated based on the amount of concrete required for construction of the proposed project and
31 the amount of water required by the field offices. The amount of water needed for construction of
32 the proposed project would be approximately the same as the amount needed for the approved
33 project.

34 Because construction of the proposed project would primarily occur in rural parts of the study area,
35 and is not likely to occur in areas with municipal water service, it is not expected to impact
36 municipal water systems. Water for construction will be provided by available sources to the extent
37 possible; if needed, water may be brought to the construction site in water trucks. Construction
38 impacts associated with trucks, including water trucks, are addressed in Chapter 19, *Transportation*,
39 Chapter 22, *Air Quality and Greenhouse Gases*, and Chapter 23, *Noise*. As such, the proposed project
40 would not likely adversely affect municipal water supplies. Additionally, the potable water demand
41 would be temporary and limited to the construction period.

1 **NEPA Effects:** While potable water supply needs are substantial in volume, these requirements
2 would need to be met over a construction period of approximately 15 years and would be met with
3 non-municipal water sources without any need for new water supply entitlements. Also similar to
4 the approved project, wastewater created as a result of tunnel boring and concrete batching would
5 be provided by temporary facilities and treated onsite. Under the proposed project, DWR would
6 implement an environmental commitment that would dispose of reuse spoils, reusable tunnel
7 material, and dredged material. Concrete batch plants would also create wastewater, which would
8 be treated onsite at designated concrete batch plant sites. Construction of these water treatment
9 plants have been analyzed within the footprint of the proposed project, and is not anticipated to
10 create any unanticipated environmental impacts. Wastewater generated during construction at field
11 offices and temporary construction facilities will be served by temporary portable facilities (e.g.,
12 portable toilets). As discussed in Final EIR/EIS Chapter 8, *Water Quality*, as part of the
13 environmental commitments (Appendix 3B, *Environmental Commitments, AMMs, and CMs*), DWR
14 will be required to conduct project construction activities in compliance with the State Water
15 Board's *NPDES Stormwater General Permit for Stormwater Discharges Associated with Construction*
16 *and Land Disturbance Activities* (Order No. 2009-0009-DWQ/NPDES Permit No. CAS000002). This
17 General Construction NPDES Permit requires the development and implementation of a SWPPP that
18 outlines the temporary construction-related BMPs to prevent and minimize erosion, sedimentation,
19 and discharge of other construction-related contaminants, as well as permanent post-construction
20 BMPs to minimize adverse long-term stormwater related-runoff water quality effects. Overall, the
21 proposed project would not require or result in the construction of new wastewater treatment
22 facilities or expansion of existing facilities. This effect would not be adverse.

23 **CEQA Conclusion:** The supply of potable water required by the proposed project could be met by
24 non-municipal sources such as non-municipal water wells or water trucks, without any new water
25 supply entitlements. The proposed project would not require or result in the construction of new
26 wastewater treatment facilities or expansion of existing facilities. Additional needs for wastewater
27 treatment and potable water could also be served by non-municipal entities. Wastewater services
28 for construction crews would be provided by temporary portable facilities. This impact would
29 remain less than significant. Mitigation is not required.

30 **Incremental Impact:** The potential for effects on water or wastewater treatment services or
31 facilities under the proposed project would be similar to that of the approved project. The
32 impact would be less than significant. No mitigation is required.

33 **Impact UT-5: Effects on Landfills as a Result of Solid Waste Disposal Needs during** 34 **Construction of the Proposed Water Conveyance Facilities**

35 ***RTM Storage***

36 Relocation of RTM storage areas would not have any effect on solid waste disposal needs during
37 construction.

38 ***Byron Tract Forebay and Conveyance***

39 Construction of the proposed water conveyance facility would generate an amount of construction
40 debris and excavated material that would require disposal at a landfill in an amount comparable to
41 the approved project.

1 Construction of the proposed project is estimated to generate approximately 25 million cubic yards
2 of excavated material. Construction of tunnel segments under the proposed project would require
3 disposal of RTM as described for the approved project in the Final EIR/EIS Chapter 20, *Public*
4 *Services and Utilities*, Section 20.3.4, *Effects and Mitigation Approaches—Alternatives 4A, 2D, and 5A*.
5 As part of the proposed project, DWR would implement an environmental commitment (as
6 discussed in Appendix 3B, *Environmental Commitments, AMMs, and CMs*) that would dispose of and
7 reuse spoils, RTM, and dredged material. Based on a review of the typical additives in RTM, it is
8 assumed that the RTM can be disposed of onsite; however, to be conservative, an estimated 0.1% of
9 the excavated waste would require disposal at a landfill.¹ Based on these assumptions, up to 25,000
10 cubic yards of excavated materials would require disposal at a landfill. Under the proposed project,
11 the total volume of excavated material that would require disposal at a landfill during the
12 construction period (up to 25,000 cubic yards) represents a negligible impact on the 11 solid waste
13 landfills, which have a total remaining permitted capacity of over 437.94 million cubic yards
14 (Appendix 20A, *Details of Public Services and Utilities Supporting the Plan Area*, from the Final
15 EIR/EIS).

16 Construction debris, including debris from structure demolition, power poles, utility lines, piping,
17 and other materials would also be generated as a result of construction of the proposed project. For
18 purposes of this analysis, the volume of construction debris generated during construction was
19 based upon estimated tonnage of construction debris generated from the removal or relocation of
20 permanent structures within the water conveyance facility footprint under the proposed project.²
21 Based on details contained in Final EIR/EIS Chapter 13, *Land Use*, under the proposed project, there
22 would be an estimated 625,404 tons of construction debris generated over the approximately 13-
23 year construction period, approximately 149,300 tons fewer than the approved project would
24 generate. Overall, the construction waste that could be generated by implementing the proposed
25 project would not adversely affect the capacity of available landfills because it represents a
26 negligible amount of the total remaining permitted capacity of Plan Area landfills and is not
27 expected to exceed this capacity. Moreover, approximately 50% of the construction waste would be
28 diverted due to implementation of BMP 14 (Appendix 3B, *Environmental Commitments, AMMs, and*
29 *CMs*) would require development of a project-specific construction debris recycling and diversion
30 program.

¹ The percentage of waste excavation that might need specialized disposal at a landfill site was determined in consultation with the U.S. Department of Energy (DOE) Hazardous Substances Coordinator. For purposes of this analysis, “excavated material” includes dredged spoils for intakes, associated pumping plants, canals, conveyance pipelines, and forebays. This analysis does not take into account RTM since 100% of RTM is assumed to be able to be disposed of onsite.

² Based upon FEMA’s *Debris Estimating Field Guide*, September 2010, and EPA’s *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*, a conservative assumption was made for tonnage of construction debris as a result of demolition of the structures (see Impact LU-2 from this Supplemental EIR/EIS). It is assumed that demolition of a single-family residence will generate an average of 412 tons of construction and demolition debris; recreational demolition construction debris approximately 7,200 tons per structure; Storage/Support demolition approximately 21,000 tons of construction debris per structure, and Other structure demolition construction debris was assumed to be approximately 1,400 tons per structure. These values were applied to the number of structures affected described in Impact LU-2 to determine estimated construction debris for the proposed project. Nonresidential construction debris generated by construction are a small fraction of those generated through demolition of residential and nonresidential structures. EPA’s 2003 estimate generated a weighted average material generation rate of 4.34 pounds per square foot while residential and nonresidential demolition generated 50 and 158 pounds per square foot, respectively. Conservative assumptions were made for demolition debris quantities to include general construction debris which may be generated by construction of the proposed project. (Federal Emergency Management Agency 2010; U.S. Environmental Protection Agency 2003).

1 **NEPA Effects:** While there is an increase in excavated material under the proposed project due to
2 the construction of the conveyance facility from Byron Tract Forebay, there is a decrease in
3 construction debris. The proposed project is not expected to impact the lifespan of area landfills
4 because over 70% of the remaining capacity is associated with landfills with expected lifespans of
5 between 18 and 70 years, which is well beyond the construction of the proposed project facilities.
6 Further, implementation of the proposed project would require development of a project-specific
7 construction debris recycling and diversion program to achieve a documented 50% diversion of
8 construction waste. Construction of the proposed project would not create solid waste in excess of
9 the permitted capacity of landfill areas, nor would it adversely affect the expected lifespan of these
10 solid waste facilities. Thus, there would be no adverse effect.

11 **CEQA Conclusion:** Based on the capacity of the landfills in the region and the waste diversion
12 requirements set forth by the State of California, it would be expected that construction of the
13 proposed water conveyance facilities would not cause any exceedance of landfill capacity, just as the
14 approved project would not cause any exceedance of landfill capacity. While there is an increase in
15 excavated material under the proposed project due to the construction of the conveyance facility
16 from Byron Tract Forebay, only 0.1% (conservatively) would require disposal of at a landfill and
17 would be well within the available remaining capacity at area landfills. Debris from structure
18 demolition, power poles, utility lines, piping, and other materials would be diverted from landfills to
19 the maximum extent feasible at the time of demolition. Additionally, there is a decrease in
20 construction debris compared with the approved project. Further, implementation of BMP 14
21 (Appendix 3B, *Environmental Commitments, AMMs, and CMs*) would require development of a
22 project-specific construction debris recycling and diversion program to achieve a documented 50%
23 diversion of construction waste. Construction of the proposed project would not create solid waste
24 in excess of the permitted capacity of area landfills, nor would it adversely affect the expected
25 lifespan of these solid waste facilities. Therefore, similar to the approved project, the proposed
26 project would have a less-than-significant impact on solid waste management facilities.

27 **Incremental Impact:** The potential for effects on landfills as a result of waste disposal needs
28 under the proposed project would be less than that of the approved project due to the decrease
29 in construction debris in the proposed project. The impact would continue to be less than
30 significant. No mitigation is required.

31 **Impact UT-6: Effects on Regional or Local Utilities as a Result of Constructing the Proposed** 32 **Water Conveyance Facilities**

33 ***RTM Storage and Other Footprint Changes***

34 Relocation of RTM storage areas would not have substantial effects on regional or local utilities.
35 However, under the proposed project, construction of some elements could disrupt utility services
36 or require relocation of existing facilities, which would result in the same environmental effects as
37 the approved project. The relocation of these facilities could cause temporary or permanent effects
38 on the areas in which the relocated facilities would be located.

39 The water conveyance alignment under the proposed project, along with its associated physical
40 structures, could interfere with 10 overhead power/electrical transmission lines (Figure 24-4 in
41 Chapter 24, *Hazards and Hazardous Materials*), 5 natural gas pipelines (Figure 24-1 in Chapter 24),
42 17 inactive (plugged) oil or gas wells (Figure 24-3 in Chapter 24), the Mokelumne Aqueduct, and
43 approximately 52 miles of agricultural delivery canal and drainage ditches, including approximately

1 18 miles on Byron Tract, and 7 miles on Bouldin Island. The potential for construction of the
 2 proposed conveyance facilities to cause disruptions to agricultural infrastructure in the study area
 3 are addressed in Chapter 14, *Agricultural Resources*. Specifically, Chapter 14 addresses potential
 4 conflicts with existing agricultural irrigation and drainage facilities as a result of construction.

5 This impact would be slightly less than under the approved project which crossed 12 overhead
 6 power/electrical transmission lines.

7 The proposed project could conflict with approximately 2 PG&E 115 kilovolt (kV) lines, 3 PG&E 500
 8 kV lines, 2 WAPA 230 kV lines, 1 COTP 500 kV line, and 1 WAPA 69 kV line (Table 20-1). Seventeen
 9 inactive oil and gas wells lie within the permanent conveyance footprint, but since they are inactive
 10 they will likely not require relocation.

11 **Table 20-1. Number and Type of Pipelines and Electrical Transmission Lines Crossing the Approved**
 12 **Project and the Proposed Project**

Utility Operator and Type	Approved Project	Proposed Project
Electrical Transmission Lines		
Western Area Power Administration 69 kV	1	1
Western Area Power Administration 230 kV	2	2
Pacific Gas & Electric 115 kV	2	2
Pacific Gas & Electric 230 kV	0	1
Pacific Gas & Electric 500 kV	3	3
Transmission Agency of Northern California/Western Area Power Administration for the California-Oregon Transmission Project 500 kV	1	1
Sacramento Municipal Utility District 230 kV	3	0
Total	12	10
Pipelines		
Pacific Gas & Electric (size unspecified) Natural Gas	6	5
Chevron Texaco (7-inch diameter) Petroleum Product	1	0
Chevron Texaco (8-inch diameter) Petroleum Product	0	1
Chevron Texaco (8-inch/10-inch diameter)	0	1
Kinder Morgan Pacific Region (10-inch) Petroleum Product	1	1
Total	8	8

Note: This table does not include all possible crossings because existing infrastructure inventory has not been completed.

kV = kilovolt.

13
 14 ***Byron Tract Forebay and Conveyance***

15 Construction of the new Byron Tract Forebay and the conveyance facility leading to the California
 16 Aqueduct and the Delta-Mendota Canal would involve site grading and similar activities requiring
 17 heavy equipment use. These construction activities could result in the unintentional damage to or
 18 disruption of underground utilities as a result of trenching, auguring, or other ground disturbing
 19 activity. Disruption of certain utilities, such as natural gas pipelines, could result in public health
 20 hazards (e.g., explosions).

1 **NEPA Effects:** Effects would be more likely to occur if utilities were not carefully surveyed prior to
2 construction, including contact with local utility service providers. Implementation of pre-
3 construction surveys, and then utility avoidance or relocation if necessary, would minimize any
4 potential disruption. As required under the approved project, the relocation and disruption of
5 existing utility infrastructure would be required under the proposed project and would have the
6 potential to create environmental effects. This effect would be adverse.

7 Mitigation Measures UT-6a, UT-6b, and UT-6c have been adopted to reduce the severity of this
8 effect. These measures, as written in the Final EIR/EIS, remain adequate without change for dealing
9 with the impacts of the proposed project. If coordination with all appropriate utility providers and
10 local agencies to integrate with other construction projects and minimize disturbance to
11 communities were successful under Mitigation Measure UT-6b, this effect would not be adverse.

12 **CEQA Conclusion:** Under the proposed project, most features would avoid disrupting existing
13 facilities by crossing over or under infrastructure. However, construction of facilities would conflict
14 with existing utility facilities in some locations. Regional power transmission lines and one natural
15 gas pipeline would require relocation. Because the relocation and potential disruption of utility
16 infrastructure would be required, this impact would be significant.

17 Implementation of Mitigation Measures UT-6a, UT-6b, and UT-6c would reduce these impacts
18 through measures that could avoid disruption of utility infrastructure. However, the lead agencies
19 cannot ensure that all the appropriate utility providers and local agencies will coordinate efforts on
20 other construction projects to minimize disturbance to communities. If coordination with all
21 appropriate utility providers and local agencies to integrate with other construction projects and
22 minimize disturbance to communities were successful under Mitigation Measure UT-6b, the impact
23 would be less-than-significant. However, if such coordination is unsuccessful, it would result in a
24 significant impact in the form of disruptions to public utility service. Accordingly, as with the
25 approved project, this impact would be significant and unavoidable.

26 **Incremental Impact:** The potential for effects on regional or local utilities under the proposed
27 project would be less than that of the approved project due to the decrease in construction
28 debris in the proposed project. Implementation of Mitigation Measures UT-6a, UT-6b, and UT-6c
29 would reduce these impacts; however, if this coordination is unsuccessful, it would result in a
30 significant impact. Therefore, as with the approved project, this impact would be significant and
31 unavoidable.

32 **Mitigation Measure UT-6a: Verify Locations of Utility Infrastructure**

33 Please refer to Mitigation Measure UT-6a under Impact UT-6, in Chapter 20, *Public Services and*
34 *Utilities*, of the Final EIR/EIS.

35 **Mitigation Measure UT-6b: Relocate Utility Infrastructure in a Way That Avoids or** 36 **Minimizes Any Effect on Operational Reliability**

37 Please refer to Mitigation Measure UT-6b under Impact UT-6, in Chapter 20, *Public Services and*
38 *Utilities*, of the Final EIR/EIS.

1 **Mitigation Measure UT-6c: Relocate Utility Infrastructure in a Way That Avoids or**
2 **Minimizes Any Effect on Worker and Public Health and Safety**

3 Please refer to Mitigation Measure UT-6c under Impact UT-6, in Chapter 20, *Public Services and*
4 *Utilities*, of the Final EIR/EIS.

5 **20.3.2 Cumulative Analysis**

6 The Final EIR/EIS found that there was a potential for the approved project to have a cumulative
7 effect on utilities. As with the approved project, the proposed project would require the relocation
8 and disruption of utility infrastructure, including existing water, sewer, storm drain, natural gas, oil,
9 electric, and/or communication lines, and would have the potential to create significant impacts
10 through the relocation of facilities. Consequently, the contribution of cumulative impacts under the
11 proposed project would be considerable. Mitigation Measures UT-6a, UT-6b, and UT-6c have been
12 adopted to reduce the severity of this impact, but it would remain cumulatively considerable. This
13 cumulative impact remains the same as under the approved project.

14 **Mitigation Measure UT-6a: Verify Locations of Utility Infrastructure**

15 Please see Mitigation Measure UT-6a under Impact UT-6 in Final EIR/EIS Chapter 20.

16 **Mitigation Measure UT-6b: Relocate Utility Infrastructure in a Way that Avoids or**
17 **Minimizes Any Effect on Operational Reliability**

18 Please see Mitigation Measure UT-6b under Impact UT-6 in Final EIR/EIS Chapter 20.

19 **Mitigation Measure UT-6c: Relocate Utility Infrastructure in a Way That Avoids or**
20 **Minimizes Any Effect on Worker and Public Health and Safety**

21 Please see Mitigation Measure UT-6c under Impact UT-6 in Final EIR/EIS Chapter 20.

22 **20.4 References Cited**

23 Federal Emergency Management Agency. 2010. *Debris Estimating Field Guide*. Accessed May 5, 2018.
24 https://www.fema.gov/pdf/government/grant/pa/fema_329_debris_estimating.pdf.

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26 *Demolition Materials Amounts*. Accessed May 5, 2018. [https://www.epa.gov/smm/](https://www.epa.gov/smm/estimating-2003-building-related-construction-and-demolition-materials-amounts)
27 [estimating-2003-building-related-construction-and-demolition-materials-amounts](https://www.epa.gov/smm/estimating-2003-building-related-construction-and-demolition-materials-amounts).