

## 4.3.24 Environmental Justice

As described in Chapter 28, *Environmental Justice*, of the Draft EIR/EIS some of the resource topics were not considered in the assessment of disproportionate impacts on minority or low-income populations. For the reasons described in Section 28.5.3.1, *Issues Not Analyzed in Detail*, of the Draft EIR/EIS, these resources were also not evaluated as part of the Alternative 4A environmental justice impact assessment. The resource topics not evaluated for a disproportionate impact on minority or low income populations are geology and seismicity, hazards and hazardous materials, mineral resources, water supply, surface water, groundwater, water quality, soils, fish and aquatic resources, terrestrial biological resources, agricultural resources, recreation, transportation, energy, air quality, and paleontological resources.

### 4.3.24.1 Land Use

The potential impact on minority and low-income populations resulting from changes in land use for Alternative 4A would be the same as described for Alternative 4. The discussion of Alternative 4 in Section 13.3.3.9 of the Draft EIR/EIS identifies effects caused by incompatibility with local land uses, potential for physical division of established communities, and incompatibility with land use policies. By itself, incompatibility with land use policies is not a physical effect on the environment, and, therefore, does not have the potential to result in a disproportionate effect on a minority or low-income populations. Chapter 13, *Land Use*, Section 13.3.3.9, of the Draft EIR/EIS also addresses the potential for an alternative to result in the relocation of residents, or a physical effect on existing structures, with the consequence that adverse effects on the physical environment would result. The following adverse effects are relevant to this analysis:

#### **Impact LU-2: Conflicts with Existing Land Uses as a Result of Constructing the Proposed Water Conveyance Facility**

#### **Impact LU-3: Create Physical Structures Adjacent to and through a Portion of an Existing Community as a Result of Constructing the Proposed Water Conveyance Facility**

The extent of land use changes attributable to construction of Alternative 4A that could affect minority and low-income populations would be the same as disclosed for Alternative 4 because the period of construction, construction methods, and design of the water conveyance facility would be identical between the two alternatives. As discussed in detail under Alternative 4 in Chapter 28, *Environmental Justice*, of the Draft EIR/EIS, a disproportionate effect on minority populations would occur because construction of Intakes 2, 3, and 5 would result in the displacement of residential structures and permanent structures within census blocks where the minority population is greater than 50%.

### 4.3.24.2 Socioeconomics

The potential impact on minority and low-income communities associated with changes in socioeconomic conditions for Alternative 4A would be the same as described for Alternative 4. The discussion of Alternative 4 in Section 13.3.3.9 of the Draft EIR/EIS identified effects on agricultural economics and local employment conditions associated with constructing and operating the water conveyance facility and implementing environmental commitments. These impacts have the

1 potential to disproportionately affect environmental justice populations. The following adverse  
2 effects are relevant to this analysis:

3 **Impact ECON-1: Temporary Effects on Regional Economics in the Delta Region during**  
4 **Construction of the Proposed Water Conveyance Facilities**

5 **Impact ECON-7: Permanent Regional Economic Effects in the Delta Region during Operation**  
6 **and Maintenance of the Proposed Water Conveyance Facilities**

7 Land use changes that could affect minority and low-income populations for Alternative 4A would  
8 be the same as indicated for Alternative 4 because the period of construction, construction methods,  
9 and design of the water conveyance facility would be identical between the two alternatives. As  
10 discussed in greater detail under Alternative 4 in Chapter 28, *Environmental Justice*, of the Draft  
11 EIR/EIS because the majority of farm-related employment is represented by minority populations,  
12 including those of Hispanic origin, and potentially low-income, loss of agriculture land and losses of  
13 associated employment is expected to result in a disproportionate effect on minority populations.  
14 While a net increase in employment would occur during construction of the water conveyance  
15 facility, it is expected that most new construction jobs would not likely be filled by displaced  
16 agricultural workers because the skills required are not comparable. This effect would, therefore,  
17 remain adverse because job losses would disproportionately accrue to a minority population.

18 **4.3.24.3 Aesthetics and Visual Resources**

19 The potential impact on minority and low-income communities associated with changes in visual  
20 resources for Alternative 4A would be the same as described for Alternative 4. The discussion of  
21 Alternative 4 in Section 17.3.3.9 in the Draft EIR/EIS addresses impacts on aesthetics and visual  
22 resources in the study area. The impacts on aesthetics and visual resources have the potential to  
23 disproportionately affect environmental justice populations. The following adverse effects and  
24 mitigation measures are relevant to this analysis:

25 **Impact AES-1: Substantial Alteration in Existing Visual Quality or Character during**  
26 **Construction of Conveyance Facilities**

27 **Impact AES-2: Permanent Effects on a Scenic Vista from Presence of Conveyance Facilities**

28 **Impact AES-3: Permanent Damage to Scenic Resources along a State Scenic Highway from**  
29 **Construction of Conveyance Facilities**

30 **Impact AES-4: Creation of a New Source of Light or Glare That Would Adversely Affect Views**  
31 **in the Area as a Result of Construction and Operation of Conveyance Facilities**

32 **Impact AES-6: Substantial Alteration in Existing Visual Quality or Character during**  
33 **Implementation of CM2–CM21**

34 **Mitigation Measure AES-1a: Locate New Transmission Lines and Access Routes to**  
35 **Minimize the Removal of Trees and Shrubs and Pruning Needed to Accommodate New**  
36 **Transmission Lines and Underground Transmission Lines Where Feasible**

1           **Mitigation Measure AES-1b: Install Visual Barriers between Construction Work Areas and**  
2           **Sensitive Receptors**

3           **Mitigation Measure AES-1c: Develop and Implement a Spoil/Borrow and Reusable Tunnel**  
4           **Material Area Management Plan**

5           **Mitigation Measure AES-1d: Restore Barge Unloading Facility Sites Once Decommissioned**

6           **Mitigation Measure AES-1e: Apply Aesthetic Design Treatments to All Structures to the**  
7           **Extent Feasible**

8           **Mitigation Measure AES-1f: Locate Concrete Batch Plants and Fuel Stations Away from**  
9           **Sensitive Visual Resources and Receptors and Restore Sites upon Removal of Facilities**

10          **Mitigation Measure AES-1g: Implement Best Management Practices to Implement Project**  
11          **Landscaping Plan**

12          **Mitigation Measure AES-4a: Limit Construction to Daylight Hours within 0.25 Mile of**  
13          **Residents**

14          **Mitigation Measure AES-4b: Minimize Fugitive Light from Portable Sources Used for**  
15          **Construction**

16          **Mitigation Measure AES-4c: Install Visual Barriers along Access Routes, Where Necessary,**  
17          **to Prevent Light Spill from Truck Headlights toward Residences**

18          **Mitigation Measure AES-6a: Underground New or Relocated Utility Lines Where Feasible**

19          **Mitigation Measure AES-6b: Develop and Implement an Afterhours Low-intensity and**  
20          **Lights off Policy**

21          **Mitigation Measure AES-6c: Implement a Comprehensive Visual Resources Management**  
22          **Plan for the Delta and Study Area**

23          The changes in the visual character of the study area that could affect minority and low-income  
24          communities under Alternative 4A would be the same as indicated under Alternative 4 in Chapter  
25          28, *Environmental Justice*, of the Draft EIR/EIS because the period of construction, construction  
26          methods, and design of the water conveyance facility would be identical between the two  
27          alternatives. As described in detail under Alternative 4, changes in the visual character of the study  
28          area would occur as a result of the following:

- 29          ● Landscape scars left behind from spoil borrow and RTM areas, transmission lines, concrete  
30          batch plants and fuel stations, and launching, retrieval, ventilation shafts sites.
- 31          ● Constructing industrial facilities (i.e., Sacramento River intakes, intermediate forebay, expanded  
32          Clifton Court Forebay and pumping plant) in the study area.

33          The change in visual character as a result of the construction of the water conveyance facilities  
34          would be evident from the communities of Walnut Grove, Clarksburg, and Hood as well as rural  
35          residences located along the entire alignment. Because of the concentration of minority and low  
36          income populations in these communities as well as along the entire alignment, a change in visual

1 character of the study area would disproportionately affect these populations. For these reasons,  
2 although mitigation is available to reduce the severity of these effects, this effect would be adverse.

3 Similar to Alternative 4, implementing conservation and stressor reduction measures as part of  
4 Alternative 4A, would result in impacts on the study area's visual quality and character. However  
5 because the precise location of the conservation and stressor reduction measures are unknown, this  
6 impact is not carried forward for further analysis of environmental justice effects.

#### 7 **4.3.24.4 Cultural Resources**

8 The potential impact on minority and low-income communities associated with changes to cultural  
9 resources Alternative 4A would be the same as described for Alternative 4. The discussion of  
10 Alternative 4 in Section 18.3.5.9 of the Draft EIR/EIS addresses cultural resources in the study area.  
11 The impacts on cultural resources have the potential to disproportionately affect minority or low-  
12 income populations. The following adverse effects and mitigation measures are relevant to this  
13 analysis:

14 **Impact CUL-1: Effects on Identified Archaeological Sites Resulting from Construction of**  
15 **Conveyance Facilities**

16 **Impact CUL-2: Effects on Archaeological Sites to Be Identified through Future Inventory**  
17 **Efforts**

18 **Impact CUL-3: Effects on Archaeological Sites That May Not Be Identified through Inventory**  
19 **Efforts**

20 **Impact CUL-4: Effects on Buried Human Remains Damaged during Construction**

21 **Impact CUL-5: Direct and Indirect Effects on Eligible and Potentially Eligible Historic**  
22 **Architectural/Built-Environment Resources Resulting from Construction Activities**

23 **Impact CUL-6: Direct and Indirect Effects on Unidentified and Unevaluated Historic**  
24 **Architectural/Built-Environment Resources Resulting from Construction Activities**

25 **Impact CUL-7: Effects of Environmental Commitments on Cultural Resources**

26 **Mitigation Measure CUL-1: Prepare a Data Recovery Plan and Perform Data Recovery**  
27 **Excavations on the Affected Portion of the Deposits of Identified and Significant**  
28 **Archaeological Sites**

29 **Mitigation Measure CUL-2: Conduct Inventory, Evaluation, and Treatment of**  
30 **Archaeological Resources**

31 **Mitigation Measure CUL-3: Implement an Archaeological Cultural Resources Discovery**  
32 **Plan, Perform Training of Construction Workers, and Conduct Construction Monitoring**

33 **Mitigation Measure CUL-4: Follow State and Federal Law Governing Human Remains If**  
34 **Such Resources Are Discovered during Construction**

1           **Mitigation Measure CUL-5: Consult with Relevant Parties, Prepare and Implement a Built**  
2           **Environment Treatment Plan**

3           **Mitigation Measure CUL-6: Conduct a Survey of Inaccessible Properties to Assess**  
4           **Eligibility, Determine if These Properties Will Be Adversely Impacted by the Project, and**  
5           **Develop Treatment to Resolve or Mitigate Adverse Impacts**

6           **Mitigation Measure CUL-7: Conduct Cultural Resource Studies and Adopt Cultural**  
7           **Resource Mitigation Measures for Cultural Resource Impacts Associated with**  
8           **Implementation of CM2–CM21**

9           The impact that the loss of cultural resources from within the study area could have on minority and  
10          low-income populations under Alternative 4A would be the same as indicated under Alternative 4 in  
11          Chapter 28, *Environmental Justice*, of the Draft EIR/EIS because the period of construction,  
12          construction methods, and design of the water conveyance facility would be identical between the  
13          two alternatives. As discussed in greater detail under Alternative 4, the loss or damage to prehistoric  
14          cultural resources would result in a disproportionate effect on Native American populations and  
15          potentially other minorities. Despite the required mitigation measures and Native Consultation  
16          processes, construction of Alternative 4A is likely to result in adverse effects on prehistoric  
17          archaeological resources and human remains because the scale of the construction activities makes  
18          avoidance of all eligible resources infeasible. The effect on minority populations that may ascribe  
19          significance to cultural resources in the Delta would remain disproportionate even after mitigation  
20          because mitigation cannot guarantee that all resources would be avoided, or that effects on affected  
21          resources would be reduced. For these reasons this effect would be adverse because the effect  
22          would disproportionately accrue to a minority population.

23   **4.3.24.5      Public Services and Utilities**

24          The potential impact on minority and low-income communities associated with changes to the  
25          availability of public services and utilities under Alternative 4A would be the same as described for  
26          Alternative 4. The discussion of Alternative 4 in Section 20.3.3.9 of the Draft EIR/EIS addresses  
27          potential effects on utility infrastructure and public service providers, such as fire stations and  
28          police facilities. The following adverse effects on public services and utilities are relevant to the  
29          analysis:

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

32          **Impact UT-8: Effects on Public Services and Utilities as a Result of Implementing the**  
33          **Proposed CM2–CM11**

34          The impacts on public services and utilities located within the study area that could  
35          disproportionately affect minority and low-income populations under Alternative 4A would be the  
36          same as indicated disclosed under Alternative 4 in Chapter 28, *Environmental Justice*, of the Draft  
37          EIR/EIS because the period of construction, construction methods, and design of the water  
38          conveyance facility would be identical between the two alternatives. As discussed in greater detail  
39          under Alternative 4, the impact of constructing the proposed water conveyance facilities on public  
40          services and utilities would not result in a disproportionate effect on minority or low income  
41          populations because relocation of an existing known utility would affect the entire service area of

1 that utility. This effect would not be anticipated to result in a disproportionate effect on a minority  
2 or low-income population.

### 3 **4.3.24.6 Noise**

4 The potential impact on minority and low-income communities associated with noise occurring  
5 under Alternative 4A would be the same as described for Alternative 4. The discussion of Alternative  
6 4 in Section 23.4.3.9 of the Draft EIR/EIS identifies the following adverse effects associated with new  
7 sources of noise and vibration that would be introduced into the study area under Alternative 4. The  
8 following adverse effects and mitigation measure are relevant to this analysis.

#### 9 **Impact NOI-1: Exposure of Noise-Sensitive Land Uses to Noise from Construction of Water** 10 **Conveyance Facilities**

#### 11 **Impact NOI-2: Exposure of Sensitive Receptors to Vibration or Groundborne Noise from** 12 **Construction of Water Conveyance Facilities**

#### 13 **Impact NOI-4: Exposure of Noise-Sensitive Land Uses to Noise from Implementation of** 14 **Proposed CM2–CM21**

#### 15 **Mitigation Measure NOI-1a: Employ Noise-Reducing Construction Practices during** 16 **Construction**

#### 17 **Mitigation Measure NOI-1b: Prior to Construction, Initiate a Complaint/Response** 18 **Tracking Program**

#### 19 **Mitigation Measure NOI-2: Employ Vibration-Reducing Construction Practices during** 20 **Construction of Water Conveyance Facilities**

21 The impacts of noise and vibration generated during construction of the water conveyance facilities  
22 and resulting effects on minority and low-income communities occurring under Alternative 4A  
23 would be the same as indicated under Alternative 4 in Chapter 28, *Environmental Justice*, of the Draft  
24 EIR/EIS because the period of construction, construction methods, and design of the water  
25 conveyance facility would be identical between the two alternatives. As discussed in greater detail  
26 under Alternative 4, constructing the water conveyance facilities would generate noise in exceedance  
27 of daytime and nighttime noise standards in areas zoned as sensitive land uses including residential,  
28 natural/recreational, agricultural residential, and schools. Similarly, ground borne vibration from  
29 impact pile driving would exceed vibration thresholds in areas zoned for residential, including  
30 agricultural residential. This effect of noise and vibration generated during construction would  
31 remain adverse after application of mitigation. Because the alignment of the water conveyance  
32 facility is proximate to census blocks and block groups where meaningfully greater minority and  
33 low-income populations occur it is expected that generation of noise and vibration in exceedance of  
34 thresholds would result in a potentially disproportionate effect on minority and low-income  
35 populations.

36 Impacts of implementing conservation and stressor reduction components (Environmental  
37 Commitments 3, 4, 6–12, 15, and 16) under Alternative 4A would be expected to be similar to  
38 impacts of implementing CM2–CM11 under Alternative 4. However, because fewer acres would be  
39 restored under Alternative 4A, it is expected that noise and vibration generated would be less when

1 compared to Alternative 4. Nevertheless, it would be difficult to analyze potential disproportionate  
2 effects on environmental justice population because similar to CM3–CM11, the location of the  
3 conservation and stressor reduction components are not known. However, because of the  
4 distribution of minority and low-income populations in the study area, there is a potential for noise  
5 and vibration impacts to disproportionately affect these populations.

#### 6 **4.3.24.7 Public Health**

7 Section 4.3.21, *Public Health*, of this RDEIR/EIS, identifies the potential for construction, operation,  
8 and maintenance of Alternative 4A to mobilize or increase constituents known to bioaccumulate.  
9 The following adverse effects are relevant to this analysis.

#### 10 **Impact PH-3: Substantial Mobilization of or Increase in Constituents Known to Bioaccumulate** 11 **as a Result of Construction, Operation or Maintenance of the Water Conveyance Facilities**

12 The amount of tidal habitat restoration completed under Alternative 4A (Environmental  
13 Commitment 4) would be substantially less than under Alternative 4 CM4. To the extent that  
14 restoration actions alter hydrodynamics within the Delta region, which affects mixing of source  
15 waters, these effects are included in this assessment of operations-related water quality changes  
16 due to operation of the water conveyance facilities. Three intakes would be constructed and  
17 operated under Alternative 4A, similar to Alternative 4. Sediment-disturbing activities during  
18 construction and maintenance of the intake and other water conveyance facilities proposed near or  
19 in surface waters under this alternative could result in the disturbance of existing constituents in  
20 sediment, such as pesticides or methylmercury. The effects of Alternative 4A on pesticide levels in  
21 surface waters upstream of the Delta, in the Delta, and in the SWP/CVP Export Service Areas relative  
22 to Existing Conditions and the No Action Alternative (ELT and LLT) would be similar to or slightly  
23 less than those described for the Alternative 4. Alternative 4A would not result in increased  
24 tributary flows that would mobilize organochlorine pesticides in sediments.

25 If mercury is sequestered in sediments at water facility construction sites, it could become  
26 suspended in the water column during construction activities, opening up a new pathway into the  
27 food chain. Construction activities (e.g., pile driving and cofferdam installation) at intake sites or  
28 barge landing locations would result in a localized, short-term resuspension of sediment and an  
29 increase in turbidity that may contain elemental or methylated forms of mercury. Please see Chapter  
30 8, Section 8.1.3.9, *Mercury*, in Appendix A of the RDEIR/SDEIS for a discussion of methylmercury  
31 concentrations in sediments.

32 Changes in methylmercury concentrations under Alternative 4A are expected to be small. The  
33 greatest annual average methylmercury concentration for drought conditions would be 0.166 ng/L  
34 for the San Joaquin River at Buckley Cove (all scenarios) which was slightly lower than the No Action  
35 Alternative (ELT) (0.168 ng/L). Fish tissue estimates show only small or no increases in mercury  
36 concentrations based on long-term annual average concentrations for mercury at the Delta  
37 locations, but they would be different relative to the No Action Alternative (ELT). Under Operational  
38 Scenario H3 (Equation 2—see Chapter 8, *Water Quality*, of the Draft EIR/EIS) there would be 11% to  
39 12% percent increases at Staten Island and Rock Slough relative to the No Action Alternative (ELT)  
40 in all modeled years. Under Operational Scenario H4 there would be an 11% decrease relative to the  
41 No Action Alternative (ELT) for drought years. These changes are expected to be within the  
42 uncertainty inherent in the modeling approach (see Section 4.3.4, *Water Quality*, of this  
43 RDEIR/SDEIS for a discussion of the uncertainty associated with bioaccumulation models), and