

SAN JOAQUIN FIELD DIVISION LINER RAISE AND INSTRUMENTATION PROJECT

Addendum No. 1 to the 2020 Mitigated Negative Declaration SCH#
2020059020

Prepared for
California Department of Water Resources

August 2025



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SAN JOAQUIN FIELD DIVISION LINER RAISE AND INSTRUMENTATION PROJECT

Project Description

1.0 Introduction

1.1 Purpose of the Addendum

The California Department of Water Resources (DWR) evaluated the potential environmental impacts of the San Joaquin Field Division (SJFD) Liner Raise and Instrumentation Project (Approved Project) in a Mitigated Negative Declaration (MND), certified in 2020 (Approved Project MND). The Approved Project included raising portions of the California Aqueduct (Aqueduct) concrete liner of Pools 24 and 25, on each side, for approximately 1.65 miles and installation of water level monitoring in Pools 22 and 25. Since the certification of the Approved MND, DWR, in addition to raising the concrete liner of Pools 24 and 25 and installation of water level monitoring in Pools 22 and 25, has expanded the length of the Approved Project from 1.65 miles to 12.6 miles (Revised Project). This expansion warrants preparation of an addendum to the Approved Project MND (Addendum) pursuant to the California Environmental Quality Act (CEQA) Section 15164. The purpose of this Addendum is to evaluate whether the Revised Project would result in any new or substantially greater significant effects or require any new mitigation measures not identified in the Approved Project MND. This Addendum, together with the 2020 Approved Project MND, will be used by DWR when considering approval of the Revised Project.

1.2 Regulatory Background

Section 15164 of the CEQA Guidelines provides that an Addendum to a previously certified adopted MND for a project is permissible if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent MND have occurred. A subsequent MND must be prepared if:

- Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new, significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new, significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

- New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, or the Negative Declaration was adopted, shows any of the following:
 - The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

This Addendum relies on the significance criteria established in the CEQA Guidelines and the resource analysis methodology, described in the Approved Project MND, to assess the potential impacts related to the Revised Project. Each resource section presents a summary and a determination as to whether the Revised Project would result in new significant impacts, or a substantial increase in the severity of significant impacts.

In compliance with CEQA Guidelines Section 15150, this Addendum has incorporated by reference the Approved Project MND certified by the DWR in 2020, which includes all technical studies, analyses, and technical reports that were prepared as part of the Draft and Final MND for the Approved Project.

2.0 Summary of Approved Project

The objectives of the Approved Project are to restore functionality and original design capacity in Pools 24 and 25 and monitor surface water levels in Pools 22 and 25 to enable DWR to complete water deliveries to the Public Water Agencies (PWAs), thereby increasing operational flexibility and improving safety and reliability.

The Approved Project includes raising portions of the concrete liner of Pools 24 and 25, on each side, for approximately 1.65 miles. The Approved Project also involves the installation of water level monitoring instrumentation to provide real-time monitoring of flow and water levels in Pools 22 and 25. These pools are located along the Aqueduct in Kings and Kern Counties, between Aqueduct mile post (MP) 175.16 and MP 213.00. The northernmost site, MP 175.16, Pool 22, is approximately 2 miles southwest of the town of Kettleman City.

3.0 Description of the Revised Project

As with the Approved Project, the Revised Project would restore functionality and original design capacity in Pools 24 and 25 and modify water level monitoring instrumentation at Pools 22 and 25 to enable DWR to complete water deliveries to the PWAs, thereby increasing operational flexibility and improving safety and reliability. However, instead of raising portions of the concrete liner of Pools 24 and

25, on each side, for 1.65 miles as with the Approved Project, the Revised Project would raise portions of the concrete liner of Pools 24, on each side, for approximately 12.6 cumulative miles within DWR right-of-way. This addendum only focuses on the aspects of the Approved Project that have changed. The new portions of the concrete liner would be placed around existing structures such as the check structure, bridges, overchutes, pipelines and turnouts. Additional modifications, changes, and/or replacements to existing structure appurtenances include, but are not limited to, ladders, delineators, reflectors, buoy anchors, stairs, guardrails, railing, handrails, and wingwalls. The 12.6 miles of total work areas are located along the Aqueduct in Kings and Kern Counties between Pool 24 and Pool 25, broken down in the following segments:

- Pool 24: Left MP: 197.05-199.71; Right MP: 197.06-199.71 = 5.30 miles
- Pool 24: Left MP: 200.01-202.90; Right MP: 200.01-202.90 = 5.80 miles
- Pool 24: Left MP: 205.40-206.10; Right MP: 205.30-206.10 = 1.50 miles

Demolition of a total of 15 existing monitoring wells within the liner raise work zone would occur between August and December 2025. The existing wells would be demolished according to the DWR Well Standards Bulletin 74-90. The wells would be pressure-grouted with a cement/bentonite grout mix, and the standpipes would be removed and disposed of by the drilling contractor.

New monitoring wells would be constructed on the landside hinge of the road. The drilling method would use an 8-inch diameter hollow-stem auger, and a monitoring well would be constructed in the borehole before moving on to the next location. The exact location and maximum depth of each new monitoring well would be determined in the field during drilling operations. The anticipated depths of each new well would be between 35 and 40 feet deep.

Additionally, the existing 8-inch Corrugated Metal Pipe (CMP) roadway drains within the liner raise work zone would be removed during construction. This work would involve excavation up to an approximate depth of 10 feet, with the actual depth varying based on the existing depth of the 8-inch CMPs. All existing 8-inch CMPs would be removed and replaced with concrete trench drains at each location. The concrete trench drains would be cast-in-place or pre-cast. The outlet for the concrete trench drain may include a pipe connection with a check valve at the end. Controlled Low Strength Material (CLSM) would be used to backfill around the concrete trench drain and pipe connection. The landside drainage ditch would be regraded, and all sediment would be removed. Geotextile fabric would be installed and approximately 25 feet of rock slope protection would be placed downstream and upstream (12 feet each direction) of the concrete trench drain inlet at each location.

3.1 Construction Considerations

There are no changes to construction activities outlined in the Approved Project. Aqueduct flow and water levels would be operated normally or temporarily reduced to accommodate instrument placement. All work would be completed above water so deliveries would not be impacted. Construction of the Revised Project is anticipated to begin in the summer of 2025 starting with well demolition phase which would conclude in December 2025. Construction of the liner raise would occur in 2027. As with the Approved Project, construction activities would be limited to the hours of 6:00 a.m. to 6:00 p.m., Monday through Friday to the greatest extent possible. As with the Approved Project, a maximum of 20 construction

workers are anticipated to be required for the Revised Project during the liner raise construction, and up to five construction workers during demolition and construction and installation of the water level monitoring instrumentation.

Anticipated construction materials and equipment are listed in **Tables 1 and 2**, respectively. The Revised Project's required import fill increased to 22,000 cubic yards as compared to the Approved Project's projected import fill of 9,700 cubic yards with the update reflected in Table 1. Access to the construction areas would occur on existing roadways and service roads, including access roads on top of both sides of the Aqueduct embankments. No new roads would be required to access the construction areas. All liner raise construction would occur on the water side of the Aqueduct embankments. There are no additional changes to staging, stockpiling or the borrow location from the Approved Project. Instrumentation sites and connecting utility trenches would be located within previously disturbed roadways or road shoulders.

**TABLE 1 (REVISED PROJECT)
ANTICIPATED CONSTRUCTION MATERIALS REQUIRED FOR CONSTRUCTION OF THE REVISED PROJECT**

Construction Materials	Volume
Imported Fill	22,000 cubic yards
Excavation of onsite soil and backfill (Compacted Backfill)	25,000 cubic yards
HDPE Drain Pipe	450 linear feet
8-inch Corrugated Metal Pipes	170 linear feet
Aggregate Base	900 tons
Drain Rock	10 tons
Concrete - Liner	5,000 cubic yards
Concrete - Structure	10 cubic yards
Concrete Trench Drains	90 cubic yards
Rock Slope Protection	7,000 tons
Geotextile Fabric	800 square yards
Controlled Low Strength Material	400 cubic yards

**TABLE 2 (REVISED PROJECT – NO CHANGE)
ANTICIPATED CONSTRUCTION EQUIPMENT REQUIRED FOR CONSTRUCTION OF THE REVISED PROJECT**

Construction Equipment	Maximum Number
Flatbed Delivery Trucks	3
Concrete Delivery Trucks	510
2000-Watt Mobile Generators	2
John Deere 410L Backhoe	1
Caterpillar 308E Excavator	4
Ramex Compactors	3
Caterpillar 930 Front-end Loader	2
1.7-cubic-yard Concrete Mixer	1
10-cubic-yard Concrete Truck (in circuit)	4

Construction Equipment	Maximum Number
Personnel Trucks	20
Kenworth T-880 Tandem Axle Dump Trucks	3
Telehandler	1
Caterpillar AP 1000D Paving Machine	1

Upon completion of the Revised Project, all construction areas, including access roads, would be regraded to match pre-project conditions if necessary. Any remaining stockpiles or materials would be removed from the site.

3.2 Operation and Maintenance

Operation and maintenance of the Revised Project would be the same as that previously identified for the Approved Project. Once constructed, existing staff would resume regular maintenance and operation of the Aqueduct in accordance with existing maintenance and water delivery schedules. Routine maintenance along the Aqueduct and within the Revised Project area includes pothole repair; vegetation removal; erosion repairs; building maintenance and inspections; broken liner panels repair and/or replacement; debris removal; and repair and maintenance at check gates.

4.0 Project Approvals

There are no changes from the Approved Project's project approvals. **Table 3** presents a preliminary list of the agencies and entities, in addition to DWR, that would use this Addendum in their consideration during permit submittals and other approvals that may apply to the Revised Project. In addition to the 2020 Approved Project MND, this Addendum is intended to provide these agencies with information to support their decision-making processes. The table also lists the types of activities that would be subject to these requirements.

TABLE 3
APPROVALS POTENTIALLY REQUIRED

Agency	Permits and Authorizations Potentially Required	Activities Subject to Regulations
Regional Water Quality Control Board	Construction General Permit, NPDES Permit Storm Water Pollution Prevention Plan	Control runoff from construction sites

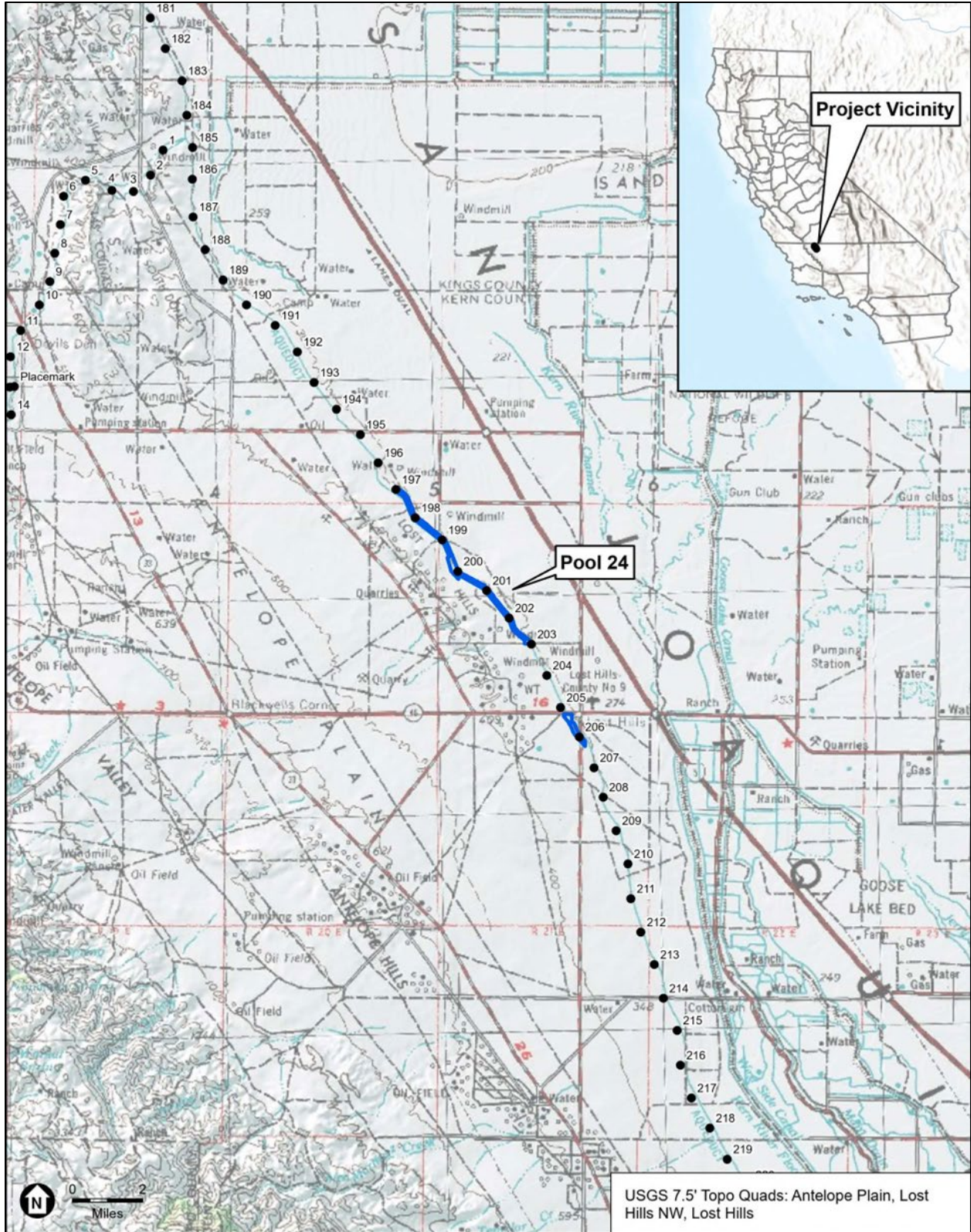
5.0 Analysis of Potential Environmental Effects

The analysis contained in this Addendum is focused on the activities associated with the Revised Project, as described in Section 3.0, Description of the Revised Project. Identical to the Approved Project, the Revised Project would restore functionality and original design capacity in Pools 24 and 25 and modify water level monitoring instrumentation at Pools 22 and 25. However, under the Revised Project, instead of raising portions of the concrete liner of Pools 24 and 25 on each side for 1.65 miles, portions of the concrete liner of Pool 24 would be raised on each side for approximately 12.60 cumulative miles and would be placed around existing structures. The Revised Project would also include removal of an 8-inch

corrugated metal pipe within the liner raise zone and installation of concrete trench drains. Deconstruction of 15 existing monitoring wells within the liner raise work zone would also occur. While there are no changes to construction activities outlined in the Approved Project (as described in Section 3, Description of the Revised Project), daily equipment and staffing for the Revised Project would be slightly varied compared to the Approved Project. However, impacts on the environment would be consistent with those approved under the Approved Project. There would be additional import fill required (22,000 cubic yards compared to 9,700 cubic yards with the Approved Project) to accommodate the additional length of the Pool 24 liner raise. As also described in Section 3, there would be no change to operation and maintenance with the Revised Project, with the exception of the schedule update. Total construction duration is anticipated to take eight months. As a result, resource topics are re-evaluated to determine if the construction of additional concrete liner segments for the Pool 24 liner raise and the associated instrumentation work, including the use of additional fill material, could result in any new significant impacts or substantially more severe impacts than those described in the 2020 Approved Project MND. The CEQA Guidelines Appendix G Environmental Checklist is used for this analysis and each checklist item is checked either as “Yes” if the Revised Project would result in substantial changes to a resource, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects identified for the Approved Project, or “No” if it would not. An explanation of the conclusions is presented.

5.1 Conclusion

As presented in the analysis below, this Addendum documents that the Revised Project would not result in any new or more severe impacts than those evaluated in the 2020 Approved Project MND. Therefore, no changes in the project circumstances, or new information of substantial importance have been identified that would require the preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 21166.



Source: USGS 2024; DWR 2024; ESA 2024

Figure 1
Revised Project Location

Aesthetics

<u>Issues (and Supporting Information Sources):</u>	<u>Yes</u>	<u>No</u>
I. AESTHETICS — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that no impacts or less than significant impacts related to Aesthetics would occur with construction and operation of the Approved Project.

- a, b) Pool 24 is not located in the vicinity of an officially designated scenic vista or scenic highway by Kings and Kern Counties (County of Kings 2010; County of Kern 2009; Caltrans 2020). The Revised Project construction activities would include stockpiling additional fill material and equipment staging in designated staging areas adjacent to Pool 24 along the access road. Identical to the Approved Project, due to the limited presence of construction equipment and the short-term temporary nature of project activities (eight months for construction), this stockpiling of additional fill would not significantly impact surrounding scenic vistas or resources or designated scenic highways. Therefore, impacts would remain **less than significant**.
- c) The Revised Project's vicinity is largely rural and uninhabited public views of the area are provided very briefly to motorists traveling along local roadways and recreational visitors who may fish within the area. The Revised Project construction activities would include stockpiling additional fill material and equipment staging in designated staging areas adjacent to Pool 24 along the access road. Excavated areas, stockpiled soils, and other materials generated during construction could change the visual character of the surrounding environment. These changes would be temporary, occurring over the eight-month construction period, and would not permanently affect the existing visual character of the Aqueduct or surrounding area. Once construction is completed, all the Revised Project areas would be re-graded to match pre-project conditions if necessary. Therefore, impacts on the visual character and quality of public views in the Revised Project area would remain **less than significant**.
- d) The Revised Project area is located within a rural setting where primary sources of nighttime light and daytime glare in the project vicinity are limited to sparse agricultural structures, some nighttime agricultural activities, and passing vehicles. The Revised Project would not install or add new permanent sources of light or glare to the project vicinity. Identical to the Approved Project, construction activities would be limited to the hours of 6:00 a.m. to 6:00 p.m., Monday

through Friday to the greatest extent possible and no nighttime work would occur. Therefore, impacts associated with light and glare would remain **less than significant**.

Summary of Potential Effects

As described above, the Revised Project would not alter the conclusions of the 2020 Approved Project MND, result in any new significant impacts, or substantially increase the severity of the previously identified impacts to aesthetic resources. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for aesthetics that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Agriculture and Forestry Resources

Issues (and Supporting Information Sources):

	Yes	No
II. AGRICULTURE AND FORESTRY RESOURCES —		
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a-e) The analysis in the 2020 Approved Project MND determined that no impacts related to agriculture and forestry resources would occur with construction and operation of the Approved Project.

The Revised Project occurs entirely within the Aqueduct and DWR right-of-way. There are no lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide importance or lands enrolled under a Williamson Act Contract in the Revised Project area (DOC 2016; DOC, 2019; DOC, 2019a). There are no forestry resources within the Revised Project area, therefore, there would be no conflict with existing zoning of forest land or cause rezoning of forest land, timberland, or timberland zoned for Timberland Production. The Revised Project does not

involve any changes to current General Plan land use or zoning designations. No other adverse impacts to the existing environment would occur from implementation of the Revised Project that could result in conversion of farmland to non-agricultural use or forest land to non-forest use. Thus, **no impact** would occur.

The Revised Project is consistent with and would not result in new or more severe potentially significant impacts than identified in the 2020 Approved Project MND and the 2020 Approved Project MND adequately addresses potential Revised Project impacts related to agricultural and forestry resources.

Summary of Potential Effects

The Revised Project would not result in substantial changes to agriculture and forestry resources, convert Prime Farmland, Unique Farmland, or Farmland of Statewide Important, conflict with existing zoning or a Williamson Act contract, result in the loss of forest land or conversion of forest land to non-forest land, and conversion of Farmland to non-agricultural use or conservation of forest land to non-forest use. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for agriculture and forestry resources that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Air Quality

Issues (and Supporting Information Sources):

	Yes	No
III. AIR QUALITY —		
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that no impacts or less than significant impacts related to Air Quality would occur with construction and operation of the Approved Project.

- a) The Revised Project area is located within the San Joaquin Valley Air Basin (SJVAB), which is made up of eight counties in California’s Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the SJVAB portion of Kern. Air quality within the SJVAB is regulated by several jurisdictions including the U.S. Environmental Protection Agency (USEPA), California Air Resources Board (CARB), and San Joaquin Valley Air Pollution Control District

(SJVAPCD). The SJVAPCD has established thresholds of significance for criteria pollutant emissions, which are based on New Source Review offset requirements for stationary sources. Because the SJVAB is an extreme ozone non-attainment area, stationary sources in the SJVAPCD are subject to some of the toughest regulatory requirements in the nation (SJVAPCD 2019). Emission reductions achieved through implementation of offset requirements are a major component of the SJVAPCD's air quality plans. Therefore, projects with emissions below the thresholds of significance for criteria pollutants would be determined to not conflict nor obstruct implementation of the air quality plans, while emissions exceeding those thresholds would conflict with and obstruct implementation. Based on the Revised Project construction emissions shown below in **Table 4**, estimated construction period, and the fact that no operational emissions are anticipated to result from the Revised Project, the Revised Project would not exceed thresholds and thus would not conflict with nor obstruct implementation of the SJVAPCD's ozone attainment, and impacts would remain **less than significant**.

- b) Any project-level significant impacts would be considered significant at a cumulative level. Criteria pollutant emissions for the Revised Project would be less than significant with implementation of the SJVAPCD regulated control measures that are required and described in the MND ("Air Quality" chapter of the MND, page 26) and therefore would not contribute to significant cumulative impacts. The project area is not located in proximity to sensitive receptors, therefore, construction activities would neither expose sensitive receptors to substantial pollutant concentrations nor generate objectionable odors. Accordingly, no new or more severe cumulative impacts are anticipated as part of the Revised Project. Therefore, the Revised Project impacts would remain **less than significant**.
- c) The Revised Project area is not located in proximity to sensitive receptors. The area is rural and predominately uninhabited, and there are no sensitive receptors within 1,000 feet of any of the project sites. The greatest potential for toxic air contaminant exposure during construction would be associated with diesel particulate matter (DPM) emissions from heavy equipment exhaust. The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. The risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time. Local exposure would range from weeks to months depending on the construction phase and location. The Revised Project would be constructed entirely within the Aqueduct right-of-way and would generally be within the same proximity to sensitive receptors as the Approved Project. Construction equipment, vehicle, and material movement activities and associated emissions would progress throughout the project area and would not result in fixed exposure to any single sensitive receptor location. Additionally, the Revised Project would comply with regulatory requirements relating to toxic air contaminants at the federal, State, and regional levels that would protect sensitive receptors and further reduce air quality impacts near the project area. Therefore, based on the Revised Project's nature and duration of the construction period, impacts on sensitive receptors would remain **less than significant**.

- d) Operation of the Aqueduct would be similar to existing conditions and would not introduce any new sources that would generate odorous emissions. Diesel-powered construction equipment can generate short-term, non-persistent odors due to engine exhaust, but these dissipate quickly and would likely not be noticeable beyond the work site. Additionally, the area surrounding the Revised Project area is rural and uninhabited. Therefore, the Revised Project would not create odors that could impact a substantial number of people, and **no impact** would occur.

Construction

Project construction activities associated with the Revised Project would result in emissions of ozone precursors (ROG and NO_x) and PM in the form of dust (fugitive dust) and exhaust (e.g., vehicle tailpipe emissions). Emissions of ozone precursors and PM are primarily a result of the combustion of fuel from on-road vehicles and off-road construction equipment. Pollutant emissions associated with project construction would be generated from the following general construction activities: (1) grading, excavation, and backfill; (2) vehicle trips from workers traveling to and from the construction areas; (3) trips associated with delivery of construction supplies to, and hauling debris from, the construction areas; (4) fuel combustion by on-site construction equipment; and (5) paving. These construction activities would temporarily generate air pollutant emissions in addition to dust and fumes. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring simultaneously. However, daily emissions from the Revised Project are anticipated to be similar to emissions for the Approved Project. Overall, construction associated with the project is expected to last 6-8 months.

Construction emissions for the Revised Project were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.1.29, and are presented in Table 4. Project-specific information was used for modeling when possible, including an updated backfill estimate of 22,000 cubic yards which was an increase from the Approved Project's projected 9,700 cubic yards. Where project-specific data was unavailable, CalEEMod defaults were used as inputs, which capture assumed values consistent with standard practice. CalEEMod assumptions and detailed output can be found in Appendix A. The table shows the project's annual emissions and compares them to the SJVAPCD significance thresholds for construction.

TABLE 4
ESTIMATED ANNUAL CONSTRUCTION EMISSIONS (TONS/YEAR)

Construction Year	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2025	0.121	1.122	1.309	0.003	0.125	0.057
SJVAPCD Significance Threshold	10	10	100	27	15	15
Exceed Threshold?	No	No	No	No	No	No

SOURCE: Data compiled by ESA 2025.

As shown in Table 4, the Revised Project's updated annual construction emissions of ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} would not exceed the SJVAPCD significance thresholds for construction. In addition, like the Approved Project ("Air Quality" chapter of the MND, page 27), the Revised Project's construction would be required to comply with the requirements of SJVAPCD Rule VIII (SJVAPCD,

2004), which aims to limit fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities (SJVAPCD 2004). Control measures required and enforced by the SJVAPCD under Regulation VIII would further reduce the PM emissions shown in Table 4.

As discussed earlier, based on the SJVAPCD's approach to air quality planning, the Revised Project's construction emissions would remain below applicable SJVAPCD thresholds for construction and would be considered to be consistent with the region's air quality plans.

Summary of Potential Effects

The Revised Project would not result in substantial changes to air quality, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects, with respect to air quality. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for air quality that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Biological Resources

<u>Issues (and Supporting Information Sources):</u>	<u>Yes</u>	<u>No</u>
IV. BIOLOGICAL RESOURCES — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

As mentioned, the Revised Project includes raising the concrete liner along both sides of Pools 24 and 25 of the Aqueduct and demolishing and installing water level monitoring instrumentation in Pools 22 and 25. The Revised Project would be implemented entirely within the Department of Water Resources (DWR) right-of-way, which consists of approximately 12.6 cumulative miles. Similar to the Approved Project, the Revised Project may involve vegetation clearing within the DWR right-of-way, which consists of previously disturbed areas. The Revised Project site consists of barren or annual grassland

where the liner raises and instrumentation modifications are proposed to occur, and the staging areas would be located within the DWR right-of-way and widened road shoulders and turnouts. Similar to the Approved Project, the Revised Project area also contains native and non-native herbaceous communities immediately adjacent to the Aqueduct, between the access road and adjacent agricultural fields within DWR's right-of-way.

a) **Less than Significant Impact with Mitigation Incorporated.**

Special-Status Plants

As described in the Approved MND, no special-status plant species were observed during the focused rare plant surveys that were completed in 2019 for the Approved Project. However, the surveys were conducted outside of the blooming period for several of the species having potential to occur. Nonetheless, because installation of the liner raise and the instrumentation sites would occur on previously disturbed areas of low habitat quality, the Approved MND concluded that special-status plants and habitat would not be affected and impacts on any special-status plants or habitat would be less than significant (DWR 2020).

Special-status plant species as reported in the CNDDDB (California Department of Fish and Wildlife [CDFW] 2024) and CNPS (2024) were analyzed to determine their potential for occurrence in the Revised Project area, consisting of a total of 12.6 miles as opposed to the original 1.65. However, the Revised Project area remains within the DWR right-of-way, so while the additional linear length of the Revised Project has changed, the overall impacts have not. Focused rare plant surveys were not conducted; however, reconnaissance surveys were conducted in May of 2024 which overlaps with the flowering period for all special-status plants that could occur in the Revised Project area except two: alkali-sink goldfields (*Lasthenia chrysantha*; California Rare Plant Rank [CRPR] 1B.1) and Munz's tidy-tips (*Layia munzii*; CRPR 1B.2). Based on the habitat assessment, both of these species were determined to have either no or low potential to occur due to a lack of suitable habitat (e.g., vernal pools and/or clay soils). No additional special-status plant species occur within the Revised Project area, consistent with the findings in the MND. As the activities associated with the Revised Project would be the same in nature as those of the Approved Project, the Revised Project would not result in new impacts or a substantial increase in the severity of impacts on special-status plant species. Therefore, Revised Project impacts would remain less than significant, and no mitigation is required.

Special-Status Wildlife

Special-Status Reptiles

As described in the Approved MND, one special-status reptile, San Joaquin coachwhip (*Masticophis flagellum* ssp. *ruddocki*; CDFW Species of Special Concern [SSC]), was determined present on the Approved Project site. This species was observed at MP 201, Pool 24, during a site assessment for Geotech work and at MP 213.00, Pool 25, during a blunt-nosed leopard lizard survey conducted in 2019. The Approved MND concluded that this species could be impacted during the installation of instrumentation and may enter other portions of the construction zone during construction activities. Therefore, the Approved Project would implement Mitigation Measure BIO-1 and Mitigation Measure BIO-2 to reduce impacts to special-status reptiles to a less than significant level. Mitigation Measure BIO-1 requires

preconstruction clearance surveys in areas where ground disturbance would occur that provide suitable habitat for San Joaquin coachwhip, and Mitigation Measure BIO-2 requires implementation of a Worker Environmental Awareness Project (WEAP). Therefore, the Approved MND concluded that impacts to special-status reptiles would be less than significant with mitigation incorporated (DWR 2020).

Special-status wildlife species as reported in the CNDDDB (CDFW 2025) and USFWS IPaC (USFWS 2025) were analyzed to determine their potential to occur within the Revised Project area in combination with known occurrences recorded by DWR. No additional special-status reptiles were detected or determined to have a moderate or high potential to occur within the Revised Project area compared to the Approved Project area (DWR 2025). As the activities associated with the Revised Project would be similar in nature to those of the Approved Project and the Revised Project would implement Mitigation Measures BIO-1 and BIO-2, as described in the Approved MND, the Revised Project would not result in new impacts or a substantial increase in the severity of impacts on special-status reptiles, including San Joaquin coachwhip. Therefore, Revised Project impacts would remain less than significant with mitigation incorporated.

Migratory and Nesting Birds

As described in the Approved MND, native resident and migratory bird species protected in accordance with the Migratory Bird Treaty Act of 1918 and Sections 3503.5, 3505, and 3511 of the California Fish and Game Code may nest within 500 feet of the liner raises, instrumentation sites, and staging areas associated with the Approved Project. Migratory birds and their nests located near the Approved Project site could be impacted by direct mortality or could be impacted indirectly from increased human presence, as well as ground vibrations and noise generated by heavy equipment. Therefore, the Approved Project would implement **Mitigation Measure BIO-3**, which requires a preconstruction nesting bird survey to be conducted and a buffer around active nests to be established, to reduce impacts to migratory and nesting birds to a less than significant level. Additionally, the Approved Project would implement Mitigation Measure BIO-2, which requires development and implementation of a WEAP to further reduce any potential impacts to migratory and nesting birds. Therefore, the Approved MND concluded that impacts to migratory and nesting birds would be less than significant with mitigation incorporated (DWR 2020).

As the activities associated with the Revised Project would be similar in nature to those of the Approved Project and the Revised Project would implement Mitigation Measures BIO-2 and BIO-3, as described in the Approved MND, the Revised Project would not result in new impacts or a substantial increase in the severity of impacts on migratory and nesting birds. Therefore, Revised Project impacts would remain less than significant with mitigation incorporated.

Special-Status Birds

As described in the Approved MND, one special-status bird, the western burrowing owl (*Athene cunicularia*, State Candidate [SC], CDFW SSC), was determined to be present on the Approved Project site. Although no western burrowing owl individuals were observed during the breeding season surveys conducted for the Approved Project in 2019, at that time, five active burrows with positive signs were observed in the vicinity of the proposed liner raise locations and staging area.

However, the most recent survey (DWR 2024) did not identify any burrowing owls or active burrows (with positive sign). As more than three years have passed since the last observation of an active burrow, no additional impacts are expected. If burrowing owl is detected at any point, and impacts to this species cannot be feasibly avoided, DWR would consult with CDFW and obtain appropriate take authorization from CDFW (pursuant to Fish & Game Code Section 2080 et seq.) prior to commencement of project activities within occupied habitat. Appropriate authorization from CDFW under CESA may include an Incidental Take Permit (ITP) or a Consistency Determination in certain circumstances, among other options [Fish & Game Code Sections 2080.1, 2081, subs. (b) and (c)]. Additionally, the Approved Project would implement Mitigation Measure BIO-2, which requires the development and implementation of a WEAP to further reduce any potential impacts to western burrowing owl. Therefore, the Approved MND concluded that impacts to western burrowing owl would be less than significant (DWR 2020).

Special-status wildlife species as reported in the CNDDDB (CDFW 2024) and USFWS IPaC (USFWS 2024) were analyzed to determine their potential to occur within the Revised Project area in combination with known occurrences recorded by DWR. One additional special-status bird species, loggerhead shrike (*Lanius ludovicianus*; CDFW SSC), was observed within the Revised Project area that was not previously determined to have the potential to occur within the Approved Project area (DWR 2024). However, potential impacts to loggerhead shrike would be minimized to a less-than-significant level with the implementation of the Approved Project Mitigation Measure BIO-3, as described in the *Migratory and Nesting Birds* Section within the Approved MND.

In contrast to the determination that burrowing owl was present within the Approved Project area, burrowing owl was determined to have a low potential to occur within the Revised Project area (DWR 2024).

The activities associated with the Revised Project would be similar in nature to those of the Approved Project and the Revised Project would implement Mitigation Measures BIO-2 and BIO-3, as described in the Approved MND, as well as **Mitigation Measure BIO-4**, as amended below. Therefore, the Revised Project would not result in new impacts or a substantial increase in the severity of impacts on special-status birds. Revised Project impacts would remain less than significant.

Special-Status Mammals

As described in the Approved MND, one special-status mammal species, San Joaquin antelope squirrel (*Ammospermophilus nelsoni*) was determined present on the Approved Project site. In addition, two special-status mammal species including American badger (*Taxidea taxus*) and San Joaquin kit fox (*Vulpes macrotis* ssp. *mutica*) were determined to have a high potential to occur on the Approved Project site (DWR 2020).

Several hundred small mammal burrows suitable for San Joaquin antelope squirrel, Tipton's kangaroo rat, giant kangaroo rat, and short-nosed kangaroo rat were identified on the landside of the embankment, adjacent to the proposed construction area, during the surveys conducted for the Approved Project in 2019. In addition, a few small mammal burrows were detected on the

disturbed waterside embankment of the canal within the proposed construction zone. Tipton's kangaroo rat, giant kangaroo rat, and short-nosed kangaroo rat were not identified during the 2019 focused small mammal surveys for the Approved Project; however, San Joaquin antelope squirrel was identified adjacent to the Approved Project site. Although no Tipton's kangaroo rat, giant kangaroo rat, or short-nosed kangaroo rat were observed during the focused small mammal surveys, because rodent burrows exist near the construction zone and San Joaquin antelope squirrel are present, the Approved MND determined that construction activities could impact special-status small mammal rodent species. Therefore, the Approved Project would implement **Mitigation Measure BIO-6**, which requires a burrow assessment for San Joaquin antelope squirrel, Tipton's kangaroo rat, giant kangaroo rat, and short-nosed kangaroo rat, as well as consultation with CDFW and/or USFWS if avoidance of a listed species is not feasible, to reduce impacts to special-status rodents to a less than significant level (DWR 2020).

No American badger or San Joaquin kit fox individuals were observed during the surveys conducted for the Approved Project in 2019; however, 64 potential burrows/dens were identified as well as suitable foraging habitat. The Approved MND concluded that these species could be impacted during construction activities associated with the Approved Project. Therefore, the Approved Project would implement **Mitigation Measure BIO-5**, which requires preconstruction surveys for American badger and San Joaquin kit fox and consultation with CDFW and USFWS prior to construction activities if badger or kit fox is observed utilizing a burrow/den within 500 feet of the Approved Project site, to reduce impacts to American badger and/or San Joaquin kit fox to a less than significant level (DWR 2020).

Additionally, the Approved Project would implement Mitigation Measure BIO-2, which requires development and implementation of a WEAP and would further reduce any potential impacts to San Joaquin antelope squirrel, Tipton's kangaroo rat, giant kangaroo rat, short-nosed kangaroo rat, American badger, and San Joaquin kit fox. Therefore, the Approved MND concluded that impacts to special-status mammals would be less than significant with mitigation incorporated (DWR 2020).

Special-status animal species as reported in the CNDDDB and USFWS IPaC were analyzed to determine the potential to occur within the Revised Project area in combination with known occurrences recorded by DWR. No additional special-status mammals were determined to have a moderate to high potential to occur within the Revised Project area compared to the Approved Project site (DWR 2024). As the activities associated with the Revised Project would be similar in nature to those of the Approved Project and the Revised Project would implement Mitigation Measures BIO-2, BIO-5, and BIO-6, as described in the Approved MND, the Revised Project would not result in new impacts or a substantial increase in the severity of impacts to special-status mammals. Therefore, Revised Project impacts would remain less than significant with mitigation incorporated.

b) **No Impact.**

As described in the Approved MND, there are no sensitive natural communities or riparian habitats within or adjacent to the Approved Project Site. Therefore, the Approved MND determined that the Approved Project would have no impact to sensitive natural communities or riparian habitats (DWR 2020).

No sensitive natural communities or riparian habitats exist within or adjacent to the Revised Project area (DWR 2024); thus, the Revised Project would not result in new impacts or a substantial increase in the severity of impacts on sensitive natural communities or riparian habitats. The Revised Project would have no impact.

c) **No Impact.**

As described within the Approved MND, the Aqueduct is not a federally or State regulated water body in accordance with the federal or state CWA or CFGC (Sections 1600 through 1616), respectively. There are no adjacent wetlands or potentially regulated drainages within or adjacent to the Approved Project footprint that could potentially be affected by the Approved Project. Therefore, the Approved MND determined that the Approved Project would have no impact to state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (DWR 2020).

Aquatic resources in the Revised Project area other than the California Aqueduct include small plastic-lined ditches and one underdrain at MP 199.76 and an earthen channel that travels 0.35 mile perpendicular to the Aqueduct; however, these resources are not present within areas that would be impacted by the Revised Project (DWR 2024). Furthermore, the Revised Project construction activities would occur entirely within the DWR right-of-way, and the Revised Project does not propose vegetation removal, filling, or hydrological interruptions within any potentially regulated water bodies or drainages. Therefore, the Revised Project would not result in new impacts or a substantial increase in the severity of impacts on federally protected wetlands. The Revised Project would have no impact on State or federally protected wetlands.

d) **Less than Significant Impact.**

As described within the Approved MND, the Approved Project is located within the Pacific Flyway, a major north-south flyway for migratory birds in the Americas, extending from Alaska to Patagonia. The Aqueduct supports a consistent, perennial source of fresh water that is utilized by birds for foraging and as a stop-over during spring and fall migration along the Pacific Flyway. Additionally, native habitat located on the landside embankment of the Aqueduct provides foraging and breeding opportunities for a number of terrestrial wildlife species; however, the Aqueduct presents a barrier for terrestrial wildlife to move/migrate in a west-to-east direction between large open space areas in the region. The Approved MND states that it is possible that some migratory birds may temporarily avoid foraging or wading in the Aqueduct immediately adjacent to the Approved Project site during construction activities, due to increased human activity as well as noises and vibrations that would be generated by heavy equipment. However, construction activities associated with the Approved Project would not prevent avian or terrestrial species from using other portions of the Aqueduct for these purposes. Therefore, construction and operation of the Approved Project would not impede wildlife movement in the region, nor would it prevent migratory birds or terrestrial wildlife from using the Aqueduct. Therefore, the Approved MND determined that the Approved Project would have a less than significant impact on local or regional wildlife movement or wildlife corridors and no mitigation is required (DWR 2020).

Existing wildlife movement corridors (e.g., Pacific Flyway) and barriers to wildlife movement (e.g., California Aqueduct) in the vicinity of the Revised Project site are the same as those that were identified for the Approved Project. It is possible that some migratory birds may temporarily avoid foraging or wading in the Aqueduct immediately adjacent to the Approved Project site during construction activities, due to increased human activity as well as noises and vibrations that would be generated by heavy equipment. As the activities associated with the Revised Project would be similar in nature to those of the Approved Project, construction activities associated with the Revised Project would not prevent avian or terrestrial species from using other portions of the Aqueduct. The Revised Project would not result in new impacts or a substantial increase in the severity of impacts to the movement of any native resident or migratory fish or wildlife species. Therefore, Revised Project impacts would remain less than significant.

e) **No Impact.**

As described in the Approved MND, there are no applicable City, County, or other local policies or ordinances adopted for the purposes of protecting biological resources (DWR 2020). Therefore, the Approved Project would not conflict with any local policies or ordinances protection biological resources and concluded that no impact would occur.

No city, county or other local policies or ordinances for protecting biological resources within the Revised Project area have been identified and the Revised project would not result in new impacts or a substantial increase in the severity of impacts related to consistency with local policies and ordinances. Therefore, the Revised Project would have no impact.

f) **No Impact.**

As described within the Approved MND, the Southwest San Joaquin Valley Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP) was proposed for public draft review in the spring of 2020. However, these documents had not yet been adopted and would not be applicable to the Approved Project and no other proposed HCP/NCCP was applicable to the Approved Project. Therefore, the Approved MND concluded that the Approved Project would not conflict with the provisions of an adopted HCP/NCCP or other approved local, regional, or state habitat conservation plan (DWR 2020).

According to the California Department of Fish and Wildlife (CDFW), the Revised Project is not located within the boundaries of any adopted or otherwise applicable HCP/NCCP, including the Southwest San Joaquin Valley Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP) which has not yet been adopted (CDFW 2024). Therefore, the Revised project would not result in new impacts or a substantial increase in the severity of impacts related to consistency with an approved HCP/NCCP. The Revised Project would have no impact.

Mitigation Measures

Mitigation Measure BIO-2: A WEAP will be developed by DWR prior to the initiation of ground-disturbing activities. The WEAP shall summarize those special-status species with potential to occur within or adjacent to the proposed project site, including potentially occurring nesting birds. The WEAP shall include measures that will be implemented to avoid impacts to special-status species during construction activities, such as, but not limited to, relocation

performed by a qualified biologist or allowing the animal to move out of the construction area on its own accord. The contents of the WEAP shall include an overview of identification characteristics of each special-status species; state, federal, and local regulations protecting said species; and a methodology that outlines the process required for construction personnel to report special-status species detections, including a chain of command and criteria for stopping work and avoiding impacts.

Mitigation Measure BIO-3: If work activities occur within the bird nesting season (generally defined as February 1 through August 31), a qualified biologist shall conduct a nesting bird survey no more than 3 days prior to initiation of ground disturbance, to identify any active bird nests within 300 feet of the proposed project site or active raptor nests within 500 feet. The survey shall be limited to areas with permitted access and shall not be conducted on private property without prior authorization. If an active nest is found, the nest shall be avoided and a suitable buffer zone shall be delineated in the field where no impacts shall occur until the chicks have fledged, as determined by a qualified biologist. Construction buffers shall be determined by a qualified biologist based on the location of the nest, species tolerance to human presence, and the type of construction activities being conducted. Typical buffers include 50-150 feet for passerines. Larger buffers may be required for species that are less tolerant to disturbances, such as raptors and special-status species. Activities requiring heavy equipment that generate ground vibrations and acute noises may require larger buffers, whereas finish work, such as electrical or manual work with hand tools may require a smaller buffer to adequately protect bird nests.

Mitigation Measure BIO-6: DWR shall conduct a burrow assessment for San Joaquin antelope squirrel, Tipton's kangaroo rat, giant kangaroo rat and short-nose kangaroo rat within six months prior to initiation of any ground-disturbing activities.

- If indicators of presence are observed within 50 feet of construction activities, including suitable-size burrows on the landside and/or waterside of the Aqueduct embankment, kangaroo rat and San Joaquin antelope squirrel surveys shall be conducted.
- Surveys for Tipton's kangaroo rat, giant kangaroo rat and short-nose kangaroo rat shall be conducted in accordance with the USFWS *Survey Protocol for Determining Presence of San Joaquin Kangaroo Rats* (USFWS, March 2013). Prior to conducting trapping, a trapping plan shall be prepared and approved by CDFW and USFWS.
 - In accordance with this survey protocol, live-trapping shall be conducted over 5 consecutive nights between April 1-October 31. Trapping shall cease upon the first capture of a target species.
 - Trapping shall be conducted on the waterside of the embankment near observed burrows. Trapping shall be conducted on the landside of the embankment near burrows that are within 50 feet of the proposed construction zone.
 - Traps shall be set approximately 1 hour before sunset and will be checked no later than 1 hour after sunrise the following morning.
 - All kangaroo rats will be immediately released at the location they were trapped. No animals will be removed from the wild without prior authorization from the USFWS and/or CDFW.
 - If no Tipton's kangaroo, giant kangaroo or short-nose kangaroo rats are captured during the protocol survey, the burrow shall be collapsed, or sandbags shall be placed over the burrows to ensure they cannot be occupied between the preconstruction survey and the excavation on the waterside embankment.

- The results of the kangaroo rat surveys shall be compiled in a survey report that shall be submitted to USFWS and CDFW within 14 days following the completion of the surveys.
- Surveys for San Joaquin antelope squirrel shall be conducted near observed burrows within the staging area, on the water side of the embankment and near burrows on the landside of the embankment that are within 50 feet from proposed construction activities. Survey methods shall either be visual surveys or camera surveys.
 - For visual surveys, 5 consecutive daytime surveys shall be conducted by a team of qualified biologists between April 1-July 15. Biologists shall visually survey the proposed construction zone and areas that are within 50 feet throughout the day along selected transects.
 - For camera surveys, camera stations shall be established near burrows at a distance determined by a qualified biologist. Each survey station shall consist of an infrared camera facing a bait station and shall run 24 hours a day for a period of two non-consecutive weeks between April 1-July 15. A qualified biologist shall analyze the images captured.
 - Visual and camera surveys shall be conducted during appropriate weather conditions, avoiding periods of high wind, precipitation, and low temperatures (<50 degrees Fahrenheit). Surveys shall avoid periods of inclement weather and temperatures that are lower than 55 degrees Fahrenheit.
 - If no San Joaquin antelope squirrel are detected during the visual or camera surveys, the burrows on the water side shall be collapsed or sandbags shall be placed over the burrows to ensure they cannot be occupied between the preconstruction survey and the excavation on the waterside embankment.
 - The results of the transect and camera surveys shall be compiled in a survey report that shall be submitted to CDFW within 14 days following the completion of the surveys.
- If any of the listed species are captured during the trapping effort, and avoidance within a minimum distance of 50 feet of the occupied burrow is not feasible, consultation with the USFWS and CDFW shall occur prior to initiation of the proposed project. Construction activities may not commence until a CDFW/USFWS-approved mitigation strategy has been developed and implemented.

Summary of Potential Effects

The Revised Project would not result in substantial changes to biological resources, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects, with respect to biological resources. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for biological resources that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Cultural Resources

<u>Issues (and Supporting Information Sources):</u>	<u>Yes</u>	<u>No</u>
V. CULTURAL RESOURCES — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This section relies on the information and findings presented in the following cultural resources technical report prepared for the Revised Project. *California Aqueduct Subsidence Program (CASP) Pool 24 Liner Raise Project, San Joaquin Field Division, Kern County, California: Cultural Resources Inventory Report* (Hoffman et al., 2024).

- Work performed for the cultural resources technical study consisted of: records searches of the California Historical Resources Information System (CHRIS); research on existing cultural resources literature; a desktop archaeological sensitivity analysis; a review of historic-era maps and aerial photography; State Historic Preservation Office consultation on impacts to the Aqueduct; an intensive-level archaeological pedestrian survey of the Project area; a built environment resource survey of the Project area; an evaluation of resource eligibility for listing in the California Register of Historical Resources (California Register); an assessment of Project impacts on historical resources and unique archaeological resources, as defined by CEQA; and recommendations for next steps in order to comply with CEQA.

As a result of background research in the associated Cultural Resources Inventory Report for the original MND, one cultural resource, historic-era built environment resource P-10-006207/P-15-015820/P-16-000266 (California Aqueduct [Aqueduct]), was identified in the Approved Project area. During the field survey conducted for the study, this previously recorded cultural resource was observed in the Approved Project area. Also, during the field survey, one previously unrecorded historic-era built environment resource, Lost Hills Road Vehicular Bridge, was identified in the Approved Project Area, and two previously unrecorded pre-contact archaeological isolates (ESA-CASP-24-ISO-02, ESA-CASP-24-ISO-03) were identified in the Approved Project Area.

P-10-006207/P-15-015820/P-16-000266 (Aqueduct) is listed in the California Register under Criteria 1 and 3. The Lost Hills Road Vehicular Bridge is California Register-eligible, under Criteria 1 and 3 as a contributor to P-10-006207/P-15-015820/P-16-000266 (Aqueduct) but not individually eligible for the California Register (Hoffman et al. 2024). In consideration of the analysis and recommendations from Hoffman et al. (2024), DWR concludes that CASP-24-ISO-02 and ESA-CASP-24-ISO-03 do not meet the definition of historical resources pursuant to Public Resources Code Sections 5020.1(j) and 5024.1. As such, DWR concludes that there are two cultural resources in the Approved Project Area (P-10-006207/P-15-015820/P-16-000266 [Aqueduct], and Lost Hills Road Vehicular Bridge) that qualify as historical resources, for CEQA purposes.

Discussion

- a) The Approved Project MND concluded that construction of the Approved Project could result in a substantial adverse change in the significance of an historical resource, as defined in *CEQA Guidelines* Section 15064.5, but that any such impacts would be reduced to less-than-significant with mitigation incorporated with implementation of Mitigation Measures CUL-1 and CUL-2, which require construction worker cultural resources sensitivity training and protocols for the inadvertent discovery of archaeological materials.

As a result of background research and field surveys, two historical resources (P-10-006207/P-15-015820/P-16-000266 [Aqueduct] and the Lost Hills Road Vehicular Bridge), were identified in the Approved Project area. Both of these are historic-era built environment resources.

The Revised Project would not alter the Aqueduct's alignment, nor its open trapezoidal design, which facilitates the conveyance of higher volumes of water. Upon Revised Project completion, the modifications to backfill the embankment in preparation for new concrete liners would further reinforce the Aqueduct's open trapezoidal design and would not involve its demolition or removal. The concrete lining is a character-defining feature of the Aqueduct, and the Revised Project does not propose removing the existing concrete liners, nor does the Revised Project propose to damage or destroy any parts of the Aqueduct. Instead, new material would be added above the existing liners, and this new material would match the original liner portions in design, unreinforced concrete material, texture, thickness, height, and color.

The Revised Project has the potential to cause alterations to the Aqueduct that are not consistent with the Secretary of the Interior's *Standards for the Treatment of Historic Properties* (SOI Standards) (Code of Federal Regulations Title 36 Part 68) due to modifications to the Aqueduct's character-defining features, including limited excavation and backfill at existing concrete liners, and the introduction of new concrete liner panels atop existing concrete liner panels which is also true of the Approved Project as discussed in the MND. The SOI Standards for the Treatment of Historic Properties consist of four treatment standards, Preservation, Rehabilitation, Restoration, and Reconstruction. The advisory guidance in the SOI Standards was referenced as an aid to ensure the Revised Project followed the outlined Rehabilitation treatment criteria. The SOI Standards Rehabilitation treatment allows for alterations and construction of new additions, if necessary, for the continuation or new use of a built environment resource. This treatment allows for greater flexibility to ensure the continued use of a historical resource. Under CEQA, a project that may impact a historical resource but that follows the SOI Standards, is generally considered to have a less-than-significant impact on the historical resource. The proposed alterations to the Aqueduct are necessary for the continued function of the resource, due to damage of ongoing subsidence on the existing concrete panels. The new panels are being placed to restore design capacity and functionality to the pools. The proposed new panels would match the original design, size, scale, massing, and materials of the original panels.

The Revised Project would allow for the continuous use of the Aqueduct by restoring its functionality and original design capacity, which would result in increased operational flexibility of the resource. While there would be limited changes as described in the project description to select contributing features of the resource, these modifications would not alter the resource's use

as an aqueduct, alignment, location, setting, or association with the State Water Project, the character-defining features of the Aqueduct under California Register Criterion 1. Under California Register Criterion 3, the alterations proposed by the Revised Project would restore the Aqueduct's original design capacity and functionality, so the Aqueduct would function as originally designed. The access roads along the embankment that are currently used by maintenance and service vehicles would be used for the movement of heavy equipment associated with the Revised Project and would not be altered or destroyed as a part of the Revised Project; the access roads would continue to operate for their intended purpose during and after completion of the Revised Project. Similarly, no check structures would be altered or destroyed as a part of the Revised Project and would continue to operate for their intended purpose during and after Revised Project completion. Additionally, even with implementation of the Revised Project, the Aqueduct would continue to exhibit most construction methods, materials, and engineering details associated with its period of significance.

The Aqueduct would not be removed from its historic location. There would be no introduction of visual, atmospheric, or audible elements that diminish the integrity of the resource. The Revised Project would not result in the neglect of the Aqueduct, nor would the Revised Project result in the transfer, lease, or sale of the Aqueduct. The Revised Project would not remove or otherwise alter any of the other character-defining features or contributing elements of the Aqueduct, including the planned and engineered route or ancillary infrastructure. Any alterations to the immediate surroundings of the Aqueduct resulting from the Revised Project would be temporary, or short-term, since the Revised Project does not include the construction of any new structures or facilities.

Therefore, the Revised Project would not materially impair the Aqueduct (P-10-006207/P-15-015820/P-16-000266) such that it would no longer convey its historical significance for its eligibility for inclusion in the California Register. Upon Revised Project completion, the Aqueduct (P-10-006207/P-15-015820/P 16-000266) would still retain its integrity.

The Revised Project would occur adjacent to the Lost Hills Road Vehicular Bridge, but would not modify, destroy, or otherwise alter the bridge. The modifications to prepare the Project Area for the panel installation, and the installation and curing of the panels would not involve work to the bridge as part of the Revised Project.

As no physical alteration of the bridge would occur as a result of the Revised Project, the resource's significance would not be materially impaired, and it would continue to be able to convey its significance that justifies its eligibility for inclusion in the California Register. The Revised Project would not result in a change of setting to the bridge due to the minimal visual changes that are proposed (i.e., liner raise of the Aqueduct). There would be no introduction of visual, atmospheric, or audible elements that diminish the integrity of the resource. Therefore, the Revised Project would not materially impair the Lost Hills Road Vehicular Bridge such that it would lose its ability to convey its historical significance for California Register-eligibility. The Revised Project would not affect or otherwise modify any aspect of the bridge.

In summary, the Revised Project would result in a less-than-significant impact on historical resources, for CEQA purposes.

- b) The Approved Project MND concluded that construction of the Approved Project could result in a substantial adverse change in the significance of an archaeological resource, as defined in *CEQA Guidelines* Section 15064.5, or unique archaeological resource, as defined in PRC Section 21083.2(g), but that any such impacts would be reduced to less-than-significant with mitigation incorporated with implementation of **Mitigation Measures CUL-1** and **CUL-2**, which require construction worker cultural resources sensitivity training and protocols for the inadvertent discovery of archaeological materials.

Through a records search, background research, field survey, and Native American outreach, two archaeological resources (ESA-CASP-24-ISO-02, ESA-CASP-24-ISO-03) were identified in the Revised Project area. Based on recommendations from Hoffman et al. (2024), DWR concludes that neither resource is eligible for listing in the California Register and, therefore, that neither qualify as historical resources, as defined in *CEQA Guidelines* Section 15064.5, or as unique archaeological resources, as defined in PRC Section 21083.2(g). As such, the Revised Project is not anticipated to impact any historical or unique archaeological resources.

Although there is no substantial evidence that any archaeological resources are present in the Revised Project area, the Revised Project would involve ground-disturbing activities that may extend into undisturbed soil and it is possible that such activities could unearth, expose, or disturb subsurface archaeological resources that have not been identified on the surface. If such resources were found to qualify as historical resources, pursuant to *CEQA Guidelines* Section 15064, impacts of the Revised Project on archaeological resources could be potentially significant. Such potentially significant impacts would be reduced to **less-than-significant with mitigation incorporated** by implementing Mitigation Measures CUL-1 and CUL-2 of the Approved Project MND.

- c) The Approved Project MND concluded that construction of the Approved Project could disturb human remains, but that any such impacts would be reduced to less-than-significant with mitigation incorporated with implementation of Mitigation Measure CUL-3, which describes protocols for the inadvertent discovery of human remains.

No human remains have been identified in the Revised Project area through archival research, field surveys, or Native American outreach. Also, the land use designations for the Revised Project area do not include cemetery uses, and no known human remains exist within the Revised Project area. Therefore, the Revised Project is not anticipated to disturb any human remains.

Although there is no substantial evidence that human remains are present in the Revised Project area, the Revised Project would involve ground-disturbing activities that may extend into undisturbed soil and it is possible that such activities could unearth, expose, or disturb buried human remains that have not been identified on the surface. In the event that human remains were discovered during Revised Project construction activities, impacts on the human remains resulting from the Revised Project would be significant if those remains were disturbed or damaged. Such potentially significant impacts would be reduced to **less-than-significant with mitigation incorporated** by implementing Mitigation Measure CUL-3 of the Approved Project MND.

Summary of Potential Effects

The Revised Project would not result in substantial changes to cultural resources, cause new, significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects, with respect to cultural resources. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for cultural resources that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Energy

<i>Issues (and Supporting Information Sources):</i>	Yes	No
<p>VI. ENERGY — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:</p> <p>a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?</p> <p>b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>

Discussion

The analysis in the 2020 Approved Project MND determined that less than significant with mitigation incorporated or no impacts related energy would occur with construction and operation of the Approved Project.

- a) There would be an increase in fuel demand (gasoline and diesel) that would result from the use of construction tools and equipment, truck trips to haul concrete and backfill to and from the site, and vehicle trips generated by construction workers commuting to and from the Revised Project site compared to the Approved Project. Although the Revised Project increased the length of the Pool 24 portion of the liner raise as well as the amount of backfill needed from 9,700 cubic yards to 22,000 cubic yards, the same mitigation measures would apply. As with the Approved MND (“Energy” chapter of the MND, page 69), the Revised Project would implement **Mitigation Measure GHG-1**. With implementation of **Mitigation Measure GHG-1**, energy consumed during construction of the Revised Project would not result in the wasteful, inefficient, and unnecessary consumption of energy. Therefore, impacts associated with construction of the Revised Project would be **less than significant with mitigation incorporated**.

Once the Revised Project is constructed, existing staff will resume regular maintenance and operation of the Aqueduct in accordance with existing maintenance and water delivery schedule, which remains the same as the Approved Project.

- b) The Revised Project is designed to reduce energy costs associated with current State Water Project (SWP) water deliveries by increasing water storage capabilities and optimizing pump and structure gate operations. Construction and operation of the Revised Project would be consistent with applicable energy efficiency policies and standards. Operation of the Revised Project would

not create a wasteful, inefficient, or unnecessary consumption of energy. Therefore, **no impact** would occur.

Summary of Potential Effects

The Revised Project would not result in substantial energy impacts, and it is concluded that impacts would be less than significant with mitigation incorporated. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for energy that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Geology and Soils

Issues (and Supporting Information Sources):

	Yes	No
VII. GEOLOGY AND SOILS — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:		
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that less than significant impact with mitigation incorporated, less than significant impact or no impacts related to geology and soils would occur with construction and operation of the Approved Project.

- a.i) Under the Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) of 1972, an active fault is defined as a fault that has ruptured in the last 11,000 years. According to the Alquist-Priolo Site Investigation Report Application, the Revised Project area is not located within an

Alquist-Priolo site (California Geological Survey [CGS] 2024). Additionally, the Revised Project area is not located within a quaternary fault (CGS 2024). Nonetheless, the Revised Project area is located within Kern County, a seismically active region of California and may, at any time, be subject to moderate-to-severe ground shaking (Kern County 2009a). Since the Revised Project area is not directly underlain by an Alquist-Priolo fault zone and nearby faults are not considered to be active, **no impact** would occur.

- a.ii) The Revised Project area is located within Kern County, a seismically active region of California and is not located within an active fault under the Alquist-Priolo Act (CGS 2024). As mentioned, the Revised Project includes raising the concrete liner along both sides of Pools 24 and modifying the instrumentation. The Revised Project does not propose aboveground buildings or structures that would result in the risk of loss, injury, or death as a result of seismic ground shaking. Therefore, the Revised Project would not result in exposure of people or structures to substantial adverse effects involving strong seismic ground shaking, and impacts would be **less than significant**.
- a.iii) Surficial geological mapping conducted for the Approved MND indicates the majority of the Revised Project area is underlain by Holocene-age recent alluvial fan deposits (Qf) (11,700 years ago to present) that have accumulated as a result of highland streams and flooding (Smith 1964). Therefore, the Revised Project would not result in exposure of people or structures to substantial adverse effects involving seismic-related ground failure, including liquefaction, and **no impact** would occur.

The Approved MND evaluated potential effects to seismic-related ground failure, including liquefaction and concluded that impacts would not occur. Similarly, as noted above, Revised Project impacts would not occur.

- a.iv) According to the California Geological Survey, the Revised Project area is not located within a landslide zone (CGS 2015). Construction of the Revised Project would require ground-disturbing activities such as grading and excavation to install the concrete liner at the Pool 24 location and modify the instrumentation. The proposed excavation would not include major cuts within the public right-of-way or other activities that could exacerbate the potential for landslides to occur. Therefore, the Revised Project would not result in exposure to people or structures to substantial adverse effects involving landslides, and **no impact** would occur.
- b) Project construction activities associated with the Revised Project would require approximately 0.23 acres of ground soil disturbance, which has the potential to increase short-term erosion and loss of topsoil at the project area. However, the Revised Project would comply with erosion control measures in order to reduce the potential for short-term increases in erosion and/or loss of topsoil to run off from the project area during construction. The Revised Project includes raising the concrete liner along both sides of Pools 24 and modifying the instrumentation. Thus, compliance with applicable erosion control measures would avoid the potential for long-term increase in erosion and/or loss of topsoil at the project area. Therefore, the Revised Project's potential effect on soil erosion or the loss of topsoil would be **less than significant**.

- c) The Revised Project would not be located on an unstable geologic unit or soil that would become unstable and result in landslides, lateral spreading, subsidence, liquefaction, or collapse. Since the Revised Project includes raising the concrete liner along both sides of Pools 24 of the Aqueduct and modifying the instrumentation, no development of aboveground buildings or structures would be developed as part of the Revised Project that would expose people or buildings to liquefaction or any other seismic-related ground failure. The Revised Project would be constructed and designed to adequately address potential impacts related to unstable geologic units; therefore, Revised Project impacts would be **less than significant**.
- d) The Revised Project does not propose development of above-ground buildings or structures that would result in risk of life or property as a result of development on expansive soils. The Revised Project would be constructed and designed to adequately address potential impacts related to expansive soils; therefore, **no impact** would occur.
- e) The Revised Project does not propose the construction or use of septic tanks or alternative wastewater systems as no permanent occupiable structures are proposed as part of the Revised Project. Therefore, Revised Project impacts relating to soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems would not occur, and **no impact** would occur.
- f) The LACM records search conducted for the Revised Project indicates that no fossil localities have been previously recorded within the Revised Project area and no known unique paleontological resources would be impacted by the Revised Project. Since the Revised Project includes ground disturbance up to 40 feet in depth for the new wells, there is a potential for inadvertent impacts to paleontological resources as a result of project construction. Mitigation Measures GEO-1 and GEO-2, which apply to the Pool 22 instrumentation at MP 175.16 site and Pool 24 liner raising and staging, would require construction worker cultural resources sensitivity training so that personnel are aware of the types of resources that could be encountered and the procedures to follow in the event of a discovery, and protocols for the inadvertent discovery of paleontological resources. Therefore, impacts would be **less than significant with mitigation incorporated**.

Summary of Potential Effects

The Revised Project would not result in substantial changes to geology and soils, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects, with respect to geology and soils. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for geology and soils that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Greenhouse Gas Emissions

Issues (and Supporting Information Sources):

	<u>Yes</u>	<u>No</u>
VIII. GREENHOUSE GAS EMISSIONS — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that impacts related to greenhouse gas emissions with construction and operation of the Approved Project would be less than significant with mitigation incorporated.

- a, b) As analyzed in the Approved MND, the SJVAPCD does not recommend quantitative significance thresholds for the analysis of the impact of a project’s GHG emissions on the environment. Instead, the SJVAPCD’s approach relies on the application of performance-based standards to assess project-specific GHG emission impacts on global climate change. This is based on the principle that projects whose emissions have been reduced or mitigated consistent with Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, should be considered to have a less-than-significant impact on global climate change (SJVAPCD 2015).

Section 12 of the DWR Climate Action Plan-Phase I: Greenhouse Gas Emissions Reduction Plan GGERP outlines the steps that each DWR project will take to demonstrate consistency with the GGERP. These steps include: (1) analysis of GHG emissions from construction of the Revised Project, (2) determination that the construction emissions from the project do not exceed the levels of construction emissions analyzed in the GGERP, (3) incorporation into the design of the project DWR’s project level GHG emissions reduction strategies, (4) determination that the project does not conflict with DWR’s ability to implement any of the “Specific Action” GHG emissions reduction measures identified in the GGERP, and (5) determination that the project would not add electricity demands to the SWP system that could alter DWR’s emissions reduction trajectory in such a way as to impede its ability to meet its emissions reduction goals.

Consistent with these requirements, a GGERP Consistency Determination Checklist documenting that the Approved Project has met each of the required elements is included in Appendix A of the 2020 Approved Project MND. The Revised Project still meets all of the required elements in the checklist. All BMPs required by the GGERP for a project of this nature are included in Mitigation Measure GHG-1. Based on the analysis provided in the GGERP and the demonstration that the Revised Project is consistent with the GGERP (as shown in Appendix A), the Revised Project remains compliant with the applicable GHG emission reduction plan, as is required by the SJVAPCD; therefore, the impact with respect to GHG emissions is **less than significant with mitigation incorporated**.

Summary of Potential Effects

As described above, the Revised Project would not alter the conclusions of the 2020 Approved Project MND, result in any new significant impacts, or substantially increase the severity of the previously identified impacts to greenhouse gas emissions resources. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for greenhouse gas emissions that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Hazards and Hazardous Materials

<i>Issues (and Supporting Information Sources):</i>	Yes	No
IX. HAZARDS AND HAZARDOUS MATERIALS — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that less than significant impacts related to hazards and hazardous materials would occur with construction and operation of the Approved Project.

- a) The Revised Project would require the use of small quantities of hazardous materials such as diesel fuel, gasoline, oils, grease, equipment fluids, cleaning solutions and solvents, lubricant oils, and adhesives. There is no change from the Approved Project to the contractors handling, storing or transporting hazardous materials or waste. By complying with relevant federal, State, and local regulations, the Revised Project would not result in a significant hazard to the public or to the environment through the routine transport, use, or disposal of hazardous materials during implementation of the Revised Project. Further, once construction is complete, the operation of water level monitoring instrumentation would not involve the use of hazardous materials. Therefore, impacts would be **less than significant**.

- b) There are no changes from the Approved Project because the small quantities of hazardous materials that would be used during construction of the Revised Project would not be stored near the Aqueduct. Any spills of these substances would be minimal and cleaned onsite. Therefore, potential impacts to the public or the environment related to reasonably foreseeable accident conditions involving hazardous materials would be **less than significant**.
- c) There are no schools located within one-quarter mile of the Revised Project area. Furthermore, fuels, oils and lubricants used during the proposed liner raise activities at Pool 24 would be handled in accordance with DWR material safety storage and handling protocols and BMPs that would contain and prevent spills from occurring on the project area. Therefore, **no impact** would occur.
- d) There are no identified hazardous material sites located within the Revised Project area (DTSC 2020a; DTSC 2020b; SWRCB 2015). The Revised Project would not be located on a hazardous materials site and **no impact** would occur.
- e) The nearest airport to the Revised Project area is the Hanford Municipal Airport, located approximately 40 miles northeast of the Pool 24 location. The Revised Project is not located within an airport land use plan or within 2 miles of a public airport or public use airport. **No impact** would occur.
- f) Construction and operation of the Revised Project is not anticipated to physically interfere with emergency response access, adopted emergency response plan or evacuation plan because all liner-raise activities would be within the boundaries of Aqueduct and DWR right-of-way. Therefore, no impact would occur related to interference with an adopted emergency response plan or emergency evacuation plan.

The Approved MND evaluated potential effects to conflict with an adopted emergency response plan or emergency evacuation plan and concluded that impacts would not occur. Therefore, Revised Project impacts would not occur.

- g) According to the California Department of Forestry and Fire Protection (CAL FIRE), Pools 22, 24, and 25 are located within Local Responsibility Areas (LRAs) of Kings and Kern Counties and are designated as areas having unzoned and moderate fire severity zones (CAL FIRE 2007a; 2007b). Construction activities would occur within the waterside of the Aqueduct and within existing maintained access roads, composed of compacted soils with no vegetation. In addition, as a standard DWR safety practice, all vehicles and equipment would have fire prevention equipment on-site, including fire extinguishers and shovels. Because the Revised Project is not located within a very high fire hazard zone and not within or adjacent to uses prone to wildfires, the potential for wildfire impacts on people or structures due to Revised Project implementation would be considered **less than significant**.

Summary of Potential Effects

As described above, the Revised Project would not alter the conclusions of the 2020 Approved Project MND, result in any new significant impacts, or substantially increase the severity of the previously identified impacts to hazards and hazardous materials. Therefore, no changes in the project, circumstances,

or new information of substantial importance have been identified for hazards and hazardous materials that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Hydrology and Water Quality

<i>Issues (and Supporting Information Sources):</i>	Yes	No
X. HYDROLOGY AND WATER QUALITY — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:		
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that impacts related to hydrology and water quality with construction and operation of the Approved Project would be less than significant.

- a) As analyzed in the Approved MND, the Revised Project would include construction activities associated with raising the liner at Pool 24 and modifying the instrumentation that would require earthwork activities such as site preparation, excavation, grading, and stockpiling of soils, which would involve the disturbance and exposure of surface soils.

There is potential for stormwater to transport sediment and/or hazardous materials to the Aqueduct. However, the Revised Project would be subject to a Construction General Permit under the NPDES permit program of the federal Clean Water Act. As required under the Construction General Permit, DWR or its contractor would prepare and implement a SWPPP to identify pollutant sources (such as sediment) that may affect the quality of storm water discharge and to implement BMPs to reduce pollutants in storm water. BMPs would also include practices for proper handling of chemicals, such as avoidance of fueling at the construction site and overtopping during fueling, and installation of containment pans. Further, implementation of the

construction BMPs would begin with the commencement of construction and continue through the completion of the Revised Project to reduce intrusion of foreign materials into the Aqueduct. Based on the above, Revised Project impacts to water quality would be **less than significant**.

- b) The Revised Project would not disrupt water deliveries, nor would it require the use of groundwater during construction activities. The Revised Project would not encounter groundwater during construction as excavation is limited to 40 feet for the monitoring well drilling. In addition, the Revised Project would not create impervious surfaces in the project area that are not already impervious (Aqueduct channel). Therefore, the Revised Project would not prevent recharge of groundwater or lower the groundwater levels in the groundwater basin, or conflict with the Counties' Groundwater Management Plans. Therefore, there would be **no impact** to groundwater recharge.
- c.i) The Revised Project would not introduce impervious surfaces or structures where existing impervious areas do not already exist. Therefore, it is unlikely that implementation of water level monitoring instrumentation would alter the existing drainage pattern of the project area in a manner which would result in substantial erosion or siltation. Temporary earth-moving activities would slightly alter the topography of the project area to facilitate the liner raise activities. Erosion control measures would be implemented to reduce the potential for stormwater-induced erosion or sedimentation off-site during project activities. Based on the above, Revised Project impacts would be **less than significant**.
- c.ii) As discussed above, the Revised Project would not substantially alter the local drainage pattern of the sites around Pools 22, 24, and 25. The Revised Project would not substantially change the rate or amount of surface runoff from the project sites. As such, the Revised Project would not result in flooding on-site or off-site. Potential impacts would be **less than significant**.
- c.iii) An increase in runoff would not occur as a result of the Revised Project, considering the new water level monitoring instrumentation would be small in scale and the liner raise sites would conform to the existing liner surface. As such, the Revised Project would not contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems. Additionally, the Revised Project would require implementation of a SWPPP, including BMPs for erosion control and for proper handling of chemicals. As such, the Revised Project would not provide substantial additional sources of polluted runoff. Revised Project impacts would remain **less than significant**.
- c.iv) The Federal Emergency Management Agency (FEMA) National Flood Hazard Layer for the project area shows that Pools 22, 24, and 25 are all located within a Zone X "Area of Minimal Flood Hazard" (FEMA 2020). Therefore, the project area is at low risk for experiencing flooding. Further, the Revised Project would not involve large infrastructure or extensive construction activities that would impede or redirect flows. **No impact** would occur.
- d) The Revised Project is not located within a 100-year flood zone, nor is it located in close proximity to a large waterbody with the potential for seismic waves from an earthquake (USGS 2020b). The project area is located far from the nearest ocean, the Pacific, and therefore is not

located within the tsunami risk zone. Therefore, the Revised Project would not risk release of pollutants due to project inundation. **No impact** would occur.

- e) The Revised Project would not involve pumping or extraction of groundwater. Once the liner raises are completed, operations of the Aqueduct would not change. **No impact** to water quality control plans or sustainable groundwater management plans would occur.

Summary of Potential Effects

As described above, the Revised Project would not alter the conclusions of the 2020 Approved Project MND, result in any new significant impacts, or substantially increase the severity of the previously identified impacts to hydrology and water quality. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for hydrology and water quality that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Land Use and Planning

Issues (and Supporting Information Sources):

	Yes	No
XI. LAND USE AND PLANNING — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Physically divide an established community?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that no impacts related land use and planning would occur with construction and operation of the Approved Project.

- a) Kettleman City and Lost Hills, the communities nearest to the Revised Project's Aqueduct construction areas, are located approximately 21 miles and 0.25 miles, respectively. The Revised Project includes upgrades to the existing Aqueduct and would not introduce any additional structures, such as roads or freeways, with the potential to physically divide a community. Therefore, **no impact** would occur.
- b) All liner raise construction would occur on the water side of the Aqueduct in the Revised Project's location. Access to the construction areas would occur on existing roadways and service roads within the DWR right-of-way, including along both sides of the Aqueduct. Therefore, project construction would occur entirely within the DWR right-of-way and would not conflict with any land use plan, policy, or regulation. **No impact** would occur.

Summary of Potential Effects

As described above, the Revised Project would not alter the conclusions of the 2020 Approved Project MND, result in any new significant impacts, or substantially increase the severity of the previously

identified impacts to land use and planning. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for land use and planning that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Mineral Resources

<i>Issues (and Supporting Information Sources):</i>	Yes	No
XII. MINERAL RESOURCES — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that no impacts related to mineral resources would occur with construction and operation of the Approved Project.

- a) The Revised Project construction area is not included on any CGS maps or reports identifying potentially important mineral resources. Kings and Kern County land use maps do not identify any valuable mineral resources in the project area. Additionally, excavation activity associated with the Revised Project would be confined to the previously disturbed areas on the Aqueduct access road and embankment. Therefore, **no impact** would occur.
- b) Kern County and Kings County land use maps do not delineate locally important mineral resources lands near the Revised Project area, and as described in (a), excavation activity associated with Revised Project would be confined to the previously disturbed areas on the Aqueduct access road and embankment. Therefore, **no impact** would occur.

Summary of Potential Effects

As described above, the Revised Project would not alter the conclusions of the 2020 Approved Project MND, result in any new significant impacts, or substantially increase the severity of the previously identified impacts to mineral resources. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for mineral resources that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Noise

<i>Issues (and Supporting Information Sources):</i>	Yes	No
XIII. NOISE — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that no impacts or less than significant impacts related to noise would occur with construction and operation of the Approved Project.

- a) The Revised Project is located within Kings and Kern Counties. As stated in Section 3, Description of the Revised Project, the Revised Project would occur over approximately eight months. Construction activities would be limited to the hours of 6:00 a.m. to 6:00 p.m. Monday through Friday to the greatest extent possible. There are no residents located within 1,000 feet of the Revised Project area.

As analyzed in the Approved MND, neither the Kings or Kern Counties' codes nor the Kings or Kern Counties' General Plans establish quantitative noise exposure standards that apply to construction activity. Noise levels associated with the Revised Project at all other sensitive receptors would be lower than 41 dBA and would be lower than Kings County's and Kern County's noise standards of 55 dBA and 65 dBA, respectively. Therefore, the Revised Project would not result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, during construction.

Therefore, the Revised Project would result in **less than significant** noise impacts during operation.

- b) Ground borne vibration from construction activities associated with the Revised Project would produce negligible vibration. Vibration attenuates rapidly with distance and would be imperceptible at the distances to the closest structures and sensitive receptors. Therefore, vibration associated with the Revised Project would result in **less-than-significant** impacts.
- c) The Revised Project would not establish new noise sensitive land uses that could be exposed to noise from local airports. The Revised Project area is located in a rural area that is distant from commercial or general aviation airports. The closest airports are private agricultural airstrips over 6 miles away from Pools 24. Therefore, there would be **no impact** in relation to airports and the Revised Project exposing people residing or working in the project area to excessive noise levels.

Summary of Potential Effects

As described above, the Revised Project would not alter the conclusions of the 2020 Approved Project MND, result in any new significant impacts, or substantially increase the severity of the previously identified noise impacts. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for noise that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Population and Housing

<i>Issues (and Supporting Information Sources):</i>	Yes	No
XIV. POPULATION AND HOUSING — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that no impacts related to population and housing would occur with construction and operation of the Approved Project.

- a) The Revised Project would raise the concrete liner of the Aqueduct in Pool 24 and modify the instrumentation and would not involve the construction of new homes, businesses, extensions of roads, or other infrastructure. The Revised Project is anticipated to begin in the summer of 2025 for approximately eight months and have a maximum of 20 construction workers for construction activities. Construction workers employed for these activities are expected to come from the existing labor pool within the region and would be involved with the Revised Project temporarily for the approximately eight-month construction period. Implementation of the Revised Project would not directly or indirectly induce substantial population growth because the Revised Project does not involve the construction of new homes, businesses, extensions of roads or other infrastructure. Therefore, **no impact** would occur.
- b) No existing housing occurs within the Revised Project area that would be displaced and necessitate the construction of replacement housing elsewhere. Therefore, **no impact** would occur.

Summary of Potential Effects

As described above, the Revised Project would not alter the conclusions of the 2020 Approved Project MND, result in any new, significant impacts, or substantially increase the severity of the previously identified impacts to population and housing. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for population and housing that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Public Services

<i>Issues (and Supporting Information Sources):</i>	Yes	No
XV. PUBLIC SERVICES —		
a) Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts due to changed circumstances or new information for any of the following public services:		
i) Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that no impacts or less than significant impacts related to public services would occur with construction and operation of the Approved Project.

- a.i, ii) The Revised Project would continue to be served by existing police and fire protection services in Kern and Kings Counties, which have adequate capacity to respond to emergency events pertaining to the Revised Project construction activities. The Revised Project would be implemented within existing facilities and access roads, and upon completion the Aqueduct would be operated within existing capacity constraints. As a result, relative to existing conditions, the Revised Project would not introduce new facilities that would require additional emergency response services. Therefore, implementation of the Revised Project would not require new fire or police facilities to maintain response ratios, service ratios, or other measures of performance. Impacts would be **less than significant**.
- a.iii) The Revised Project does not propose habitable structures or buildings that would generate a permanent population in the project area. As a result, the Revised Project would not increase the population of school-aged children nor increase demand for additional school services. Therefore, the Revised Project would have **no impact** related to school services.
- a.iv) As discussed above, the Revised Project does not propose habitable structures or buildings that would generate a permanent population in the project area. As a result, the Revised Project would not increase demand for new parks and would not substantially alter existing park facilities. Therefore, the Revised Project would have **no impact** related to park facilities.
- a.v) The Revised Project does not propose habitable structures or buildings that would generate a permanent population in the project area and thus would not require any additional services or public facilities, including libraries. Therefore, the Revised Project would have **no impact** related to other public facilities.

Summary of Potential Effects

As described above, the Revised Project would not alter the conclusions of the 2020 Approved Project MND, result in any new significant impacts, or substantially increase the severity of the previously identified impacts to public services. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for public services that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Recreation

Issues (and Supporting Information Sources):

	Yes	No
XVI. RECREATION —Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that no impacts related to recreation would occur with construction and operation of the Approved Project.

- a-b) The closest designated Aqueduct fishing access sites to the Revised Project area are the Kettleman City Site and the Avenal Cutoff Site, approximately 35 and 45 miles upstream of the nearest liner raise construction area (DWR 2020). The Revised Project would not increase the need to construct or expand recreational facilities or opportunities near the Kettleman City Site, Avenal Cutoff Site, or other recreational facilities as populations in the vicinity are not expected to increase as a result of the Revised Project. Therefore, **no impact** would occur.

The Approved MND evaluated potential effects to recreation and concluded that impacts would not occur. Therefore, Revised Project impacts would not occur.

Summary of Potential Effects

As described above, the Revised Project would not alter the conclusions of the 2020 Approved Project MND, result in any new significant impacts, or substantially increase the severity of the previously identified recreation impacts. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for recreation that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Transportation

Issues (and Supporting Information Sources):

	<u>Yes</u>	<u>No</u>
XVII. TRANSPORTATION — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that less than significant impact or no impact related to transportation would occur with construction and operation of the Approved Project.

- a) Implementation of the Revised Project could temporarily increase the number of vehicles on local roadways due to the transport and delivery of construction equipment and daily worker commute trips over an eight-month period. The delivery of construction vehicles and equipment to the site is only expected to occur when the equipment is delivered to/from the site (two one-way trips for all equipment). The majority of traffic impacts would occur from the hauling of borrow material as well as the daily arrival and departure of workers. A maximum of up to 20 workers would be required at the site per day. Project-generated traffic and operational maintenance would be temporary, and therefore, would not result in any long-term degradation in operating conditions on local roadways used for the Revised Project. Impacts to the local circulation system would be less than significant.

Further, the Revised Project would not conflict with adopted policies, plans, or programs related to public transit or alternative modes of transportation. The Revised Project would not decrease the performance or safety of these facilities, which are sparse within the largely rural project area. Project activities would not disrupt services along local public transit, bicycle, or pedestrian routes. No impact would occur.

- b) A maximum of 20 workers would be required during various Revised Project activities. These trips would be temporary over the approximately eight-month construction period and would not result in any perceivable increase in vehicle miles traveled (VMT) that would exceed a County threshold of significance. As concluded in the MND, the construction employee VMT for the Revised Project would remain below the applicable threshold. There are no new permanent vehicle trips associated with the Revised Project other than routine maintenance. As a result, the Revised Project would be consistent with CEQA Guidelines Section 15064.3 subdivision (b), and no impact would occur.
- c) The Revised Project would be implemented entirely within the DWR right-of-way. The Revised Project does not include the construction or design of any roadway infrastructure that would cause a safety risk to vehicle operations. The Revised Project would not adversely alter the physical configuration of the existing roadway network serving the area and would not introduce

unsafe design features associated with large equipment transport. In addition, the Revised Project would not introduce uses (types of vehicles) that are incompatible with existing uses already served by the area’s road system. There would be no impact.

- d) The Revised Project would temporarily add vehicles to the local roadway and circulation system. However, no lane or road closures would be required. All project-related activities would occur on-site. The Revised Project would not interfere with emergency response access. The Revised Project would not impact long-term emergency access.

Summary of Potential Effects

As described above, the Revised Project would not alter the conclusions of the 2020 Approved Project MND, result in any new significant impacts, or substantially increase the severity of the previously identified transportation impacts. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for transportation that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Tribal Cultural Resources

Issues (and Supporting Information Sources):

XVIII. TRIBAL CULTURAL RESOURCES —

	Yes	No
a) Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts that could:		
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that less than significant impact with mitigation incorporated to tribal cultural resources would occur with construction and operation of the Approved Project.

This section examines the potential impacts of the Revised Project on tribal cultural resources. Much of the background context and methods used for the analysis of potential impacts from the Revised Project on tribal cultural resources and cultural resources are the same. Therefore, to avoid redundancy, this information, which is presented in the *Cultural Resources* section of this document, is not repeated here.

There are no clearly documented ethnographic village sites in close proximity to the Revised Project area. The nearest such village sites are the *Wowol* principal village *Sukwutnu*, approximately 20 miles east-northeast of the Revised Project area, most likely on the sand ridge on the former Atwell’s Island (near

Alpaugh) (Gifford and Schenck 1926:22), and the *Tachi* village *Walna*, approximately 23 miles northwest of the Revised Project area near current Kettleman City (Kroeber 1976 [1925]; Wallace 1978).

The California Native American Heritage Commission (NAHC) maintains a confidential Sacred Lands File (SLF) which contains sites of traditional, cultural, or religious value to the Native American community. The NAHC was contacted on July 19, 2024, to request a search of the SLF for the Revised Project area and vicinity. The NAHC replied on August 13, 2024, stating that the SLF has no record of any resources in or near the Revised Project area. The responses also provided contact information for 20 individuals representing ten California Native American Tribes that may be traditionally and culturally affiliated with the Revised Project area.

In support of required Native American consultation for the Revised Project pursuant to PRC Section 21080.3.1, as well as in accordance with the California Natural Resources Agency's *Final Tribal Consultation Policy* and DWR's *Tribal Engagement Policy*, on October 10, 2024, DWR sent a letter, via certified mail, to the Santa Rosa Rancheria Tachi Yokut Tribe, provided information on the Revised Project and requesting that the Tribe notify DWR if they would like to consult pursuant to PRC Section 21080.3.1. On October 11, 2024, DWR sent an email with attachments to the Santa Rosa Rancheria Tachi Yokut Tribe, with the same Revised Project-related information and request as the letter. To date, the Santa Rosa Rancheria Tachi Yokut Tribe has not provided any response to this outreach.

In accordance with the California Natural Resources Agency's *Final Tribal Consultation Policy* and DWR's *Tribal Engagement Policy*, on October 10, 2024, DWR sent letters, via certified mail, to each Tribe provided in the NAHC reply for the Revised Project other than the Santa Rosa Rancheria Tachi Yokut Tribe: Chumash Council of Bakersfield; Coastal Band of the Chumash Nation; Fernandeno Tataviam Band of Mission Indians; Kern Valley Indian Community; Kitanemuk & Yowlumne Tejon Indians; Northern Chumash Tribal Council; Quechan Tribe of the Fort Yuma Reservation; Salinan Tribe of Monterey, San Luis Obispo Counties; San Fernando Band of Mission Indians; Table Mountain Rancheria; Tejon Indian Tribe; Tubatulabals of Kern Valley; Tule River Indian Tribe; Xolon-Salinan Tribe; yak tityu yak tilhini – Northern Chumash Tribe; and Yuhaaviatam of San Manuel Nation (San Manuel Band of Mission Indians). The letters provided information on the Revised Project and requested that the recipients provide information on cultural resources that may be impacted by the Revised Project, if they would like to do so. On October 11, 2024, DWR sent emails with attachments to these same Tribes, with the same Revised Project-related information and request as the letters. On October 14, 2024, the Historic Preservation Officer of the Quechan Tribe of the Fort Yuma Reservation contacted DWR by email stating that the Tribe did not wish to consult on the Revised Project. On October 16, 2024, the Chairperson of the Traditional Choinumni Tribe contacted DWR by telephone stating that the Tribe did not wish to consult on the Revised Project. Also on October 16, 2024, the Yuhaaviatam of San Manuel Nation (San Manuel Band of Mission Indians) contacted DWR by email stating that the Tribe did not wish to consult on the Revised Project. On October 17, 2024, the yak tityu tityu yak tilhini – Northern Chumash Tribe, contacted DWR by email, stating that the Tribe did not wish to consult on the Revised Project. To date, no other communications with Tribes regarding the Revised Project have occurred.

The two impact discussion questions from *CEQA Guidelines* Appendix G relating to tribal cultural resources are discussed together below.

- a.i, ii) The Approved Project MND concluded that construction of the Approved Project could result in a substantial adverse change in the significance of a tribal cultural resource, as defined in PRC Section 21074, but that any such impacts would be reduced to less than significant with mitigation incorporated with implementation of **Mitigation Measures CUL-1 and CUL-2**, which require construction worker cultural resources sensitivity training and protocols for the inadvertent discovery of archaeological materials, which could qualify as tribal cultural resources.

No tribal cultural resources, as defined in PRC Section 21074, have been identified in the Revised Project area through archival research, a field survey, or Native American consultation. Therefore, there is no substantial evidence of the presence of any tribal cultural resources in the Revised Project area, and the Revised Project is not expected to impact any tribal cultural resources, as defined in PRC Section 21074.

Although there is no substantial evidence that any tribal cultural resources are in the Project Area, the Revised Project would involve ground-disturbing activities that may extend into undisturbed soil. It is possible that such activities could unearth, expose, or disturb subsurface tribal cultural resources, as defined in PRC Section 21074, that were not identified on the surface. Any impact of the Revised Project on such tribal cultural resources would be potentially significant. Such potentially significant impacts would be reduced to less than significant with mitigation incorporated by implementing Mitigation Measures CUL-1 and CUL-2 of the Approved Project MND.

Summary of Potential Effects

The Revised Project would not result in substantial changes to tribal cultural resources, cause new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects, with respect to tribal cultural resources. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for tribal cultural resources that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Utilities and Service Systems

Issues (and Supporting Information Sources):

	Yes	No
XIX. UTILITIES AND SERVICE SYSTEMS — Would project modifications, changed circumstances, or new information substantially increase the severity of significant impacts identified in the previous CEQA document or result in new significant impacts in the following areas:		
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Issues (and Supporting Information Sources):</u>	<u>Yes</u>	<u>No</u>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that no impacts or less than significant impacts related to Utilities and Service Systems would occur with construction and operation of the Approved Project.

- a) The Revised Project would involve the employment of approximately 20 workers throughout the approximately eight-month construction schedule. The Revised Project may require limited use of potable water during construction activities. No water or wastewater treatment facilities would be installed as part of the Revised Project and there are no Revised Project activities that would require new electric power, natural gas, or telecommunications facilities. The Revised Project would not substantially alter the local drainage pattern of the project sites. The Revised Project does not include the construction of large structures or impervious surfaces that would substantially alter or change the rate or amount of surface runoff from the Pool 24 project site). Therefore, the Revised Project would not require the construction or expansion of new storm water drainage facilities. Therefore, there would be no construction of utility infrastructure associated with the Revised Project, and **no impact** would occur.
- b) Water may be needed temporarily during implementation of the Revised Project. Water for dust suppression could be pumped from the Aqueduct. If that source of water is insufficient, and other sources cannot be used, the construction contractor would pay for water to be brought to the project area from local water suppliers for dust suppression. Water demand for dust suppression would be temporary, and no new or expanded entitlements would be required. Therefore, potential impacts associated with availability of water supplies would be **less than significant**.
- c) The Revised Project would result in the generation of wastewater associated with temporary use of portable toilets. During project implementation, DWR or the contractor may have portable toilet facilities available on-site temporarily for use by construction workers. Given the relatively small construction workforce of a maximum of 20 workers on-site daily for the eight-month construction period, this amount of waste would be minimal. Once construction activities are concluded, such portable facilities would be removed and the wastewater properly handled and disposed of in accordance with all applicable laws and regulations. Therefore, the Revised Project does not require a wastewater treatment provider to serve the project. **No impact** would occur.
- d) Implementation of the Revised Project would result in nominal solid waste, limited to trash and other construction-related materials. The Revised Project would not demolish existing facilities on-site but would require materials for the liner raise and water level monitoring instrumentation. Additionally, the Kettleman Hills Facility, which is located within 3 miles of the Revised Project area, has remaining capacity, should it need to be used (CalRecycle 2019). The Revised Project

would result in a **less-than-significant** impact related to local infrastructure capacity and would not impair attainment of solid waste reduction goals.

- e) As stated above, implementation of the Revised Project would result in nominal solid waste. For the minor amount of solid waste anticipated to be produced by the Revised Project, DWR would be required to comply with all laws and regulations related to the disposal and recycling of waste. Therefore, **no impact** would occur.

Summary of Potential Effects

As described above, the Revised Project would not alter the conclusions of the 2020 Approved Project MND, result in any new significant impacts, or substantially increase the severity of the previously identified impacts to utilities and service systems. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for utilities and service systems that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Wildfire

Issues (and Supporting Information Sources):

	Yes	No
XX. WILDFIRE — If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would project modifications, changed circumstances, or new information result in new significant impacts or substantially increase the severity of significant impacts identified in the previous CEQA document in the following areas:		
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The analysis in the 2020 Approved Project MND determined that no impacts related to wildfire would occur with construction and operation of the Approved Project.

- a) The Revised Project is not anticipated to substantially impair an adopted emergency response plan or evacuation plan because all liner raise activities, staging areas, and water level instrumentation would be within the boundaries of the Aqueduct and DWR right-of-way. Implementation of the Revised Project would not interfere with emergency response access to the project vicinity, and **no impact** would occur.
- b) The Revised Project area is located within LRAs designated as moderate and unzoned by CAL FIRE (CAL FIRE 2007a; 2007b). The Revised Project area does not include slopes that surround

the Aqueduct that are susceptible to prevailing winds. Further, the surrounding vegetation and land use types have a low potential for fires. As a standard DWR safety practice, all vehicles and equipment would have fire prevention equipment on-site, including fire extinguishers and shovels, if a fire were to occur. Therefore, construction of the Revised Project is not expected to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Further, the Revised Project does not involve operation of facilities that would exacerbate fire conditions within the area or require permanent workers or occupants at the project sites. As a result, **no impact** would occur.

- c) The Revised Project includes liner raise construction activities and implementation of water level monitoring instrumentation including a transmission pole and electrical equipment that would be housed. The Revised Project would not require the installation or maintenance of infrastructure that would exacerbate wildfire risks, and **no impact** would occur.
- d) The Revised Project would not result in increased drainage or runoff that could contribute to landslide or flooding impacts. Therefore, **no impact** would occur.

Summary of Potential Effects

As described above, the Revised Project would not alter the conclusions of the 2020 Approved Project MND, result in any new significant impacts, or substantially increase the severity of the previously identified wildfire impacts. Therefore, no changes in the project, circumstances, or new information of substantial importance have been identified for wildfire that require preparation of a subsequent negative declaration pursuant to CEQA Guidelines Section 15162.

Resources

Aesthetics

California Department of Transportation (Caltrans), 2020. Scenic Highways. Available online at: <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>, accessed June 25, 2024.

County of Kern, 2004. Revised Update of the Kern County General Plan, Volume I, Recirculated Draft Program Environmental Impact Report. Available online at: https://psbweb.kerncounty.com/planning/pdfs/kcgp/KCGP_RPEIR_vol1.pdf, accessed June 25, 2024.

County of Kern, 2009. General Plan, Land Use, Open Space, and Conservation Element, Chapter 1. Available online at: <https://psbweb.kerncounty.com/planning/pdfs/kcgp/KCGPChp1LandUse.pdf>, accessed June 25, 2024.

County of Kings, 2010. General Plan, Open Space Element. Available online at: <https://www.countyofkingsca.gov/home/showdocument?id=13519>, accessed June 25, 2024.

Agricultural and Forestry Resources

California Department of Conservation (DOC), 2022. California Important Farmland Finder. Available online at: <https://maps.conservation.ca.gov/dlrp/ciff/>, accessed June 25, 2024.

DOC, 2022. Williamson Act Program. Available online at: <https://maps.conservation.ca.gov/dlrp/WilliamsonAct/>, accessed June 25, 2024.

DOC, 2024. Farmland Mapping and Monitoring Program. Available online at: <https://www.conservation.ca.gov/dlrp/fmmp>, accessed June 25, 2024.

Air Quality

San Joaquin Valley Air Pollution Control District (SJVAPCD), 2024. *Ambient Air Quality Standards & Valley Attainment Status*. Available online at: <https://ww2.valleyair.org/air-quality-information/ambient-air-quality-standards-valley-attainmnet-status/>. Accessed July 8, 2024.

Biological Resources

California Department of Fish and Wildlife (CDFW). 2012. Staff Report on Burrowing Owl Mitigation. March 7, 2012. Available online at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843>. Accessed February 2025.

CDFW, 2024. Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP) boundaries in California (webservice). Available online at: <https://sjvp.databasin.org/datasets/b42858d55afe42829e692a62b63026e3/>. Accessed July 17, 2024.

California Department of Water Resources (DWR). 2020. Draft San Joaquin Field Division Liner Raise and Instrumentation Project - Initial Study/Proposed Mitigated Negative Declaration. May 2020. Accessed February 2025.

DWR. 2024. Draft California Aqueduct Subsidence Program Pool 24 Liner Raise Biological Resources Technical Report. October 2024. Accessed February 2025.

Cultural Resources

Hoffman, Robin, Alison Garcia Kellar, Antonette Hrycyk, and Paul Zimmer. 2024. *California Aqueduct Subsidence Program (CASP) Pool 24 Liner Raise Project, San Joaquin Field Division, Kern County, California: Cultural Resources Inventory Report*. Prepared by Environmental Science Associates. Prepared for the California Department of Water Resources. November.

Energy

DWR, 2024. *Climate Action Plan, Phase 1: Greenhouse Gas Emissions Reduction Plan*. Updated 2023. Available online at: <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Climate-Change-Program/Climate-Action-Plan/Files/Exhibit-C-CAP-Phase-1-Update-2023.pdf>. Accessed June 25, 2024.

Geology and Soils

California Geologic Survey (CGS), 2015. Landslide Inventory and Deep-Seater Landslide Susceptibility. Landslide Inventory (Beta) Map. Available online at: <https://maps.conservation.ca.gov/cgs/lsi/>. Accessed July 2, 2024.

CGS, 2022. Seismic Hazards Program: Liquefaction Zones. Available online at: <https://maps-cnra-cadoc.opendata.arcgis.com/datasets/cadoc::cgs-seismic-hazards-program-liquefaction-zones/explore?location=35.395044%2C-119.133636%2C9.80>. Accessed July 2, 2024.

CGS, 2024. Alquist-Priolo Site Investigation Reports Application. Available online at: <https://maps.conservation.ca.gov/cgs/informationwarehouse/apreports/>. Accessed July 2, 2024.

Kern County, 2009. Kern County General Plan-Safety Element. Page 156. Available online at: <https://psbweb.kerncounty.com/planning/pdfs/kcgp/KCGPChp4Safety.pdf>. Accessed July 2, 2024.

Greenhouse Gas Emissions

DWR, 2012. *Climate Action Plan, Phase 1: Greenhouse Gas Emissions Reduction Plan*. Available online at: <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/All-Programs/Climate-Change-Program/Climate-Action-Plan/Files/Exhibit-C-CAP-Phase-1-Update-2023.pdf>. Accessed July 3, 2024.

Hazards and Hazardous Materials

California Department of Forestry and Fire Protection (CAL FIRE), 2007a. Fire Hazard Severity Zones in LRA, Kings County. Available online at: https://34c031f8-c9fd-4018-8c5a-4159cdf6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-map/upload-2/fhszl06_1_map16.pdf, accessed June 26, 2024.

CAL FIRE, 2007b. Fire Hazard Severity Zones in LRA, Kern County. Available online at: https://34c031f8-c9fd-4018-8c5a-4159cdf6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-map/upload-2/fhszl06_1_map15.pdf, accessed June 26, 2024.

California Department of Toxic Substances Control (DTSC), 2020a. Cortese List Data Resources. Available online at: https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=Cortese&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=Hazardous+Waste+And+Substances+Site+List+%28cortese%29. Accessed July 5, 2024.

DTSC, 2020b. EnviroStor. Available online at: <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=California+Aqueduct>. Accessed July 5, 2024.

State Water Resources Control Board (SWRCB), 2015. GeoTracker. Available online at: <https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=California+Aqueduct>. Accessed July 5, 2024.

Hydrology and Water Quality

Federal Emergency Management Agency (FEMA), 2020. Flood Map Service Center. Available online at: <https://msc.fema.gov/portal/home>. Accessed July 3, 2024.

U.S. Geological Survey (USGS), 2020. Seismic Seiches. Available online at: <https://www.usgs.gov/publications/seismic-seiches#:~:text=USGS%20Organization%20Earthquake%20Science%20Center%20Seismic%20seiche%20is,by%20the%20Assam%20earthquake%20of%20August%2015%2C%201950>. Accessed July 3, 2024.

Land Use and Planning

County of Kern, 2009. General Plan, Land Use, Open Space, and Conservation Element, Chapter 1. Available online at: <https://psbweb.kerncounty.com/planning/pdfs/kcgp/KCGPChp1LandUse.pdf>, accessed June 25, 2024.

Kern County Public Works Department, 1969. Zone Maps Index: map numbers 28 and 52. Available online at: <https://www.kernpublicworks.com/services/development/maps/zone-maps>, accessed June 25, 2024.

Kings County Community Development Agency, 2010. 2035 Kings County General Plan, Land Use Element. Available online at: <https://www.countyofkingsca.gov/home/showdocument?id=15995>. Accessed June 25, 2024.

Mineral Resources

DOC, 2024. CGS Information Warehouse: Mineral Land Classification Tool. Available online at: <https://maps.conservation.ca.gov/cgs/informationwarehouse/mlc/>. Accessed: June 25, 2024.

Noise

Caltrans, 2020. *Transportation and Vibration Guidance Manual*, Updated April 2020. Available online at: <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>. Accessed July 3, 2024.

U.S. Department of Transportation, Federal Transit Administration (FTA), 2018. *Transit Noise and Vibration Impact Assessment*, September 2018. Available online at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed July 3, 2024.

Population and Housing

Milken Institute. 2015. An Economic Road Map for Kern County. March 2015. Available online at: https://milkeninstitute.org/sites/default/files/reports-pdf/Kern-County-Economic-Road-Map-by-Milken-Institute2_2.pdf. Accessed June 25, 2025.

United States Census Bureau (Bureau). 2024a. QuickFacts Kern County, California. Available online at: <https://www.census.gov/quickfacts/fact/table/kerncountycalifornia,US/PST045223>. Accessed June 25, 2024.

Bureau. 2024b. QuickFacts Kings County, California. Available online at: <https://www.census.gov/quickfacts/fact/table/kingscountycalifornia,US/PST045223>. Accessed June 25, 2024.

Public Services

Kern County Fire Department, 2024. Divisions. Available online at: <https://kerncountyfire.org/about-kcfd/divisions/>. Accessed June 26, 2024.

Kings County Community Development Agency, 2010. 2035 Kings County General Plan, Health and Safety Element. Available online at: <https://www.countyofkingsca.gov/home/showdocument?id=13515>. Accessed June 26, 2024.

Recreation

DWR. 2020. Fishing Along the SWP. Available online at: https://calsport.org/news/wp-content/uploads/DWR_Fishing-Along-the-SWP.pdf.

Transportation

Kern Council of Governments, 2022. 2022 Draft Regional Transportation Plan. Available online at: https://www.kerncog.org/wp-content/uploads/2022/12/2022_RTP.pdf. Accessed July 3, 2024.

Kings County Association of Governments, 2022. Regional Transportation Plan. Available online at: https://www.kingscog.org/2022rtp_update. Accessed July 3, 2024.

Tribal Cultural Resources

Gifford, EW, and W Egbert Schenck. 1926. *Archaeology of the Southern San Joaquin Valley, California*. University of California Publications in American Archaeology and Ethnology 23(1):1–122.

Kroeber, Alfred L. 1976 [1925]. *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78, Smithsonian Institution, Washington, DC. 1976 reprinted ed., Dover Publications, Inc., New York, NY.

Wallace, William. 1978. “Southern Valley Yokuts”. In *California*, edited by Robert F Heizer, pp. 462–470. *Handbook of North American Indians*, vol. 8, William C Sturtevant, general editor. Smithsonian Institution, Washington, DC.

Utilities and Service Systems

CalRecycle, 2024. Kettleman Hills. Available online at: <https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/914>. Accessed July 8, 2024.

Wildfire

CAL FIRE, 2007a. Fire Hazard Severity Zones in LRA, Kings County. Available online at: https://34c031f8-c9fd-4018-8c5a-4159cdf6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-map/upload-2/fhszl06_1_map16.pdf, accessed June 26, 2024.

CAL FIRE, 2007b. Fire Hazard Severity Zones in LRA, Kern County. Available online at: https://34c031f8-c9fd-4018-8c5a-4159cdf6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-map/upload-2/fhszl06_1_map15.pdf, accessed June 26, 2024.

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