Appendix D

WSIP PEIR WATER SUPPLY IMPACT AND MITIGATION AND CONSISTENCY ANALYSIS

APPENDIX D:
WSIP PEIR WATER SUPPLY IMPACT AND MITIGATION AND CONSISTENCY ANALYSIS

SFPUC REGIONAL GROUNDWATER STORAGE AND RECOVERY PROJECT (CASE NO. 2008.1396E)

The Regional Groundwater Storage and Recovery project (GSR or proposed Project) was analyzed at a program-level in the Water System Improvement Program (WSIP) Program Environmental Impact Report (PEIR)[1] as one of the facility improvement projects under the WSIP. The project details presented in the PEIR were based on the best information available at that time with respect to project design and construction. Details regarding project design, facility layout, construction, staging areas, and other project elements were not available at the time the PEIR was prepared.

The GSR EIR provides a detailed, project-level analysis of the proposed Project based on site-specific and up-to-date information developed subsequent to the preparation of the PEIR. Subsequent to publication of the PEIR, several modifications were made to the GSR Project as more detailed information regarding Project impacts was developed during Project design and site-specific analyses. Although the use of the Westside Groundwater Basin for the GSR Project was identified and analyzed in the PEIR, the location of each proposed well was not specifically identified in the PEIR. Additionally, the analysis of potential impacts of three alternate well sites is included in the project-level EIR to ensure that a total 16 out of 19 possible well sites could be operated, in the case where up to three of the preferred sites were found to be infeasible. However, the Project would only operate a total of 16 wells. Alternate pipeline connections, as well as on-site and consolidated treatment options for three well facilities, are also addressed in the EIR.

Tables D-1a through D-1e summarize the WSIP water supply and system operations impacts and the associated mitigation measures for each geographic region as presented in the PEIR. The reader is referred to the complete WSIP PEIR for a detailed explanation of these summary tables. Note that the categories of significance used in the PEIR are slightly different than those used in this EIR (see table footnotes in Tables D-1a through D-1e).

Table D-2 evaluates the consistency of the project-level impact analysis in the Groundwater Storage and Recovery EIR with the program-level impact analysis previously conducted in the PEIR. Where significance determinations vary between these documents, a brief explanation of the rationale for this determination is provided.

[1] San Francisco Planning Department, Final Program Environmental Impact Report for the San Francisco Public Utilities Commission's Water System Improvement Program, File No. 2005-0159E, State Clearinghouse No. 2005092026. Certified October 30, 2008.

Table D-3 lists the programmatic mitigation measures identified in the WSIP PEIR and indicates which of these mitigation measures are applicable to the GSR Project. For the programmatic mitigation measures that are applicable, the table identifies the comparable project-level mitigation measure identified in the GSR Project EIR that either relies on the programmatic measures or identified an equivalent or better site-specific mitigation measure to address the programmatic mitigation measure. The table also provides an explanation for those programmatic mitigation measures that are not applicable to the GSR Project.

TABLE D-1a
Summary of Water Supply Impacts and Mitigation Measures—Tuolumne River System and Downstream Water Bodies

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
STREAM FLOW						
Impact 5.3.1-1: Effects on flow along the Tuolumne River below O'Shaughnessy Dam.	LS					None required.
Impact 5.3.1-2: Effects on flow along Cherry Creek below Cherry Dam.	LS					None required.
Impact 5.3.1-3: Effects on flow along Eleanor Creek below Eleanor Dam.	LS					None required.
Impact 5.3.1-4: Effects on flow along the Tuolumne River below La Grange Dam.	LS					None required.
Impact 5.3.1-5: Effects on flow along the San Joaquin River and the Sacramento–San Joaquin Delta.	LS					None required.
GEOMORPHOLOGY						
Impact 5.3.2-1: Effects on sediment transport and channel characteristics between O'Shaughnessy Dam and Don Pedro Reservoir.	LS					None required.

TABLE D-1a
Summary of Water Supply Impacts and Mitigation Measures—Tuolumne River System and Downstream Water Bodies

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
Impact 5.3.2-2: Effects on sediment transport and channel characteristics below La Grange Dam.	LS					None required.
SURFACE WATER QUALITY						
Impact 5.3.3-1: Effects on water quality in Hetch Hetchy Reservoir and along the Tuolumne River below O'Shaughnessy Dam.	LS					None required.
Impact 5.3.3-2: Effects on water quality in Don Pedro Reservoir and along the Tuolumne River below La Grange Dam.	LS					None required.
Impact 5.3.3-3: Effects on water quality along the San Joaquin River and the Sacramento–San Joaquin Delta.	LS					None required.
SURFACE WATER SUPPLIES						
Impact 5.3.4-1: Effects on Tuolumne River, San Joaquin River, and Stanislaus River water users.	LS					None required.
Impact 5.3.4-2: Effects on Delta water users.	LS					None required.

TABLE D-1a
Summary of Water Supply Impacts and Mitigation Measures—Tuolumne River System and Downstream Water Bodies

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
GROUNDWATER						
Impact 5.3.5-1: Alteration of stream flows along the Tuolumne River, which could affect local groundwater recharge and groundwater levels.	LS					None required.
Impact 5.3.5-2: Alteration of stream flows along the Tuolumne River, which could affect local groundwater quality.	LS					None required.
FISHERIES						
Impact 5.3.6-1: Effects on fishery resources in Hetch Hetchy Reservoir.	LS					None required.
Impact 5.3.6-2: Effects on fishery resources along the Tuolumne River between Hetch Hetchy Reservoir and Don Pedro Reservoir.	LS					None required.
Impact 5.3.6-3: Effects on fishery resources in Don Pedro Reservoir.	LS					None required.

TABLE D-1a
Summary of Water Supply Impacts and Mitigation Measures—Tuolumne River System and Downstream Water Bodies

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
Impact 5.3.6-4: Effects on fishery resources along the Tuolumne River below La Grange Dam.	LS when average annual deliveries from the watersheds are maintained at 265 mgd or less; PSM if deliveries exceed 265 mgd					**Measure 5.3.6-4a, Avoidance of Flow Changes by Reducing Demand for Don Pedro Reservoir Water:** The SFPUC will pursue a water transfer arrangement with MID/TID and/or other water agencies which would offset the WSIP's effects on water storage in Don Pedro Reservoir and minimize WSIP-induced changes in releases from La Grange Dam. **If Measure 5.3.6-4a proves to be infeasible, the SFPUC will implement Measure 5.3.6-4b. **Measure 5.3.6-4b, Fishery Habitat Enhancement:** The SFPUC will implement or fund one of two fishery habitat enhancement projects that are consistent with the Lower Tuolumne River Restoration Plan; augmentation of spawning gravel at three selected sites or the filling or isolation from the river of one of the existing inactive quarry pits.
Impact 5.3.6-5: Effects on fishery resources along the San Joaquin River.	LS					None required.

TABLE D-1a
Summary of Water Supply Impacts and Mitigation Measures—Tuolumne River System and Downstream Water Bodies

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
TERRESTRIAL BIOLOGY						
Impact 5.3.7-1: Impacts on riparian habitat and related biological resources in Hetch Hetchy Reservoir and along the bedrock channel portions of the Tuolumne River from O'Shaughnessy Dam to Don Pedro Reservoir.		LS	LS	LS	LS	None required.
Impact 5.3.7-2: Impacts on alluvial features that support meadow and riparian habitat along the Tuolumne River from O'Shaughnessy Dam to Don Pedro Reservoir.		PSM	PSM	PSM	PSM	The SFPUC will implement Measure 5.3.7-2 to reduce adverse impacts on sensitive habitats, key special-status species, other species of concern, and common habitats and species to a less-than-significant level. **Measure 5.3.7-2, Controlled Releases to Recharge Groundwater in Streamside Meadows and Other Alluvial Deposits:** The SFPUC will manage releases to the Tuolumne River from Hetch Hetchy Reservoir during the spring with the goal of recharging groundwater that supports meadow and riparian habitat. The SFPUC will periodically survey meadow habitat to determine the efficacy of release management and will modify releases as necessary to sustain meadow habitat.
Impact 5.3.7-3: Impacts on biological resources in Lake Eleanor and along Eleanor Creek.		LS	LS	LS	LS	None required.

TABLE D-1a
Summary of Water Supply Impacts and Mitigation Measures—Tuolumne River System and Downstream Water Bodies

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
Impact 5.3.7-4: Impacts on biological resources in Lake Lloyd and along Cherry Creek.		LS	LS	LS	LS	None required.
Impact 5.3.7-5: Impacts on biological resources in Don Pedro Reservoir.		LS	LS	LS	LS	None required.
Impact 5.3.7-6: Impacts on biological resources along the Tuolumne River below La Grange Dam.		LS when average annual deliveries from the watersheds are maintained at 265 mgd or less; PSM if deliveries exceed 265 mgd	LS when average annual deliveries from the watersheds are maintained at 265 mgd or less; PSM if deliveries exceed 265 mgd	LS when average annual deliveries from the watersheds are maintained at 265 mgd or less; PSM if deliveries exceed 265 mgd	LS when average annual deliveries from the watersheds are maintained at 265 mgd or less; PSM if deliveries exceed 265 mgd	The SFPUC will implement Measures 5.3.6-4a or 5.3.7-6 to reduce adverse impacts on sensitive habitats, key special-status species, other species of concern, and common habitats and species to a less-than-significant level. **Measure 5.3.6-4a, Avoidance of Flow Changes by Reducing Demand for Don Pedro Reservoir Water** – see description above. **If Measure 5.3.6-4a proves to be infeasible, the SFPUC will implement Measure 5.3.7-6. **Measure 5.3.7-6, Lower Tuolumne River Riparian Habitat Enhancement:** Consistent with the Lower Tuolumne River Restoration Plan, the SFPUC will protect and enhance one mile of riparian vegetation within the contemporary floodplain.
Impact 5.3.7-7: Conflicts with the provisions of adopted conservation plans or other approved biological resources plans for the Tuolumne Wild and Scenic River.		LS				None required.

TABLE D-1a
Summary of Water Supply Impacts and Mitigation Measures—Tuolumne River System and Downstream Water Bodies

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
RECREATIONAL AND VISUAL RESOURCES						
Impact 5.3.8-1: Effects on reservoir recreation due to changes in water system operations.	LS					None required.
Impact 5.3.8-2: Effects on river recreation due to changes in water system operations.	LS					None required.
Impact 5.3.8-3: Effects on the aesthetic values of the Tuolumne Wild and Scenic River.	LS					None required.
ENERGY RESOURCES						
Impact 5.3.9-1: Effects on hydropower generation at facilities along the Tuolumne River	B					None required.

NI = No Impact

LS = Less than Significant Impact

PSM = Potentially Significant Impact, Mitigable

SU= Significant Unavoidable Impact

B = Beneficial effect

NA = Not Applicable

TABLE D-1b
Summary of Water Supply Impacts and Mitigation Measures—Alameda Creek Watershed

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
STREAM FLOW						
Impact 5.4.1-1: Effects on flow along Calaveras Creek below Calaveras Reservoir.	LS					None required
Impact 5.4.1-2: Effects on flow along Alameda Creek below the diversion dam.	SU **(Note: subsequent to certification of the WSIP PEIR, this determination was changed to LS[2])**					**Measure 5.4.1-2, Diversion Tunnel Operation:** The SFPUC will implement operational criteria for the diversion dam which will require that water not needed to fill Calaveras Reservoir would be released to Alameda Creek below the diversion dam. **(Note: because Impact 5.4.1-2 was determined to be LS subsequent to certification of the WSIP PEIR, this mitigation measure is no longer required for program implementation.)**
Impact 5.4.1-3: Effects in San Antonio Reservoir and along San Antonio Creek.	LS					None required.

[2] Based on the best available information at that time, the WSIP PEIR made the conservative determination that the WSIP would result in a significant and unavoidable impact related to flow along Alameda Creek below the Alameda Creek Diversion Dam ("Alameda Creek Hydrologic Impact") (see PEIR Chapter 4, Section 5.4.1, Impact 5.4.1-2). Based upon more detailed site-specific data and analysis, the project-level analysis in the Calaveras Dam Replacement Project EIR modified this PEIR impact determination to be less than significant (San Francisco Planning Department 2011).

TABLE D-1b
Summary of Water Supply Impacts and Mitigation Measures—Alameda Creek Watershed

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
Impact 5.4.1-4: Effects on flow along Alameda Creek below the confluence of San Antonio Creek.	LS					None required.
GEOMORPHOLOGY						
Impact 5.4.2-1: Effects on channel formation and sediment transport along Calaveras Creek.	LS					None required.
Impact 5.4.2-2: Effects on channel formation and sediment transport along Alameda Creek downstream of the diversion dam and downstream of the San Antonio Creek confluence.	LS					None required.
Impact 5.4.2-3: Effects on channel formation and sediment transport along San Antonio Creek downstream of San Antonio Reservoir.	LS					None required.
SURFACE WATER QUALITY						
Impact 5.4.3-1: Effects on water quality in Calaveras Reservoir.	LS					None required.
Impact 5.4.3-2: Effects on water quality in San Antonio Reservoir.	LS					None required.
Impact 5.4.3-3: Changes in water quality along Calaveras, San Antonio, and Alameda Creeks.	LS					None required.

TABLE D-1b
Summary of Water Supply Impacts and Mitigation Measures—Alameda Creek Watershed

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
GROUNDWATER BODIES						
Impact 5.4.4-1: Changes in groundwater levels, flows, quality, and supplies.	LS					None required.
FISHERIES						
Impact 5.4.5-1: Effects on fishery resources in Calaveras Reservoir.	B					None required.
Impact 5.4.5-2: Effects on fishery resources along Calaveras Creek below Calaveras Dam and along Alameda Creek below confluence with Calaveras Creek.	B					None required.
Impact 5.4.5-3: Effects on fishery resources along Alameda Creek downstream of Alameda Creek Diversion Dam.	PSM					**Measure 5.4.5-3a, Minimum Flows for Resident Trout on Alameda Creek:** The SFPUC will release a minimum flow of approximately 10 cubic feet per second from the diversion dam and monitor the effects of the release on resident trout spawning and egg incubation. ** If monitoring results for Measure 5.4.5-3a indicate the measure is unsuccessful, the SFPUC will implement Measure 5.4.5-3b. **Measure 5.4.5-3b, Alameda Diversion Dam Restrictions or Fish Screens:** If after 10 years the minimum release does

TABLE D-1b
Summary of Water Supply Impacts and Mitigation Measures—Alameda Creek Watershed

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
						not sustain the resident trout population, the SFPUC will either increase releases from the diversion dam or install a fish passage barrier on the diversion tunnel.
Impact 5.4.5-4: Effects on fishery resources in San Antonio Reservoir.	B					None required.
Impact 5.4.5-5: Effects on fishery resources along San Antonio Creek below San Antonio Reservoir.	LS					None required.
Impact 5.4.5-6: Effects on fishery resources along Alameda Creek below confluence with San Antonio Creek.	LS					None required.
TERRESTRIAL BIOLOGY						
Impact 5.4.6-1: Effects on riparian habitat and related biological resources in Calaveras Reservoir.		PSM	PSM	LS	LS	The SFPUC will implement Measure 5.4.6-1 to reduce adverse impacts on sensitive habitats and key special-status species to a less-than-significant level. **Measure 5.4.6-1, Compensation for Impacts on Terrestrial Biological Resources:** The SFPUC will protect, restore, and enhance existing riparian habitat and/or create new habitat that compensates for WSIP-induced habitat losses at Calaveras Reservoir. Compensatory habitat may be provided

TABLE D-1b
Summary of Water Supply Impacts and Mitigation Measures—Alameda Creek Watershed

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
						as part of the SFPUC's Habitat Reserve Program.
Impact 5.4.6-2: Effects on riparian habitat and related biological resources along Alameda Creek, from below the diversion dam to the confluence with Calaveras Creek.		LS	PSM	LS	NA	The SFPUC will implement Measures 5.4.1-2 and 5.4.5-3a to reduce adverse impacts on key special-status species to a less-than-significant level. **Measure 5.4.1-2, Diversion Tunnel Operation** – see description above. **Measure 5.4.5-3a, Minimum Flows for Resident Trout on Alameda Creek** – see description above.
Impact 5.4.6-3: Effects on riparian habitat and related biological resources along Calaveras Creek, from Calaveras Reservoir to the confluence with Alameda Creek.		LS	PSM	LS	LS	The SFPUC will implement Measure 5.4.6-3 to reduce adverse impacts on key special-status species to a less-than-significant level. **Measure 5.4.6-3, Operational Procedures for Calaveras Dam Releases:** The SFPUC will manage releases from Calaveras Reservoir to mimic a more natural hydrologic regime in the creek for the benefit of terrestrial biological resources. The specifics of this mitigation measure will be determined as part of project-level CEQA review.

TABLE D-1b
Summary of Water Supply Impacts and Mitigation Measures—Alameda Creek Watershed

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
Impact 5.4.6-4: Effects on riparian habitat and related biological resources along Alameda Creek, from the confluence with Calaveras Creek to the confluence with San Antonio Creek.		LS	PSM	LS	LS	The SFPUC will implement Measures 5.4.6-3 and 5.4.5-3a to reduce adverse impacts on key special-status species to a less-than-significant level. **Measure 5.4.6-3, Operational Procedures for Calaveras Dam Releases** – see description above. **Measure 5.4.5-3a, Minimum Flows for Resident Trout on Alameda Creek** – see description above.
Impact 5.4.6-5: Effects on riparian habitat and related biological resources in San Antonio Reservoir.		LS	LS	LS	LS	None required.
Impact 5.4.6-6: Effects on riparian habitat and related biological resources along San Antonio Creek between Turner Dam and the confluence with Alameda Creek.		LS	LS	LS	NA	None required.
Impact 5.4.6-7: Effects on riparian habitat and related biological resources along Alameda Creek below the confluence with San Antonio Creek.		LS	LS	LS	NA	None required.

TABLE D-1b
Summary of Water Supply Impacts and Mitigation Measures—Alameda Creek Watershed

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
Impact 5.4.6-8: Conflicts with the provisions of adopted conservation plans or other approved biological resources plans.		LS				None required.
RECREATION AND VISUAL						
Impact 5.4.7-1: Effects on recreational facilities and/or activities.	LS					None required.
Impact 5.4.7-2: Visual effects on scenic resources or visual character of the water bodies.	LS					None required.

NI = No Impact

LS = Less than Significant

PSM = Potentially Significant, Mitigable

SU= Significant and Unavoidable

B = Beneficial

NA = Not Applicable

TABLE D-1c
Summary of Water Supply Impacts and Mitigation Measures—Peninsula Watersheds

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
STREAM FLOW						
Impact 5.5.1-1: Effects on flow along San Mateo Creek.	LS					None required.
Impact 5.5.1-2: Effects on flow along Pilarcitos Creek.	LS					None required.
GEOMORPHOLOGY						
Impact 5.5.2-1: Changes in sediment transport and channel morphology in the Peninsula watershed.	LS					None required.
WATER QUALITY						
Impact 5.5.3-1: Effects on water quality in Crystal Springs Reservoir, San Andreas Reservoir, and San Mateo Creek.	LS					None required.
Impact 5.5.3-2: Effects on water quality in Pilarcitos Reservoir and along Pilarcitos Creek.	PSM					**Measure 5.5.3-2a, Low-head Pumping Station at Pilarcitos Reservoir:** The SFPUC will install a permanent low-head pumping station at Pilarcitos Reservoir which would enable the SFPUC to access and use an additional 350 acre-feet of water from Pilarcitos Reservoir. In years when the WSIP would cause releases from Pilarcitos Reservoir to Pilarcitos Creek to be reduced to reservoir inflow earlier in the summer than under the existing condition (about 25 percent of years in the

TABLE D-1c
Summary of Water Supply Impacts and Mitigation Measures—Peninsula Watersheds

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
						hydrologic record), the SFPUC will use the pumping station to augment flow in Pilarcitos Creek with water from the reservoir. The pumping station will draw water from the cool pool of water below the thermocline during times when the reservoir is stratified. The pumping station outlet will be designed to ensure that water discharged to the creek is adequately aerated. **Measure 5.5.3-2b, Aeration System at Pilarcitos Reservoir:** The SFPUC will install a permanent aeration system at Pilarcitos Reservoir. The SFPUC will operate the aeration system as necessary to avoid anoxic conditions and maintain good water quality conditions at the reservoir.
GROUNDWATER						
Impact 5.5.4-1: Alteration of stream flows along Pilarcitos Creek, which could affect groundwater levels and water quality.	LS					None required.

TABLE D-1c
Summary of Water Supply Impacts and Mitigation Measures—Peninsula Watersheds

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
FISHERIES						
Impact 5.5.5-1: Effects on fishery resources in Crystal Springs Reservoir (Upper and Lower).	PSU **(Note: subsequent to certification of the WSIP PEIR, this determination was changed to LS[3])**					**Measure 5.5.5-1, Create New Spawning Habitat Above Crystal Springs Reservoir:** The SFPUC will survey the extent and quality of fish spawning habitat lost due to inundation and, if feasible, create new spawning habitat at a higher elevation. The specifics of this mitigation measure will be determined as part of project-level CEQA review. **(Note: because Impact 5.5.5-5 was determined to be LS subsequent to certification of the WSIP PEIR, this mitigation measure is no longer required for program implementation).**
Impact 5.5.5-2: Effects on fishery resources in San Andreas Reservoir.	LS					None required.
Impact 5.5.5-3: Effects on fishery resources along San Mateo Creek.	LS					None required.

[3] Based on the best available information at that time, the WSIP PEIR made the conservative determination that the WSIP could result in a significant and unavoidable impact on fishery resources in Crystal Springs Reservoir related to inundation of spawning habitat upstream of the reservoir (see PEIR Chapter 5, Section 5.5.5, Impact 5.5.5-1). Project-level review of updated, site-specific information that was developed following certification of the PEIR was incorporated into the project-level EIR for the Lower Crystal Springs Dam Improvements Project, and the project-level analysis determined that impacts on fishery resources due to inundation effects would be less than significant (San Francisco Planning Department 2010).

TABLE D-1c
Summary of Water Supply Impacts and Mitigation Measures—Peninsula Watersheds

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
Impact 5.5.5-4: Effects on fishery resources in Pilarcitos Reservoir.	PSM					**Measure 5.5.3-2b, Aeration System at Pilarcitos Reservoir –** see description above.
Impact 5.5.5-5: Effects on fishery resources along Pilarcitos Creek below Pilarcitos Reservoir.	PSM					**Measure 5.5.3-2a, Low-head Pumping Station at Pilarcitos Reservoir –** see description above. **Measure 5.5.5-5 Establish Flow Criteria, Monitor and Augment Flow –** The SFPUC will develop a monitoring and operations plan for Stone Dam to ensure WSIP-related flow reductions downstream of Stone Dam do not impair steelhead passage and spawning during the winter months of normal and wetter hydrologic years.
TERRESTRIAL BIOLOGY						
Impact 5.5.6-1: Impacts on biological resources in Upper and Lower Crystal Springs Reservoirs.		PSM	PSM	PSM	PSM	The SFPUC will implement Measures 5.5.6-1a and 5.5.6-1b to reduce adverse impacts on sensitive habitats, key special-status species, other species of concern, and common habitats and species to a less-than-significant level. In addition, the SFPUC will implement Measure 5.5.6-1c to mitigate adverse impacts on key special-status plant species (i.e., fountain thistle) adapted to serpentine seeps.

TABLE D-1c
Summary of Water Supply Impacts and Mitigation Measures—Peninsula Watersheds

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
						Measure 5.5.6-1a, Adaptive Management of Freshwater Marsh and Wetlands at Upper and Lower Crystal Springs Reservoirs: The SFPUC will develop an adaptive management plan to minimize adverse effects of the WSIP-induced rise in average water levels, and periodic drawdown of reservoir water levels for maintenance, on San Francisco garter snakes and red-legged frogs. **Measure 5.5.6-1b, Compensation for Impacts on Terrestrial Biological Resources:** The SFPUC will protect, restore, and enhance existing wetland and upland habitat and/or create new habitat that compensates for WSIP-induced habitat losses at Crystal Springs Reservoir. Compensatory habitat may be provided as part of the SFPUC's Habitat Reserve Program. **Measure 5.5.6-1c, Compensation for Serpentine Seep-Related Special-Status Plants:** The SFPUC will protect, restore, and enhance existing habitat and/or create new habitat that compensates for WSIP-induced habitat losses for plant species adapted to serpentine seeps.

TABLE D-1c
Summary of Water Supply Impacts and Mitigation Measures—Peninsula Watersheds

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
Impact 5.5.6-2: Impacts on biological resources in San Andreas Reservoir.		LS	LS	LS	LS	None required.
Impact 5.5.6-3: Impacts on biological resources along San Mateo Creek below Lower Crystal Springs Dam.		LS	LS	LS	LS	None required.
Impact 5.5.6-4: Impacts on biological resources in Pilarcitos Reservoir.		LS	PSM	LS	LS	**Measure 5.5.3-2c, Habitat monitoring and Compensation:** The SFPUC will protect, restore, and enhance existing habitat and/or create new habitat that compensates for WSIP-induced habitat losses at Pilarcitos Reservoir. Compensatory habitat may be provided as part of the SFPUC's Habitat Reserve Program.
Impact 5.5.6-5: Impacts on biological resources along Pilarcitos Creek below Pilarcitos Reservoir.		LS	LS	LS	LS	None required.
Impact 5.5.6-6: Impacts along Pilarcitos Creek below Stone Dam.		LS	LS	LS	LS	None required.
Impact 5.5.6-7: Conflicts with the provisions of adopted conservation plans or other approved biological resource plans.		LS				None required.

TABLE D-1c
Summary of Water Supply Impacts and Mitigation Measures—Peninsula Watersheds

Impact	Significance Determination					Mitigation Measures
	All Impacts (except Biological Resources)	Biological Resource Impacts				
		Sensitive Habitats	Key Special-Status Species	Other Species of Concern	Common Habitats and Species	
RECREATIONAL AND VISUAL RESOURCES						
Impact 5.5.7-1: Effects on recreational facilities and/or activities.	LS					None required.
Impact 5.5.7-2: Visual effects on scenic resources or the visual character of water bodies.	LS					None required.

NI = No Impact

LS = Less than Significant

PSM = Potentially Significant, Mitigable

SU= Significant and Unavoidable

B = Beneficial

NA = Not Applicable

TABLE D-1d
Summary of Water Supply Impacts and Mitigation Measures—Westside Groundwater Basin

Impact	Significance Determination		Mitigation Measures
	North Westside Groundwater Basin	South Westside Groundwater Basin	
RECREATIONAL AND VISUAL RESOURCES			
Impact 5.6-1: Basin overdraft due to pumping from the Westside Groundwater Basin.	PSM	LS	The SFPUC will implement Measure 5.6.1 to reduce adverse impacts on the North Westside Groundwater Basin to a less-than-significant level. **Measure 5.6-1, Groundwater Monitoring to Determine Basin Safe Yield:** The SFPUC will continue ongoing groundwater and lake level monitoring programs to determine the safe yield of the North Westside Groundwater Basin in order to avoid overdraft and associated effects including adverse effects on surface water features and seawater intrusion.
Impact 5.6-2: Changes in water levels in Lake Merced and other surface water features, including Pine Lake, due to decreased groundwater levels in the Westside Groundwater Basin.	PSM	NA	The SFPUC will implement Measures 5.6.1 and 5.6-2 to reduce adverse impacts on the North Westside Groundwater Basin to a less-than-significant level. **Measure 5.6-1, Groundwater Monitoring to Determine Basin Safe Yield** – see description above. **Measure 5.6-2, Implementation of a Lake Level Management Plan:** The SFPUC will develop and implement a lake level management plan identifying strategies for altering pumping patterns or lake augmentation to maintain Lake Merced water levels within the desired long-term range.
Impact 5.6-3: Seawater intrusion due to decreased groundwater levels in the Westside Groundwater Basin.	PSM	LS	The SFPUC will implement Measure 5.6.1 to reduce adverse impacts on the North Westside Groundwater Basin to a less-than-significant level. **Measure 5.6-1, Groundwater Monitoring to Determine Basin Safe Yield** – see description above.
Impact 5.6-4: Land subsidence due to decreased groundwater levels in the Westside Groundwater Basin if the historical low water levels are exceeded.	LS	LS	None required.
Impact 5.6-5: Contamination of drinking water due to groundwater pumping in the Westside Groundwater Basin.	PSM	PSM	The SFPUC will implement Measure 5.6.5 to reduce adverse impacts on the North Westside and South Westside Groundwater Basins to a less-than-significant level. **Measure 5.6.5, Drinking Water Source Assessments for Groundwater Wells:** The SFPUC will develop and implement a source water protection program for wells constructed under the Local and Regional Groundwater Projects that are considered vulnerable to contamination on the basis of the drinking water source assessment prepared in accordance with Department of Public Health Services regulations.

TABLE D-1d
Summary of Water Supply Impacts and Mitigation Measures—Westside Groundwater Basin

Impact	Significance Determination		Mitigation Measures
	North Westside Groundwater Basin	South Westside Groundwater Basin	
Impact 5.6-6: Drinking water contaminants above maximum contaminant levels and adverse effects of adding treated groundwater to the distribution system.	LS	LS	None required.

NI = No Impact

LS = Less than Significant

PSM = Potentially Significant , Mitigable

SU= Significant and Unavoidable

B = Beneficial

NA = Not Applicable

TABLE D-1e
Summary of Water Supply Impacts and Mitigation Measures—Cumulative Water Supply

Cumulative Water Supply Impact	Cumulative Impact Significance Determination							Mitigation Measures
	Hydrology	Geomorphology	Surface Water Quality	Groundwater	Fisheries	Terrestrial Biology	Recreation / Visual Quality	
Impact 5.7.2-1: Tuolumne River – Hetch Hetchy Reservoir to Don Pedro Reservoir.	LS	LS	LS	LS	LS	LS	LS	None required.
Impact 5.7.2-2: Tuolumne River – Don Pedro Reservoir to the San Joaquin River.	LS	LS	LS	LS	LS	LS	LS	None required.
Impact 5.7.2-3: San Joaquin River, Stanislaus River, and the Delta.	LS	LS	LS	LS	LS	LS	LS	None required.
Impact 5.7.3-1: Alameda Creek watershed.	NA	LS	LS	LS	LS	LS	LS	None required.
Impact 5.7.4-1: San Mateo Creek watershed.	LS	LS	LS	LS	LS	LS	LS	None required.
Impact 5.7.4-2: Pilarcitos Creek watershed.	LS	LS	LS	LS	LS	LS	LS	None required.
Impact 5.7.5-1: North Westside Groundwater Basin.	LS							None required.
Impact 5.7.5-2: South Westside Groundwater Basin.	LS							None required.

NOTE: Significance determinations presented in this table assume implementation of all mitigation measures as they are presented in PEIR Chapter 5, Section 5.6, and described in Chapter 6.

NI = No Impact

LS = Less than Significant

PSM = Potentially Significant, Mitigable

SU= Significant and Unavoidable

B = Beneficial

NA = Not Applicable

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Land Use				
Impact 4.3-1: Temporary disruption or displacement of existing land uses during construction.	PSM	SUM	N	See Impact LU-1: Project construction would have a substantial impact on the existing character of the vicinity and could substantially disrupt or displace existing land uses or land use activities. The PEIR assumed that the 24-hour construction activities would be required for well facility construction and assumed that a new well would be constructed at the Francis Scott Key Elementary School. The analysis assumed that construction activities could disrupt sensitive land uses such as schools and nearby residential uses but implementation of SFPUC Construction Measures #1, #3, #5, #6, #10 and mitigation measures identified in PEIR Chapter 6, would reduce the impact to less than significant. The project-level analysis determined that nighttime construction associated with well drilling would, at some sites, cause temporary construction-noise impacts which feasible mitigation measures cannot reduce to less-than-significant levels. Therefore, the project-level impact would be significant and unavoidable.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.3-2: Permanent displacement or long-term disruption of existing land uses.	PSU	LSM	N	See Impact LU-2: Project operations would result in substantial long-term or permanent impacts on the existing character or disrupt or displace land uses. The PEIR conservatively assumed that the PEIR Regional Groundwater Projects could include sites adjacent to Francis Scott Key School or other sites in San Francisco and northern San Mateo County, which could have resulted in significant and unavoidable impacts on these sensitive land uses even with implementation of SFPUC Construction Measures #6 (compliance with local noise ordinances to the extent feasible) and #10 (locating staging areas away from public view and directing nighttime lighting away from residential areas) as well as recommendations of facility siting studies (Measure 4.3-2). The project-level analysis determined that operation of some of the well facilities would generate nighttime noise levels that could be significant at nearby residences. Implementation of Mitigation Measure M-NO-5 (Operational Noise Control Measures) would reduce noise levels to less-than-significant levels.
Impact 4.17-1: Cumulative disruption of established communities, changes in existing land use patterns, and impacts on the existing visual character.	LS	Land Use - SUM	N	See Impact C-LU-1: Construction and operation of the proposed Project could result in a cumulatively considerable contribution to cumulative impacts related to land use. The PEIR determined that cumulative development in the vicinity of WSIP projects could disrupt established communities and significantly alter existing land use patterns. However, implementation of SFPUC construction measures and PEIR Measure 4.3-2 would reduce the WSIP's land use and visual impact to less than significant. The project-level analysis determined that both nighttime and daytime construction noise at some well sites would result in significant disruptions to land use, and that combined with impacts of cumulative projects, cumulative land use impacts would be significant and unavoidable.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
		Visual Character - LSM	N	See Impact C-AE-1: Construction and operation of the proposed Project could result in a cumulatively considerable contribution to cumulative impacts related to scenic resources and visual character. The PEIR determined that cumulative development in the vicinity of WSIP projects could disrupt established communities and significantly alter existing land use patterns. However, implementation of SFPUC construction measures and PEIR Measure 4.3-2 would reduce the WSIP's land use and visual impact to less than significant. The project-level analysis identified the potential for cumulative impacts to visual character from multiple construction projects in the same geographic area. Implementation of mitigation would reduce the impact such that the GSR Project's contribution to cumulative impacts would not be cumulatively considerable.
Visual				
Impact 4.3-3: Temporary construction impacts on scenic vistas or visual character.	LS	SUM	N	See Impact AE-1: The Project would have a substantial adverse impact on a scenic vista, resource, or on the visual character of a site or its surroundings. The PEIR assumed that temporary effects on visual character would be less than significant with implementation of SFPUC Construction Measure #10 (Project Site). The project-level analysis determined that at one site, removal of trees within the SFPUC right-of-way would have a significant and unavoidable impact on the visual character of the site and to a tree mass specifically identified in a local General Plan.
Impact 4.3-4: Permanent adverse impacts on scenic vistas or visual character.	PSM	LSM	Y	See Impact AE-3: The Project would have a substantial adverse impact on a scenic vista, resource, or on the visual character of a site or its surroundings. There is no difference in the impact determination.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.3-5: New permanent sources of light glare.	PSM	LS	Y	See Impact AE-4: The Project would not create a new source of substantial light that would adversely affect day or nighttime views in the area. Also see Impact AE-2: The Project would not create a new source of substantial light that would adversely affect day or nighttime views in the area. The PEIR conservatively assumed that all WSIP projects that include aboveground improvements could include a new source of light or glare and required implementation of design measures (Mitigation Measure 4.3-5) to reduce this impact to a less-than-significant level. Other well facilities would not result in substantial view blockage and therefore would not result in a substantial adverse effect on the site's visual quality. The project-level analysis determined that implementation of the proposed Project would result in additional temporary and permanent lighting; however, new permanent lighting would be in compliance with Title 24 of the California Code of Regulations, would be shielded to direct light downward, and would be controlled by motion sensors with automatic shut-offs. The GSR Project also includes development of a Lighting Plan that would ensure that temporary lighting is focused downward and inward and includes glare control. Therefore, the impact would be less than significant.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Geology, Soils, and Seismicity				
Impact 4.4-1: Slope instability during construction.	PSM	LS	Y	See Impact GE-1: The Project would not be located on a geologic unit or soil that is unstable, or that would become unstable during construction. The WSIP PEIR assumed that the pipelines associated with the PEIR Regional Groundwater Projects could cross areas of potential landslide susceptibility in San Mateo County but implementation of SFPUC Construction Measure #2 Seismic and Geotechnical Studies) as well as a quantified landslide analysis (Measure 4.4-1) would reduce this impact to a less-than-significant level. The project-level analysis included several site-specific geotechnical investigations to assess slope stability hazards. The potential for slopes at the sites to become destabilized during construction was determined to be less than significant, due to the mapped and documented presence of generally dense granular materials, the absence of shallow groundwater, and the presence of vegetation that provides additional strengthening of the near surface soils.
Impact 4.4-2: Erosion during construction.	LS	LSM	N	See Impact HY-1: Project construction activities would degrade water quality as a result of erosion or siltation caused by earthmoving activities or by the accidental release of hazardous construction chemicals during construction. The WSIP PEIR noted that all construction sites would be subject to soil loss and erosion and that implementation of the SFPUC Construction Measure #3 (on-site air and water quality measures) would result in less than significant impacts for all WSIP projects. The project-level EIR does not assume implementation of SFPUC Construction Measure #3. Elements of the SFPUC Standard Construction Measure #3 are included in Mitigation Measure M-HY-1 (Develop and Implement and Storm Water Pollution Prevention Plan [SWPPP] or an Erosion and Sediment Control Plan), which would reduce the GSR Project impact to a less-than-significant level.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.4-3: Substantial alteration of topography.	LS	LS	Y	See Impact GE-2: The Project would not substantially change the topography or any unique geologic or physical features of the site(s). There is no difference in the impact determination.
Impact 4.4-4: Squeezing ground and subsidence during tunneling.	N/A	N/A	Y	Tunneling is not included in the GSR Project. Thus, the significance criterion related to subsidence during tunneling is not applicable.
Impact 4.4-5: Surface fault rupture.	LS	LS	Y	See Impact GE-3: The Project would expose people or structures to substantial adverse effects related to the risk of property loss, injury, or death due to fault rupture, seismic groundshaking, or landslides. The well facility sites, including pipelines, would not be located within the San Andreas Fault Zone and no other active or potentially active faults are known to cross the sites. There is no difference in the impact determination.
Impact 4.4-6: Seismically induced groundshaking.	LS	LSM	N	See Impact GE-3: The Project would expose people or structures to substantial adverse effects related to the risk of property loss, injury, or death due to fault rupture, seismic groundshaking, or landslides. The WSIP PEIR evaluated the potential impacts of seismically induced groundshaking on WSIP facilities and concluded that all potential facilities would experience strong groundshaking from a seismic event, but that the impact would be less than significant. The project-level analysis included the implementation of several site-specific geotechnical investigations to assess groundshaking hazards. Assuming compliance with all applicable building codes and standards, and the recommendations of the site-specific geotechnical investigations as required in Mitigation Measure M-GE-3 (Conduct Site-Specific Geotechnical Investigations and Implement Recommendations), groundshaking risks to GSR facilities and operations would be reduced to a less-than-significant level.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.4-7: Seismically induced ground failure, including liquefaction and settlement.	LS	LSM	N	See Impact GE-4: The Project would be located on a geologic unit or soil that is unstable, or that would become unstable. The WSIP PEIR evaluated the potential impacts of seismically induced ground failure and concluded that all potential facilities would be designed in accordance with the General Seismic Design Requirements and that impacts related to liquefaction and other seismically induced ground failures would be less than significant. The project-level analysis determined that the underlying soil at some of the sites have a moderately high hazard from settlement. Implementation of Mitigation Measure M-GE-3 (Conduct Site-Specific Geotechnical Investigations and Implement Recommendations) which incorporates site-specific geotechnical recommendations to reduce the GSR Project impact to a less-than-significant level.
Impact 4.4-8: Seismically induced landslides or other slope failures.	LS	LS	Y	See Impact GE-3: The Project would expose people or structures to substantial adverse effects related to the risk of property loss, injury, or death due to fault rupture, seismic groundshaking, or landslides. The project-level analysis determined that the potential for seismically induced landslides or slope failures would be less than significant for all sites. There is no difference in the impact determination.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.4-9: Expansive or corrosive soils.	PSM	LS	N	See Impact GE-5: The Project would not be located on corrosive or expansive soil, creating substantial risks to life or property. Based on regional mapping reviewed for the WSIP PEIR, expansive and corrosive soils are mapped in the GSR Project area, and impacts related to these soils were considered potentially significant. The project-level analysis determined that site specific soils are not considered expansive, and that cathodic protection measures that have been incorporated into the design of the GSR Project would ensure that potential impacts related to corrosive soils are less than significant.
Impact 4.17-2: Cumulative exposure of people or structures to geologic and seismic hazards.	LS	LS	Y	See Impact C-GE-1: Construction and operation of the proposed Project could result in significant impacts related to soils and geology. There is no difference in the impact determination.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Hydrology and Water Quality				
Impact 4.5-1: Degradation of water bodies as a result of erosion and sedimentation or a hazardous materials release during construction.	LS	LSM	N	See Impact HY-1: Project construction activities would degrade water quality as a result of erosion or siltation caused by earthmoving activities or by the accidental release of hazardous construction chemicals during construction. Although final locations of the well facilities were not determined at the time of publication of the WSIP PEIR, the PEIR indicated that implementation of SFPUC Construction Measure #3 (onsite air and water quality measures during construction), and implementation of control measures in compliance with NPDES permit requirements for projects disturbing more than one acre, would ensure that this impact is less than significant. The project-level EIR does not assume implementation of SFPUC Construction Measures. Implementation of Mitigation Measure M-HY-1 (Develop and Implement a Storm Water Pollution Prevention Plan [SWPPP] or an Erosion and Sediment Control Plan) is included and would reduce the Project impact to a less-than-significant level.
Impact 4.5-2: Depletion of groundwater resources.	N/A	N/A	Y	The PEIR and project-level EIR determined that construction dewatering would not be required such that depletion of groundwater resources would occur. See PEIR Impacts 5.6-1 through 5.6-6 below for analysis of operational impacts on groundwater resources.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.5-3a: Degradation of water quality due to construction dewatering discharges.	N/A	LSM	N	See Impact HY-1: Project construction activities would degrade water quality as a result of erosion or siltation caused by earthmoving activities or by the accidental release of hazardous construction chemicals during construction. The PEIR assumed that the PEIR Regional Groundwater Projects would not involve dewatering. The project-level analysis determined that the discharge of sediment-laden groundwater to the storm drain system during excavation dewatering could degrade water quality and violate water quality standards, however, implementation of Mitigation Measure M-HY-1 (Develop and Implement a Storm Water Pollution Prevention Plan [SWPPP] or an Erosion and Sediment Control Plan) would reduce the impact to a less-than-significant level.
Impact 4.5-3b: Degradation of water quality due to construction-related discharges of treated water.	N/A	LSM	N	See Impact HY-2: Discharge of groundwater could result in minor localized flooding, violate water quality standards, and/or otherwise degrade water quality. The PEIR assumed that the PEIR Regional Groundwater Projects would not involve construction-related discharges of water; therefore this impact was determined to not be applicable. The project-level analysis determined that the discharge of sediment-laden groundwater to the storm drain system during well development and pumping tests could degrade water quality and violate water quality standards. Implementation of Mitigation Measure M-HY-2 (Management of Well Development and Pump Testing Discharges) would reduce GSR Project impacts to less-than-significant levels.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.5-4: Flooding and water quality impacts associated with impeding or redirecting flood flows.	PSM	LS	N	See Impact HY-4: Project operations would not impede or redirect flood flows. At the time the PEIR was prepared, the project design conservatively assumed that some Groundwater Project components could be constructed in San Mateo County and could be constructed in a flood zone. Thus, the PEIR determined that impacts related to flooding would be potentially significant but implementation of flood flow protection measures (Measure 4.5-4a), which would be prepared for the project, would reduce impacts to a less-than-significant level. The project-level analysis determined that only one of the proposed project sites is located within a special flood hazard zone. Given that the chemical treatment building at the site would be elevated above the 100-year flood elevation, and because the presence of an at-grade parking area would have a negligible effect on impeding or redirecting flood flows, this impact would be less than significant.
Impact 4.5-5: Degradation of water quality and increased flows due to discharges to surface water during operation.	PSM	LS	N	See Impact HY-5: Project operations would not result in a violation of water quality standards or in the degradation of water quality from the discharge of groundwater during well maintenance. The PEIR analysis determined that the use of treated stormwater for groundwater recharge could affect groundwater quality if the bacterial standards for the source water were less stringent than those for drinking water, a potentially significant impact. Implementation of Measure 4.5-5, which requires treatment to remove nutrients from stormwater and implementation of groundwater monitoring in the vicinity of Lake Merced, would reduce this impact to less than significant. The project-level analysis determined that discharge water would be sent to either the sanitary sewer or the storm drain system; therefore, the discharge water associated with operations of the GSR Project would not violate water quality standards or degrade water quality and any such potential impacts on surface water would be less than significant.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.5-6: Degradation of water quality as a result of alteration of drainage patterns or an increase in impervious surfaces.	LS	LS	Y	See Impact HY-3: Project operation would not alter drainage patterns in such a manner that could result in degraded water quality or cause on- or off-site flooding. Also see Impact HY-5: Project operations would not result in a violation of water quality standards or in the degradation of water quality from the discharge of groundwater during well maintenance. There is no difference in the impact determination.
Impact 4.17-3: Cumulative impacts related to the degradation of water quality, alteration of drainage patterns, increased surface runoff, and flooding hazards.	LS	LSM	N	See Impact C-HY-1: Project construction could result in a cumulatively considerable contribution to cumulative impacts on surface water hydrology and water quality. The PEIR determined that the WSIP projects in conjunction with other projects would not result in cumulative water quality and hydrology effects related to increased erosion and sedimentation, construction-related discharges of treated water or groundwater produced during dewatering, or operational discharges of treated water with implementation of proper BMPs for temporary and permanent erosion control The project-level analysis identified the potential for cumulative impacts to hydrology and water quality from multiple construction projects in the same geographic area. With implementation of Mitigation Measure M-HY-1 (Develop and Implement a Storm Water Pollution Prevention Plan [SWPPP] or an Erosion and Sediment Control Plan) and Mitigation Measure M-HY-2 (Management of Well Development and Pump Testing Discharge) and compliance with the Waste Discharge Requirements for the SFPUC Drinking Water Transmission System, the GSR Project's contribution to any such cumulative water quality impacts would not be cumulatively considerable.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 5.6-1: Basin overdraft due to pumping from the Westside Groundwater Basin.	LS	SUM	N	See Impact HY-14: Project operation may have a substantial adverse effect on groundwater depletion in the Westside Groundwater Basin over the very long term. Also, see Impact HY-6: Project operation would decrease the production rate of existing nearby irrigation wells due to localized groundwater drawdown within the Westside Groundwater Basin such that existing or planned land use(s) may not be fully supported. The PEIR determined that impacts related to basin overdraft and associated adverse conditions in the South Westside Groundwater Basin would be less than significant, given that the overall conjunctive-use program would be designed to take advantage of vacated aquifer storage that has become available as a result of historical groundwater pumping in the basin. The project-level analysis also determined that the GSR Project may cause an incremental depletion of groundwater storage over the long-term, which is conservatively deemed a significant impact because over the very long-term this could result in a substantial regional deficit in aquifer storage that would may not fully support existing or planned land uses. Implementation of Mitigation Measure M-HY-14 (Prevent Groundwater Depletion) would reduce impacts of the Project on long-term depletion of groundwater storage to less-than-significant levels.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 5.6-2: Changes in water levels in Lake Merced and other surface water features, including Pine Lake, due to decreased groundwater levels in the Westside Groundwater Basin.	N/A	LSM	N	See Impact HY-9: Project operation could have a substantial, adverse effect on water quality that could affect the beneficial uses of Lake Merced. Also see Impact HY-10: Project operation would not have a substantial adverse effect on water quality that could affect the beneficial uses of Pine Lake, and Impact HY-11: Project operation would not have a substantial adverse effect on water quality that could affect the beneficial uses of Colma Creek, San Bruno Creek, Lomita Channel, or Millbrae Creek. The PEIR determined that there are no major surface water features in the South Westside Groundwater Basin that would be affected. The project-level analysis determined that significant impacts could occur to Lake Merced, and Mitigation Measures M-HY-9a (Lake Level Monitoring and Modeling for Lake Merced) and M-HY-9b (Lake Level Management for Lake Merced) is provided to reduce impacts to a less-than-significant level. The project-level analysis determined that the impact on the beneficial uses of Pine Lake and other surface water bodies would be less than significant.
Impact 5.6-3: Seawater intrusion due to decreased groundwater levels in the Westside Groundwater Basin.	LS	LS	Y	See Impact HY-8: Project operation would not result in seawater intrusion due to decreased groundwater levels in the Westside Groundwater Basin. The PEIR determined that impacts related to the potential to cause seawater intrusion the South Westside Groundwater Basin would be less than significant. The project-level analysis determined that the GSR Project would not cause lower average groundwater levels that would induce seawater intrusion in either the North or South Westside Groundwater Basin.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 5.6-4: Land subsidence due to decreased groundwater levels in the Westside Groundwater Basin if the historical low water levels are exceeded.	LS	LS	Y	See Impact HY-7: Project operation would not result in substantial land subsidence due to decreased groundwater levels in the Westside Groundwater Basin where the historical low water levels are exceeded. The PEIR determined that the potential for land subsidence would be less than significant, given the formations comprising the aquifers of the North Westside Groundwater Basin, and because groundwater levels associated with the PEIR Regional Groundwater Projects would likely be higher than historical flows in the South Westside Groundwater Basin. The project-level analysis estimated subsidence due to GSR Project operations at three representative locations. The estimated subsidence was less than the significance thresholds established for the analysis, therefore, subsidence due to Project operation was determined to be less than significant.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 5.6-5: Contamination of drinking water due to groundwater pumping in the Westside Groundwater Basin.	PSM	LS	N	See Impact HY-12: Project operation would not cause a violation of water quality standards due to mobilization of contaminants in the groundwater from changing groundwater levels in the Westside Groundwater Basin. The PEIR noted that until production well locations were selected and a drinking water source assessment performed, the potential for contamination of a drinking water well could not be fully evaluated. Therefore, the PEIR considered impacts related to potential contamination of a drinking water source as potentially significant, which would be reduced to a less-than-significant level with implementation of Measure 5.6-5, Drinking Water Source Assessments for Groundwater Wells. The project-level analysis included preliminary Drinking Water Assessment and Protection Program reports used to characterize the vulnerability of proposed wells sites to possible contaminating activities. The analysis determined that potential GSR Project impacts on groundwater from possible contaminating activities would be less than significant, given that wells would be protected against contamination by the construction of an annular seal composed of sand/cement grout, water would be blended or treated to ensure all drinking water standards are met. The analysis also determined that the potential impact from mobilization or spreading of contaminants in groundwater as a result of increased pumping would be less than significant.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 5.6-6: Drinking water contaminants above maximum contaminant levels and adverse effects of adding treated groundwater to the distribution system.	LS	LS	N	See Impact HY-12: Project operation would not cause a violation of water quality standards due to mobilization of contaminants in groundwater from changing groundwater levels in the Westside Groundwater Basin. Also see Impact HY-13: Project operation would not result in degradation of drinking water quality or groundwater quality relative to constituents for which standards do not exist. The PEIR determined the groundwater developed for potable uses under the WSIP would be treated or blended with system water to meet all primary and secondary drinking water standards. Therefore, programmatic impacts related to exceedances in drinking water standards would be less than significant. The project-level analysis determined that potential GSR Project impacts on drinking water quality from regulated and non-regulated constituents would be less than significant. As described in GSR Chapter 3, Project Description, Section 3.4.2.2 (Well Facility Types), any violation of drinking water standards at production wells resulting from Project operation would be addressed by proposed treatment and/or blending.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 5.7.5-1: Cumulative impacts on the North Westside Groundwater Basin.	LS	LSM	N	See Impacts C-HY-2, C-HY-3, C-HY-4, C-HY-5, and C-HY-8. The PEIR did not evaluate cumulative impacts of the GSR Project in the North Westside Groundwater Basin The project-level analysis concludes that implementation of Mitigation Measures M-HY-9a (Lake Level Monitoring and Modeling for Lake Merced) and M-HY-9b (Lake Level Management for Lake Merced) would reduce the GSR Project's impact in the North Westside Groundwater Basin at Lake Merced on long-term lake-level declines to a less-than-cumulatively considerable level. The project-level analysis determined that the GSR Project would not have a considerable contribution to the cumulative impact relative to seawater intrusion in the North Westside Groundwater Basin, and the estimated subsidence due to operation of the cumulative conditions scenario in the North Westside Groundwater Basin was also determined to be less than significant. Implementation of Mitigation Measure M-HY-14 (Prevent Groundwater Depletion), which addresses impacts in both the North and South Westside Groundwater Basins would reduce the Project's impact on long-term depletion of groundwater storage to less-than-cumulatively considerable levels.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 5.7.5-2: Cumulative impacts on the South Westside Groundwater Basin.	LS	SUM	N	See Impacts C-HY-2, C-HY-3, C-HY-4, C-HY-5, C-HY-6, C-HY-7, and C-HY-8. The PEIR determined that implementation of the proposed conjunctive-use program should result in higher average groundwater levels in the northern portion of the South Westside Groundwater Basin as a result of the coordinated use of surface water and groundwater. The PEIR determined that implementation of the operating agreement(s) would ensure that impacts related to basin overdraft, saltwater intrusion, and land subsidence would be less than significant, and that because there are no other planned future uses of groundwater in this portion of the basin, cumulative groundwater impacts would be less than significant. The project-level analysis determined implementation of Mitigation Measure M-HY-6 (Ensure Existing Irrigator's Wells Are Not Prevented from Supporting Existing or Planned Land Use Due to Project Operation) would reduce the GSR Project's contribution to cumulative impacts on well interference. However, because the feasibility of the mitigation measure cannot be assured until the existing irrigation well owners have agreed to allow mitigation to take place on their property, the Project's impact is conservatively deemed to be cumulatively considerable. Implementation of Mitigation Measure M-HY-14 (Prevent Groundwater Depletion) would reduce the Project's impact on long-term depletion of groundwater storage to less-than-cumulatively considerable levels in the South Westside Groundwater Basin. The Project-level analysis determined that the Project would not have a considerable contribution to the cumulative impact relative to seawater intrusion or subsidence in the South Westside Groundwater Basin.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Biological Resources				
Impact 4.6-1: Impacts on wetlands and aquatic resources.	PSM	LSM	Y	See Impact BR-3: The Project would impact jurisdictional wetlands or waters of the United States. There is no difference in the impact determination.
Impact 4.6-2: Impacts on sensitive habitats, common habitats, and heritage trees.	PSM	LSM	Y	See Impact BR-2: Project construction would adversely affect riparian habitat or other sensitive natural communities. Also see Impact BR-4: Project construction would conflict with local tree preservation ordinances. There is no difference in the impact determination.
Impact 4.6-3: Impacts on key special-status species – direct mortality and/or habitat effects.	LS	LSM	N	See Impact BR-1: Project construction would adversely affect candidate, sensitive, or special-status species. Also see Impact BR-5: Project operation would adversely affect candidate, sensitive, or special-status species. The PEIR analysis assumed that the PEIR Regional Groundwater Project facilities would be located in previously disturbed areas that do not support key special-status species; therefore, the impact in the PEIR was determined to be less than significant. The project-level analysis determined that vegetation removal and operational noise of the GSR Project at some sites could result in significant impacts to special-status birds, migratory passerines and raptors, special status bats, and monarch butterflies. Implementation of Mitigation Measures M-BR-1a, -1b, -1c, -1d and Mitigation Measure M-NO-5 would reduce impacts to a less-than-significant level.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.6-4: Water discharge effects on riparian and/or aquatic resources.	N/A	LSM	N	See Impact BR-3: The Project would impact jurisdictional wetlands or waters of the United States. The PEIR assumed that the Groundwater Projects would not involve dewatering. The Project-level analysis determined that construction at some sites could result in impacts due potential uncontrolled runoff and sedimentation to jurisdictional wetlands and waters. Implementation of Mitigation Measure M-HY-1 (Develop and Implement a Storm Water Pollution Prevention Plan [SWPPP] or an Erosion and Sediment Control Plan) would reduce the Project impact a less-than-significant level.
Impact 4.6-5: Conflicts with adopted conservation plans or other approved biological resources plans.	N/A	NI	Y	See GSR Section 5.14.3.2 (Approach to Analysis), under the heading "Areas of No Project Impact." The PEIR noted that there are no adopted plans in the area proposed for the PEIR Regional Groundwater Projects. The project-level analysis also determined that no such plans have been adopted in the areas that would be affected by the GSR Project.
Impact 4.17-4: Cumulative loss of sensitive biological resources.	LS	LSM	N	See Impact C-BR-1: Construction and operation of the proposed Project could result in significant cumulative impacts related to biological resources. The PEIR determined that cumulative impacts on biological resources would be less than significant through implementation of PEIR Measures 4.6-1 through 4.6-3 as well as Measure 4.16-4a. The project-level analysis identified the potential under the GSR Project for cumulative impacts to biological resources from multiple construction projects in the same geographic area. Implementation of mitigation measures would reduce the impact such that the GSR Project's contribution to cumulative impacts would not be cumulatively considerable.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
	N/A	LSM	N	Impacts BR-6 through BR-9 and C-BR-2 evaluate potential Project impacts on biological resources at Lake Merced. The PEIR did not evaluate the potential for adverse effects on biological resources at Lake Merced related to project operation. The project-level analysis determined that significant impacts could occur under the GSR Project to biological resources at Lake Merced, and mitigation is provided to reduce impacts to a less-than-significant level. Implementation of mitigation would also reduce the impact such that the GSR Project's contribution to cumulative impacts would not be cumulatively considerable.
Cultural Resources				
Impact 4.7-1: Impacts on paleontological resources.	PSM	LSM	Y	See Impact CR-3: Project construction could result in a substantial adverse effect by destroying a unique paleontological resource or site. There is no difference in the impact determination.
Impact 4.7-2: Impacts on archaeological resources.	PSM	LSM	Y	See Impact CR-2: Project construction could cause an adverse change in the significance of an archaeological resource. Also see Impact CR-4: Project construction could result in a substantial adverse effect related to the disturbance of human remains. There is no difference in the impact determination.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.7-3: Impacts on historical significance of a historic district or a contributor to a historic district.	N/A	LSM	N	See Impact CR-1: Project construction could cause an adverse change in the significance of a historical resource. Also see Impact CR-5: Project facilities could cause an adverse change in the significance of a historical resource. The WSIP PEIR concluded that the PEIR Regional Groundwater Projects would add new facilities to the WSIP system or upgrade existing non-historic facilities, and therefore, would not affect historic components of the regional system. The project-level analysis determined that construction and operation of the GSR Project could affect the eligibility of listing the Golden Gate National Cemetery to the National Register. Implementation of mitigation is therefore included to reduce the Project impact to a less-than-significant level.
Impact 4.7-4: Impacts on the historical significance of individual facilities resulting from demolition or alteration.	N/A	LSM	N	See Impact CR-1: Project construction could cause an adverse change in the significance of a historical resource. Also see Impact CR-5: Project facilities could cause an adverse change in the significance of a historical resource. The PEIR assumed that demolition under the PEIR Regional Groundwater Projects would be limited to paved areas and playgrounds at the Francis Scott Key School Annex, and West and South Sunset Playgrounds. The project-level analysis determined that construction and operation of the GSR Project could affect the eligibility of listing the Golden Gate National Cemetery to the National Register. Implementation of mitigation is therefore included to reduce the Project impact to a less-than-significant level.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.7-5: Impacts on adjacent historic architectural resources.	LS	LSM	N	See Impact CR-1: Project construction could cause an adverse change in the significance of a historical resource. Also see Impact CR-5: Project facilities could cause an adverse change in the significance of a historical resource. The WSIP PEIR noted that under the PEIR Regional Groundwater Projects new facilities would be added to existing, non-historic facilities. The project-level analysis determined that construction and operation of the GSR Project could affect the eligibility of listing the Golden Gate National Cemetery to the National Register. Implementation of mitigation is therefore included to reduce the Project impact to a less-than-significant level.
Impact 4.17-5: Cumulative increase in impacts on archaeological, paleontological, and historical resources.	PSU	LSM	N	See Impact C-CR-1: Construction of the proposed Project could result in a cumulatively considerable contribution to cumulative impacts on historical, archaeological, or paleontological resources, or human remains. The PEIR conservatively assumed that, in combination, projects in the Sunol Valley and Peninsula regions could result in significant impacts on individual historical resources or on potential historic districts (if historic districts were determined to be present). The PEIR did not describe cumulative impacts on cultural resources in the San Francisco region. The project-level analysis identified the potential under the GSR Project for cumulative impacts to cultural resources from multiple construction projects in the same geographic area. Implementation of mitigation would reduce the impact such that the GSR Project's contribution to cumulative impacts would not be cumulatively considerable.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Traffic, Transportation, and Circulation				
Impact 4.8-1: Temporary reduction in roadway capacity and increased traffic delays.	PSM	LSM	Y	See Impact TR-1: The Project would conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. There is no difference in the impact determination.
Impact 4.8-2: Short-term traffic increases on roadways.	LS	LS	Y	See Impact TR-1: The Project would conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. There is no difference in the impact determination.
Impact 4.8-3: Impaired access to adjacent roadways and land uses.	PSM	LSM	Y	See Impact TR-2: The Project would temporarily impair emergency access to adjacent roadways and land uses during construction. There is no difference in the impact determination.
Impact 4.8-4: Temporary displacement of on-street parking.	PSM	NI	N	Since publication of the PEIR, the significance criterion specifically pertaining to displacement of on-street parking has been deleted from the San Francisco Planning Department's initial study checklist (San Francisco Planning Department 2010). The GSR Project EIR did not identify any secondary impacts associated with loss of parking.
Impact 4.8-5: Increased traffic safety hazards during construction.	PSM	LSM	Y	See Impact TR-1: The Project would conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. Also see Impact TR-3: The Project would temporarily decrease the performance and safety of public transit, bicycle, and pedestrian facilities during construction. There is no difference in the impact determination.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.8-6: Long-term traffic increases during facility operation.	LS	LS	Y	See Impact TR-4: Project operations and maintenance activities would not conflict with an applicable plan or policies regarding performance of the transportation system or alternative modes of transportation. There is no difference in the impact determination.
Impact 4.17-6: Cumulative traffic increases on local and regional roads.	PSU	LSM	N	See Impact C-TR-1: Construction and operation of the proposed Project could result in a cumulatively considerable contribution to cumulative impacts related to transportation and circulation. The WSIP PEIR cumulative analysis determined that significant cumulative impacts could occur during concurrent construction of nearby projects, including non-SFPUC projects, and based on the conservative assumption that interagency coordination of construction traffic might not always be possible; this impact was determined to be potentially significant and unavoidable. The project-level analysis identified the potential under the GSR Project for cumulative impacts from multiple construction projects in the same geographic area. Implementation of mitigation would reduce the impact such that the GSR Project's contribution to cumulative impacts would not be cumulatively considerable.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Air Quality				
Impact 4.9-1: Construction emissions of criteria pollutants.	LS	LSM	N	See Impact AQ-2: Emissions generated during construction activities would violate air quality standards and would contribute substantially to an existing air quality violation. The WSIP PEIR identified the requirement for a dust control plan and implementation of dust control measures as part of the SFPUC Construction Measures. The project-level EIR does not assume implementation of SFPUC Construction Measures. The project-level analysis determined that the generation of fugitive dust during construction would result in a significant impact. Implementation of Mitigation Measures M-AQ-2a (BAAQMD Basic Construction Measures) and Mitigation Measure M-AQ-2b (NOx Reduction during Construction of Alternate Sites) would reduce this impact to a less-than-significant level.
Impact 4.9-2: Exposure to diesel particulate matter during construction.	LS	LSM	N	See Impact AQ-3: Project construction would expose sensitive receptors to substantial pollutant concentrations. Also see Impact AQ-6: Project operations would not expose sensitive receptors to substantial pollutant concentrations. The PEIR assumed a determination of less than significant due to the relatively low amount of diesel particulate emissions expected to be generated by haul truck traffic. The project-level analysis determined that under the GSR Project the BAAQMD thresholds utilized as significance thresholds in the EIR would be exceeded for one of the modeling groups evaluated. Implementation of Mitigation Measure M-AQ-3 (Construction Health Risk Mitigation) would reduce this temporary impact to a less-than-significant level. The project-level analysis determined that operational impacts would be less than significant.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.9-3: Exposure to emissions (possibly including asbestos) from tunneling.	PSM	N/A	N	The PEIR analysis was based on a project design that could require tunneling using jack-and-bore construction at roadway crossings. Updated Project design information indicates that tunneling is not included in the GSR Project. Thus, the significance criterion related to exposure to emissions in tunnels is not applicable.
Impact 4.9-4: Air pollutant emissions during project operation.	LS	LS	Y	See Impact AQ-5: Project operations would not violate air quality standards or contribute substantially to an existing air quality violation. There is no difference in the impact determination.
Impact 4.9-5: Odors generated during project operation.	LS	LS	Y	See Impact AQ-7: Project operations would not create objectionable odors affecting a substantial number of people. There is no difference in the impact determination.
Impact 4.9-6: Secondary emissions at power plants.	LS	LS	Y	See Impact ME-2: The Project would not encourage activities that result in the use of large amounts of fuel and energy in a wasteful manner during operation. For all WSIP facility improvement projects, the PEIR analysis assumed any incremental increase in power demand would not result in significant secondary air quality impacts. The project-level analysis is consistent with the PEIR analysis and determined that the GSR Project would not increase energy demands. Thus, this PEIR impact was not specifically called out in the project-level analysis.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.9-7: Conflict with implementation of applicable regional air quality plans addressing criteria air pollutants and state goals for reducing emissions.	LS	LS	Y	See Impact AQ-1: Construction of the Project would not conflict with or obstruct implementation of applicable air quality plans. There is no difference in the impact determination.
Impact 4.17-7: Cumulative increases in construction and/or operational emissions in the region.	PSU	LSM	N	See Impact C-AQ-1: Construction and operation of the proposed Project could result in a cumulatively considerable contribution to cumulative impacts related to air quality. The PEIR determined that cumulative impacts due to emissions of criteria pollutants would be PSU because the WSIP projects in combination with the cumulative projects would result in regionwide cumulative increases in air emissions during project operations and the residual contribution from each project would contribute to the region's nonattainment status for ozone and particulate matter. Cumulative impacts related to exposure to diesel particulate matter would also be potentially significant and unavoidable because of the lack of certainty about the timing of many of the cumulative projects that might use common haul routes. The project-level analysis identified the potential under the GSR Project for cumulative impacts to NOx emissions if all sites, including alternate sites, were constructed. Implementation of Mitigation Measure M-AQ-2b (NOx Reduction during Construction of Alternate Sites) would reduce NOx emissions to less-than-cumulatively considerable (less than significant) levels by requiring construction contractors to use newer equipment or retrofitted equipment that would create fewer emissions of NOx.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Noise and Vibration				
Impact 4.10-1: Disturbance from temporary construction-related noise increases.	PSU	SUM	Y	See Impact NO-1: Project construction would result in noise levels in excess of local standards. Also see Impact NO-3: Project construction would result in a substantial temporary increase in ambient noise levels. There is no difference in the impact determination.
Impact 4.10-2: Temporary noise disturbance along construction haul routes.	PSU	LS	N	See Impact NO-4: Project construction would not result in a substantial temporary increase in ambient noise levels along construction haul routes. The PEIR assumed that any nighttime truck operations greater than 1 truck per hour could exceed the sleep interference criterion during construction of the PEIR Regional Groundwater Projects. Implementation Mitigation Measures 4.10-2a (limiting hourly truck volumes during the day) and 4.10-2b (restricting of nighttime truck operations) could reduce the impact, but even with implementation of this measure, the PEIR determined that the impact would be potentially significant and unavoidable. The project-level analysis for the GSR Project determined that truck deliveries would not occur at nighttime, and estimated noise levels would fall below the daytime construction threshold. Therefore, the impacts from noise along construction haul routes would be less than significant.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.10-3: Disturbance due to construction-related vibration.	PSU	LSM	N	See Impact NO-2: Project construction would result in excessive groundborne vibration. The PEIR assumed that potentially significant vibration effects could result if there are any sensitive receptors located within 100 feet of proposed facilities but implementation of vibration controls (Measures 4.10-31 and 4.10-3b) would help reduce impacts. The analysis conservatively assumed that construction could occur during nighttime hours; therefore, the impact was considered potentially significant and unavoidable. The project-level analysis determined that construction-related vibration at some GSR sites could result in significant impacts on adjacent structures. Implementation of Mitigation Measure M-NO-2 (Reduce Vibration Levels during Construction of Pipelines) would reduce the Project impact to a less-than-significant level.
Impact 4.10-4: Disturbance due to long-term noise increases.	LS	LSM	N	See Impact NO-5: Operation of the Project would result in exposure of people to noise levels in excess of local noise standards or result in a substantial permanent increase in ambient noise levels in the Project vicinity. The PEIR evaluation of long-term noise increases concluded that noise associated with standby power would be less than significant. The evaluation in the PEIR for other operational noise noted that the project-specific evaluations would define design measures needed to ensure that operational noise levels are maintained at acceptable levels. The project-level analysis determined that under the GSR Project operational noise levels at some sites would exceed established sleep interference thresholds. Implementation of Mitigation Measure M-NO-5 (Operational Noise Control Measures) would reduce the Project impact to a less-than-significant level.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.17-8: Cumulative increases in construction-related and operational noise.	PSU	SUM	Y	See Impact C-NO-1: Construction and operation of the proposed Project could result in a cumulatively considerable contribution to cumulative impacts related to noise. There is no difference in the impact determination.
Public Services and Utilities				
Impact 4.11-1: Potential temporary damage to or disruption of existing regional or local public utilities.	PSM	LSM	Y	See Impact UT-1: Project construction could result in potential damage to or temporary disruption of existing utilities during construction. There is no difference in the impact determination.
Impact 4.11-2: Temporary adverse effects on solid waste landfill capacity.	PSM	LS	N	See Impact UT-3: Project construction would not result in adverse effects on solid waste landfill capacity. The WSIP PEIR determined that solid waste could impact permitted landfill capacity and noted that potential impacts from individual WSIP projects would be evaluated in more detail in a separate project-level CEQA review. The project-level analysis determined that there is sufficient landfill capacity for GSR Project spoils and the impact would be less than significant with no mitigation required.
Impact 4.11-3: Impacts related to compliance with statutes and regulations related to solid waste.	PSM	LSM	Y	See Impact UT-4: Project construction could result in a substantial adverse effect related to compliance with federal, State, and local statutes and regulations pertaining to solid waste. There is no difference in the impact determination.
Impact 4.11-4: Impacts related to the relocation of utilities.	PSM	LSM	Y	See Impact UT-1: Project construction could result in potential damage to or temporary disruption of existing utilities during construction. There is no difference in the impact determination.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.17-9: Cumulative impacts related to disruption of utility service or relocation of utilities.	LS	LSM	N	See Impact C-UT-1: Construction and operation of the proposed Project could result in a cumulatively considerable contribution to cumulative impacts related to utilities and service systems. The PEIR determined that construction of the WSIP projects could disrupt utility services or require temporary or permanent relocation of utilities. However, the PEIR determined that these potential impacts would be site-specific rather than additive and would be mitigated on a site-specific basis and, thus, this cumulative impact was considered less than significant. The project-level analysis identified the potential under the GSR Project for cumulative impacts from multiple construction projects in the same geographic region. The analysis determined that implementation of mitigation would reduce the impact such that the GSR Project's contribution to cumulative impacts would not be considerable.
	N/A	LS	N	See Impact UT-2: Project construction would not exceed the capacity of wastewater treatment facilities, exceed wastewater treatment requirements, require or result in the construction of new or expansion of existing wastewater treatment facilities or stormwater drainage facilities, the construction of which could cause significant environmental effects. Also see Impact UT-5: Project operation would not exceed the capacity of wastewater treatment facilities, exceed wastewater treatment requirements, require or result in the construction of new or expansion of existing wastewater treatment facilities or stormwater drainage facilities, the construction of which could cause significant environmental effects. The WSIP PEIR did not evaluate impacts related to the potential exceedance of wastewater treatment facilities, wastewater treatment requirements, or the construction of new wastewater or storm drainage facilities.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Recreational Resources				
Impact 4.12-1: Temporary conflicts with established recreational uses during construction.	PSM	LSM	Y	See Impacts RE-1 through RE-3 for a discussion of temporary conflicts with recreational uses during construction. There is no difference in the impact determination.
Impact 4.12-2: Conflicts with established recreational uses due to facility siting and project operation.	PSM	LS	N	See Impact RE-4: The Project would not damage recreational resources during operation. Also see Impact RE-5: The Project would not deteriorate the quality of the recreational experience during operation. The PEIR analysis assumed that operation of groundwater facilities constructed in City-owned parks and recreational facilities would result in potentially significant impacts on recreational resources but implementation of architectural design, landscaping, and tree removal measures (Measures 4.3-4a, 4.3-4b, 4.3-4c, and 4.3-4d), as well as appropriate siting of proposed facilities (Measure 4.12-2), would reduce potential impacts to a less-than-significant level. The project-level analysis concluded that no significant recreational conflicts would occur from GSR Project operation, and that the Project impact would be less than significant.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.17-10: Cumulative effects on recreational resources during construction.	LS	LS	Y	See Impact C-RE-1: Construction and operation of the proposed Project would not result in significant cumulative impacts on recreational resources. There is no difference in the impact determination.
	N/A	LS	N	Impact RE-6 evaluates potential Project impacts on recreational resources at Lake Merced. The PEIR did not directly evaluate the potential for adverse effects on recreational resources at Lake Merced related to GSR Project operation. The PEIR did evaluate changes in water levels in Lake Merced due to proposed pumping under the Local Groundwater Projects (SF-2), and determined that while direct effects on lake levels are not expected, indirect effects could occur. The PEIR analysis included implementation of Measures 5.6-1 and 5.6-2, and noted that a more detailed analysis of the lake-aquifer relationship would be required as part of project-level CEQA reviews. The project-level analysis determined that the GSR Project would result in minor changes in lake depth and surface area that would have a negligible effect on the scenic quality of the lake and which would not encroach on trails or access areas. In addition, the Project would be consistent with the *Western Shoreline Area Plan* policies for Lake Merced. Therefore, the Project impact on recreational resources was found to be less than significant.
Agricultural Resources				
Impact 4.13-1: Temporary conflicts with established agricultural resources.	N/A	NI	Y	See GSR Section 5.19 (Agriculture and Forest Resources).

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.13-2: Conversion of farmlands to nonagricultural uses.	N/A	NI	Y	See GSR Section 5.19 (Agriculture and Forest Resources).
Hazards				
Impact 4.14-1: Potential to encounter hazardous materials in soil or and groundwater.	PSM	LSM	Y	See Impact HZ-2: The Project would result in a substantial adverse effect related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during construction. There is no difference in the impact determination.
Impact 4.14-2: Exposure to naturally occurring asbestos during construction.	LS	NI	N	See GSR Section 5.17.1.4 (Potential Presence of Naturally Occurring Asbestos). The PEIR found that the PEIR Regional Groundwater Projects would have a low likelihood of encountering asbestos because there is not ultramafic rock units mapped in the area. The project-level analysis determined that under the GSR Project no ultramafic rock units occur in the areas of the proposed facility sites, therefore, naturally occurring asbestos is not likely to be encountered.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.14-3: Risk of fires during construction.	LS	LS	N	See GSR Section 5.17.1.5 (Fire Hazards). Also see Impact HZ-7: The Project would not expose people or structures to a significant risk of loss, injury, or death involving fires At the time the WSIP PEIR was prepared, the locations of specific PEIR Regional Groundwater Project components had not been determined. Therefore, the PEIR conservatively assumed that the projects could be located within high fire hazard zones in San Francisco. As described in GSR Section 5.17.1.5 (Fire Hazards) of the project-level EIR, the facility sites are located on urban land in non-fire hazard severity zones. The project-level analysis also determined that impacts on the exposure of people or structures to fire risk due to changes in Lake Merced water levels would be less than significant.
Impact 4.14-4: Gassy conditions in tunnels.	LS	N/A	N	The PEIR analysis was based on a project design that could require tunneling using jack-and-bore construction at roadway crossings. Updated Project design information indicates that tunneling is not included in the GSR Project. Thus, the significance criterion related to gassy conditions in tunnels is not applicable.
Impact 4.14-5: Exposure to hazardous building materials.	PSM	LSM	Y	See Impact HZ-2: The Project would result in a substantial adverse effect related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during construction. There is no difference in the impact determination.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.14-6: Accidental hazardous materials release from construction equipment.	LS	LSM	N	See Impact HZ-2: The Project would result in a substantial adverse effect related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during construction. The PEIR assumed that impacts related to accidental releases of hazardous materials from construction equipment would be less than significant with implementation of SFPUC Construction Measure #7 (Hazardous Materials). The project-level EIR does not assume implementation of SFPUC Construction Measure #10. The project-level analysis identified potential significant impacts, and includes implementation of mitigation that would reduce the GSR Project impact to a less-than-significant level.
Impact 4.14-7: Increased use of hazardous materials during operation.	LS	LS	Y	See Impact HZ-4: The Project would not create a hazard to the public or environment from the routine transport, use, or disposal of hazardous materials or accidental release of hazardous materials during operation. There is no difference in the impact determination.
Impact 4.14-8: Emission or use of hazardous materials within 1/4 mile of a school.	LS	LSM	N	See Impact HZ-3: The Project would result in impacts from the emission or use of hazardous materials within 0.25 mile of a school during construction. Also see Impact HZ-5: The Project would not result in impacts from the emission or use of hazardous materials within 0.25 mile of a school during operation. The WSIP PEIR assumed that impacts related to accidental release of hazardous materials from construction equipment would be less than significant with implementation of SFPUC Construction Measure #7 (Hazardous Materials). The project-level analysis concluded that under the GSR Project significant impacts could occur during construction at sites on or immediately adjacent to schools, and operational impacts would be less than significant. Implementation of mitigation would reduce the construction-related Project impact to a less-than-significant level.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.17-12: Cumulative effects related to hazardous conditions and exposure to or release of hazardous materials.	LS	LSM	N	See Impact C-HZ-1: Construction and operation of the proposed Project could result in a cumulatively considerable contribution to cumulative impacts related to hazards and hazardous materials. The PEIR determined that due to the site-specific nature of hazardous materials impacts and mitigation measures, there would be no potential for cumulative effects from construction of WSIP projects in conjunction with other cumulative developments. The PEIR determined that compliance with applicable laws and regulations and with implementation of SFPUC construction measures, this cumulative impact would be less than significant. The project-level analysis identified the potential for cumulative impacts from multiple construction projects in the same geographic region. Implementation of mitigation would reduce the impact such that the GSR Project's contribution to cumulative impacts would not be cumulatively considerable.
Minerals and Energy Resources				
Impact 4.15-1: Construction-related energy use.	PSM	LS	Y	See Impact ME-1: The Project would not encourage activities that result in the use of large amounts of fuel and energy in a wasteful manner during construction. The PEIR identified a potentially significant impact related to energy use during construction. Because the GSR Project would not use large amounts of fuel and energy in a wasteful manner, the project-level analysis identified a less-than-significant impact.

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.15-2: Long-term energy use during operation.	PSM	LS	N	See Impact ME-2: The Project would not encourage activities that result in the use of large amounts of fuel and energy in a wasteful manner during operation. The PEIR estimated that the PEIR Regional Groundwater Projects would require up to 5,100,000 kWh for operation. The PEIR determined that implementation in addition to other WSIP projects in the San Francisco region (e.g., San Andreas Pipeline 3 Installation and Recycled Water Project) would increase energy use in the San Francisco region by approximately 87 percent, a potentially significant impact. The project-level analysis determined that the collective change in energy demand of the new well facilities and Westlake Pump Station, the Partner Agencies' wells, and the regional water system would be negligible, and the GSR Project would not cause a substantial increase in energy use on a long-term basis. The impact was determined to be less than significant.
Impact 4.17-13: Cumulative increases in the use of nonrenewable energy resources.	LS	LS	N	See Impact C-ME-1: Construction and operation of the proposed Project would not result in a cumulatively considerable contribution to cumulative impacts related to mineral and energy resources. The PEIR determined that the WSIP's contribution to cumulative increases in long-term energy demand would not be considerable. The PEIR also determined that with implementation of exhaust control measures required in the Air Quality Section of the PEIR, the WSIP's contribution to the regionwide cumulative increase in construction-related energy consumption would not be considerable. The project-level analysis identified the potential for cumulative impacts from multiple construction projects in the same geographic region. The GSR Project's contribution to cumulative impacts would not be cumulatively considerable, as large amounts of fuel and energy would not be used in a wasteful manner during construction (less than significant).

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Collective Facilities Impacts (Consider these to be potential cumulative impacts)				
Impact 4.16-1a: Collective temporary and permanent impacts on existing land uses in the vicinity of proposed facility sites.	N/A	N/A	N/A	
Impact 4.16-1b: Collective temporary and permanent impacts on the visual character of the surrounding area.	LSM	N/A	N/A	
Impact 4.16-2: Collective exposure of people or structures to geologic and seismic hazards.	N/A	N/A	N/A	
Impact 4.16-3: Collective WSIP impacts related to flooding hazards and the degradation of surface waters.	LSM	N/A	N/A	
Impact 4.16-4: Collective loss of sensitive biological resources.	N/A	N/A	N/A	

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.16-5: Collective increase in impacts related to archaeological, paleontological, and historic resources.	N/A	N/A	N/A	
Impact 4.16-6: Collective traffic increases on local and regional roads.	PSM	N/A	N/A	
Impact 4.16-7: Collective increases in construction and operational emissions in the region.	LS	N/A	N/A	
Impact 4.16-8: Collective increases in construction-related and operational noise.	PSU	N/A	N/A	
Impact 4.16-9: Collective impacts on utilities and landfill capacity.	N/A	N/A	N/A	
Impact 4.16-10: Collective effects on recreational resources during construction.	LSM	N/A	N/A	

TABLE D-2
WSIP PEIR Impacts Consistency

PEIR Impact	PEIR Significance Determination for San Francisco Region Groundwater Project SF-2	GSR Project-level Significance Determination	Same Rationale for Significance Determination as PEIR? (Y/N)	Notes: (Explain difference in significance determinations and/or rationale for determinations)
Impact 4.16-11: Collective conversion of farmland to nonagricultural uses.	N/A	N/A	N/A	

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Land Use		
Measure 4.3-2, Facility Siting Studies: Conduct project-specific facility siting studies for non-SFPUC land and implement these studies' recommendations to avoid or minimize impacts on existing land uses.	Y	This measure has been implemented. The SFPUC completed project-specific siting studies in the Final Alternatives Analysis Report to determine the most appropriate location of the 16 proposed and 3 alternate well facility sites. Wells would be located both on lands owned by the SFPUC or owned by others. Land use criteria used in the Alternatives Analysis Report included ownership and compatibility with local zoning were used to avoid or minimize impacts to existing nearby land uses.
Measure 4.3-4a, Architectural Design: Design permanent new, aboveground facilities to be compatible with existing visual character of the site and surrounding area.	Y	The proposed aboveground facilities would have a similar appearance as other SFPUC water supply facilities. Most well facilities are not visible from scenic resources and would not alter the visual character of the surrounding areas. Further, existing topography and vegetation would provide partial screening of many proposed aboveground facilities. Additional mitigation measures are included in the GSR EIR to reduce potential impacts to scenic resources and visual character. These measures include Mitigation Measures M-AE-1b (Tree Protection Measures), M-AE-1c (Develop and Implement at Tree Replanting Plan), M-AE-3a (Implement Landscape Screening), M-CR-5a (Minimize Facilities Siting Impacts on Elements of the Historical Resource at Site 14), and M-CR-5b (Minimize Facilities Siting Impacts on Elements of the Historical Resource at Site 15). These measures provide site-specific requirements in accordance with the PEIR mitigation measure.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.3-4b, Landscaping Plans: Prepare and implement landscaping plans to restore (recontour, revegetate, landscape) sites to preconstruction conditions. Monitor landscape plantings.	Y	This measure is implemented as part of the GSR Project for all proposed well facility sites. After construction is complete, well facility sites would be restored to their general pre-construction conditions, but in accordance with the SFPUC's Vegetation Management Policy (SFPUC 2007), they may be revegetated with alternate plantings. This approach replaces the requirement for preparation and implementation of a landscaping plan in accordance with the PEIR mitigation measure, except for Sites 4, 7, and 18 (Alternate) which require implementation of Mitigation Measure M-AE-3a (Implement Landscape Screening) to reduce impacts to less than significant levels. The Project Description for Sites 10 and 13 includes landscape plan requirements.
Measure 4.3-4c, Landscape Screens: Include new plantings and landscape berms to screen views of new structures and equipment from scenic roads.	Y	The proposed aboveground facilities would be similar in appearance as other SFPUC water infrastructure facilities in San Francisco and San Mateo counties. Most well facility sites would not be visible from scenic resources or from scenic roadways. Existing topography and vegetation would provide partial screening of many proposed aboveground facilities. The well facility at Site 15 (in Golden Gate National Cemetery) would be located along Sneath Lane which is designated as a scenic roadway by the City of San Bruno. Mitigation Measure M-AE-1d (Construction Area Screening) would screen the construction activities from views along Sneath Lane. Likewise, M-AE-3a (Implement Landscape Screening) would screen views of these sites from adjacent residences or cemeteries.
Measure 4.3-4d, Minimize Tree Removal: Minimize or avoid the removal of trees that screen existing and proposed WSIP facility sites; implement tree replacement plan.	Y	See GSR Mitigation Measures M-BR-4a (Identify Protected Trees) and BR-4b (Protected Tree Replacement). Additionally, M-AE-1b (Tree Protection Measures) and M-AE-1c (Develop and Implement a Tree Replanting Plan) would minimize tree removal along El Camino Real during construction of the pipeline for Site 12.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.3-5, Reduce Lighting Effects: Use cut-off shields and nonglare fixture design, direct lighting onsite and downward, prevent use of highly reflective building materials or finishes.	Y	As part of the GSR Project Description nighttime lighting during construction would be placed away from surrounding residences and light sensitive land uses. The Project includes the development of a site-specific construction lighting plan for sites where nighttime construction lighting would be needed. The site-specific lighting plans would include elements that would be in accordance with the PEIR mitigation measure.
Geology		
Measure 4.4-1, Quantified Landslide Analysis: Avoid sites with landslide hazards; where they cannot be avoided, conduct site-specific slope stability analyses and implement recommendations.	Y	Site-specific geotechnical evaluations were completed for most sites during conceptual design of the GSR Project. Mitigation Measure M-GE-3 (Conduct Site-Specific Geotechnical Investigations and Implement Recommendations) requires that the SFPUC conduct a site-specific design-level geotechnical study for all sites selected for construction as described in Impact GE-3 and GE-4. The measure requires that facilities be designed and constructed in conformance with the specific recommendations contained in the design-level geotechnical studies. This mitigation measure meets the requirement for preparation and implementation of an individual landslide analysis in accordance with the PEIR mitigation measure.
Measure 4.4-4, Subsidence Monitoring Program: Monitor subsidence and implement corrective actions as warranted.	N	The PEIR mitigation applies to ground subsidence related to tunneling. Although the GSR Project does not include tunneling, the Project EIR included an evaluation of the potential impacts from subsidence associated with groundwater pumping. GSR Project operations would not result in substantial land subsidence due to decreased groundwater levels in the Westside Groundwater Basin, and no mitigation would be needed to address subsidence impacts, as evaluated in Impact HY-7.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.4-9, Characterize Extent of Expansive and Corrosive Soil: Characterize the presence of expansive/corrosive soils; implement recommendations.	N	The presence of expansive and corrosive soils was evaluated as part of the site-specific geotechnical reports. The GSR Project would be constructed and designed in accordance with the recommendations of the site-specific geotechnical investigations to minimize the effects of any expansive soils. With incorporation of these design features, impacts related to expansive and corrosive soils would be less than significant and no mitigation is required. See Impact GE-5, The Project would not create significant risks to life or property due to expansive or corrosive soil; no mitigation would be required based on the site-specific geotechnical evaluations.
Hydrology and Water Quality		
Measure 4.5-2, Site-Specific Groundwater Analysis and Identified Measures: Conduct project-specific analysis of dewatering and implement measures to ensure that groundwater resources and the beneficial uses of groundwater are not adversely affected.	Y	See Impact HY-2. Mitigation Measure M-HY-2 (Management of Well Development and Pump Testing Discharges) would be necessary to address potential impacts to receiving waters from the discharge of dewatering effluent from well testing, including groundwater protection.
Measure 4.5-4a, Flood Flow Protection Measures: Preclude exposure of stockpiled soils, hazardous materials, and construction materials to flood flows.	Y	The proposed GSR Project construction staging areas are located outside of the designated 100-year FEMA flood hazard zone. Mitigation Measure M-HY-1 (Develop and Implement a Storm Water Pollution Prevention Plan [SWPPP] or an Erosion and Sediment Control Plan) would require that the construction contractor implement site-specific BMPs to protect water quality during project construction activities. No additional mitigation is necessary.
Measure 4.5-4b, Site-Specific Flooding Analysis and Identified Measures: Implement design measures to preclude projects from causing flooding or damage from redirected flood flows.	Y	GSR Project construction would not result in flooding impacts associated with impeding or redirecting flood flows as the Project would be located outside of the designated 100-year FEMA flood hazard zone, as analyzed in the evaluation of impacts under Impact HY-3.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.5-5, Stormwater Treatment and Groundwater Monitoring: If treated stormwater is used to maintain Lake Merced water levels, monitor surface water and groundwater quality in the vicinity of Lake Merced. Identify and implement corrective actions (e.g., treatment).	Y	The GSR Project would not discharge treated stormwater into a lake directly, however implementation of Mitigation Measures M-HY-9a (Lake Level Monitoring and Modeling for Lake Merced) and M-HY-9b (Lake Level Management for Lake Merced) would require the SFPUC to implement a lake level management program, including lake level and water quality monitoring and groundwater level elevations. The measures would require the addition of supplemental water to augment lake levels if available; and alter pumping as necessary to avoid adverse effects on Lake Merced should a supplemental water source be unavailable. Supplemental water may include treated stormwater. Mitigation Measure M-HY-9a requires monitoring for both surface water and groundwater quality at Lake Merced.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.5-6, Appropriate Source Controls and Site Design Measures: For projects located in areas not covered by a municipal stormwater permit and disturbing less than one acre of land during construction, implement appropriate source control and site design measures. These measures will ensure compliance with applicable water quality criteria and goals and protect the beneficial uses of the receiving water.	Y	Earthmoving activities associated with GSR Project construction would temporarily alter existing drainage patterns at well facility sites, including vegetation removal, grading, excavation and soil stockpiling. Construction activities could also result in the accidental release of hazardous construction chemicals, such as adhesives, solvents and fuels. If not managed appropriately, these chemicals could adhere to soil particles, become mobilized by rain or runoff, or infiltrate into groundwater, degrading water quality. Mitigation Measure M-HY-1 (Develop and Implement a Storm Water Pollution Prevention Plan [SWPPP] or an Erosion and Sediment Control Plan) would reduce water quality impacts during Project construction activities. Consistent with the requirements of the NPDES General Permit for Storm Water Discharges Associated with Construction Activity, at sites where more than one acre of land disturbance would occur (Sites 3, 4, 5, 6, 7, 12, 13, and 14), the SFPUC or its contractor(s) would develop a Storm Water Pollution Prevention Plan (SWPPP), submit a notice of intent to the SWRCB's Division of Water Quality and implement site-specific BMPs to prevent discharges of nonpoint-source pollutants in construction-related stormwater runoff into downstream water bodies. At sites where less than one acre of land disturbance would occur (Sites 1, 2, 8, 9, 10, 11, 15, 16, 17 Alternate, 18 Alternate, and 19 Alternate), the SFPUC or its contractor(s) would prepare and implement Erosion and Sediment Control Plans (ESCPs). The ESCP would include measures to address the overall construction of the Project and to minimize any adverse effects on water quality. This mitigation measure meets the requirement for compliance with water quality standards and to protect the beneficial uses of receiving waters in accordance with the PEIR mitigation measure.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 5.6-1, Groundwater Monitoring to Determine Basin Safe Yield: The SFPUC will continue ongoing studies, including the existing groundwater and lake level monitoring programs, to determine the safe yield of the North Westside Groundwater Basin in order to avoid overdraft and associated effects including adverse effects on surface water features and seawater intrusion. Using this data, the SFPUC will develop and implement a plan identifying appropriate pumping patterns to avoid overdraft and the undesirable effects associated with overdraft. The plan will establish both a regular (average annual) and an intermittent (dry year or emergency) yield as well as a strategy for modifying pumping patterns such that the pumping levels can be sustained as an ongoing reliable water supply without depletion of groundwater storage or degradation of water quality.	N	This mitigation measure only applies to projects in the North Westside Groundwater Basin. The GSR Project would be in the South Westside Groundwater Basin. Nevertheless, the GSR Project may cause significant impacts relative to groundwater depletion, which would be reduced to less than significant through implementation of Mitigation Measures M-HY-14 (Prevent Groundwater Depletion). The mitigation measure includes provisions that GSR wells shall only be pumped when there is a positive balance in the SFPUC Storage Account, which will be adjusted for losses from the Basin due to leakage caused as a result of the Project.
Measure 5.6-2, Implementation of a Lake Level Management Plan: The SFPUC will develop and implement a lake level management plan identifying strategies for altering pumping patterns or lake augmentation to maintain Lake Merced water levels within the desired long-term range should monitoring conducted under Measure 5.6-1 indicate the potential for adverse effects on lake levels due to groundwater pumping. The SFPUC will coordinate the implementation of this measure with Measure 5.6-1.	N	This mitigation measure is only applicable to projects in the North Westside Groundwater Basin. The GSR Project would be in the South Westside Groundwater Basin. Nevertheless, the GSR Project may cause significant impacts on Lake Merced water levels, which would be reduced to less than significant through implementation of Mitigation Measures M-BR-7 (Lake Level Management for Water Levels Increases for Lake Merced), M-HY-9a (Lake Level Monitoring and Modeling for Lake Merced) and M-HY-9b (Lake Level Management for Lake Merced). These mitigation measures include monitoring and provisions to manage both increasing and decreasing Lake Merced lake levels to the extent such lake level changes are caused by the Project.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 5.6-5, Drinking Water Source Assessments for Groundwater Wells: As required by the California Department of Health Services and incorporated as part of the WSIP, the SFPUC will prepare drinking water source assessments for groundwater wells constructed under the Local and Regional Groundwater Projects (SF-2) and will update these assessments every five years. If the assessment indicates no potential for contamination, then no mitigation is required. However, for wells that are considered vulnerable to contamination on the basis of the drinking water source assessment, the SFPUC will develop and implement a source water protection program specifying actions and a program to be implemented to prevent contamination of the drinking water source. The source water protection program could include nonregulatory components such as watershed restoration, stormwater monitoring, groundwater monitoring, and public education to protect drinking water quality. Land use planning, permitting, and possibly more restrictive regulatory methods may also be implemented by the local municipality where a threat to drinking water quality is indicated, and management of potential sources of microbiological or direct chemical contamination to eliminate or reduce the risk of contamination of the water supply may be considered. The SFPUC will encourage public participation in the development of the program and will update the program every five years along with the drinking water source assessments.	Y	Preliminary Drinking Water Source Assessment and Protection Program (DWSAP) reports for most well sites were prepared by the SFPUC as part of the conceptual design of the GSR Project. The preliminary DWSAPs indicate that groundwater at these sites may be vulnerable to contamination from nearby land use activities. However, the analysis of the site-specific conditions in Impact HY-12 concluded that, in the South Westside Groundwater Basin, known contamination is located near the ground surface, the GSR wells would be screened from 240 feet to 700 feet below ground surface, and the Primary Production Aquifer where the GSR wells would be pumping from is generally disconnected hydraulically from most occurrences of shallow groundwater zones. In addition, the GSR Project would decrease the downward gradient over the long term, therefore decreasing the risk of contamination. Therefore, the analysis concludes that impacts relative to contamination of the drinking water source would be less than significant, and no mitigation would be required.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Biology		
Measure 4.6-1a, Wetlands Assessment: Wetland scientist will determine whether wetlands could be affected by the project, and, if so, perform a wetland delineation and develop mitigation.	N	See Impacts BR-3 and BR-8. A wetlands assessment was performed in support of the Project-level analysis, which included an evaluation of potential effects on wetland habitats at Lake Merced. Although no wetlands or open waters regulated under federal or State law would be directly impacted by the Project, Mitigation Measure M-HY-1 (Develop and Implement a Storm Water Pollution Prevention Plan [SWPPP] or an Erosion and Sediment Control Plan) would be implemented to protect surrounding waterways from construction-related runoff and sedimentation, reducing potential indirect impacts to less than significant. Implementation of Mitigation Measures M-BR-8 (Lake Level Management for No-Net-Loss of Wetlands for Lake Merced), and Mitigation Measures M-HY-9a (Lake Level Monitoring and Modeling for Lake Merced) and M-HY-9b (Lake Level Management for Lake Merced) would reduce potential Project impacts on wetlands at Lake Merced to less-than-significant levels.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.6-1b, Compensation for Wetlands and Other Biological Resources: If a WSIP project will affect jurisdictional wetlands, implement avoidance measures, restoration procedures, and compensatory creation or enhancement to ensure no net loss of wetland extent or function. Compensate for sensitive riparian and upland habitats supporting key special-status species. Obtain permits for each project and comply with applicable regulations addressing sensitive habitats and species. The Habitat Reserve Program is an alternative for implementing offsite habitat compensation.	Y	No wetlands or open waters regulated under federal or State law would be directly impacted by the GSR Project; however, Mitigation Measure M-HY-1 (Develop and Implement a Storm Water Pollution Prevention Plan [SWPPP] or an Erosion and Sediment Control Plan) would be implemented to protect surrounding waterways from construction-related runoff and sedimentation, reducing potential indirect impacts to less than significant. Implementation of Mitigation Measures M-BR-8 (Lake Level Management for No-Net-Loss of Wetlands for Lake Merced), and Mitigation Measures M-HY-9a (Lake Level Monitoring and Modeling for Lake Merced) and M-HY-9b (Lake Level Management for Lake Merced) would reduce potential Project impacts on wetlands at Lake Merced to less-than-significant levels. See also Mitigation Measure M-BR-2 (Avoid Disturbance to Riparian Habitat), which would require the avoidance of riparian habitat. The mitigation measure requires installation of temporary fencing to demarcate the boundary for construction at these sites. This mitigation measure is consistent with the PEIR mitigation measure and is specific to the Project requirements. Therefore, no wetland impacts would require compensatory mitigation.
Measure 4.6-2, Habitat Restoration/Tree Replacement: Restore temporarily affected sensitive habitats. Replace trees designated as heritage trees (or similar local designation) consistent with requirements of local ordinances. Minimize loss of sensitive habitats by coordinating WSIP projects.	Y	See Mitigation Measures M-BR-4a (Identify Protected Trees) Mitigation Measure M-AE-1b (Tree Protection Measures), and Mitigation Measure M-BR-4b (Protected Tree Replacement). The project-level mitigation measures require implementation of protective measures to avoid or minimize impacts on mature native trees during construction, and if removal is necessary, to plant replacement trees at or in close proximity to the removal sites to the extent feasible. If replanting trees on the same location is not feasible or could result in damage to the proposed improvements, the SFPUC shall designate a suitable planting site elsewhere in the Project area. These mitigation measures are consistent with the PEIR mitigation measure and are specific to the GSR Project requirements.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)		Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.6-3a, Protection Measures During Construction for Key Special-Status Species and Other Species of Concern: Where key special-status species and other species of concern are potentially present, implement general practice measures (preconstruction surveys, worker awareness program, environmental inspector, minimization of habitat loss).		Y	See Mitigation Measures M-BR-1a (Protection Measures during Construction for Special-status Birds and Migratory Passerines and Raptors), M-BR-1b (Protection Measures for Special-status Bats during Tree Removal or Trimming), and M-BR-1d (Monarch Butterfly Protection Measures). The project-level measures are consistent with the PEIR measure and provide additional site- and project-specific details where key special-status species and other species of concern are potentially present. These mitigation measures are consistent with the PEIR mitigation measure and are specific to the GSR Project requirements.
Measure 4.6-3b, Standard Mitigation Measures for Key Special-Status Plants and Animals: Implement measures to reduce impacts on key special-status species. *See below for specific species and corresponding sub-PEIR mitigation number.*			
Invertebrates			
Valley Elderberry Longhorn Beetle	I.1	N	Species not identified in GSR Project vicinity.
Vernal Pool Crustaceans (Vernal Pool Fairy Shrimp; Conservancy Fairy Shrimp; Vernal Pool Tadpole Shrimp)	I.2	N	Species not identified in GSR Project vicinity.
Bay Checkerspot Butterfly; Callippe Silverspot Butterfly	I.3	N	Species not identified in GSR Project vicinity.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)		Applicable to Proposed Project (Y/N)?	Discussion
Fish			
Central Valley Fall- and Late-Fall-Run DPS Chinook Salmon; Central Valley DPS Steelhead; Green Sturgeon Southern District DPS; Central Coast DPS Steelhead; Rainbow Trout	F.1	N	Species not identified in GSR Project vicinity.
Reptiles and Amphibians			
California Red-Legged Frog; Foothill Yellow-Legged Frog	RA.1	N	Species not identified in GSR Project vicinity.
California Tiger Salamander	RA.2	N	Species not identified in GSR Project vicinity.
San Francisco Garter Snake	RA.3	N	Species not identified in GSR Project vicinity.
Alameda Whipsnake	RA.4	N	Species not identified in GSR Project vicinity.
Birds			
Swainson's Hawk	B.1	N	Species not identified in GSR Project vicinity.
Western Burrowing Owl	B.2 and B.3	N	Species not identified in GSR Project vicinity.
Raptors (including Bald Eagle)	B.4	Y	See Mitigation Measure M-BR-1a (Protection Measures during Construction for Special-status Birds and Migratory Passerines and Raptors).
Least Bell's Vireo	B.5	N	Species not identified in GSR Project vicinity.
California Black Rail, California Clapper Rail	B.6	N	Species not identified in GSR Project vicinity.
Western Snowy Plover	B.7	N	Species not identified in GSR Project vicinity.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)		Applicable to Proposed Project (Y/N)?	Discussion
Mammals			
Salt Marsh Harvest Mouse	M.1	N	Species not identified in GSR Project vicinity.
San Joaquin Kit Fox	M.2	N	Species not identified in GSR Project vicinity.
Riparian Woodrat	M.3	N	Species not identified in GSR Project vicinity.
Vernal Pool Plants			
Succulent Owl's Clover; Hoover's Spurge; Colusa Grass; San Joaquin Valley Orcutt Grass; Greene's Tuctoria; Hairy Orcutt Grass)	P.1	N	Species not identified in GSR Project vicinity.
Riparian Plants			
Delta Button-Celery	P.2	N	Species not identified in GSR Project vicinity.
Large-Flowered Fiddleneck	P.3	N	Species not identified in GSR Project vicinity.
San Francisco Woolly Sunflower; Marin Western Flax; Fountain Thistle	P.4	N	Species not identified in GSR Project vicinity.
Measure 4.6-4, Pipeline and Water Treatment Plant Treated Water Discharge Restrictions: Design planned discharges from the WSIP pipelines and water treatment plants to natural water bodies to minimize impacts on riparian and aquatic resources and to avoid or minimize temperature effects on aquatic resources.		N	The project-level analysis determined that mandatory compliance with the Waste Discharge Requirements for the SFPUC Drinking Water Transmission System and SFPUC Standard Operating Protocols would ensure that water quality impacts due to discharges of treated water from existing and newly installed pipelines during construction would be less than significant. Planned discharges of groundwater during well maintenance activities would be sent to either the local sanitary sewer system or the storm drain system. Planned discharges to the storm drain system would be dechlorinated and pH adjusted prior to discharge, so that eventual discharge to a surface water from the storm drain would not impact riparian and aquatic resources.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Cultural		
Measure 4.7-1, Suspend Construction Work if Paleontological Resource Is Identified: Suspend work and notify a qualified paleontologist when a paleontological resource is discovered at any of the project sites. The paleontologist will document the discovery as needed, evaluate the potential resource, and assess the significance of the find under CEQA criteria. Temporarily halt or divert excavation within 50 feet of a fossil find until the discovery is examined by a paleontologist. If avoidance is not feasible, the paleontologist will prepare an excavation plan.	Y	The project-level measures specify more stringent requirements than the PEIR measure due to the high potential to encounter paleontological resources during construction. Specific requirements include a paleontological resources training for construction workers, a paleontological resources monitoring program, and assessment and salvage of fossil finds, as applicable. See Mitigation Measure M-CR-3 (Suspend Construction Work if a Paleontological Resource is Identified).
Measure 4.7-2a, Archaeological Testing, Monitoring, and Treatment of Human Remains: Determine if implementation of an archaeological testing or archaeological monitoring program or both is the appropriate strategy for avoidance of potential adverse effects on significant archaeological resources. Review any requirements approved by the State Historic Preservation Officer. Prepare an archaeological testing plan, archaeological monitoring plan, final archeological resources report and, if applicable, an archaeological data recovery plan. The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity will comply with applicable state laws.	Y	Although no known human burial locations have been identified within the GSR Project area, the EIR measure addresses the possibility of discovery during construction activities. See Mitigation Measure M-CR-4 (Accidental Discovery of Human Remains).

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.7-2b, Accidental Discovery Measures: Distribute archaeological resource "ALERT" sheet to contractors. If an archaeological resource may be present within the project site, an archaeological consultant will evaluate it and make a recommendation as to what action (e.g., preservation in situ) is warranted. The SFPUC will implement appropriate measures.	Y	No archaeological sites were identified within any of the GSR Project construction areas. However, at Site 11, there is some potential that remnants of a known archaeological site may still exist. See Mitigation Measure M-CR-2 (Discovery of Archaeological Resources). This mitigation measure requires the SFPUC and its contractors to adhere to appropriate procedures and protocols for minimizing impacts on any previously unrecorded and buried (or otherwise obscured) archaeological deposits, in the event that a possible archaeological resource is discovered during construction activities. This mitigation measure is consistent with the PEIR mitigation measure and is specific to the Project requirements.
Measure 4.7-3, Protection of Historic Districts: A qualified historian will assess the city's water system facilities affected by WSIP facility projects for their potential contribution to a historic district. If a historic district would be affected by one or more proposed WSIP facility project(s), develop and implement mitigation measures for effects with attention to the potential district as a whole. If a historic district is identified at the project level, it should be recorded as such, using National/California Register criteria of significance. Document the district by completing the State of California Department of Parks and Recreation Form 523 and submit to the State Historic Preservation Officer.	N	The GSR Project would not affect any portion of the City's water system facilities, except connection to underground pipelines, which would have no adverse effect on any potential historic district associated with the City's water system facilities.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.7-4a, Alternatives Identification and Resource Relocation: Identify feasible project alternatives to eliminate or reduce the need for demolition or removal of a historic resource to the greatest extent possible. If preservation of the affected historical resource at the current site is determined to be infeasible, the structure will be stabilized and relocated to other appropriate nearby sites, if feasible. After relocation, the resource will be treated according to the Secretary of the Interior's *Standards for the Treatment of Historic Properties.* If the affected historic resource is to be demolished, consult with local historical societies and governmental agencies regarding salvage of materials for public information or reuse in other locations.	N	The project-level measures are consistent with the PEIR measure and provide additional site- and project-specific details to protect historic resources at Sites 14 and 15. No other proposed GSR well facility sites would have significant impacts on historic resources. These mitigation measures are consistent with the PEIR mitigation measure and are specific to the Project requirements. See Mitigation Measure M-CR-5a (Minimize Facilities Siting Impacts on Elements of the Historical Resources at Site 14) and Mitigation Measure M-CR-5b (Minimize Facilities Siting Impacts on Elements of the Historical Resources at Site 15).
Measure 4.7-4b, Historical Resources Documentation: Prepare documentation of historic resources prior to any construction work associated with demolition or removal. The appropriate level of documentation will be selected by a qualified professional who meets the standards for history, architectural history, and/or architecture (as appropriate) set forth by the Secretary of the Interior's *Professional Qualification Standards* (36 CFR 61) in consultation with a preservation specialist assigned by the San Francisco Planning Department and the local jurisdiction, if deemed appropriate by the Planning Department.	N	As part of the GSR EIR analysis, an architectural historian, who meets the standards set for by the Secretary of Interior's Standards, was retained to evaluate impacts to historic resources. The evaluation identified significant impacts only at Sites 14 and 15. See Mitigation Measure M-CR-5a (Minimize Facilities Siting Impacts on Elements of the Historical Resources at Site 14) and Mitigation Measure M-CR-5b (Minimize Facilities Siting Impacts on Elements of the Historical Resources at Site 15).

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.7-4c, Secretary of the Interior's Standards for the Treatment of Historic Properties: Prepare materials describing and depicting the proposed project. Review the proposed project for compliance with the Secretary of the Interior's *Standards for the Treatment of Historic Properties*. If a project is determined to be inconsistent with the *Standards for the Treatment of Historic Properties*, pursue and implement redesign of the project such that consistency with the standards is achieved.	Y	The project-level measures are consistent with the PEIR measure and provide additional site- and project-specific details to protect historic resources at Sites 14 and 15. No other proposed GSR well facility sites would have significant impacts on historic resources. These mitigation measures are consistent with the PEIR mitigation measure, are specific to the Project requirements, and reduce impacts to less than significant under CEQA. See Mitigation Measure M-CR-5a (Minimize Facilities Siting Impacts on Elements of the Historical Resources at Site 14) and Mitigation Measure M-CR-5b (Minimize Facilities Siting Impacts on Elements of the Historical Resources at Site 15).
Measure 4.7-4d, Historic Resources Survey and Redesign: Undertake a historic resources survey to identify and evaluate potential historic resources that may exist in the project's area of potential effect. If a survey identifies one or more historical resources, assess the impact the project may have on those historical resources. If the project will cause a substantial adverse change to a historic resource, assign a preservation specialist to review the proposed project for compliance with the Secretary of the Interior's *Standards for the Treatment of Historic Properties*. If the project is determined to be inconsistent with those standards, pursue and implement redesign of the project such that consistency with the standards is achieved.	Y	As part of the GSR EIR analysis, a historic resources survey was undertaken within the Project's area of potential effect. The resources that were identified were evaluated, and significant impacts were identified at Sites 14 and 15. These mitigation measures are consistent with the PEIR mitigation measure, are specific to the Project requirements, and reduce impacts to less than significant under CEQA. See Mitigation Measure M-CR-5a (Minimize Facilities Siting Impacts on Elements of the Historical Resources at Site 14) and Mitigation Measure M-CR-5b (Minimize Facilities Siting Impacts on Elements of the Historical Resources at Site 15).

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.7-4e, Historic Resources Protection Plan: A qualified historian will prepare a plan that specifies procedures for protecting and monitoring historic resources during construction.	Y	The project-level measures are consistent with the PEIR measure and provide additional site- and project-specific details to protect historic resources at Sites 14 and 15. No other proposed GSR well facility sites would have significant impacts on historic resources. These mitigation measures are consistent with the PEIR mitigation measure and are specific to the Project requirements. See Mitigation Measure M-CR-5a (Minimize Facilities Siting Impacts on Elements of the Historical Resources at Site 14) and Mitigation Measure M-CR-5b (Minimize Facilities Siting Impacts on Elements of the Historical Resources at Site 15), which include monitoring of potential impacts on historic resources during construction.
Measure 4.7-4f, Preconstruction Surveys and Vibration Monitoring: Include geotechnical investigations if vibration-related impacts could affect historic resources. Follow recommendations of the final geotechnical reports. Conduct a preconstruction survey of existing conditions and monitor the adjacent buildings for damage during construction, if recommended.	Y	See Impact NO-2. The project-level analysis determined that construction-related groundborne vibration would be below the significance thresholds, except at Site 15, which is located within a potential historic district, because of nearby pipeline construction. See Mitigation Measure M-NO-2 (Reduce Vibration Levels during Construction of Pipelines).

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Traffic		
Measure 4.8-1a, Traffic Control Plan Measures: Elements of the traffic control plan could include: circulation and detour plans, designated truck routes, sufficient staging area, access to driveways, use of standard construction specifications for controlling construction vehicle movements, restrictions on truck trips during peak morning and evening commute hours, lane closure restrictions, maintenance of alternate one-way traffic flow, detour signing, pedestrian and bicycle access and circulation, equipment and materials storage, construction worker parking, roadside safety protocols, considerations for sensitive land uses, coordination with local transit service providers, roadway repair, and conformance with the state's *Manual of Traffic Controls for Construction and Maintenance Work Areas*.	Y	See Mitigation Measure M-TR-1 (Traffic Control Plan). The project-level mitigation measure has been tailored to specify those elements appropriate to the proposed Project. The mitigation measure specifies that traffic control plans conform to the applicable provisions of the state's *Manual of Traffic Controls for Construction and Maintenance Work Areas.*
Measure 4.8-1b, Coordination of Individual Traffic Control Plans: In the event that more than one construction contract is issued for work along existing or new pipelines, and where construction could occur within and/or across multiple streets in the same vicinity, coordinate the traffic control plans in order to mitigate the impact of traffic disruption by including measures that address overlapping construction schedules and activities, truck arrivals and departures, lane closures and detours, and the adequacy of on-street staging requirements.	Y	See Mitigation Measure M-C-TR-1 (Coordinate Traffic Control Plan with other SFPUC Construction Projects). The mitigation measure specifies that the SFPUC and its construction contractors shall coordinate traffic control plans for overlapping construction.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.8-4, Accommodation of Displaced Public Parking Supply for Recreational Visitors: Include an additional measure in the traffic control plans to accommodate any anticipated visitor parking demand that would be displaced by proposed projects at public recreational facilities.	N	No recreational parking would be displaced under the GSR Project.
Air Quality		
Measure 4.9-1a, SJVAPCD Dust Control Measures: Include San Joaquin Valley Air Pollution Control District (SJVAPCD) Basic Control Measures in contract specifications for all construction sites. Include SJVAPCD Enhanced Control Measures in contract specifications when required to mitigate significant PM10 impacts. Include SJVAPCD Additional Control Measures in contract specifications for construction sites that are large in area, located near sensitive receptors, or which for any other reason warrant additional emissions reductions. Include SJVAPCD Rule 9510, Indirect Source Review, Section 6.1, Construction Equipment Emissions in contract specifications for any project subject to discretionary approval by a public agency that ultimately results in the construction of a new building, facility, or structure or reconstruction of a building, facility, or structure for the purpose of increasing capacity or activity and also involving 9,000 square feet of space.	N	The GSR Project would not be located within the jurisdiction of the SJVAPCD.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.9-1b, SJVAPCD Exhaust Control Measures: Include SJVAPCD Exhaust Control Measures in contract specifications, where applicable, for heavy-duty equipment to limit exhaust emissions within the San Joaquin Region.	N	The GSR Project would not be located within the jurisdiction of the SJVAPCD.
Measure 4.9-1c, BAAQMD Dust Control Measures: For projects in the Sunol Valley, Bay Division, Peninsula, and San Francisco Regions, include Bay Area Air Quality Management District (BAAQMD) Basic Control Measures in contract specifications for all construction sites. Include BAAQMD Enhanced Control Measures in contract specifications for sites over four acres. Include BAAQMD Optional Control Measures in contract specifications for sites that are large in area, located near sensitive receptors, or which for any other reason warrant additional emissions reductions.	Y	See Mitigation Measure M-AQ-2a (BAAQMD Basic Construction Measures [All Sites]). The project-level mitigation is consistent with the BAAQMD guidelines and significance thresholds utilized in the GSR Project EIR for assessing and mitigating air quality impacts.
Measure 4.9-1d, BAAQMD Exhaust Control Measures: For projects in the Sunol Valley, Bay Division, Peninsula, and San Francisco Regions, include BAAQMD Exhaust Control Measures to limit exhaust emissions, where applicable.	Y	See Mitigation Measure M-AQ-2b (NOx Reduction during Construction of Alternate Sites). The project-level mitigation is consistent with the BAAQMD guidelines and the significance thresholds utilized in the GSR Project EIR for assessing and mitigating air quality impacts.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.9-2a, Health Risk Screening or Use of Soot Filters: Complete a health risk screening if truck volumes associated with a particular project along a particular haul route exceed 40,000 truck trips over the entire construction period. If a potentially significant impact is indicated, complete a site-specific health risk assessment. Consider diesel particulate matter (DPM) emission rates in separate project-level analysis at the time of construction. Develop a mitigation program based on the site-specific health risk assessment implementing methods of reducing DPM emission or exposure to a less-than-significant level.	Y	The health risk assessment conducted as part of the GSR EIR analysis determined that DPM exposure exceeded the BAAQMD's cancer and non-cancer risk thresholds, utilized as significance in the GSR EIR, at Group 3 for Sites 5, 6, and 7 (On-site Treatment). Mitigation Measure M-AQ-3 (Construction Health Risk Mitigation) would be implemented to reduce construction emissions to less-than-significant levels, as discussed in GSR Section 5.8, Air Quality under Impact AQ-3.
Measure 4.9-2b, Vacate SFPUC Land Managers' Residences in Sunol Valley: Vacate the two SFPUC Land Managers' residences in the Sunol Valley during construction of the Calaveras Dam or SVWTP – Treated Water Reservoirs projects or complete a health risk screening (and, if warranted, a health risk assessment) to determine health risks at these residences from either of these two projects.	N	The GSR Project would not be located in Sunol Valley.
Measure 4.9-3, Tunnel Gas Odor Control: Add water scrubbers and appropriate chemicals to tunnel ventilation systems if odorous gases become a nuisance odor problem (i.e., odor complaints are received).	N	The GSR Project would not include tunneling.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Noise/Vibration		
Measure 4.10-1a, Noise Controls: For all WSIP projects located within 500 feet of any noise-sensitive receptors, implement appropriate noise controls to reduce daytime construction noise levels to meet the 70-dBA daytime speech interference criterion to the extent feasible. For all WSIP projects involving nighttime construction and located within 3,000 feet of any noise-sensitive receptors, implement appropriate noise controls to maintain noise levels at or below any applicable ordinance nighttime noise limits or the 50-dBA nighttime sleep interference criterion to the extent feasible.	Y	See Impact NO-1. Mitigation Measure M-NO-1 (Noise Control Plan) requires the SFPUC to retain a qualified noise consultant to prepare a Noise Control Plan and the SFPUC will approve the Noise Control Plan and ensure that it is implemented to ensure compliance with local noise ordinances to the extent feasible. However, under the GSR Project, even with implementation of this mitigation measure, the conflict with a local ordinance from required daytime construction and nighttime drilling and pump-testing at some well sites would be significant and unavoidable. See also Impact NO-3. Mitigation Measure M-NO-3 (Expanded Noise Control Plan) requires the SFPUC to retain a qualified noise consultant to prepare a Noise Control Plan and the SFPUC will approve the Noise Control Plan and ensure that it is implemented to reduce construction noise levels at nearby noise-sensitive land uses to meet the 70-dBA daytime and 50-dBA nighttime criteria to the extent feasible. However, even with implementation of this mitigation measure, the impact from required daytime construction and nighttime drilling and pump-testing at some well sites would be significant and unavoidable.
Measure 4.10-1b, Vacate SFPUC Caretaker's Residence at Tesla Portal: Vacate caretaker's residence at Tesla Portal during construction of the Advanced Disinfection and Tesla Portal Disinfection Station projects as well as those portions of the San Joaquin Pipeline System and Rehabilitation of Existing San Joaquin Pipelines projects located at Tesla Portal.	N	The GSR Project would not be located at the Tesla Portal.
Measure 4.10-2a, Limit Hourly Truck Volumes: Haul and delivery truck routes for all WSIP projects will, to the extent feasible, avoid local residential streets and follow local designated truck routes. Total project-related haul and delivery truck volumes on any particular haul truck route will be limited to 80 trucks per hour.	N	See Impact NO-4. Construction-related vehicle trips would not result in substantial temporary increases in ambient noise levels along construction access routes. Although the GSR Project requires construction in residential areas and along residential streets, anticipated hourly truck volumes would not result in a significant impact, and no mitigation would be needed.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.10-2b, Restrict Truck Operations: Prohibit haul and delivery trucks from operating within 200 feet of any residential uses during the nighttime hours. For receptors beyond 200 feet from a haul route, limit noise levels to the 50-dBA sleep interference criterion at the closest receptor.	N	See Impact NO-4. Although there are residential uses within 200 feet of several proposed GSR sites, construction-related vehicle trips would not result in substantial temporary increases in ambient noise levels along construction access routes, because haul and delivery trucks would not be used during nighttime hours.
Measure 4.10-2c, Vacate SFPUC Land Manager's Residence: Vacate Land Manager's residence adjacent to Alameda East Portal during offsite truck operations associated with the New Irvington Tunnel project, if truck operations occur during the nighttime hours (10 p.m. to 7 a.m.) and are estimated to exceed the 50-dBA sleep interference criterion at this residence.	N	The GSR Project would not be located near the SFPUC Land Manager's Residence.
Measure 4.10-3a, Vibration Controls to Prevent Cosmetic or Structural Damage: Incorporate restrictions into all contract specifications (primarily for sheetpile driving, pile driving, or tunnel construction activities), whereby surface vibration will be limited to 0.2 inch/second peak particle velocity (PPV) for continuous vibration (e.g., vibratory equipment and impact pile drivers) and 0.5 inch/second PPV for controlled detonations at the closest receptors to ensure that cosmetic or structural damage does not occur.	Y	See Impact NO-2. The project-level analysis determined that construction-related groundborne vibration would be below the significance thresholds except for Sites 3, 4, 12, 15, and 18 (Alternate). Mitigation Measure M-NO-2 (Reduce Vibration Levels during Construction of Pipelines) would apply to these sites.
Measure 4.10-3b, Limit Vibration Levels At or Below Vibration Perception Threshold: Maintain vibration levels at or below the vibration perception threshold at adjacent properties to the extent feasible during nighttime. If vibration complaints are received, operational adjustments will be made to reduce vibration annoyance effects.	Y	See Impact NO-2. The project-level analysis determined that construction-related groundborne vibration would be below the significance thresholds except for Sites 3, 4, 12, 15, and 18 (Alternate). Mitigation Measure M-NO-2 (Reduce Vibration Levels during Construction of Pipelines) would apply to these sites.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.10-3c, Limit Tunnel-Related Detonation to Daylight Hours: Limit controlled detonation associated with tunnel construction to daylight hours, Monday through Saturday.	N	The GSR Project would not include tunneling.
Services/Utilities		
Measure 4.11-1a, Notify Neighbors of Potential Utility Service Disruption: Notify residents and businesses in project area of potential utility service disruption two to four days in advance of construction.	Y	See Impact UT-1. GSR Project construction may result in temporary utility service disruption for residences or businesses. Mitigation Measure M-UT-1e (Advance Notification) requires two- to four-day advanced notice for all disruptions.
Measure 4.11-1b, Locate Utility Lines Prior to Excavation: Locate overhead and underground utility lines prior to excavation work.	Y	See Mitigation Measures M-UT-1a (Confirm Utility Line Information) and M-UT-1b (Safeguard Employees from Potential Accidents Related to Underground Utilities).
Measure 4.11-1c, Confirmation of Utility Line Information: Find the exact location of underground utilities by safe and acceptable means. Confirm information regarding the size, color, and location of existing utilities before construction activities commence.	Y	See Mitigation Measures M-UT-1a (Confirm Utility Line Information) and M-UT-1b (Safeguard Employees from Potential Accidents Related to Underground Utilities).
Measure 4.11-1d, Safeguard Employees from Potential Accidents Related to Underground Utilities: While any excavation is open, protect, support, or remove underground utilities as necessary to safeguard employees.	Y	See Mitigation Measures M-UT-1a (Confirm Utility Line Information) and M-UT-1b (Safeguard Employees from Potential Accidents Related to Underground Utilities).
Measure 4.11-1e, Notify Local Fire Departments: Notify local fire departments any time damage to a gas utility results in a leak or suspected leak, or whenever damage to any utility results in a threat to public safety.	Y	See Mitigation Measure M-UT-1d (Emergency Response Plan).

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.11-1f, Emergency Response Plan: Develop an emergency response plan in the event of a leak or explosion prior to commencing construction activities.	Y	See Mitigation Measure M-UT-1d (Emergency Response Plan).
Measure 4.11-1g, Prompt Reconnection of Utilities: Promptly reconnect any disconnected utility lines.	Y	See Mitigation Measures M-UT-1a (Confirm Utility Line Information) and M-UT-1b (Safeguard Employees from Potential Accidents Related to Underground Utilities).
Measure 4.11-1h, Coordinate Final Construction Plans with Affected Utilities: Coordinate final construction plans and specifications with affected utilities.	Y	See Mitigation Measures M-UT-1a (Confirm Utility Line Information) and M-UT-1b (Safeguard Employees from Potential Accidents Related to Underground Utilities).
Measure 4.11-2, Waste Reduction Measures: Incorporate into contract specifications for each WSIP project the requirement to obtain any necessary waste management permits prior to construction and to comply with conditions of approval attached to project implementation.	N	See Mitigation Measure M-UT-4 (Waste Management Plan).
Recreation		
Measure 4.12-1, Coordination with Golf Course/Recreational Facility Managers: Coordinate with managers of golf courses or other recreational facilities directly affected by pipeline construction to minimize adverse impacts on golfers and other recreational users.	N	The GSR Project Description includes notification of the Jefferson Elementary School District (which includes athletic fields used for recreation) a minimum of nine months prior to construction at school sites. The Project also includes obtaining easements from the Lake Merced Golf Club for placement of a well facility at Site 1. The facility at Site 1 would not be located within the area of play, and construction would not substantially damage this recreational resource.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.12-2, Appropriate Siting of Proposed Facilities: Locate WSIP project facilities on park and recreation properties in consultation with park planning staff to minimize the direct loss of recreation and play space and to minimize inconvenience to park and recreation users.	N	This PEIR mitigation measure was implemented during conceptual design of the GSR Project. Several proposed well facility sites would be located at or near a recreational facility, including construction in athletic fields at local schools and at the Lake Merced Golf Club. As part of Project implementation, construction schedules would be altered to avoid construction during the school year to minimize loss of play space. The Project Description commits the SFPUC to repairing or replacing the existing baseball backstop at Site 3; temporarily removing and then replacing the baseball backstop at Site 4; returning the athletic fields to pre-project conditions; and financially compensating the Lake Merced Golf Club for the loss of a restroom. The site to be located at the Lake Merced Golf Club would not be within the area of play, and construction would not substantially damage this recreational resource. Implementation of mitigation measures to control construction noise and construction dust would reduce the impact on the quality of the recreational experience at the golf club and athletic fields to a less-than-significant level.
Agriculture		
Measure 4.13-1a, Supplemental Noticing and Soil Stockpiling: For the San Joaquin Pipeline projects (San Joaquin System and Rehabilitation of Existing San Joaquin Pipeline), stockpile and replace topsoil in mapped areas of Prime and Unique Farmland and Farmland of Statewide Importance that would be temporarily disturbed by pipeline construction, unless other actions are required under specific agreements with individual landowners.	N	The GSR Project would not be located in the San Joaquin Region.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.13-1b, Avoidance or Soil Stockpiling: Minimize any potential impacts on agricultural lands in the Sunol Valley by avoiding these resources wherever possible. Where this is not possible, stockpile, replace, and hydroseed topsoil to prevent erosion, unless other actions are required as a result of contracts affecting use of the property or under specific agreements with individual landowners.	N	The GSR Project would not be located in the Sunol Valley.
Measure 4.13-2, Siting Facilities to Avoid Prime Farmland: Avoid areas identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. If avoidance is not feasible, adopt a permanent set-aside for an equivalent acreage of similarly valued farmland in the area.	N	No impacts to agricultural resources would occur from GSR Project construction.
Hazards		
Measure 4.14-1a, Site Health and Safety Plan: For all projects where the site assessment indicates the potential to encounter hazardous materials, prepare a site health and safety plan identifying the chemicals present, potential health and safety hazards, monitoring, soil-handling methods, appropriate personnel protective equipment, and emergency response procedures.	Y	See Mitigation Measure M-HZ-2b (Health and Safety Plan) and M-HZ-2c (Hazardous Materials Management Plan). The project-level mitigation measures combines the requirements for a site health and safety plan and materials disposal plan required in PEIR Measures 4.14-1a and 4.14-1b.
Measure 4.14-1b, Materials Disposal Plan: For all projects where the site assessment indicates the potential to encounter hazardous materials in the soil, prepare a materials disposal plan that specifies the disposal method and approved disposal site for the soil.	Y	See Mitigation Measure M-HZ-2b (Health and Safety Plan) and Mitigation Measure M-HZ-2c (Hazardous Materials Management Plan). The project-level mitigation measures combines the requirements for a site health and safety plan and materials disposal plan required in PEIR Measures 4.14-1a and 4.14-1b.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.14-1c, Coordination with Property Owners and Regulatory Agencies: Based on regulatory agency file reviews, assess the potential to encounter unacceptable levels of hazardous materials at known environmental cases, for construction activities to cause groundwater plume migration or interfere with ongoing remediations at known environmental cases, and for increased water levels in reservoirs or lakes to inundate known environmental cases. Modify construction or remediation activities.	Y	The project-level analysis evaluated the potential for encountering contaminated soils and groundwater during GSR Project construction. Mitigation Measure M-HZ-2a (Preconstruction Hazardous Materials Assessment) is included to require a preconstruction hazardous materials assessment within three months of construction to identify new hazardous materials sites or substantial changes in the extent of contamination at known groundwater contamination sites that could affect subsurface conditions at proposed well facility sites. The Project-specific analysis concludes that construction activities would not cause groundwater plume migration or interfere with remediation activities during construction. The Project does not include construction activities that would cause increase water levels at reservoirs or lakes. Operation of the Project may cause increased water levels at Lake Merced, as described in Impact BR-7. This significant impact would be mitigated to less-than-significant levels through implementation of Mitigation Measure M-BR-7 (Lake Level Management for Water Levels).
Measure 4.14-2, Health Risk Screening and Airborne Asbestos Monitoring Plan: For tunneling projects where soil or rock may contain naturally occurring asbestos, conduct a health risk screening assessment to identify acceptable levels of asbestos in tunnel emissions. Prepare an airborne asbestos monitoring plan for approval by the BAAQMD.	N	The GSR Project would not include tunneling and would not disturb a rock unit or soil that contains naturally occurring asbestos. See GSR Section 5.15.1 (Setting) in Section 5.15, Geology and Soils.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.14-5, Hazardous Building Materials Surveys and Abatement: For all WSIP projects involving demolition or renovation of existing facilities, perform a hazardous building materials survey for each structure prior to demolition or renovation activities. If any friable asbestos-containing materials, lead-containing materials, or hazardous components of building materials are identified, implement adequate abatement practices prior to demolition or renovation.	N	The SFPUC would be required to assess and abate hazardous building materials from demolition of the restroom at Site 1 and well with structure at Site 14 in accordance with applicable laws and regulations. Therefore, since the impact was determined to be less than significant, implementation of PEIR Mitigation Measure 4.14-5 is not required.
Energy		
Measure 4.15-2, Incorporation of Energy Efficiency Measures: Consistent with the Energy Action Plan II priorities for reducing energy usage, ensure that energy-efficient equipment is used in all WSIP projects. Prepare a repair and maintenance plan for each facility to minimize power use. Evaluate the potential for use of renewable energy resources.	N	See Impact ME-2. The collective energy demand of the GSR Project well facilities, the Partner Agencies' well facilities, and the SFPUC regional water system would remain at approximately 61 million kW, and the proposed Project would not cause an increase in energy use. Therefore, no mitigation is needed. However, the SFPUC would incorporate all applicable energy efficiency measures into the project design. Projects with building components will attempt to maximize energy efficiency by exceeding Title 24 minimum requirements by at least 20 percent and meet or exceed LEED Silver certification.
Collective Impacts		
Measure 4.16-1a, Construction Coordination at Irvington Portal: If construction schedules of multiple WSIP projects occurring at and near Irvington Portal coincide or overlap, the SFPUC will coordinate with construction contractor(s) and neighbors to minimize disturbance of residents in the adjacent neighborhood to the extent practicable. Such coordination will need to balance the duration of construction with the magnitude of construction-related impacts on the same sensitive receptors.	N	The GSR Project would not be located at the Irvington Portal.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Collective Impacts (cont.)		
Measure 4.16-4a, Bioregional Habitat Restoration Measures: Address the following bioregional effects and implement conservation principles when implementing habitat compensation mitigation required for individual WSIP facility projects: compound impacts on functional units of habitat as WSIP projects simplify vegetation structure and increase "edge" (the boundary between two different habitats); increased habitat impacts due to the spread of weedy, non-native plant species; genetic diversity impacts on small populations; impacts on wildlife movement due to habitat fragmentation; suppression of natural disturbance regimes; and reduced population recovery opportunities from stochastic events.	N	The GSR Project's contribution to cumulative effects on biological resources would be mitigated with project-specific mitigation measures and therefore would not require implementation of bioregional habitat restoration measures.
Measure 4.16-4b, Coordination of Construction Staging and Access: Coordinate construction contractor(s) to minimize surface disturbance when construction schedules for WSIP projects affecting the same areas overlap.	N	The only overlap in construction staging areas would occur at Site 8. At Site 8, the construction area for the Peninsula Pipelines Seismic Upgrade Project would overlap with the construction area for the well facility at Site 8. No significant biological impacts are projected to occur at Site 8, and therefore there is no need for mitigation no coordinate staging and access areas.
Measure 4.16-6a, SFPUC WSIP Projects Construction Coordinator: Identify a qualified construction coordinator to coordinate project-specific traffic control plans; develop a public information campaign to inform the public of construction activities, detour routes, and alternate routes; and work with local and regional agencies to pursue additional traffic mitigation measures and incorporate such measures into the project-specific traffic control plans.	Y	See Mitigation Measure M-C-TR-1 (Coordinate Traffic Control Plan with other SFPUC Construction Projects). The PEIR measure for a SFPUC WSIP project construction coordinator is incorporated into the Project-level measure for cumulative impacts.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Collective Impacts (cont.)		
Measure 4.16-6b, Combined San Joaquin Traffic Control Plan: Develop a San Joaquin Traffic Control Plan that coordinates the project-specific traffic control plans and identifies additional measures (consistent with the standards of San Joaquin County, Stanislaus County, and Caltrans) to minimize the combined impacts of multiple WSIP project construction traffic on I-580, Chrisman Road, and Vernalis Road.		The GSR Project would not be located in San Joaquin County.
Measure 4.16-6c, Combined Sunol Valley Traffic Control Plan: Develop a Sunol Valley Traffic Control Plan that coordinates the project-specific traffic control plans and identifies additional measures (consistent with the standards of Alameda County and Caltrans) to minimize the impacts of construction traffic on Calaveras Road and I-680.	N	The GSR Project would not be located in Sunol Valley.
Measure 4.16-7a, Dust and Exhaust Control Measures for All WSIP Projects: Require implementation of Air Quality Measures 4.9-1a thru 4.9-1d for all WSIP projects to address collective construction-related air quality impacts.	Y	Specified air quality measures are required under project-level Mitigation Measures M-AQ-2a (BAAQMD Basic Construction Measures) and M-AQ-2b (NOx Reduction during Construction of Alternate Sites). The project-level measures are consistent with the PEIR measure.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Collective Impacts (cont.)		
Measure 4.16-7b, Health Risk Screening or Use of Soot Filters for All Projects in the San Joaquin and Sunol Valley Regions: Require Measure 4.9-2a for all WSIP projects in the San Joaquin and Sunol Valley Regions to address collective DPM impacts. When this requirement is applied to the New Irvington Tunnel project, it will be applied to both the Sunol Valley and Fremont tunnel portals, taking into account truck traffic from other WSIP projects in the vicinity of both portals.	N	The GSR Project would not be located in either the San Joaquin or Sunol Valley region.
Measure 4.16-7c, Vacate SFPUC Land Managers' Residences for All Projects in the Sunol Valley Region: Require Measure 4.9-2b for all WSIP projects in the Sunol Valley Region to address collective DPM impacts.	N	The GSR Project would not be located in Sunol Valley.
Measure 4.16-8a, Limiting Hourly Truck Volumes and Restricting Truck Operations on Haul Routes for Multiple WSIP Projects: Apply Measures 4.10-2a and 4.10-2b to total haul and delivery truck volumes attributable to all WSIP projects on any particular haul truck route (including haul routes in the Tesla Portal, Irvington Portal, and Lower Crystal Springs Dam vicinities as well as haul routes in the San Francisco Region) to address collective truck-related noise impacts.	N	See Impact NO-4. The project-level analysis determined that noise levels from truck trips would fall below the daytime speech interference thresholds and within the range of existing baseline noise levels along roadways serving the sites. Therefore, PEIR Mitigation Measure 4.16-8a was determined not to be applicable to the GSR Project.

TABLE D-3
WSIP PEIR Mitigation Measure Consistency

PEIR Mitigation Measure(s)	Applicable to Proposed Project (Y/N)?	Discussion
Measure 4.16-8b, Vacate Land Manager's Residence for All Projects in Sunol Valley Region: To address collective noise impacts, vacate Land Manager's residence adjacent to Alameda East Portal during construction truck operations associated with all WSIP projects in this region if collective daytime truck volumes exceed the 70-dBA speech interference criterion or nighttime truck volumes exceed the 50-dBA sleep interference criterion.	N	The GSR Project would not be located in Sunol Valley.
Cumulative Effects		
Measure 4.17-6, SFPUC WSIP Projects Construction Coordinator – Other Agencies: The SFPUC WSIP construction coordinator designated in accordance with Measure 4.16-6a will also consider the effects of any traffic generated by SFPUC maintenance activities and other SFPUC projects; and coordinate with Caltrans, other county agencies, and local jurisdictions regarding construction of other private and public development projects so as to minimize traffic impacts on local access roads.	Y	See Mitigation Measure M-C-TR-1 (Coordinate Traffic Control Plan with other SFPUC Construction Projects). The project-level measure is consistent with the PEIR measure and requires construction coordination with other agencies and other WSIP projects.
Measure 4.17-8, Coordination of Truck Traffic on Local Streets: The SFPUC WSIP construction coordinator designated in Measure 4.17-6 will also be responsible for coordinating truck traffic generated on these same streets by SFPUC maintenance activities and other SFPUC projects so that SFPUC-related truck noise increases are maintained at or below threshold levels specified in Measures 4.10-2a and 4.10-2b to the extent feasible.	Y	See Mitigation Measure M-C-TR-1 (Coordinate Traffic Control Plan with other SFPUC Construction Projects). The project-level measure is consistent with the PEIR measure and requires construction coordination with other agencies and other WSIP projects, however, the Mitigation Measure is intended to reduce congestion and safety concerns, not reduce significant noise impacts from construction truck traffic

REFERENCES

San Francisco Planning Department. 2010. *Final Environmental Impact Report for the San Francisco Public Utilities Commission's Lower Crystal Springs Dam Improvements Project, San Francisco Planning Department File No. 2005.0161E, State Clearinghouse No. 2007012002*. Certified October 7, 2010.

San Francisco Planning Department. 2011. *Final Environmental Impact Report for the San Francisco Public Utilities Commission Calaveras Dam Replacement Project, San Francisco Planning Department File No. 2005.0161E, State Clearinghouse No. 2005102102*. Certified January 27, 2011.