

Bethany Dams Improvements Project
Supplemental
Initial Study/ Mitigated Negative Declaration
November 2019



**California Department of Water Resources
1416 Ninth Street
Sacramento, CA 95814**

Supplemental Initial Study/Mitigated Negative Declaration

Bethany Dams Improvements Project

1. Project Title	Bethany Dams Improvements Project
2. Lead Agency Name and Address	California Department of Water Resources 1416 Ninth Street Sacramento, California 95814
3. Contact Person and Phone Number	Gerald Snow Environmental Program Manager II (916) 653-7213 Gerald.Snow@water.ca.gov
4. Project Location	Approximately nine miles northwest of the City of Tracy, Township 2 south, Range 3 east, Section 2, within the Clifton Court Forebay USGS 7.5-minute quadrangle in Alameda County. The project is on the north side of the reservoir.
5. Project Sponsor's Name	California Department of Water Resources
6. General Plan Designation	N/A – State-owned Water Conveyance System; Adjacent Agricultural Land Use
7. Zoning	N/A - Adjacent Agricultural Zone
8. Description of Project	The proposed changes to the Bethany Dams Improvements Project include 1) construction methods that involve installation of weir boxes and excavation of entire dam faces, and 2) use of two parking lots at Bethany Reservoir State Recreation Area for staging.
9. Surrounding Land Uses and Setting	The general project area is comprised of parklands and agricultural land.
10. Other Public Agencies Whose Approval is Required	U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, CA Department of Fish and Wildlife, Central Valley Regional Water Quality Control Board, State Office of Historic Preservation, CA State Parks

SUPPLEMENTAL MITIGATED NEGATIVE DECLARATION

PROJECT: Bethany Dams Improvements Project

LEAD AGENCY: California Department of Water Resources (DWR)

PROJECT LOCATION: Bethany Reservoir is in northeastern Alameda County, approximately 10 miles northwest of the city of Tracy and 20 miles northeast of the city of Livermore.

PROJECT DESCRIPTION: DWR plans to perform maintenance activities at Bethany Reservoir's earthen dams to ensure the continued safe operation of the Bethany Reservoir, part of the State Water Project (SWP). After adopting a Supplemental Mitigated Negative Declaration in September 2018, changes were made to the project that require additional public review. The proposed project changes include: 1) new construction methods to install weir boxes and repair earthen dams by excavating and backfilling downstream faces of the dams, and 2) temporary closure of two existing parking lots at Bethany Reservoir State Recreation Area for use as equipment and materials staging areas.

DETERMINATION: DWR has determined that the proposed project changes would not have any significant adverse effects on the environment after implementation of mitigation measures.

MITIGATION MEASURES: The following mitigation measure will be implemented as part of the project to avoid, minimize, rectify, reduce or eliminate, or compensate for potentially significant environmental impacts resulting from project changes addressed in this Supplemental MND and reduce the potentially significant environmental impacts of the proposed project changes to less-than-significant levels:

Mitigation Measure AQ-1: Reduce construction-related emissions from off-road equipment and heavy-duty vehicles

- a) Tier 4F diesel engine standards will be used during construction
- b) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day during construction, or as frequently as needed to minimize fugitive dust.
- c) All materials in haul trucks, including transporting soil, sand, or other loose material being hauled on- or off-site shall be covered.
- d) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- e) All vehicle speeds on unpaved roads shall be limited to 15 mph.
- f) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- g) Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of

Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- h) All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- i) Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure Rec-1: Temporary Reduced Public Access and Signage

The following shall be implemented to avoid or minimize potential impacts to recreation users and other public visitors:

- a) The boat launch and restroom facility at Parking Lot 1 and fishing access along the southeastern shore of the Bethany Forebay will remain open to the public with access from Christensen Road. ADA-compliant parking spaces will be located adjacent to the restroom facility and immediately west of the boat launch. Standard parking spaces for vehicles and boat trailers will be relocated to the gravel road west and northwest of the boat launch. A flagger will be present during construction to ensure safe flow of recreation and construction traffic.
- b) Signage will be posted at least 60 days prior to commencement of construction to inform the public of the scheduled closures and alternative access at Bethany SRA. Signage will be maintained throughout the closure period.

Jerry Snow

11/6/2019

Gerald Snow
California Department of Water Resources
Division of Operations and Maintenance

Date

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1.0 Introduction

A Supplemental MND has been determined to be the appropriate document to fully disclose the potential impacts of the Project per CEQA Guidelines Sections 15162(a)(1) and 15163(a) because:

- While changes are proposed to the project that may involve new significant environmental effects or increase the severity of previously identified significant effects, only minor additions or changes are necessary to make the previous MND adequately apply to the project in the changed situation.

1.1 Background

In 2014, the California Department of Water Resources (DWR) adopted a Mitigated Negative Declaration (MND) for the Bethany Dams Improvements Project (project) to comply with the California Environmental Quality Act (CEQA) for maintenance of the earthen dams at Bethany Reservoir (SCH# 2014042030). In 2018, a safety review of the earthen dams at Bethany Reservoir concluded that additional repairs to improve water flow in drainage ditches and damage to dam faces from rodent burrowing were required to ensure the long-term safety and operation of the State Water Project. DWR adopted a Supplemental MND in October 2018 to address the potential impacts of these additional repairs to Bethany Reservoir's earthen dams.

In 2019, DWR determined that changes to construction methods and staging areas were necessary to successfully complete the project. DWR has therefore revisited its CEQA compliance documents for these discretionary actions and has prepared a Supplemental MND.

1.2 Location

Bethany Reservoir is located approximately nine miles northwest of the City of Tracy near the intersection of Christensen Road and Bruns Road in Alameda County, California. The Project site is in the U.S. Geological Survey (USGS) 7.5 Minute Clifton Court Forebay Quadrangle, Township 2 South, Range 3 East, Section 2 (Mount Diablo Meridian). All proposed work will occur on the northeast side of Bethany Reservoir on DWR property (Figure 1).



Figure 1. Project location map. Bethany Reservoir and Dams, Alameda County,

California.

2.0 Summary of Project Changes

2.1 *Drainage Ditch Improvements*

Weir boxes will be installed within the existing improved drainage ditch footprint at Dam 1 and Dam 2 to facilitate seepage rate monitoring. Existing rock slope protection will be removed from a 5-foot by 5-foot area at the downstream end of the concrete apron outlet at each dam and a 5-foot by 5-foot pre-cast concrete pad will be placed in the drainage ditch. A pre-fabricated weir box will be installed on the concrete pad and new pipe connected to the lengths described in the 2018 Supplemental MND. Access to the weir boxes will be improved by installing pre-fabricated stairs and handrails with posts driven into the drainage ditch slopes within the existing rock slope protection footprint. Rock slope protection will be replaced after installation to cover any exposed surfaces within the existing footprint.

2.2 *Rodent Burrow Repairs*

The downstream faces of the Bethany Forebay Dam and Dams 1, 2, 3, and 4 will be excavated to a depth of 12' in order to repair damage caused by rodent burrows (Figures 2 through 4). The project footprint includes a 20-foot buffer around each dam and includes establishing two new access roads (13.3 acres; Table 1). Three large holes formed by recently collapsed burrow complexes approximately 140 feet east of Dam 3 will also be repaired (0.03 acres permanent, 0.07 acres temporary; Figure 2, Table 1). The total revised impact area for burrow repair is 13.4 acres.

Table 1. Estimated area of rodent burrow repair at the Bethany Dams.

	Permanent Impact Area (acres)	Temporary Impact Area (acres)	Total Impact Area (acres)
Forebay Dam	3.0	--	3.0
Dams 1, 2, and 3	9.6	--	9.6
Dam 4	0.3	--	0.3
New Access Roads	0.4	--	0.4
Collapsed Burrow Repair	0.03	0.07	0.1
TOTAL	13.33	0.07	13.4

2.2.1 **Dam Repair Methods**

Dam repairs will take place using heavy construction equipment to perform earthwork operations (clearing and grubbing, excavation, backfilling, grading, and compacting) on the downstream embankment surface of the dams, including the 20-foot buffer. Prior to

the start of earthwork, all vegetation will be removed. The excavated material will be placed on an existing paved parking lot or within the disturbance footprint of an adjacent dam. The exposed surface will be inspected, any additional burrow holes identified will be filled with grout or collapsed, and the staged excavated material will be placed back on the embankment dam face and compacted. A burrow prevention trench will be excavated at the downstream perimeter edge of the 20-foot buffer of each dam, 6 feet deep by 2 feet wide, with wire mesh and small rock to fill the trench and prevent rodents from burrowing under the dam repair perimeter. After the excavated material is placed back on the embankment, coated wire mesh (0.75-square inch) and rock (1 foot of 18-inch minus rock covered with 1.5 feet of 6-inch minus rock) will be placed over the entire downstream dam embankment surface to prevent further damage from rodent burrowing. Equipment used will include heavy equipment such as scrapers, motor graders, roller compactors, dozers, backhoe, excavator, dump trucks, and water trucks.

2.3 Access Roads, Materials Storage, and Stockpile Sites

The site will be accessed from Christensen Road by established gravel and paved roads on DWR property (Figure 1). The large holes created by collapsed burrows adjacent to Dam 3 will be accessed via a 15-foot wide mowed path parallel to the Dam 3 drainage ditch (Figure 2). Any cracks or burrows along this path will be covered to prevent collapse from heavy equipment accessing the large holes. New 15-foot wide gravel access roads will be established between Dams 1 and 2 and between Dams 2 and 3 to allow one-way flow of vehicle and equipment traffic (Table 1, Figure 2). Establishing these access roads will allow staging of material within the rodent burrow repair footprint and avoids the need to disturb additional area for staging. Fill material will be obtained on-site or from similar soils or embankment material at existing stockpile locations. Any excess material removed will be transported to the same existing material storage sites used for the previously authorized activities. Rock will be imported from offsite.

Material and equipment staging will take place on existing access roads, within the dam repair footprint, and at two existing, paved parking lots at the adjacent Bethany Reservoir State Recreation Area (Bethany SRA), which were selected as staging areas to reduce the area of impact to sensitive resources (Figure 5). The parking lot and picnic area northwest of the Bethany Forebay Dam (Parking Lot 2) will be used for construction personnel and equipment staging; the parking lot west of Bethany Dam 1 (Parking Lot 1) will be used for staging equipment and excavated material from the dam faces.

A locking gate will be installed on the established paved road approximately 500 feet south of Christensen Road to improve security at Bethany Reservoir during and after construction.

Immediately upon completion of construction, all staging areas and access roads will be re-paved and/or re-graded, ADA facilities will be upgraded to current standards, and public access to all recreational facilities at Bethany SRA, including the California Aqueduct Bikeway, will be restored.

2.4 Recreation access during construction

For the duration of construction, public access to recreation facilities at Parking Lot 2 will be closed from the Forebay Dam access road (Figure 5) and the California Aqueduct Bikeway will be closed from Parking Lot 1 south to the vehicle turnaround south of Dam 4 during construction (Figure 6). The boat launch and restroom facility at Parking Lot 2 and land-based fishing access along the southeastern shore of the Bethany Forebay will remain open to the public with access from Christensen Road. ADA-compliant parking spaces will be located adjacent to the restroom facility and immediately west of the boat launch (Figure 5). Standard parking spaces for vehicles and boat trailers will be relocated to the gravel road west and northwest of the boat launch, adjacent to Bethany Forebay (Figure 5). One-way traffic will flow in a clockwise manner from west of the closed staging area to the boat launch, continue west and northwest to available parking spaces, then able to return to the boat launch from the north and east of Parking Lot 2 (Figure 5). A flagger will be present during construction to ensure safe flow of public and construction traffic.

2.5 Schedule

2.5.1 Drainage ditch improvements

All work in wetted areas of the drainage ditches will take place between September 1 and October 31. Annual maintenance will take place thereafter to remove vegetation within the rock slope protection, and repair fences, weir boxes, and outlet pipes. No work will take place within 24 hours after a rain event.

2.5.2 Rodent burrow repairs

All work in upland areas will take place during the dry season (May 1 – October 31) during daylight hours. Repair work to restore each dam embankment will take place within a single construction season and all dam repairs are anticipated to take place over two years, unless conditions cause schedule delays. Work to restore recreation facilities at Bethany SRA will take place immediately after construction is complete. Annual maintenance will take place thereafter to prevent and repair new rodent burrow damage. No work will take place during or within 24 hours after a rain event.

Figure 2. Proposed Project features at Bethany Dams 1, 2, and 3.

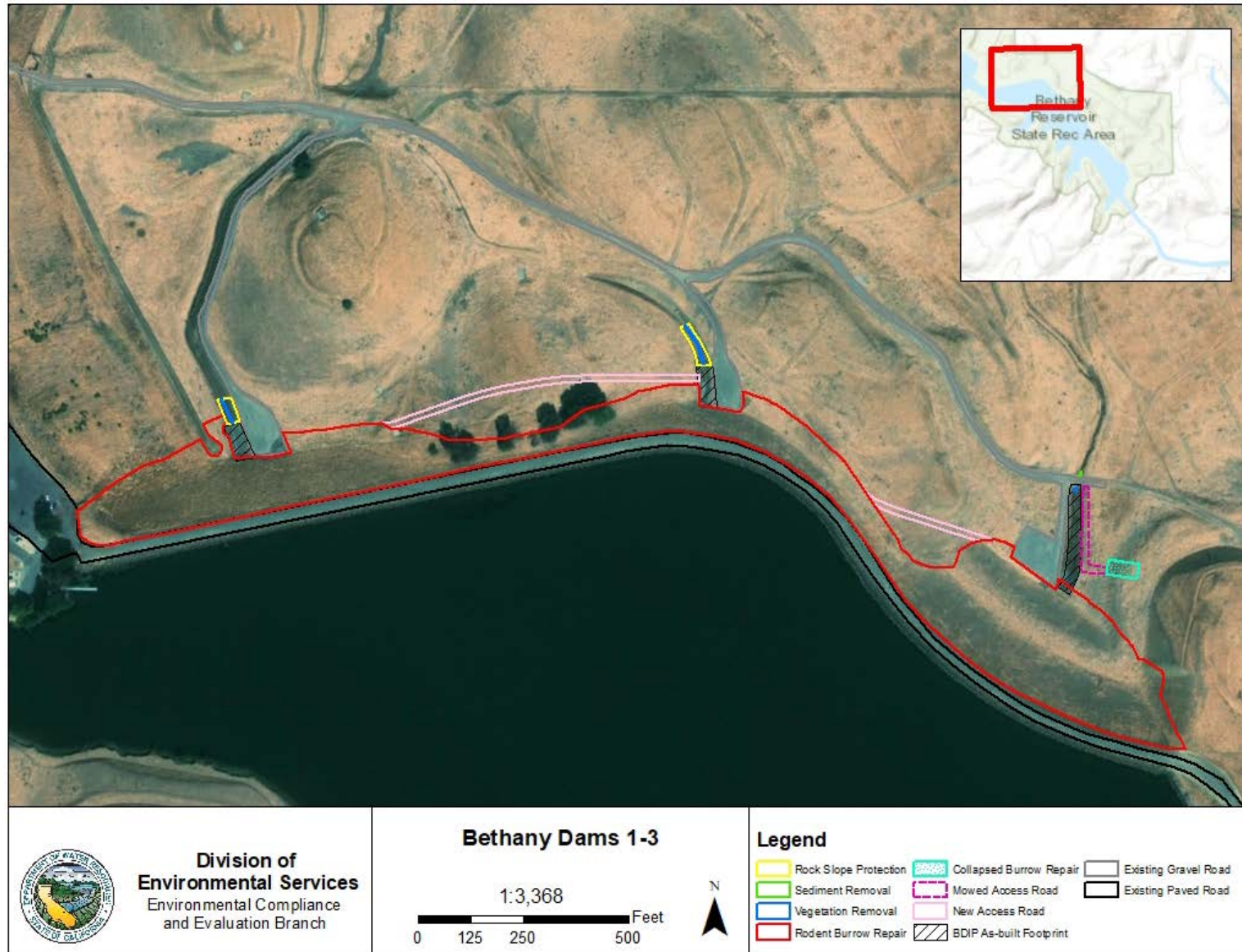




Figure 3. Proposed Project features at Bethany Dam 4

Figure 4. Proposed Project features at Bethany Forebay Dam.

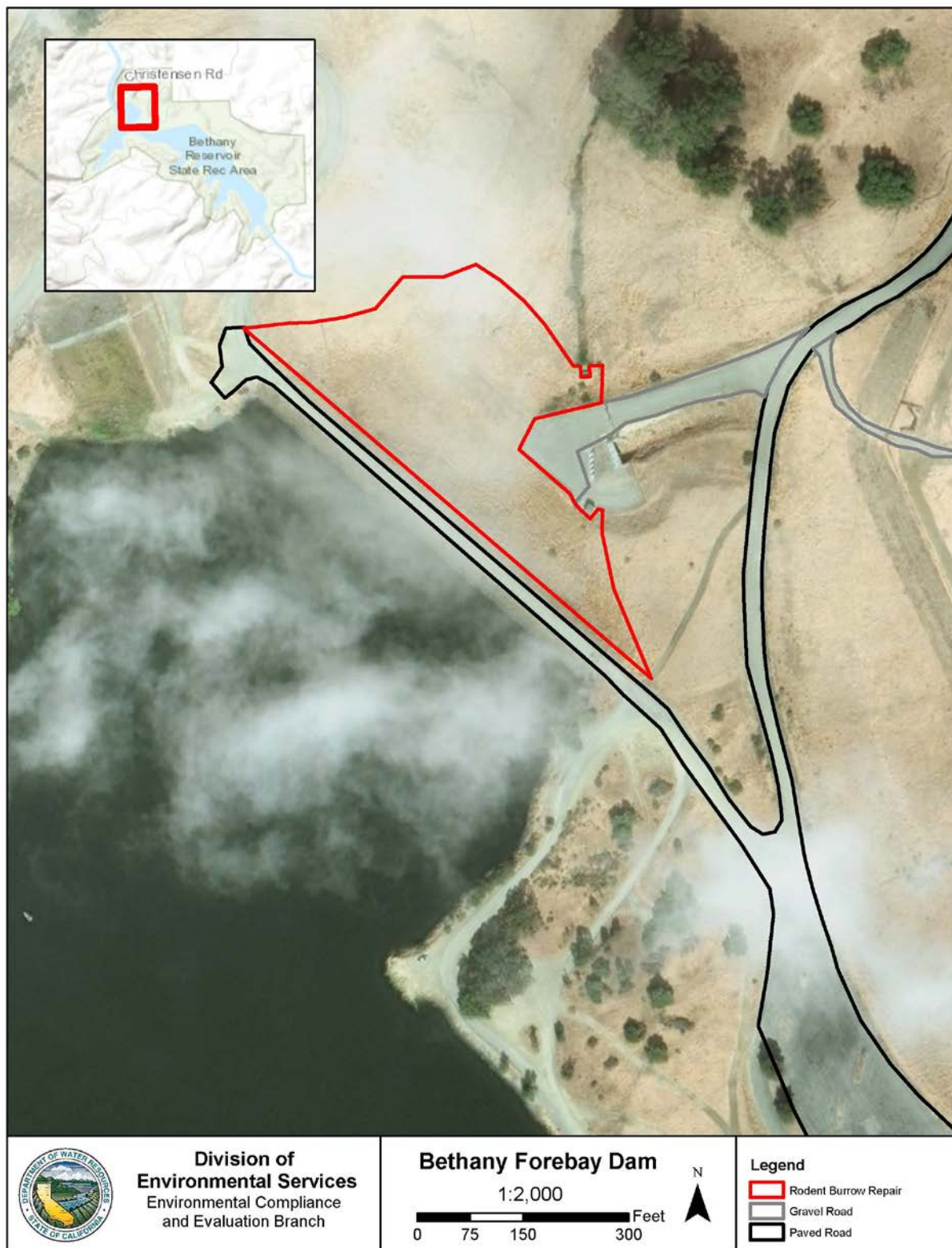
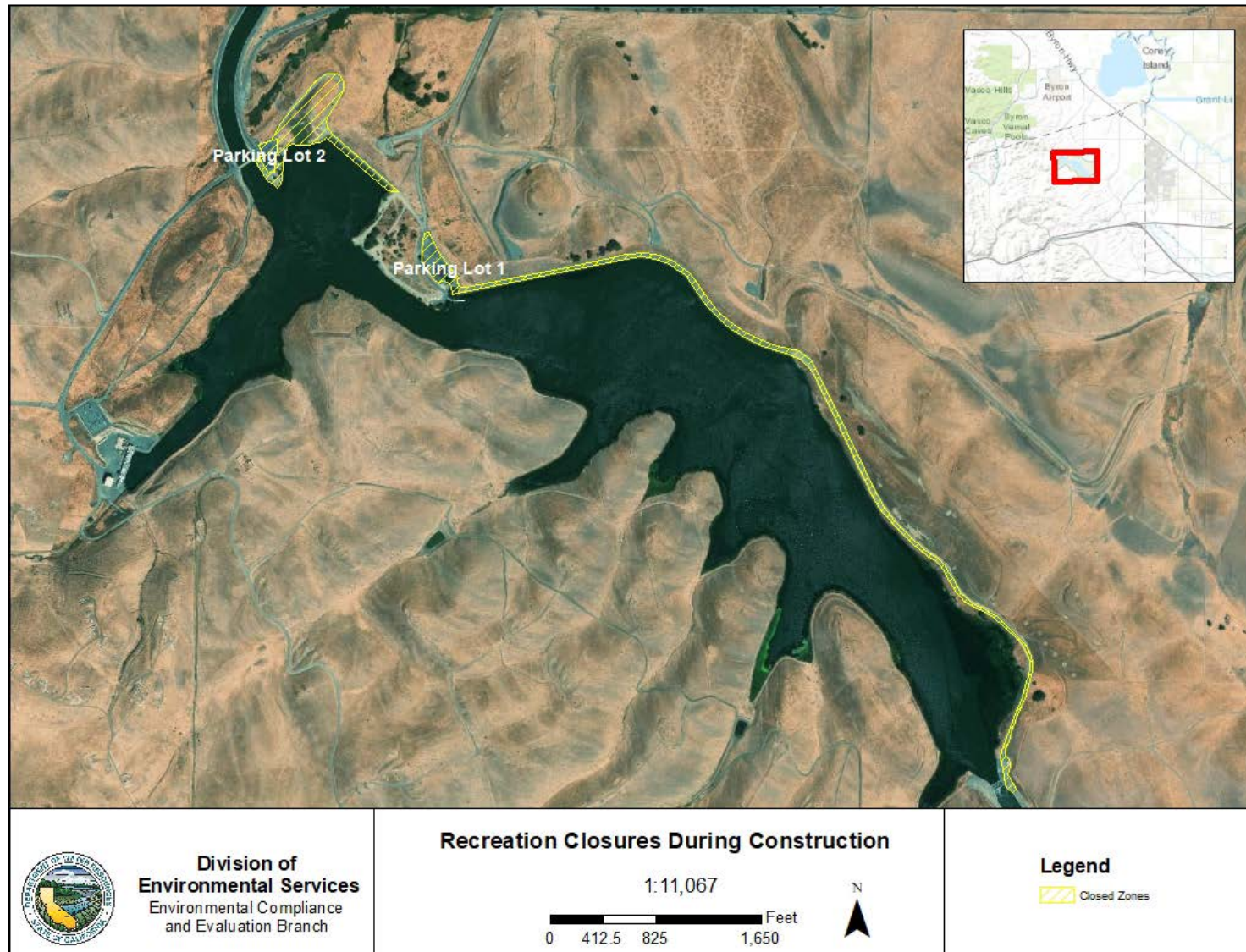


Figure 5. Recreation access during construction.



Figure 6. Map showing areas that will be closed to public access during construction.



3.0 Description of How Project Changes Affect Each Resource

This section summarizes how project changes affect the resources evaluated in the 2014 MND and 2018 Supplemental MND. The proposed project design, construction, and operation have not been substantially changed such that there would be significant changes to Aesthetics, Agricultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Mineral Resources, Noise, Population/Housing, Transportation, or Utilities/Service Systems beyond what was already identified in the 2014 MND and 2018 Supplemental MND; therefore, these sections are not discussed further.

3.1.1 Air Quality

Changes in the project have the potential to affect air quality in the project area; the effects of these changes would alter the impact determination of the 2014 MND and 2018 Supplemental MND and are discussed below.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.1.1.1 Environmental Setting

The proposed project is located in Alameda County, which is within the San Francisco Bay Area Air Basin (SFBAAB) and is under jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the southwestern portion of Solano County.

The SFBAAB is characterized by complex terrain consisting of coastal mountain ranges, inland valleys, and bays that distort normal wind flow patterns. The Coast Range mountains trending northwest along the western side of the SFBAAB have two major open areas at the Golden Gate and the Carquinez Strait that allow air to flow in and out of the SFBAAB and the Central Valley. During the summertime, temperature inversions can cause pollutant concentrations to build to unhealthy levels because of the lack of dispersion. During the summer, winds flowing from the northwest are drawn inland through the Golden Gate and over the lower portions of the San Francisco Peninsula. In the winter, the Pacific high-pressure cell weakens and shifts southward resulting in wind flow offshore, the absence of upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential. The Pacific high-pressure cell periodically becomes dominant, bringing strong inversions, light winds, and high pollution potential (BAAQMD 2017).

National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone, sulfur dioxide (SO₂), nitrogen dioxide (NO₂), particulate matter (PM) less than 10 microns (PM₁₀), particulate matter less than 2.5 microns (PM_{2.5}), and lead. These standards have been established with a margin of safety to protect the public's health. Both the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) designate areas of the state as attainment, nonattainment, maintenance, or unclassified for the various pollutant standards according to the federal Clean Air Act (CAA) and the California Clean Air Act (CCAA), respectively.

An “attainment” designation for an area signifies that pollutant concentrations did not violate the NAAQS or CAAQS for that pollutant in that area. A “nonattainment” designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as identified in the criteria. A “maintenance” designation indicates that the area was previously non-attainment and is currently attainment for the applicable pollutant; the area must demonstrate continued attainment for a specified number of years prior to redesignation as an “attainment” area. An “unclassified” designation signifies that data do not support either an attainment or nonattainment status.

The SFBAAB is designated as a nonattainment area for the State and federal 8-hour ozone standards, the state PM₁₀ standard, and the state and national PM_{2.5} standards. The SFBAAB is considered an attainment area or unclassified for the other criteria pollutants.

The BAAQMD has published guidelines for CEQA compliance, which include recommended threshold criteria for determining the significance of impacts on air quality from construction and operational activities (BAAQMD 2017). Screening criteria for potential significance as written in the guidance are as follows: the project is below the applicable screening level size; all Basic Construction Mitigation Measures would be included in the project design and implemented during construction; and construction-related activities would not include demolition, simultaneous occurrence of more than two construction phases, simultaneous construction of more than one land use type, extensive site preparation for grading, cut/fill, or earth movement, or extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity. As the proposed project involves the transport of more than 10,000 cubic yards of clay and fill, these screening criteria are not met. Subsequent screening criteria as established by BAAQMD are summarized in its CEQA Air Quality Guidelines. If emissions are below the construction or operational threshold criteria, the impact would be considered less than significant. If emissions exceed the applicable thresholds, the impact would be considered significant.

3.1.1.2 Discussion

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than significant impact with mitigation incorporated. The air plan applicable to the proposed project is the BAAQMD Bay Area 2017 Clean Air Plan (BAAQMD 2017). The Clean Air Plan defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce greenhouse gas emissions to protect the climate.

Two criteria are applicable to determine if the proposed project would conflict with or obstruct implementation of the air quality plan. The first criterion is whether the proposed project would exceed the estimated air basin emissions used as the basis of the air quality plans, which are based on expected population changes and vehicle miles traveled (VMT). While the air quality plan includes mobile sources, minor changes in the assumptions relative to these sources would not obstruct the successful implementation of the strategies for improvement of the SFBAAB's air quality. The proposed project would not result in significant increases to VMT as a result of construction equipment on the project site.

The second criterion is whether the proposed project would increase the frequency or severity of violation of existing air quality standards, contribute to new violations, or delay the timely attainment of air quality standards. Operation of the proposed project is not projected to produce emissions, as the project will result in repaired earthen dams covered with rock slope protection. Construction of the proposed project would result in new, short-term exhaust emissions from construction equipment and vehicles, as well as fugitive dust emissions.

The air quality analysis focuses on the construction activities associated with the proposed project, which would result in short-term exhaust emissions from construction equipment and vehicles as well as fugitive dust emissions. Construction impacts were estimated for the following sources: construction equipment, transport vehicles, and fugitive dust from earth moving and grading. Exhaust emissions from operation of construction were calculated using California Emissions Estimator Model (CalEEMod) (BREEZE software 2017). In the long-term, the proposed project will have no net air quality impacts as the project will result in repaired earthen dams covered with rock slope protection.

The BAAQMD provides screening criteria to determine if a project's impact to air quality is likely to be significant. Due to material transport of over 10,000 cy, the proposed project does not meet screening criteria for "less than significant" without mitigation. Analysis of potential air quality impacts from construction of the proposed project, which was conducted with CalEEMod, indicates that project construction activities would result in the daily average emission of more than 54 pounds of NO_x (oxides of nitrogen) gases, which would exceed the thresholds of significance for that pollutant without implementing mitigation measures.

Construction, freight, and farming equipment contribute approximately 15% of the regional NO_x emissions. The CARB and EPA adopted standards for heavy-duty off-road compression ignition engines 175 horsepower and above to significantly reduce production of ozone precursor pollutants, including NO_x. To mitigate NO_x daily emissions, certified construction equipment that satisfies Tier 4 Final (Tier 4F) diesel engine standards will be used, so that the total daily emissions from off-road equipment and heavy-duty vehicles does not exceed the threshold of significance for NO_x. Based on CalEEMod calculations, implementation of Tier 4F diesel engine standards will

significantly reduce construction-related NO_x levels to below the threshold of significance (Table 2). Use of Tier 4F equipment provides a buffer between the anticipated daily NO_x emissions and the threshold of significance. Therefore, the minimal use of equipment that satisfies less than Tier 4F diesel engine standards will not exceed the daily emissions threshold. If it is determined that the proposed project will have an exceedance, DWR will implement Additional Construction Mitigation Measures recommended by the BAAQMD (BAAQMD 2017).

Implementation of the measures in Mitigation Measures AQ-1 will ensure the proposed project's construction activities will not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Implementation of Mitigation Measure AQ-1 will reduce this impact to less than significant.

Table 2: Pollutant Threshold of Significance and Calculated Daily Emissions

Pollutant	Threshold of Significance for Average Daily Emissions (pounds)	Calculated Average Daily Construction Emissions without mitigation (pounds)	Calculated Average Daily Construction Emissions with mitigation measure implementation (pounds)
NO _x	54	73.79	50.18
PM _{2.5}	54	6.56	3.76
PM ₁₀	82	11.38	1.88
NO _x = oxides of nitrogen; PM _{2.5} = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM ₁₀ = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less			

Mitigation Measure AQ-1: Reduce construction-related emissions from off-road equipment and heavy-duty vehicles

- j) Tier 4F diesel engine standards will be used during construction
- k) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day during construction, or as frequently as needed to minimize fugitive dust.
- l) All materials in haul trucks, including transporting soil, sand, or other loose material being hauled on- or off-site shall be covered.
- m) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- n) All vehicle speeds on unpaved roads shall be limited to 15 mph.
- o) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.

- p) Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- q) All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- r) Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

b) Would the project 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

Less than significant impact with mitigation. The SFBAAB is designated as a nonattainment area for the state and federal 8-hour ozone standards, the state PM₁₀ standard, and the state and federal PM_{2.5} standards. The SFBAAB is considered an attainment area or unclassified for the other criteria pollutants.

Air pollutant emissions associated with the proposed project would occur in the short-term during construction activities. The proposed project would not generate long-term air pollutant emissions during operation, because the project will result in repaired earthen dams covered with rock slope protection. Although the construction phase of the proposed project would result in a net increase in criteria pollutants, the emission of these pollutants would be temporary in nature and would cease when construction is completed. Because project construction will take place over two years, limiting the annual construction area to less than 10 acres, emissions associated with the proposed project would not be expected to exceed the BAAQMD daily emission thresholds for ozone, PM_{2.5}, and PM₁₀ standards. Calculations of potential construction impacts using CalEEMod confirm this.

The BAAQMD requires the implementation of BMPs to reduce criteria pollutant production during construction, as specified in Mitigation Measure AQ-1. Fugitive dust emissions are associated with excavation, land clearing, exposure, and cut-and-fill operations. Dust generated daily during construction would vary substantially, depending on the level of activity, the specific operations, and weather conditions. On a limited basis, surrounding land uses and on-site construction workers may be exposed to blowing dust, depending on the prevailing wind. BAAQMD specifies mitigation measures for dust control related to construction projects. These mitigation measures are intended to reduce suspended particulate matter including PM₁₀ and PM_{2.5} emissions to less than significant levels during the construction period. Implementation of the Mitigation Measures in AQ-1 would reduce diesel PM exhaust and ROG

emissions as well as construct dust PM_{2.5} and PM₁₀ impacts during construction, therefore reducing this impact to less than significant.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact. Pollutants that could be generated by the proposed project and could result in adverse health effects on sensitive receptors include CO, NO_x, particulate matter (i.e., PM₁₀ and PM_{2.5}), and toxic air contaminants (TACs). No significant changes in pollutant emissions are expected from operation as the project will result in repaired earthen dams covered with rock slope protection. Calculations for temporary emissions from construction show that impacts will not exceed thresholds of significance.

Members of the population that are considered particularly sensitive to the effects of air pollutants include children, the elderly, and people with illnesses. Therefore, examples of sensitive receptors include schools, hospitals, and residential areas. The nearest sensitive receptors would be at Mountain House Elementary School, which is approximately 1.6 miles east of the nearest project component. Other land surrounding the project site is primarily agricultural, although the town of Mountain House is approximately 2.4 miles away.

Haul trucks and off-road equipment would not operate in the immediate proximity of any sensitive receptor or for an extended period. As the nearest potential sensitive receptors are over 1 mile away from the expected impacts and emissions are not presumed to be significant or permanent, construction-related emissions would not expose sensitive receptors to substantial concentrations of pollutants. Therefore, the impact would be less than significant.

d) Would the project create objectionable odors affecting a substantial number of people?

Less than significant impact. Human response to odors is subjective, and sensitivity to odors varies greatly. Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, headaches).

A potential source of odor during maintenance activities is equipment exhaust. However, equipment exhaust would be localized and generally confined to the immediate area surrounding the proposed project site. The proposed project would use typical construction techniques, and the odors would be temporary and typical of most construction sites. Operation of the proposed project would not have any significant odor sources. The project would not create objectionable odors that would affect a substantial number of people. Therefore, the impact would be less than significant.

3.2 Biological Resources

The project construction footprint (13.4 acres) is smaller than what was evaluated previously (19.75 acres). The access roads between Dam 1 and 2 and Dam 2 and 3 represent the only disturbance area outside of the previous footprint, and were added to allow one-way traffic and prevent the need for additional habitat disturbance for staging areas or widening the existing access road for two-way traffic; because the habitat remains the same and is within the impact area already considered, no additional impacts to biological resources will occur. The new staging areas are within existing paved parking lots connected to the project construction areas by existing access roads and will not impact biological resources.

The proposed project design, construction, and operation have not been changed such that there would be changes in the impacts associated with biological resources beyond what was previously identified in the 2014 MND and 2018 Supplemental MND.

3.3 Cultural Resources

The proposed change to the project construction footprint is largely within than what was evaluated previously. The access roads between Dam 1 and 2 and Dam 2 and 3 represent the only disturbance area outside of the previous footprint, and were added to allow one-way traffic and prevent the need for additional habitat disturbance for staging areas or widening the existing access road for two-way traffic; because the habitat remains the same and is within the impact area already considered, no additional impacts to cultural resources will occur. The new staging areas are within existing paved parking lots connected to the project construction areas by existing access roads and will not impact cultural resources. None of the project activities will diminish Bethany Reservoir's integrity of location, design, setting, materials, workmanship, feeling, or association. The proposed activities would return the earthen dams to their original specifications and repair damage to the dams caused by rodent burrows. Therefore, under CEQA, the project will result in No Significant Impacts to Historical Resources (Section 15064.5 of the CEQA Guidelines) and under Section 106 of the NHPA, a Finding of No Adverse Effect (36 CFR § 800.5[b]) is recommended. None of the project changes would result in changes in the assessment of cultural impacts as outlined in the 2014 MND and 2018 Supplemental MND.

3.4 Energy

This section is a new requirement of CEQA as of 2019 and was not previously addressed.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
-

3.4.1 Environmental Setting

There are two notable energy centralized facilities in the vicinity of the project. The closest, Harvey O. Banks Pumping Plant, which is about one mile north of the project site, consumes energy to pump water from Clifton Court Forebay into Bethany Reservoir and the California Aqueduct. Wind turbines are located approximately one mile southwest of the project and can be observed from the project area.

3.4.2 Discussion

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

No impact. The proposed project will only be consuming energy via fuel (gasoline) due to construction equipment usage and vehicles traveling to and from the project site. No other energy sources will be consumed or wasted during the construction and maintenance of the proposed project. The proposed project will not result in a facility that needs operation. Therefore, no impact is anticipated as a result of the proposed project.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The proposed project has had no historical or present purpose to provide renewable energy or energy efficiency by a state or local plan. The proposed plan to construct the proposed project will also not obstruct or conflict with state or local plans regarding other renewable energy or energy efficiency. Therefore, no impact is anticipated as a result of the proposed project.

3.5 Greenhouse Gas Emissions

Changes in the project have the potential to affect greenhouse gas (GHG) emissions in the project area; however, the effects of these changes would not alter the impact conclusion of the 2014 MND and 2018 Supplemental MND. Based on the analysis provided in the Greenhouse Gas Emissions Reduction Plan (GGERP) and the

demonstration that the proposed project is consistent with the GGERP, DWR as the lead agency has determined that the proposed project change's incremental contribution to the cumulative impact of increasing atmospheric levels of GHGs is less than cumulatively considerable and, therefore, remains less than significant.

3.6 Public Services

Changes in the project have the potential to affect parks in the project area; the effects of these changes would alter the impact determination of the 2014 MND and 2018 Supplemental MND and are discussed below. Changes in the project will not alter the impact conclusion for police protection, fire protection, schools, and other public services, thus, these sections are not discussed further.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Parks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.6.1.1 Environmental Setting

A portion of the proposed project is located at Bethany Reservoir State Recreation Area, which is managed by California State Parks Diablo Range District. This park provides recreation activities such as fishing, boating, and biking.

3.6.1.2 Discussion

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Parks?

Less than significant with mitigation. Staging areas for the proposed project will be placed in paved parking lots at Bethany Reservoir State Recreation Area. The project will require temporary closures and reduced public access during construction, which could be considered a significant impact (see Section 3.6 Recreation). Because the reduced access to facilities at Bethany SRA and closure of a portion of the California Aqueduct Bikeway will be temporary, implementation of **Mitigation Measure Rec-1** will provide alternative recreation access and signage installed in advance of and during construction, and facilities will be restored upon completion of construction, the impact would be **less than significant with mitigation incorporated**.

3.7 Recreation

Changes in the project have the potential to affect recreation in the project area; the effects of these changes would alter the impact determination of the 2014 MND and 2018 Supplemental MND and are discussed below.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Interfere with use of existing recreational facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.7.1 Environmental Setting

Bethany Reservoir State Recreation Area (Bethany SRA) provides recreation opportunities such as boating, fishing, picnic areas, windsurfing, and wildlife viewing adjacent to Bethany Reservoir (CDPR 2019). It also serves as the northern terminus of the California Aqueduct Bikeway, which runs from Parking Lot 1 at Bethany SRA south along the eastern edge of Bethany Reservoir, and continues along the California Aqueduct to O'Neill Forebay and San Luis Reservoir SRA, with access points at numerous road crossings, the nearest being West Grant Line Road, approximately 2 miles south.

Public access

During construction, Parking Lot 2 at Bethany SRA will be closed to the public and used for construction personnel and equipment staging. The majority of Parking Lot 1 will be used for staging of equipment and excavated material and will also be closed to the public (Figure 5). Public access to the picnic and fishing area at Parking Lot 2 from the southeastern end of the Forebay Dam and access to 1.5 miles of the California Aqueduct Bikeway from Parking Lot 1 to the vehicle turnaround south of Dam 4 will be closed for the duration of construction, as both areas will be active construction zones and not safe for public use (Figure 6). Parking will be redirected along an approximately 0.25-mile gravel road that runs along the shoreline from Parking Lot 1 to the Forebay Dam.

The boat launch and restroom facility at Parking Lot 1 and fishing access along the southeastern shore of the Bethany Forebay will remain open to the public with access from Christensen Road. ADA-compliant parking spaces will be located adjacent to the restroom facility and immediately west of the boat launch (Figure 5). Standard parking spaces for vehicles and boat trailers will be relocated to the gravel road west and

northwest of the boat launch, adjacent to Bethany Forebay (Figure 5). One-way traffic will flow in a clockwise manner from west of the closed staging area to the boat launch, continue west and northwest to available parking spaces, then able to return to the boat launch from the north and east of Parking Lot 2 (Figure 5). A flagger will be present during construction to ensure safe flow of recreation and construction traffic.

After construction is complete, recreation facilities will be restored or improved. Parking lots and access roads will be re-paved and markers painted, the restroom facility at Parking Lot 2 will be upgraded to meet current ADA standards, and concrete curbs will be installed in Parking Lot 2 to improve safety. The closed zone of the California Aqueduct Bikeway will be re-paved to repair damage caused by heavy construction equipment. After restoration is complete, public access to all facilities at Bethany Reservoir State Recreation Area will resume, including access to the California Aqueduct Bikeway.

3.7.2 Discussion

a) Would the project 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?

Less than Significant. The proposed project changes will temporarily reduce recreation access to Bethany SRA during construction by reducing the amount of available parking, closing access to the picnic and fishing area at Parking Lot 1, and closing fishing, biking, and other public access along the California Aqueduct Bikeway along the northeastern shore of Bethany Reservoir. However, project impacts on recreation will be temporary and the project was designed to allow the public to utilize remaining recreation access during construction. The boat launch and restroom at Parking Lot 2 will remain open with remote parking; the California Aqueduct Bikeway will remain accessible to the public two miles to the south at West Grant Line Road; additionally, recreation facilities will be restored after construction and will incorporate facility improvements, such as upgrading the restroom to current ADA standards. These improvements are not expected to significantly increase use of the recreation facilities such that substantial physical deterioration would occur or be accelerated; thus, the impact would be **less than significant**.

b) Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

Less than Significant. Existing recreation facilities will be restored after construction and will incorporate facility improvements, such as upgrading the restroom to current ADA standards and installing safety features such as concrete curbs to discourage dangerous driving activities in the parking lots.

Project construction and subsequent restoration of recreation facilities will follow all mitigation measures, BMPs, and obtain all necessary permits and thus will not have

an adverse physical effect on the environment; thus, the impact would be **less than significant**.

c) Would the project interfere with use of existing recreational facilities?

Less than Significant with Mitigation Incorporated. The proposed project will take place at Bethany Reservoir SRA and temporary access changes will restrict recreation access during construction by reducing the amount of available parking in Parking Lot 2, closing parking and access to the picnic and fishing area at Parking Lot 1, and closing fishing, biking, and other public access to the northernmost 1.5 miles of the California Aqueduct Bikeway along the northeastern shore of Bethany Reservoir.

Mitigation Measure Rec-1: Temporary Reduced Public Access and Signage

The following measures shall be implemented to avoid or minimize potential impacts to recreation users and other public visitors:

- The boat launch and restroom facility at Parking Lot 1 and fishing access along the southeastern shore of the Bethany Forebay will remain open to the public with access from Christensen Road. ADA-compliant parking spaces will be located adjacent to the restroom facility and immediately west of the boat launch. Standard vehicles and boat trailers will be redirected to park along the gravel road west and northwest of the boat launch. A flagger will be present during construction to ensure safe flow of recreation and construction traffic.
- Signage will be posted at least 60 days prior to commencement of construction to inform the public of the scheduled closures and alternative access at Bethany SRA. Signage will be maintained throughout the closure period.

Because the reduced access to boating and fishing facilities at Bethany SRA and closure of a portion of the California Aqueduct Bikeway will be temporary, implementation of Mitigation Measure Rec-1 will provide alternative recreation access and signage installed in advance of and during construction, and facilities will be restored upon completion of construction, the impact would be **less than significant with mitigation incorporated**.

3.8 Wildfire

This section is a new requirement of CEQA as of 2019 and was not previously addressed.

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Substantially impair an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <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 type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

3.8.1 Environmental Setting

The proposed project site and surrounding lands and access roads are State Responsibility Areas (SRA). The Fire Hazard Severity Zone is Moderate in this SRA. The zone classification is based on a multitude of factors: fire behavior models using vegetation density, adjacent wildland areas, distance to wildland areas, and the probability of a fire threatening nearby structures.

The proposed project lies within the Battalion 4 (Alameda County) boundary of the Santa Clara Unit Strategic Fire Plan (CALFIRE, 2018). This section assesses fire potential and outlines safety response planning, fuel reduction, and public education and outreach. It also includes the utilization of State Parks and local agency cooperators to reach common goals.

3.8.2 Discussion

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant. The Santa Clara Unit Strategic Plan describes priority areas as wild urban interfaces (WUI) that are both SRA and Local Responsibility Areas (LRA) jurisdiction as well as sensitive infrastructures and cultural areas. The proposed project is not a WUI for it is only an SRA not also an LRA. The proposed project will not impact public roads or highways; will not cause rerouting of traffic or road closures; and construction activities will not result in emergency vehicles or law enforcement delays. The proposed project will involve temporarily restricting public access to parking lots and recreation facilities at Bethany Reservoir State Recreation Area during construction, but emergency responders would be allowed access if necessary. Safety and emergency response services will be covered in the proposed project's Job Hazard Analysis daily to ensure safe mobility while on the proposed project site and evacuation if necessary. Therefore, the project would not substantially impair an adopted emergency response plan or emergency evacuation plan; thus, the impact would be **less than significant**.

b. Would the project, 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?

Less than significant. Tall, dry grasses surround the proposed project area, which increases the potential for heavy equipment and vehicles actively working on the site to exacerbate wildfire risks. However, pre-project activities, such as emergency response plan overview with all proposed project personnel and water truck usage will decrease the potential wildfire risk. Therefore, the impact would be **less than significant**.

c. Would the project 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?

No impact. The proposed project does not require the installation or maintenance of associated infrastructure that may exacerbate fire risk. Therefore, **no impact** is anticipated as a result of the proposed project.

d. Would the project 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?

No impact. The proposed project involves repairing rodent burrow damage on the earthen dams at Bethany Reservoir, which will reduce the risk of dam failure and downstream flooding. Construction will take place during the dry season and employ appropriate Best Management Practices to prevent erosion. All exposed surfaces will be covered with rock slope protection or aggregate base material, which will prevent slope instability. The proposed project will not expose people or structures to significant risks through downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, **no impact** is anticipated as a result of the proposed project.

3.9 Mandatory Findings of Significance

The proposed project design, construction, and operation have not been changed such that there would be changes in the impacts associated with the mandatory findings of significance beyond what was previously identified in the 2014 MND and 2018 Supplemental MND.

The rodent burrow repair would return the Bethany dam faces to their intended condition. The project changes described in this Supplemental MND were designed to ensure that the construction and operation of the proposed project would not substantially degrade the quality of the environment; reduce the habitat, population, or range of plant or animal species; or eliminate important examples of California history or prehistory.

A potential future DWR project not previously discussed in the 2014 MND or 2018 Supplemental MND involves developing a Habitat Conservation Plan (HCP) to obtain take coverage for impacts to federally listed species caused by maintenance activities at DWR facilities in several counties, including Alameda, Contra Costa, and San Joaquin. Mitigation for impacts to these species will be addressed in the HCP and associated environmental documents and permits. While this action has the potential to impact some of the same species as the proposed project, no additional impacts to biological resources are associated with the proposed project changes addressed in this Supplemental MND. Thus, impacts from the proposed project changes will be individually limited and not cumulatively considerable. All environmental impacts that could occur as a result of the proposed project changes described in this Supplemental MND would be less than significant or less than significant with mitigation incorporated and when viewed in conjunction with other closely related past, present or reasonably foreseeable future projects, there would be **no impact**.

4.0 Conclusion

Based on the analysis above, changes to the project described in this Supplemental MND have the potential to affect resources within the project area; however, the effects of these changes would not alter the impact conclusion of the 2014 MND and 2018 Supplemental MND. The Mitigation Monitoring and Reporting Program has been revised to reflect these changes.

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