10 Impact Overview

CHAPTER 10
Impact Overview

10.1 Significant Environmental Effects that Cannot Be Avoided if the Proposed Program Is Implemented

In accordance with Section 21067 of the California Environmental Quality Act (CEQA), and with Sections 15126(b) and 15126.2(b) of the CEQA Guidelines, the purpose of this section is to identify environmental impacts that could not be eliminated or reduced to a less-than-significant level by SFPUC construction measures included as part of the program or by other mitigation measures that could be implemented, as described in Chapter 6, Mitigation Measures. Findings in this chapter are subject to final determination by the Planning Commission as part of its certification of the PEIR.

Facility Construction Effects

The impacts associated with the facility improvement projects would occur primarily during the construction phase as opposed to the operations phase. Although most construction impacts would be short-term, they could pose significant effects. Construction of facility improvement projects could result in potential erosion and associated water quality and water resources effects, disruption of sensitive habitats and impacts on special-status species, impacts on cultural resources, short-term traffic delays and impaired access along project roadways, local and regional degradation of air quality, and short-term noise impacts. These impacts would be mitigated to less-than-significant levels by implementation of mitigation measures described in Chapter 6, Mitigation Measures, with the exception of the effects listed below. This PEIR makes a conservative determination that these effects would be potentially significant and unavoidable. When better facility siting information is available and the Major Environmental Analysis Section (MEA) of the San Francisco Planning Department completes detailed project-level CEQA review on the WSIP projects, it may be determined that these effects can be avoided or mitigated to a less-than-significant level.

- A ranch property in the Sunol Valley would be subject to 24-hour construction effects for the full duration of construction of the New Irvington Tunnel project, and such land use disruption is considered to be potentially significant and unavoidable even with implementation of traffic, noise, and air quality mitigation measures (Chapter 4, Section 4.3).

- Existing land uses could be displaced to accommodate proposed facilities at some locations under the following projects: San Joaquin Pipeline System, Additional 40-mgd Treated Water Supply, San Antonio Backup Pipeline, Bay Division Pipeline Reliability Upgrade, Crystal Springs/San Andreas Transmission Upgrade, Groundwater Projects, and Recycled Water Projects. Since final facility locations are undetermined at this time, any possible permanent displacement of existing land uses is conservatively considered to be potentially significant and unavoidable in this PEIR (Chapter 4, Section 4.3).

- Removal of a large area of existing oak woodland cover as part of the Calaveras Dam Replacement project would permanently alter a scenic vista, a potentially significant and unavoidable impact (Chapter 4, Section 4.3).

- Alteration or demolition of existing facilities under the following projects could result in potentially significant and unavoidable impacts on the historic significance of individual facilities: Calaveras Dam Replacement, New Irvington Tunnel, Crystal Springs/San Andreas Transmission Upgrade, and Lower Crystal Springs Dam Improvements (Chapter 4, Section 4.7).

- The Calaveras Dam Replacement and Crystal Springs/San Andreas Transmission Upgrade projects would result in potentially significant and unavoidable impacts on historic districts, if historic districts are determined to be present (Chapter 4, Section 4.7).

- Temporary construction-related noise impacts could occur under all facility improvement projects analyzed in the PEIR and would be potentially significant and unavoidable if excessive construction noise occurred in close proximity to sensitive receptors or audible construction noise occurred during the more noise-sensitive nighttime hours (Chapter 4, Section 4.10).

- Temporary noise disturbance could occur along construction haul routes under the following projects: Advanced Disinfection, San Joaquin Pipeline System, Rehabilitation of Existing San Joaquin Pipelines, Tesla Portal Disinfection Station, Bay Division Pipeline Reliability Upgrade, BDPL Nos. 3 and 4 Crossovers, Seismic Upgrade of BDPL Nos. 3 and 4 at Hayward Fault, Baden and San Pedro Valve Lots Improvements, HTWTP Long-Term Improvements, San Andreas Pipeline No. 3 Installation, Groundwater Projects, and Recycled Water Projects. This impact is conservatively considered potentially significant and unavoidable because haul routes, truck volumes, and hours of truck operations have not yet been determined for these projects (Chapter 4, Section 4.10).

- If any construction activities were to generate vibration in proximity to sensitive receptors during the nighttime hours, potentially significant and unavoidable vibration impacts could occur under the following projects: San Joaquin Pipeline System, Rehabilitation of Existing San Joaquin Pipelines, Additional 40-mgd Treated Water Supply, Bay Division Pipeline Reliability Upgrade, BDPL Nos. 3 and 4 Crossovers, Seismic Upgrade of BDPL Nos. 3 and 4 at Hayward Fault, Baden and San Pedro Valve Lots Improvements, San Andreas Pipeline No. 3 Installation, Groundwater Projects, and Recycled Water Projects (Chapter 4, Section 4.10).

- Combined or collective temporary impacts on residences near the Irvington Tunnel portal in Fremont (Bay Division Region) could result during construction because staging and access for both the New Irvington Tunnel and Bay Division Pipeline Reliability Upgrade projects would overlap in this vicinity. Since the feasibility of coordinating construction activities for these projects cannot be determined at this stage of project planning, such an

effect is conservatively considered to be potentially significant and unavoidable (Chapter 4, Section 4.16).

- Multiple facility improvement projects in the Sunol Valley Region would have a potentially significant and unavoidable collective impact on biological resources because of the number of WSIP projects in this region and the extent of overlap in terms of construction activity timing and location (Chapter 4, Section 4.16).

- Potentially significant and unavoidable collective impacts on special-status plant species could occur during construction of the Crystal Springs/San Andreas Transmission Upgrade and Lower Crystal Springs Dam projects in the Peninsula Region; incidental disturbance of plants along the road shoulder would be difficult to completely avoid, even with proposed mitigation measures (Chapter 4, Section 4.16).

- Multiple facility improvement projects within the Sunol Valley and Peninsula Regions could collectively cause substantial adverse changes to historic districts, but until more detailed assessments are completed to determine if any historic districts exist, this potential collective impact is conservatively considered to be potentially significant and unavoidable (Chapter 4, Section 4.16).

- Even with proposed control measures, construction-related criteria air pollutant emissions associated with all of the WSIP projects would have a potentially significant and unavoidable collective impact on air quality, since the projects would contribute to the nonattainment status for ozone and particulate matter in both the San Francisco Bay Area and San Joaquin Valley Air Basins (Chapter 4, Section 4.16).

- Since the hours of construction as well as haul routes, truck volumes, and hours of truck operations have not yet been determined for all facility improvement projects within the San Joaquin, Bay Division, Peninsula, and San Francisco Regions, there is the potential that collective noise impacts could result from construction of multiple WSIP projects near Tesla Portal, Irvington Tunnel portal in Fremont, and Lower Crystal Springs Dam. Also, there could be collective truck traffic increases along any overlapping haul routes in these regions. Given these unknowns, such collective effects are conservatively considered to be potentially significant and unavoidable (Chapter 4, Section 4.16).

- Several WSIP projects and several other SFPUC projects could cumulatively affect individual historical resources or potential historic districts (if historic districts are determined to be present), and until project-level analysis is completed, this cumulative effect is conservatively considered to be potentially significant and unavoidable (Chapter 4, Section 4.17).

- Construction-related traffic generated by the WSIP projects would contribute to potentially significant and unavoidable cumulative traffic impacts (e.g., increased travel times), particularly if the travel routes of individual drivers coincided with the construction routes for the WSIP projects, other SFPUC projects, and/or other public and private projects within one or more regions, and/or when construction vehicles associated with the cumulative projects utilize regional transportation facilities (Chapter 4, Section 4.17).

- Construction emissions associated with the WSIP projects, other SFPUC projects, and other public and private projects would cumulatively contribute to the nonattainment status for ozone and particulate matter, a potentially significant and unavoidable cumulative impact (Chapter 4, Section 4.17).

- Potential overlap of the WSIP's construction truck traffic with construction truck traffic of other public and private projects could result in cumulative increases in diesel particulate matter (DPM) and noise on local roadways. Since the SFPUC would have no control over the construction schedules or traffic routes for other projects outside its jurisdiction, potential DPM and noise impacts are considered to be potentially significant and unavoidable (Chapter 4, Section 4.17).

Facility Operations Effects

As described above, implementation of WSIP facility improvement projects would primarily result in short-term effects associated with facility construction. However, operational effects would occur, associated with long-term maintenance and operations activities, such as increased vehicle trips for routine maintenance of new facilities, the long term effect of new facilities on scenic vistas or scenic resources, and the effects of treated water discharge on water quality and aquatic resources. These impacts would be mitigated to less-than-significant levels by implementation of mitigation measures described in Chapter 6.

Water Supply and System Operations Effects

Chapter 5 of this PEIR addresses the effects of the proposed water supply and system operations on the Tuolumne River system, Alameda Creek system, Peninsula system, and Westside Basin Groundwater Resources. In addition, Chapter 5 identifies the cumulative effects of implementing the WSIP water supply option and system operations in combination with other past, present, and reasonably foreseeable future projects within each of these watersheds as well as effects related to climate change.

Due to the proposed increase in diversions from the Tuolumne River and associated changes in system operations, implementation of the WSIP would result in changes in reservoir levels and associated changes in downstream flows in rivers or creeks in the three affected watersheds. In all three watersheds, these hydrologic changes could in turn result in impacts on geomorphology of the water body, groundwater, water quality, fisheries, terrestrial biological resources, and recreational and visual resources. In the Tuolumne River watershed, changes in stream flow could also affect downstream water supplies and hydropower generation. In the Alameda Creek and Peninsula watersheds, implementation of the WSIP would include restoration of the historical storage capacities in Calaveras and Lower Crystal Springs Reservoirs, respectively, resulting in impacts on reservoir levels, downstream flows, fisheries, terrestrial biological resources, and visual resources. In addition, implementation of the WSIP would include development of groundwater supplies in the North Westside Groundwater Basin as well as a conjunctive-use program in the South Westside Groundwater Basin. Identified impacts on these resources were determined to be less than significant with implementation of the mitigation measures described in Chapter 6, with the exception of the following:

- The WSIP would result in a significant and unavoidable impact in the Alameda Creek watershed on the flow along Alameda Creek below the Alameda Creek Diversion Dam (Chapter 4, Section 5.4.1)

- The WSIP would result in a potentially significant and unavoidable impact in the Peninsula watershed on fishery resources in Crystal Springs Reservoir (Chapter 4, Section 5.5.5)

10.2 Significant Irreversible Environmental Changes

In accordance with Section 21100(b)(2)(B) of the CEQA, and with Sections 15126(c) and 15126.2(c) of the CEQA Guidelines, the purpose of this section is to identify significant irreversible environmental changes that would be caused by implementation of the proposed project. Construction and operational impacts associated with implementation of the WSIP projects would result in an irretrievable and irreversible commitment of natural resources through the use of fossil fuels and construction materials. Operation of project facilities would incrementally increase power consumption associated with water facilities, even though operation of SFPUC facilities would predominantly use hydropower. The program's incremental increased use of these resources, however, would not significantly increase the overall commitment of resources associated with water treatment and distribution. The program would involve only minor incremental use of nonrenewable resources and would locate facilities primarily on lands already committed to water treatment and supply purposes. Furthermore, since the SFPUC would implement the mitigation measures identified in this PEIR in concert with other ongoing stewardship and watershed protection activities, implementation of the WSIP would not result in significant irreversible environmental changes. When completed, the program would provide a high level of public health protection against potential seismic hazards as well as increase the long-term reliability of the drinking water to customers throughout the SFPUC service area.