

Initial Study/Mitigated Negative Declaration
**Tule River Spillway Enlargement Road Realignment
and Right Abutment Spillway Cut**

Prepared for:



Lower Tule River Irrigation District
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TABLE OF CONTENTS

| | |
|---|-----------|
| PROJECT INFORMATION | 4 |
| Introduction and Background | 4 |
| Project title..... | 4 |
| Lead agency name and address | 4 |
| Contact person and phone number | 4 |
| Project sponsor’s name/address..... | 4 |
| Project location | 5 |
| General plan designation | 5 |
| Zoning | 5 |
| Project Description..... | 5 |
| Surrounding Land Uses/Existing Conditions | 7 |
| Documents Incorporated by Reference..... | 7 |
| Other Public Agencies Involved | 8 |
| Tribal Consultation | 8 |
| ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED | 12 |
| DETERMINATION..... | 12 |
| ENVIRONMENTAL CHECKLIST | 14 |
| I. AESTHETICS..... | 14 |
| II. AGRICULTURE AND FOREST RESOURCES..... | 17 |
| III. AIR QUALITY | 19 |
| IV. BIOLOGICAL RESOURCES..... | 27 |
| V. CULTURAL RESOURCES | 36 |

VI. ENERGY39

VII. GEOLOGY AND SOILS.....41

VIII. GREENHOUSE GAS EMISSIONS.....46

IX. HAZARDS AND HAZARDOUS MATERIALS47

XII. MINERAL RESOURCES.....60

XIII. NOISE61

XIV. POPULATION AND HOUSING65

XV. PUBLIC SERVICES.....66

XVI. RECREATION68

XVII. TRANSPORTATION/70

TRAFFIC.....70

XVIII. TRIBAL CULTURAL RESOURCES72

XIX. UTILITIES AND SERVICE SYSTEMS75

XX. WILDFIRE.....77

XXI. MANDATORY FINDINGS OF SIGNIFICANCE79

LIST OF PREPARERS81

 Persons and Agencies Consulted.....81

PROJECT INFORMATION

Introduction and Background

This document is the Initial Study / Mitigated Negative Declaration on the potential environmental effects of the proposed Tule River Spillway Enlargement Road Realignment and Right Abutment Spillway Cut Project (Project). The Lower Tule River Irrigation District (LTRID) will act as the Lead Agency for this project pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The United States Army Corps of Engineers is the federal sponsor on this Project and is preparing an Environmental Assessment in accord with the National Environmental Policy Act (NEPA). Copies of all materials referenced in this report are available for review in the project file during regular business hours at LTRID offices at 357 E. Olive Avenue, Tipton, CA 93272.

Project title

Tule River Spillway Enlargement Road Realignment and Right Abutment Spillway Cut

Lead agency name and address

Lower Tule River Irrigation District
357 E. Olive Avenue
Tipton, CA 93272
(559) 686-4716

Contact person and phone number

Eric Limas, General Manager
(559) 686-4716

Project sponsor's name/address

Lower Tule River Irrigation District (Lead Agency, non-federal sponsor)
357 E. Olive Avenue
Tipton, CA 93272
(559) 686-4716

United States Army Corps of Engineers (federal sponsor)

1325 J Street
Sacramento, CA 95814

Project location

Success Dam and Reservoir is located along the Tule River approximately five miles east and upstream of the City of Porterville in Tulare County, approximately 60 miles north of Bakersfield, California. The Tule River drains about 390 square miles into Success Lake, flowing from the reservoir through Porterville, and continuing 25 miles through agricultural areas. The subject roadway realignment (portion of Worth Drive / Avenue 146) is located on the southwestern side of Success Lake, in the vicinity of the existing dam and is aligned down the invert of the existing Success Lake emergency spillway. See Figures 1 and 2 for Project location.

General plan designation

Foothill Agriculture

Zoning

Foothill Agriculture Zone

Project Description

LTRID (Lead Agency) and USACE (Federal Sponsor) are proposing a spillway cut to widen the Success Dam Emergency Spillway and to realign a portion of an existing road (Worth Drive / Avenue 146) from the spillway to a bench on the right abutment of the spillway. The existing road is currently aligned down the invert of the existing Success Lake emergency spillway. This construction was referred to as Phase I of the Tule River Spillway Enlargement Project at Success Lake authorized in 1999. The proposed action in this document would ultimately support downstream flood protection and storage for irrigation water supply to be implemented in subsequent phases of the Tule River Spillway Enlargement Project; however, the proposed action in this document has a useful purpose regardless of whether subsequent phases of the Tule River Spillway Enlargement Project are implemented, does not limit or make inevitable any portion of that later project, and will not lead with any certainty to that project being completed. It is therefore properly considered independent from that subsequent project.

The existing spillway has a current width of 200 feet with a public access road within the footprint. To accommodate the modified spillway as proposed under the overall Tule River

Spillway Enlargement Project, the paved access road that currently passes through the spillway would need to be relocated/realigned. The new alignment will also be useful in allowing for the use of sandbags or other temporary measures that have historically been undertaken to temporarily increase the elevation of the existing spillway, and thereby increase the storage capacity of Success Reservoir for flood protection purposes. The existing USACE road through the spillway allows public access to the Rocky Hill Recreation Area and two residences when the reservoir is not at full capacity. This road is currently located between the right abutment slope of the spillway and the spillway channel. USACE is proposing to relocate the road onto a bench cut into the right abutment above the projected new gross pool level, removing the road from the spillway and avoiding most future road closures due to high water encroachment with the current maximum water elevations under the existing spillway configuration, as well as increased water elevations that could be achieved with spillway enlargement. The road would become a public access USACE road and remain open up to the 100-year event.

The spillway would be widened from 200 to 365 feet by blasting and removing the rock forming the right abutment during Project construction. A bench for the road would be blasted and excavated as part of the cut on the right abutment. Rock from the abutment would be used for the new roadbed and stockpiled for later construction phases.

Road Realignment and Right Abutment Cut

Figure 3 illustrates the proposed road realignment along a bench on the right abutment of the spillway. As stated, this realignment would require the right abutment to be degraded. There would also need to be a 200-foot offset to the west of the spillway for the new road alignment to allow for the construction and necessary space needed for a two-lane public road. This 200-foot offset would require the purchase of privately owned 12-acres. Property acquisitions are anticipated to occur in late 2019.

Table 1 denotes the quantities and details of (1) demolishing the current road, (2) excavating the right abutment west of the spillway, and (3) constructing the new road aligned on a bench along the newly excavated right abutment.

Table 1 – Construction Quantities and Details

| Construction Action | Data |
|--|-------------|
| Cubic Yards of Material for excavation | 527,400 |
| Cubic Yards of Concrete | 175,000 |

| | |
|---|---------|
| Construction Duration | 1 Year |
| # of Workers Per Day | 40 |
| # of Truck trips per Day | 50 |
| Potential Stockpile CY Haul to Frazier Dike | 265,000 |
| Total Man Hours | 195,000 |
| Total Equipment Hours | 250,000 |

Source: USACE

Haul Routes and Staging Areas

There are two major haul routes (Figure 1) and five staging areas (Figure 2) for the proposed action. Additionally, there are two quarries downstream of Success Dam that could potentially supply the additional rock or take any excess material from the excavation of the right abutment.

Schedule

- Real Estate Acquisition: Fall 2019
- Construction Start: January 2020
- Construction Completion: 2021

Surrounding Land Uses/Existing Conditions

The proposed Project site is immediately adjacent to Success Lake, in the foothills of the Sierra Nevada Mountain Range. The area surrounding the lake is largely cattle grazing land. The City of Porterville and the community of East Porterville are to the west of the proposed Project site.

Documents Incorporated by Reference

The proposed Project environmental impacts were previously evaluated in the *Tule River Basin Investigation – Final Feasibility Report and Final Environmental Impact Statement / Environmental Impact Report* (State Clearinghouse #1999044004) prepared by the U.S. Army Corps of Engineers (September 1999). That document and associated findings are herein incorporated by reference pursuant to CEQA Guidelines Section 15150 and is available for review at the Lower Tule River Irrigation District, 357 E. Olive Avenue, Tipton, CA 93272. The current CEQA document for the proposed Project is being prepared because of the lapse in time (approximately 20 years since the original document), updates/changes to the CEQA Guidelines, and updates to applicable

regulatory requirements. However, the Project remains substantially the same as what was previously analyzed.

Other Public Agencies Involved

- State of California Native American Heritage Commission
- San Joaquin Valley Air Pollution Control District
- Central Valley Regional Water Quality Control Board
- California Department of Fish & Wildlife
- U.S. Fish & Wildlife Service
- U.S. Army Corps of Engineers

Tribal Consultation

As a Project sponsor, USACE has initiated consultation under Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) regarding this undertaking and a proposed Programmatic Agreement (PA) with the following Indian tribes and Native American communities identified by the California Native American Heritage Commission as having cultural resources interests in the Project area: Tule River Indian Tribe, Santa Rosa Rancheria Tachi Yokut Tribe, Kern Valley Indian Community, Tubatulabals of Kern Valley, and Wuksache Indian Tribe/Eshom Valley Band. USACE will consult with these parties, and the California State Historic Preservation Officer, on the development of the Programmatic Agreement, to be fully executed prior to the approval of the expenditure of funding for road relocation construction. See Section XVIII – Tribal Cultural Resources for more information.

Figure 1 – Project Vicinity with Haul Routes and Blast Radii

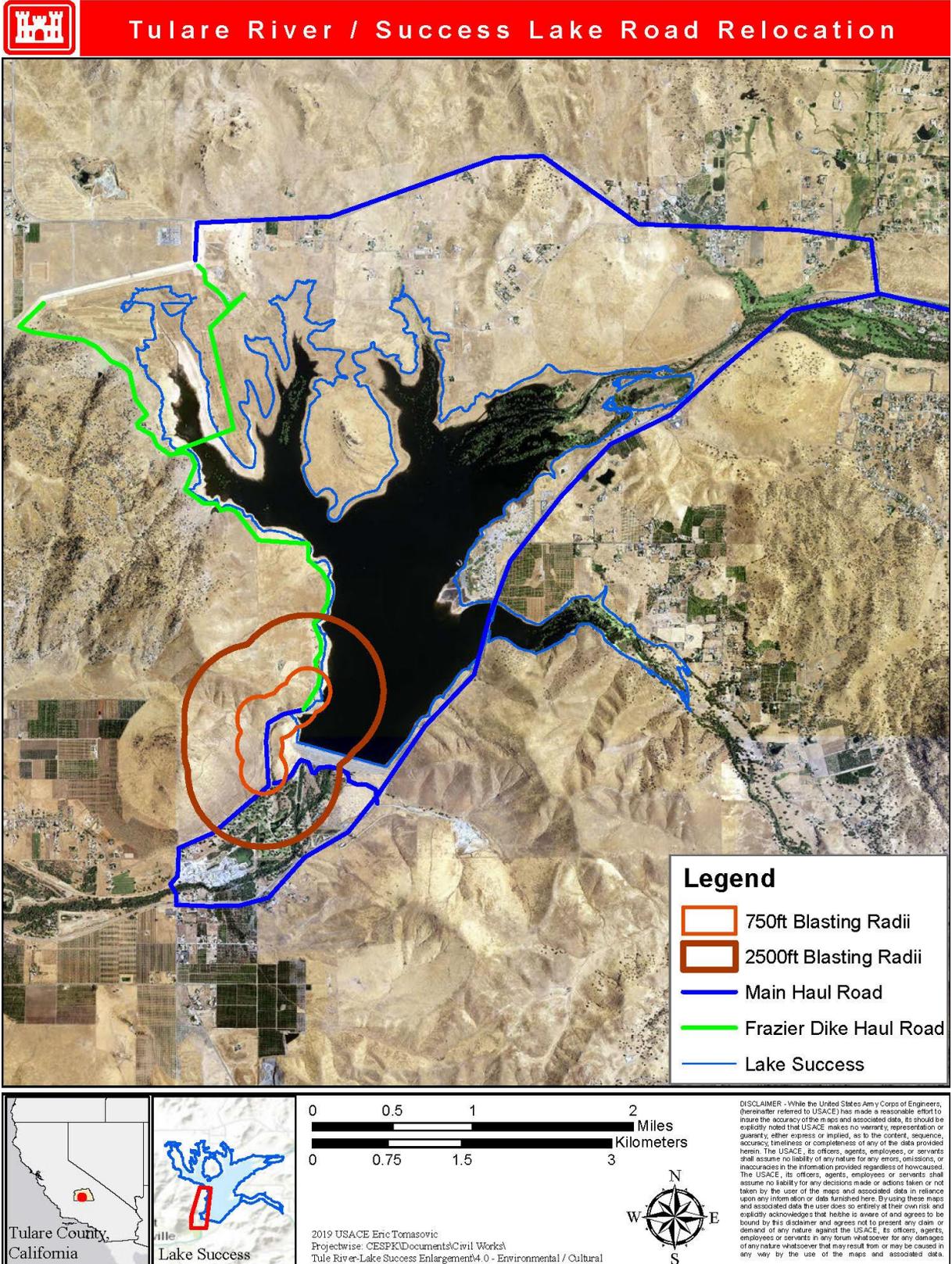
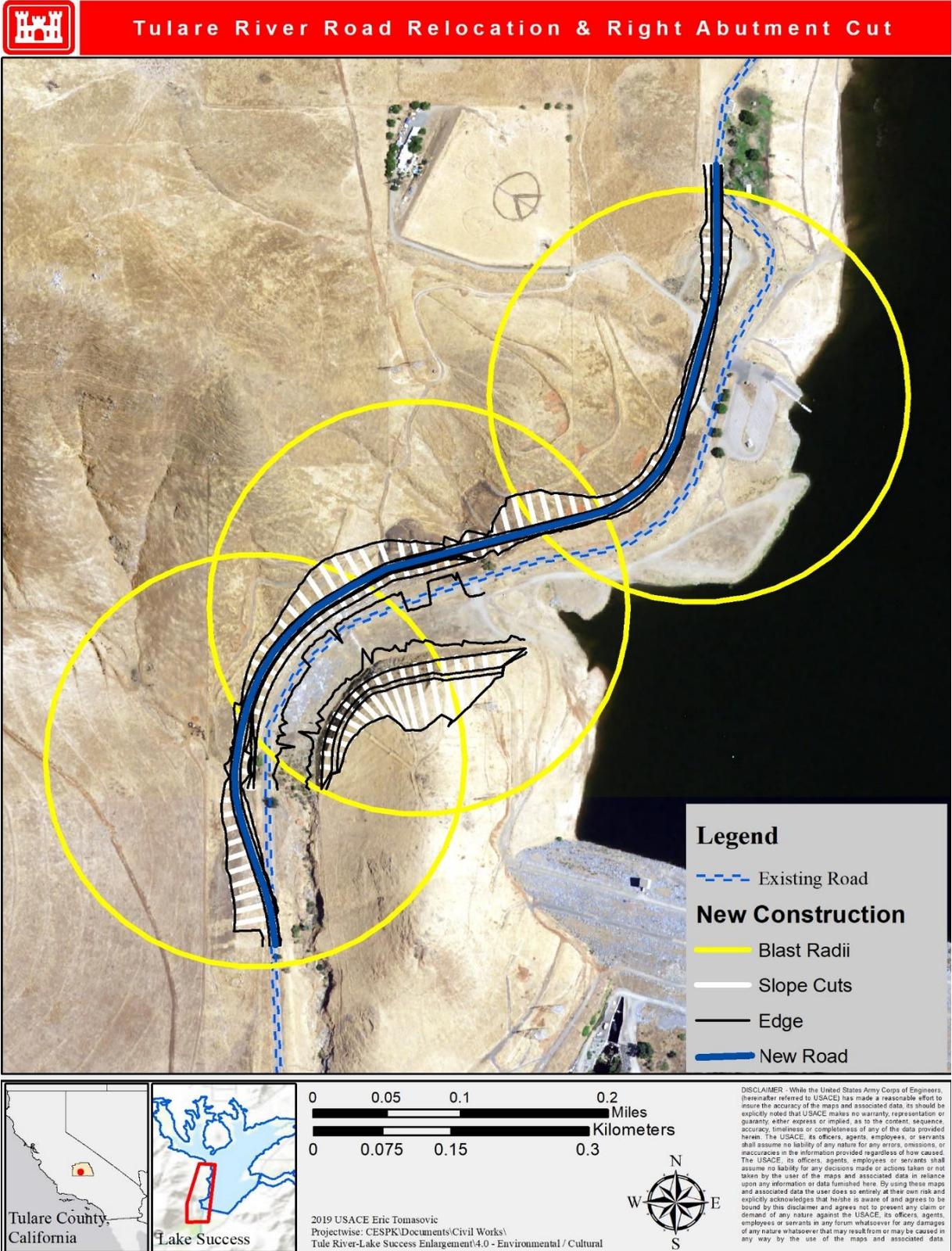


Figure 2 – Project Location and Staging Areas



Figure 3 – Proposed Alignment / Construction Area / Blast Radii



ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

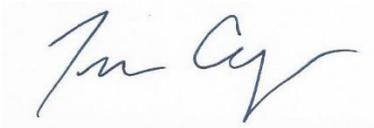
- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources and Forest Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology / Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



September 21, 2019

Travis Crawford (Environmental Consultant) for

Eric Limas

Date

General Manager

Lower Tule River Irrigation District

ENVIRONMENTAL CHECKLIST

I. AESTHETICS

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|---|--------------------------------|---|-------------------------------------|--------------------------|
| a. Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 regulations governing scenic quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

RESPONSES

- a. Have a substantial adverse effect on a scenic vista?
- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- 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 regulations governing scenic quality?

Less than Significant Impact. The Project is located adjacent to and west / southwest of Success Lake in an area dominated visually by Success Lake and the surrounding grassy hills. Man-made features in the area include the existing roadway, reservoir dam, parking areas and associated improvements. The Project consists of demolition/removal of the existing road and cut/fill to the existing spillway to allow for installation of a replacement road on a new alignment further away from the existing lake. The proposed roadway does not include any above-ground features that would substantially impede any views to or from the Project site. The existing landform of the spillway will be modified for the Project. Figure 3 shows the areas where slopes will be cut to accommodate the realigned road. Although this will result in visual changes to the environment, the changes will not result in conditions that are significantly different than existing conditions. The realigned road will follow a similar path to the existing road and the spillway cuts will occur in an area that has already been significantly modified/disturbed.

Under CEQA, a scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. Success Lake is surrounded by a natural environment in the southern Sierra foothills. The peaks of the Sierra Nevada mountain range are clearly visible on many days of the year. The proposed Project consists of realigning an existing roadway and would not represent a new use in the area or introduce structures that would impede existing views. The new roadway will be visually similar in form and size to the existing roadway. Construction activities may be visible from the adjacent roadside and from the lake itself; however, the construction activities will be temporary in nature and will not affect a scenic vista. In addition, disturbed areas will be restored to pre-construction conditions. As such, the spillway cut and relocated road will not degrade the existing visual character of the site.

There are no state designated scenic highways within the immediate proximity to the Project site; however, Tulare County's existing General Plan identifies State Route (SR) 190 from Porterville to Ponderosa as an eligible State designated scenic highway. The Project site physically separated from SR 190 by Lake Success, as the proposed road relocation would occur on the west side of Lake Success while SR 190 aligns on the eastern edge of Lake Success. Based on the National Register of Historic Places (NRHP) and the County's General Plan, no historic buildings exist on the Project site. The proposed Project would not cause damage to rock outcroppings or historic buildings within a State scenic highway corridor. Any impacts would be considered *less than significant*.

Mitigation Measures: None are required.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare and waste energy, and if designed incorrectly, could be considered unattractive. Light that falls beyond the intended area is referred to as “light trespass.” Types of light trespass include spillover light and glare. Minimizing all these forms of obtrusive light is an important environmental consideration. A less obtrusive and well-designed energy efficient fixture would face downward, emit the correct intensity of light for the use, and incorporate energy timers.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. The presence of a bright light in an otherwise dark setting may be distracting or annoying, referred to as discomfort glare, or it may diminish the ability to see other objects in the darkened environment, referred to as disability glare. Glare can be reduced by design features that block direct line of sight to the light source and that direct light downward, with little or no light emitted at high (near horizontal) angles, since this light would travel long distances. Cutoff-type light fixtures minimize glare because they emit relatively low-intensity light at these angles.

Currently the sources of light in the Project area are from vehicles on the existing roadway and from the sparse residences and vehicles around the lake. The Project does not include any roadway lighting or permanent lighting. However, security lighting around construction staging areas may be installed. These security lights would be temporary and will be directed downward and designed to minimize light spill onto adjacent properties. Accordingly, the Project would not create substantial new sources of light or glare that would cause a significant impact. Potential impacts are *less than significant*.

Mitigation Measures: None are required.

II. AGRICULTURE AND FOREST RESOURCES

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-------------------------------------|
| 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 type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <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 type="checkbox"/> | <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 type="checkbox"/> | <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 type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

RESPONSES

- 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?
- b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- 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))?
- d. Result in the loss of forest land or conversion of forest land to non-forest use?
- 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?

No Impact. The Project site is located in an area of the County considered Non-agricultural and Natural Vegetation by the State Farmland Mapping and Monitoring Program.¹ No *Prime Farmland, Unique Farmland, or Farmland of Statewide Importance* or land under the Williamson Act contracts occurs in the Project area. Therefore, no land conversion from Farmland would occur for the Project. The Project is not zoned for forestland and does not propose any zone changes related to forest or timberland. There is *no impact*.

Mitigation Measures: None are required.

¹ California Department of Conservation. California Important Farmland Finder.
<https://www.conservation.ca.gov/dlrp/fmmp/Pages/Tulare.aspx>. Accessed June 2019.

III. AIR QUALITY

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|---|--------------------------------|---|-------------------------------------|--------------------------|
| 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 type="checkbox"/> | <input checked="" 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"/> |
| d. Result in other emissions (such as those leading to odors or adversely affecting a substantial number of people)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

RESPONSES

- a. Conflict with or obstruct implementation of the applicable air quality plan?
- 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?
- c. Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact With Mitigation. The proposed Project lies within the San Joaquin Valley Air Basin (SJVAB). At the Federal level, the SJVAB is designated as extreme nonattainment for the 8-hour ozone standard, attainment for PM₁₀ and CO, and nonattainment for PM_{2.5}. At the State level, the SJVAB is designated as nonattainment for the 8-hour ozone, PM₁₀, and PM_{2.5} standards. Although the Federal 1-hour ozone standard was revoked in 2005, areas must still attain this standard, and the SJVAPCD

recently requested an EPA finding that the SJVAB has attained the standard based on 2011-2013 data². To meet Federal Clean Air Act (CAA) requirements, the SJVAPCD has multiple air quality attainment plan (AQAP) documents, including:

- Extreme Ozone Attainment Demonstration Plan (EOADP) for attainment of the 1-hour ozone standard (2004);
- 2007 Ozone Plan for attainment of the 8-hour ozone standard;
- 2007 PM₁₀ Maintenance Plan and Request for Redesignation; and
- 2008 PM_{2.5} Plan.

Because of the region's non-attainment status for ozone, PM_{2.5}, and PM₁₀, if the project-generated emissions of either of the ozone precursor pollutants (ROG or NO_x), PM₁₀, or PM_{2.5} were to exceed the SJVAPCD's significance thresholds, then the project uses would be considered to conflict with the attainment plans. In addition, if the project uses were to result in a change in land use and corresponding increases in vehicle miles traveled, they may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

The annual significance thresholds to be used for the Project for construction and operational emissions are as follows³:

- 10 tons per year ROG;
- 10 tons per year NO_x;
- 15 tons per year PM₁₀; and
- 15 tons per year PM_{2.5}.

The Project will result in construction emissions as described below.

Short-Term (Construction) Emissions

Site preparation and Project construction would involve grading, hauling, and various activities needed to construct the Project. During construction, the Project could generate pollutants such as hydrocarbons, oxides of nitrogen, carbon monoxide, and suspended PM. A major source of PM would be windblown dust generated during construction activities. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Vehicles leaving the site could deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM₁₀

² San Joaquin Valley Air Pollution Control District. Guide to Assessing and Mitigating Air Quality Impacts. March 19, 2015. Page 28. http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf. Accessed June 2019.

³ San Joaquin Valley Air Control District – Air Quality Threshold of Significance – Criteria Pollutants. <http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf>. Accessed June 2019.

emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM10 emissions would depend on soil moisture, the silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Operational Emissions

There are no anticipated operational emissions, as the proposed Project includes a road relocation. The existing road will be demolished and reconstructed within the vicinity. No ongoing operational air emissions will result from the Project.

Total Project Emissions

The estimated annual construction emissions are shown below. The Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model, Version 9.0.0 was utilized to estimate construction and operational (vehicle trips) emissions resulting from the proposed Project. Modeling results are provided in Table 2 and the output files are provided in Appendix A.

Table 2
Proposed Project Construction and Operation Emissions

| | VOC (ROG) (tons/year) | NO_x (tons/year) | PM₁₀ (tons/year) | PM_{2.5} (tons/year) |
|--|--|---|--|---|
| Years 2020/2021 Construction (combined) | 0.28 | 1.54 | 1.2 | 0.28 |
| Total Estimated Emissions | 0.28 | 1.54 | 1.2 | 0.28 |
| Threshold of Significance | 10 | 10 | 15 | 15 |
| Significant? | No | No | No | No |

Source: Road Construction Emissions Model results (Appendix A). Crawford & Bowen Planning (2019)

As demonstrated in Table 2, estimated construction and operational emissions would not exceed the SJVAPCD's significance thresholds for ROG, NO_x, PM₁₀, and PM_{2.5}. As a result, the Project uses would not conflict with emissions inventories contained in regional air quality attainment plans and would not result in a significant contribution to the region's air quality non-attainment status.⁴

Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. The SJVAPCD provides screening criteria to determine when to quantify local CO concentrations based on impacts to the level of service (LOS) of roadways in the Project vicinity.

⁴ San Joaquin Valley Air Pollution Control District. Guide to Assessing and Mitigating Air Quality Impacts. March 19, 2015. Page 65. http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf. Accessed February 2019.

As further discussed in the Transportation/Traffic checklist evaluation, the Project would not generate substantial additional traffic beyond existing levels that would reduce the level of service on local roadways or cause extended idling at intersections. Therefore, the Project would not significantly contribute to an exceedance that would exceed state or federal CO standards. Additionally, as the estimated construction and operational emissions are below SJVAPCD thresholds, any cumulative considerable increase in criteria pollutants would be less than significant.

However, to ensure Project impacts remain less than significant, mitigation will be imposed that implement a set of Basic Construction Emission Control Practices as best management practices and other mitigation actions.

Any impacts to air resources would be considered *less than significant*.

Mitigation Measures:

AIR-1: Basic Construction Emission Control Practices. The construction contractor would be required to implement the following basic construction emission control practices:

- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to five minutes (as required by the state airborne toxics control measure [Title 13, Sections 249(d)(3) and 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.

AIR-2: Enhanced Exhaust Control Practices. The construction contractor would be required to implement the following enhanced exhaust control practices:

- Provide a plan for approval by the lead agency and USACE demonstrating that the heavy-duty (50 horsepower (hp) or more) off-road vehicles to be used in the construction Project,

including owned, leased, and subcontractor vehicles, would achieve a Project-wide fleet-average 20% NO_x reduction and 45% particulate reduction compared to the most recent California Air Resources Board (ARB) fleet average.

- Acceptable options for reducing emissions may include use of late model engines, low emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. The SMAQMD's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction. The subject plan would be submitted in conjunction with the equipment inventory discussed below.
- Submit to the lead agency and USACE a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 hp, that would be used an aggregate of 40 or more hours during any portion of the construction Project. The inventory would include the hp rating, engine model year, and projected hours of use for each piece of equipment. The inventory would be updated and submitted monthly throughout the duration of the Project, except that an inventory would not be required for any 30-day period in which no construction activity occurs. At least 4 business days hours prior to the use of subject heavy-duty off-road equipment, the contractor would provide USACE with the anticipated construction timeline including start date, and name and phone number of the Project manager and on-site foreman. The SMAQMD's Model Equipment List can be used to submit this information.
- Ensure that emissions from all off-road diesel-powered equipment used on the Project site do not exceed 40% opacity for more than 3 minutes in any 1 hour. Any equipment found to exceed 40% opacity (or Ringelmann 2.0) would be repaired immediately. Non-compliant equipment would be documented and a summary provided to the lead agency and USACE monthly. A visual survey of all in-operation equipment would be made at least weekly, and a monthly summary of the visual survey results would be submitted throughout the duration of the Project, except that the monthly summary would not be required for any 30-day period in which no construction activity occurs. The monthly summary would include the quantity and type of vehicles surveyed as well as the dates of each survey.

AIR-3: Fugitive Dust Emission Mitigation Measures. The construction contractor would be required to implement the fugitive dust mitigation measures listed below:

- Limit vehicle speeds on unpaved roads to 15 mph.
- Water at least every 2 hours of active construction activities or sufficiently often to keep disturbed areas adequately wet.

- Remove all visible track-out from a paved public road at any location where vehicles exit the work site. This would be accomplished using wet seeping by a HEPA filter-equipped vacuum device on a daily basis.
- Install one or more of the following track-out prevention measures:
 - A gravel pad to clean the tires of exiting vehicles.
 - A tire shaker.
 - A wheel wash system
 - Pavement extending at least 50 feet from the intersection with the paved public road, or
 - Any other measure(s) as effective as the measures listed above.
- Pre-wet the ground to the depth of anticipated cuts.
- Suspend any excavation operations when wind speeds are high enough to result emissions across the property line, despite the application of other dust mitigation measures.

AIR-4: Enhanced Fugitive Particulate Matter (PM) Dust Control Practices. The construction contractor would be required to implement the following enhanced fugitive PM dust control practices:

(1) For Soil Disturbance Areas:

- Water exposed soil with adequate frequency for continued moist soil, but do not overwater to the extent that sediment flows off the Project site.
- Suspend excavation, grading, and/or demolition activity when wind speeds exceed 20 mph.
- Install wind breaks (ex. solid fencing) on the windward side(s) of construction areas.
- Plant vegetative ground cover in disturbed areas as soon as possible.

(2) For Unpaved Roads:

- Install wheel washers for all exiting trucks, or wash off all trucks and equipment leaving the site.
- Treat site access to a distance of 100 feet from the paved road with a 6 to 12-inch layer of wood chips, mulch, or gravel to reduce generation of road dust and road dust carryout onto public roads.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person would respond and take corrective action within 48 hours of receiving a complaint.

AIR-5: Additional Air Quality Mitigation Measures. USACE would also continue to implement the following mitigation measures to reduce the potential adverse air quality effects of the Project. The construction contractor would be required to comply with the following:

- Model year 2010 (MY2010) or newer haul trucks would typically be used for the duration of the Project. Use of these trucks would provide the best available emission controls for NOx and PM emissions. There could potentially be occasions when the availability of MY2010 or newer haul trucks is limited, thereby forcing the need to use older trucks to meet construction schedule goals. Should a situation like this arise, the construction contractor would first be required to demonstrate that MY2010 or newer trucks are not available in the general Project region before the use of older trucks is authorized by USACE.
- All off-road diesel-powered construction equipment greater than 50 hp would meet Tier-4 off road emission standards (reference 40 CFR Part 1039), where available.
- In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment would be outfitted with Best Available Control Technology (BACT) devices certified by CARB. Any emissions control device used by the construction contractor would achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. In the event that a certain tier engine is not available for any off-road equipment larger than 50 hp, that equipment would be equipped with the next lower tier engine (e.g., if Tier 3 is not available use Tier 2), or an engine that is equipped with retrofit controls to reduce exhaust emissions of NOx and diesel PM to no more than the next available tier, unless certified by engine manufacturers that the use of such devices is not practical for specific engine types. If the construction contractor proposes to use off-road diesel powered construction equipment greater than 50 hp that does not meet Tier-4 off road emissions standards, such usage would first have to be approved by USACE.
- If Project construction requires the use of vessels equipped with commercial marine diesel engines, the engines of such vessels would meet applicable Tier-3 emission standards set forth in 40 CFR Part 1042. 40 CFR Section 1042.1 identifies three categories of marine diesel engines. 40 CFR Section 1042.101 sets forth the exhaust emissions standards for Category 1 and Category 2 engines. 40 CFR Section 1042.104 sets forth the exhaust emission standards for Category 3 engines. In the event that a vessel with a Tier 3 engine is not available, the vessel would be equipped with the next lower tier engine (e.g., if Tier 3 is not available use Tier 2). If the construction contractor proposes to use vessels having marine diesel engines that do not meet the applicable Tier-3 exhaust emissions standards, such usage would first have to be approved by USACE.
- Construction equipment would incorporate emissions-reducing technology such as specific fuel economy standards. Idling would be restricted to a maximum of 5 minutes, except as provided in the CARB 13CCR, Section 2485 exceptions.
- The Asbestos Dust Management Plan described herein would be implemented during the course of construction activities within and adjacent to HRRA.

d. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

Less Than Significant Impact. During construction, the various diesel and gas powered vehicles and equipment in use on-site could create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the perimeter of the Project site. In addition, once the Project is operational, there would be no source of odors that result directly from the Project. Therefore, the impact is *less than significant*.

Mitigation Measures: None are required.

IV. BIOLOGICAL RESOURCES

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-----------|
|--|--------------------------------|---|------------------------------|-----------|

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"/> | <input type="checkbox"/> | <input 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

| | | | |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <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?

- 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?

RESPONSES

- 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?

Less than Significant Impact. The Project is located adjacent to and west / southwest of Success Lake in an area characterized by grassy rolling hills interspersed with urban features consisting of roadways, scattered residences and other man-made structures such as utility poles/lines. The Project consists of demolition/removal of the existing road and spillway cut/fill to allow for installation of a replacement road on a new alignment further away from the existing lake. USACE conducted biological surveys and prepared the *Tule River Spillway Cut and Road Realignment Biological Assessment* for the proposed Project. That report is summarized herein.

Certain special-status species and their habitats are protected by Federal, State, or local laws and agency regulations. The Endangered Species Act (FESA) of 1973 (16 U.S.C. § 1531 – 1599) provides legal protection for plant and animal species in danger of extinction (50 CFR Part 17). This act is administered by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Other special status species lack legal protection, but have been characterized as “sensitive” based on the policies adopted by local government and the expertise of agencies like the California Department of Fish and Wildlife (CDFW).

A list of Federally listed and candidate species, and species of concern that may be affected by the Project in U.S. Geological Survey Quad Success Dam was obtained on 18 October 2018 via the USFWS Information for Planning and Consultation (IPaC) website (USFWS 2018). Additionally, a search of the California Natural Diversity Database (CNDDDB) conducted October 2018 indicated that there were

reported occurrences of Federal and State listed species near the Project area. The following Federally listed species are potentially affected by Project activities at Success Lake and were considered in the Tule River Spillway Cut and Road Realignment Biological Assessment:

- Southwestern Willow Flycatcher (*Empidonax traillii*) U.S. Endangered
- San Joaquin Kit Fox (*Vulpes macrotis mutica*) U.S. Endangered
- San Joaquin Adobe Sunburst (*Pseudobahia peirsonii*) U.S. Threatened
- California Red-legged frog (*Rana draytonii*) U.S. Threatened

The following special-status species were considered but not evaluated fully:

- California Condor (*Gymnogyps californianus*) U.S. Endangered
- Keck's Checker-mallow (*Sidalcea keckii*) U.S. Threatened
- Striped Adobe Lily (*Fritillaria striata*) CA Threatened

The only species listed above with designated critical habitat in the Success Lake area is the California condor. However, there is no appropriate nesting habitat for the condor within the Project area. As a result, the Corps has determined the proposed action would have no impacts on the condor. Keck's checker-mallow and the striped adobe lily populations are near the reservoir, but outside of the inundation area, therefore the road relocation and eventual pool increase would not affect their survival. These special-status species would not be affected by the proposal and therefore are not further discussed.

Following completion of consultation on the proposed Success Lake deviation (another project under the jurisdiction of USACE), USACE informally coordinated with the USFWS on the Federally endangered Least Bell's Vireo (*Vireo bellii pusillus*) due to updated information indicating the potential presence of the vireo in the Success Lake area. As a result, this section includes a discussion of the vireo.

Southwestern Willow Flycatcher. Southwestern willow flycatchers (*Empidonax traillii*) are neotropical migrants that breed in patches of riparian habitat throughout the American southwest. Their breeding habitat currently ranges from southern California, through southern Nevada, southern Utah, Arizona, New Mexico, southwestern Colorado, and historically included western Texas and extreme northwestern Mexico. They travel south to winter ranges in Mexico, Central America, and northern South America. While their current distribution is similar to their historic range, southwestern willow flycatcher population numbers have declined precipitously in response to the loss of suitable riparian habitat throughout the region.

The final critical habitat designation includes 1,227 floodplain miles in California, Arizona, Nevada, Utah, Colorado, and New Mexico encompassing a total area of approximately 208,973 acres within the 100-year floodplain or flood-prone areas. Success Lake is outside the designated critical habitat area. Where the Tule River flows into Success Lake there is about 160 acres of willow riparian woodland that is adequate southwestern willow flycatcher habitat. From a Google Earth review of the Project area, the habitat appears to be mixed willow and blue oak woodland.

San Joaquin Kit Fox. Historically, the San Joaquin kit fox (*Vulpes macrotis mutica*) occurred in several San Joaquin Valley native plant communities. In the southernmost portion of the range, these communities included valley sink scrub, valley saltbush scrub, upper Sonoran subshrub scrub, and annual grassland. San Joaquin kit foxes also exhibit a capacity to utilize habitats that have been altered by man. Kit foxes can inhabit the margins and fallow lands near irrigated row crops, orchards, and vineyards, and may forage occasionally in these agricultural areas (USFWS 1998).

The kit fox typically inhabits open grasslands, which form large contiguous blocks within the eastern portions of its range. The listed canine also utilizes oak savanna and some types of agriculture (e.g. orchards and alfalfa). Orchards occur in large contiguous blocks in the northwest portions of the study area and at scattered locations in the southwest portions. Orchards sometimes support prey species if the grounds are not manicured; however, denning potential is typically low and kit foxes can be more susceptible to coyotes predation within the orchards (Bell 1994; Scott-Graham 1994). Although agricultural areas are not traditional kit fox habitat and are often highly fragmented, they can offer sufficient prey resources and denning potential to support small numbers of kit foxes. Low, suitable habitat is present, but the Project area is at the edge of the species current known range. The kit fox has been documented in the nine surrounding quads but greater than 5 miles from the study area (CDFW 2017). USFWS has advised that the kit fox may potentially use the area for foraging or as a movement corridor.

San Joaquin Adobe Sunburst. The San Joaquin adobe sunburst (*Pseudobahia peirsonii*) is a member of the sunflower family (*Asteraceae*) and has woolly gray stems and foliage. Each plant produces a single head of yellow disk and ray flowers at the ends of the branches between March and May. San Joaquin adobe sunburst is restricted to heavy, adobe clay soils with slight slopes on valley floors and rolling hills in scattered location in northern Kern County, Tulare, and Fresno counties. These soils may be favored by the San Joaquin adobe sunburst for their moisture holding capacity in the summer dry season. This plant is endemic to the eastern San Joaquin Valley. The population is limited to about 31 occurrences in valleys and flats and in the foothills of the Sierra Nevada (USFWS 1992). It occurs at elevations ranging from 500 to 2,500 feet above mean sea level primarily in annual grassland plant communities, but sometimes in annual grassland-blue oak woodland ecotone communities. San Joaquin adobe sunburst grows in

grasslands dominated by non-native annual grasses, mustards, and filarees. The intrusive and aggressive nature of these herbaceous weeds appears to be detrimental to the quality of habitat for the San Joaquin adobe sunburst.

The extant population at Success Lake is considered in fair condition and a remnant population of a larger one that used to occupy an area that is now part of Success Lake. The Success Lake extant population of San Joaquin adobe sunburst has varied from 50 to over 300 individual plants in four different areas covering an estimated 10-acre area along the west side of Success Lake and Boat Island. In addition there is a small population on the south side of the inlet where the South Fork of the Tule River enters Success Lake (USFWS 1991; Corps 2009).

California Red-legged Frog. The California red-legged frog (CRF) (*Rana draytonii*) is a relatively large aquatic frog ranging that can appear from above as brown, gray, olive, red or orange, often with a pattern of dark flecks or spots. The undersides of adult California red-legged frogs are white, usually with patches of bright red or orange on the abdomen and hind legs. CRF occur in different habitats depending on their life stage, the season, and weather conditions. Range-wide, and even within local populations, there is much variation in how frogs use their environment. All life history stages are most likely to be encountered in and around breeding sites, which are known to include coastal lagoons, marshes, springs, permanent and semi-permanent natural ponds, ponded and backwater portions of streams, as well as artificial impoundments such as stock ponds, irrigation ponds, and siltation ponds. Creeks and ponds where CRF are found most often have dense growths of woody riparian vegetation, especially willows (*Salix* spp.) (Hayes and Jennings 1988).

The California red-legged frog was probably extirpated from the floor of the Central Valley before 1960 (USFWS 1996). Because populations of frogs may be extirpated with some frequency, occurrence data may not adequately describe the status of the species in a region. In 2010 the USFWS designated 1,636,609 acres of final revised critical habitat in 27 California counties under the Endangered Species Act of 1973. Success Lake is not within the critical habitat designation; however, where the Tule River flows into Success Lake there is about 160 acres of willow riparian woodland that may be adequate CRF habitat.

Least Bell's Vireo. The Least Bell's vireo is a riparian species that typically inhabits structurally diverse woodlands such as cottonwood bottomland forest, sycamore alluvial woodland, arroyo willow riparian forest, and mulefat scrub. Habitat requirements generally feature variable height structures including dense cover within 6 feet of the ground for nesting and a dense stratified canopy for foraging. This type of structure is most often associated with early successional riparian habitat, but the age of the vegetation is less important than the structure diversity. Least Bell's vireos are insectivorous and will often forage insects directly from vegetation (USFWS 1998).

Least Bell's vireo have been observed arriving in southern California in mid-March to early April, with nest building activities occurring a few days after pair formation. Nests are typically constructed in the fork of a tree or shrub within three feet of the ground. Egg laying begins shortly after nest completion, with incubation lasting approximately 14 days. An additional 10 to 12 days are required for fledging, though adults continue to care for the young at least two weeks after fledging. Re-nesting is common, though there have been few documented instances of re-nesting past July (USFWS 1998).

In the Success Lake area, there were reports of the vireo's presence in the Tule River riparian zone on the north east side of the reservoir in 2014. All documented nests were within the reservoir's existing gross pool zone (USACE 2014).

Although these species were not observed within the Project footprint/disturbance area and significant impacts are not anticipated, mitigation measures have been implemented to ensure impacts remain less than significant. As such, impacts to protected species will be *less than significant*.

Mitigation Measures:

BIO-1:

- Prior to construction, an employee education program would be conducted consisting of a brief presentation of San Joaquin kit fox, Southwestern willow flycatcher, least Bell's vireo, Blunt-nosed leopard lizard, Keck's Checker-mallow, San Joaquin adobe sunburst, Springville clarkia, California Condor, Bald and Golden eagles, and migratory birds by persons knowledgeable in biology and legislative protection. The program should include the occurrence of species in the area, its description and life history, and an explanation of the species status and protection under the ESA.
- A representative shall be appointed who would be the contact for any employee/contractor who might find dead, injured, or entrapped T&E animals or new plots of T&E plants in the work area. This representative shall contact the U.S. Fish and Wildlife Service immediately.

BIO-2:

- Project-related vehicles would observe a daytime speed limit of 15-mph and a nighttime speed limit of 10-mph throughout the site in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Night-time construction should be minimized to the extent possible. Off-road traffic, outside of designated project areas, would be prohibited.
- Stormwater runoff would be controlled using standard construction BMPs and equipment (straw wattle, silt fencing, etc.)

- All food-related trash items such as wrappers, cans, bottles, and food scraps would be disposed of in securely closed containers, and removed at least once a week from a construction or Project site. Daily removal is preferred.
- No firearms will be allowed on the Project site.
- No pets, such as dogs or cats, will be permitted on the Project site to prevent harassment, mortality, or destruction of dens or burrows.
- To prevent inadvertent entrapment of kit foxes, blunt-nosed leopard lizards, or other animals, during the construction phase of a Project, all excavated, steep-walled holes or trenches more than 2-feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks would be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured animal is discovered, the Service will be contacted.
- In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the Service will be contacted for guidance.
- Kit foxes are attracted to den-like structures, such as pipes, and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe should not be moved until the Service has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.
- Use of rodenticides and herbicides in Project areas would be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and California condor, and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional Project-related restrictions deemed necessary by the Service. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.

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?

- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact. There are no riparian habitats or other sensitive natural communities nor are there wetlands that would be impacted by the Project. The Project would not contribute significantly more runoff or polluted water than produced by the existing roadway. The Project would result in a minor amount of new impervious areas associated with installation of asphalt where it currently does not exist, but also will remove the existing roadway, thereby resulting in a similar amount of impervious surface as currently exists. The proposed new location of the road will be further from the lake than the existing road and is designed to direct stormwater run-off away from the lake. The Project will incorporate appropriate pollution prevention and BMPs in accordance with design standards and RWQCB requirements. The Project would not contribute significantly more runoff or polluted water than produced by the existing roadway. Although impacts are anticipated to be less than significant, the following mitigation measures are included to ensure impacts remain less than significant.

See Section X a. (Hydrology / Water Quality) for a discussion on water quality protection measures for the Project. As there are no riparian habitats or wetlands impacted by the Project, there is a *less than significant impact*.

Mitigation Measures: See Mitigation Measures in Section X a. (Hydrology / Water Quality).

- 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?

No Impact. Success Lake is known for year-round bass fishing. Success Lake also has a steady population of crappie, catfish, bluegill, and trout. Success Lake is planted several times in the fall with catchable-sized trout. There are no anadromous or estuarine species in Success Lake or Tule River because the river does not have an ocean outlet. Success Lake supports a stocked warm water fishery. Common species found in the reservoir include Florida bass (*Micropterus floridanus*), largemouth bass (*M. salmoides*), and spotted bass (*M. punctulatus*); channel catfish (*Ictalurus punctatus*); black crappie (*Pomoxis nigromaculatus*); white crappie (*Pomoxis annularis*); carp (*Cyprinus carpio*); green sunfish (*Lepomis cyanellus*); redear sunfish (*Lepomis microlophus*); bluegill (*Lepomis macrochirus*); and threadfin shad (*Dorosoma petenense*). Lake Success and the Tulare River have been chemically treated to remove all fish species in 1961, 1981, and 1987. Implementation of the proposed action would not impact fisheries resources in the reservoir. There would be *no impact* to native species movement.

Mitigation Measures: None are required.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

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?

No Impact. The proposed Project site is not within an area set aside for the conservation of habitat or sensitive plant or animal species pursuant to a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, there is *no impact*.

Mitigation Measures: None are required.

V. CULTURAL RESOURCES

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|---|--------------------------------|---|-------------------------------------|--------------------------|
| a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

RESPONSES

- a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?
- b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?
- c. Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. The proposed Project consists of constructing the widened spillway cut and realignment of Worth Drive/Avenue 146 to a new cut bench on the right abutment of the spillway.

Cultural resources are broadly defined as buildings, structures, objects, sites, districts, and archeological resources associated with human activity in prehistory or history. Archeological resources are places where human activity has measurably altered the earth or left deposits of physical remains. Archeological resources may be either prehistoric (before the introduction of writing in a particular area) or historic (after the introduction of writing). The majority of such places in this region are associated with either Native American or Euroamerican occupation of the area. The most frequently encountered prehistoric and early historic Native American archaeological sites are village settlements with residential areas and sometimes cemeteries; temporary camps where food and raw materials were collected; smaller, briefly occupied sites where tools were manufactured or repaired; and special-use

areas like caves, rock shelters, and sites of rock art. Historic archaeological sites may include foundations or features such as privies, corrals, and trash dumps.

In addition to CEQA, the proposed Project is subject to the National Historic Preservation Act (NHPA) of 1966, as amended (54 U.S.C. § 300101 *et seq.*), which is the primary Federal legislation governing the preservation and protection of significant cultural resources. Title 54 U.S.C. § 306108, formerly and commonly known as Section 106 of the NHPA, requires Federal agencies to take into account the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment with regard to such undertakings. Undertakings are projects, activities, or programs funded in whole or in part under the direct or indirect jurisdiction of a Federal agency (54 U.S.C. § 300320). Historic properties are cultural resources that are included on, or eligible for inclusion on, the NRHP (54 U.S.C. § 300308).

The process for implementing Section 106 of the NHPA is described at 36 CFR Part 800. For any undertaking that has the potential to cause effects on historic properties, compliance with Section 106 of the NHPA requires a good faith effort by the Federal agency to identify historic properties in the area of potential effects (APE) for the undertaking and resolve of any adverse effects on such properties through a consultative process involving the agency, the State Historic Preservation Officer, Indian tribes, and other consulting parties. Pursuant to 36 CFR § 800.1(c), the Section 106 process must be completed prior to the approval of the expenditure of Federal funds on the undertaking.

Ahead of the Tule River Basin Investigation Feasibility Study and Environmental Impact Statement (EIS) (USACE 1999), initial efforts to identify historic properties in the Project area were conducted. Section 106 identification efforts at that time consisted of archival research and cultural resources pedestrian surveys completed by the Institute of Archaeology at the University of California, Los Angeles (Meighan 1988). Nine prehistoric and two historic-era cultural resources were identified during those survey efforts, one of which—a bedrock milling station recorded as CA-TUL-971—was determined eligible for the NRHP (SHPO letter of July 12, 2002 [COE020423A]). That historic property is outside the APE for all phases of the Tule River Spillway Enlargement Project.

Additional historic properties' identification efforts covering portions of the road relocation Project have been completed since that time (e.g., Meighan et al. 1988; Reddy 2008; O'Day and Pfertsh 2017).

Most recently, in February 2019, USACE archaeologists conducted an updated records search through the Southern San Joaquin Valley Records Center of the California Historical Resources Information System and an intensive pedestrian survey specific to the road relocation APE. During the USACE survey, a cluster of prospect pits with no associated features or artifacts was identified and recorded in the vicinity of the proposed road realignment (Phelps 2019). USACE has evaluated this cultural resource

for NRHP eligibility and determined it ineligible for inclusion on the NRHP. The Success Dam right abutment spillway is the only other known cultural resource in the road relocation APE. In 1999, Success Dam was determined ineligible for NRHP inclusion, with SHPO consensus. Currently, there are no known historic properties in the spillway cut and the road relocation APE.

USACE has completed efforts to identify and evaluate historic properties in the APE for the road relocation phase of the Tule River Spillway Enlargement Project; however, as described at 36 CFR § 800.1(c), USACE must complete the Section 106 process for the entire undertaking, comprising all phases of the Tule River Spillway Enlargement Project, prior to approving the expenditure funds for Phase I activities. USACE is using a phased approach to Section 106 compliance for the undertaking through execution and implementation of a Programmatic Agreement (PA), pursuant to 36 CFR § 800.14(b)(1)(ii).

USACE has initiated consultation with the ACHP, the California SHPO, and the following Indian tribes and Native American communities regarding the PA: Tule River Indian Tribe, Santa Rosa Rancheria Tachi Yokut Tribe, Kern Valley Indian Community, Tubatulabals of Kern Valley, and Wuksache Indian Tribe/Eshom Valley Band. Consultation with these parties will continue through execution of the PA and implementation of the stipulations identified therein.

The Project area consists of the existing spillway, road and adjacent grassland. There are no known or visible historical or archaeological resources, or human remains that exist on the surface of the Project area. Therefore, it is determined that the Project has low potential to impact any sensitive resources and no further cultural resources work is required unless Project plans change to include work not currently identified in the Project description. The impact is determined to be *less than significant*.

Mitigation Measures: None are required.

VI. ENERGY

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|--|--------------------------------|---|------------------------------|-----------|
|--|--------------------------------|---|------------------------------|-----------|

- a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
- b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

RESPONSES

- a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
- b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The proposed Project involves replacement and realignment of an existing road. During construction, the Project would consume energy in two general forms: (1) the electricity and fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass. Title 24 Building Energy Efficiency Standards would provide guidance on construction techniques to maximize energy conservation and it is expected that contractors and the Project Sponsors have a strong financial incentive to use recycled materials and products originating from nearby sources in order to reduce materials costs. As such, it is anticipated that materials used in construction and construction vehicle fuel energy would not involve the wasteful, inefficient, or unnecessary consumption of energy.

Operational Project energy consumption would be minimal, as the roadway does not require energy once it is installed. Operational energy would also be consumed during each vehicle trip associated with the proposed use for maintenance or otherwise.

As discussed in Impact XVII – Transportation/Traffic, the proposed Project would not generate on-going daily vehicle trips, other than for maintenance. The length of these trips and the individual vehicle fuel efficiencies are not known; therefore, the resulting energy consumption cannot be accurately calculated. Adopted federal vehicle fuel standards have continually improved since their original adoption in 1975 and assists in avoiding the inefficient, wasteful, and unnecessary use of energy by vehicles.

As discussed previously, the proposed Project would be required to implement and be consistent with existing energy design standards at the local and state level, such as Title 24. The Project would also be subject to energy conservation requirements in the California Energy Code and CALGreen. Adherence to state code requirements would ensure that the Project would not result in wasteful and inefficient use of non-renewable resources due to building operation.

Therefore, any impacts are *less than significant*.

Mitigation Measures: None are required.

VII. GEOLOGY AND SOILS

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii. Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii. Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv. Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

creating substantial direct or indirect risks to life or property?

- 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?
- f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

RESPONSES

- a-i. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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.
- a-ii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?
- a-iii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?
- a-iv. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Less Than Significant Impact. The proposed Project site is not located in an earthquake fault zone as delineated by the 1972 Alquist-Priolo Earthquake Fault Zoning Map Act. The nearest active faults are the Owens Valley fault group (approximately 30 miles east) and the White Wolf fault (approximately 55 miles south). The Project consists of demolition of an existing roadway and construction of a realigned roadway. There are no habitable structures or other features that would expose people to substantial adverse effects. However, it is anticipated that the proposed Project site would be subject to some ground acceleration and ground shaking associated with seismic activity during its design life. The Project site would be engineered and constructed in strict accordance with the earthquake resistant design

requirements contained in the latest edition of the California Building Code (CBC) for seismic zone III, as well as Title 24 of the California Administrative Code, and therefore would avoid potential seismically induced hazards on planned facilities. The impact of seismic hazards on the Project would be *less than significant*.

Mitigation Measures: None are required.

- b. Result in substantial soil erosion or the loss of topsoil?
- 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?
- d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property?

Less than Significant Impact. Success Lake is located within the foothills of the southern Sierra Nevada. Northwest and southwest trending hills and broad valleys typify the area. The foothill belt is five to 12 miles wide and merges with increasing relief into the Sierra Nevada. The Tule River is the major stream in this area, with about 390 square miles of Tule River drainage above Success Lake. The valley area downstream of the dam is relatively flat due to alluvial deposits from the river.

All rock within the area, with the exception of alluvium, is part of the “bedrock complex” of the Sierra Nevada. There are five different Quaternary surficial deposits mapped at the Success Dam site. These fan, alluvium, and terrace deposits are reported as consolidated to loose, and most have been determined liquefiable. The underlying bedrock is a complicated sequence of Mesozoic age metamorphic igneous, volcanic, and sedimentary rocks. The rock is differentially weathered. At the downstream toe of Success Dam, drill holes encountered decomposed to intensely weathered rock, which was determined to be stable.

The bedrock is relatively impermeable in the weathered zones near the surface and in areas where the weathering is deep seated. The underlying less weathered rock is found to be permeable through fractures in the rock. Drill holes and relief wells at the downstream toe of Success Dam encountered artesian water.

Soils in the region are residual soils, which were formed by weathering of the bedrock complex and terrace deposits, and slopewash where movement of the residual soils by gravity has occurred. Alluvial materials at the dam site are recent alluvium, older alluvium, terrace deposits, and alluvial fan deposits.

As required by the Clean Water Act (CWA) and the Central Valley Regional Water Quality Control Board (CVRWQCB), a Stormwater Pollution Prevention Plan (SWPPP) will be developed by a qualified engineer or erosion control specialist and implemented before construction begins. The SWPPP will be kept on site during construction-related activities and will be made available upon request to representatives of the CVRWQCB. The objectives of the SWPPP will be to identify pollutant sources that may affect the quality of stormwater associated with construction activity and to identify, construct, and implement stormwater pollution prevention measures to reduce pollutants in stormwater discharges during and after construction. To meet these objectives, the SWPPP will include a description of potential pollutants, a description of methods of management for dredged sediments, and hazardous materials present on site during construction (including vehicle and equipment fuels). The SWPPP will also include details for best management practices (BMPs) for the implementation of sediment and erosion control practices. Implementation of the SWPPP will comply with state and federal water quality regulations and will reduce this impact to a less-than-significant level. Compliance with local grading and erosion control ordinances will also help minimize adverse effects associated with erosion and sedimentation. Any stockpiled soils will be watered and/or covered to prevent loss due to wind erosion as part of the SWPPP during construction and reclamation. As a result of these efforts, loss of topsoil and substantial soil erosion during the construction and reclamation periods are not anticipated. The impact will be *less than significant*.

Mitigation Measures: None are required.

- 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?

No Impact. The proposed Project does not include the construction or usage of septic tanks or alternative wastewater disposal systems. No new septic system or alternative wastewater disposal system is proposed. There is *no impact*.

Mitigation Measures: None are required.

- f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. As identified in the previous cultural studies performed for the Project site, there are no known paleontological resources on or near the site. (See Section V. for more details). Mitigation measures have been added that will protect unknown (buried) resources during construction,

including paleontological resources. There are no unique geological features on site or in the area. Therefore, there is a *less than significant impact*.

Mitigation Measures: None are required.

VIII. GREENHOUSE GAS EMISSIONS

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

RESPONSES

- a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The proposed action does not present significant new circumstances or information regarding the nature and scope of effects to greenhouse gas emissions and Climate Change associated with the Project. The Project activities considered within this Initial Study would have minimal effect on Climate Change due to its size, scope and location. The proposed action consists of a roadway realignment and does not increase the capacity or anticipated volume of traffic on the road.

Construction of the Project would generate short-term emissions of greenhouse gases. As shown in Table 2, CO2 emissions were determined to be 1,235.50 tons. If emissions are amortized over a 30-year period to account for their contribution to Project lifetime greenhouse gas emissions, the result is well below the Council of Environmental Quality (CEQ) presumptive threshold of 25,000 MTCO2e. Construction emissions would therefore have a less than cumulatively considerable contribution to global climate change impacts. As noted earlier, there are no operational emissions associated with the Project because it is not capacity increasing and therefore the Project would not produce greenhouse gas emissions. Because the Project will result in less than significant increases in CO2 emissions, it is therefore not in conflict with any greenhouse gas reducing plans, policies, or regulations. Therefore, there is a *less than significant impact*.

Mitigation Measures: None are required.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|
| 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <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 type="checkbox"/> | <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 type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Impair implementation of or physically interfere with an adopted emergency | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

| | | | | |
|--|--------------------------------------|-------------------------------------|------------------------------------|--------------|
| | | Less than Significant | | |
| | Potentially Significant Impact | With Mitigation Incorporation | Less than Significant Impact | No Impact |

response plan or emergency evacuation plan?

- 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 type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

RESPONSES

- a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- 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?

Less than Significant Impact. Construction of the Project would require the use and transport of hazardous materials, including fuels, oils, and other chemicals (e.g., paints, lead, adhesives, etc.) typically used during construction. It is likely that these hazardous materials and vehicles would be stored by the contractor(s) on-site during construction activities. Improper use and transportation of hazardous materials could result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. However, all materials used during construction would be contained, stored, and handled in compliance with applicable standards and regulations established by the Department of Toxic Substances Control (DTSC), the U.S. Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA). In addition, a Storm Water Pollution Prevention Plan (SWPPP) is required for the Project and shall include emergency procedures for incidental hazardous materials releases. The SWPPP also includes Best Management Practices which includes requirements for hazardous materials storage. Therefore, no significant impacts would occur during construction activities.

The use of hazardous materials would be confined to the Project construction period. The Project itself, once constructed, will not contain, use or produce any hazardous materials.

The proposed Project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, nor would a significant hazard to the public or to the environment through the reasonably foreseeable upset and accidental conditions involving the likely release of hazardous materials

into the environment occur. Therefore, the proposed Project will not create a significant hazard to the public or the environment and any impacts would be *less than significant*.

Mitigation Measures: None are required.

- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. No schools are located within 0.25 mile of the Project site. This condition precludes the possibility of activities associated with the proposed Project exposing schools within a 0.25-mile radius of the Project site to hazardous materials. *No impact* would occur.

Mitigation Measures: None are required.

- 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?

No Impact. The proposed Project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Geotracker and DTSC Envirostor databases – accessed in July 2019).⁵ There are no hazardous materials sites that impact the Project. As such, *no impacts* would occur that would create a significant hazard to the public or the environment.

Mitigation Measures: None are required.

- 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?

⁵ California Department of Toxic Substances Control. Envirostor Database.
https://www.envirostor.dtsc.ca.gov/public/search?CMD=search&city=Porterville&zip=&county=&case_number=&business_name=&FEDERAL_SUPERFUND=True&STATE_RESPONSE=True&VOLUNTARY_CLEANUP=True&SCHOOL_CLEANUP=True&CORRECTIVE_ACTION=True&tiered_permit=True&evaluation=True&operating=True&post_closure=True&non_operating=True&inspections=True. Accessed July 2019.

No Impact. There are no public or private airport within two miles of the Project site. The proposed Project is not located within any airport safety zone. The Project will have *no impact* to airport operations.

Mitigation Measures: None are required.

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The proposed Project site will be accessible via the existing roadway, temporary access roads and/or other methods to ensure that emergency access will be maintained throughout construction. As such, the Project will not interfere with any adopted emergency response or evacuation plan. There is a *less than significant impact*.

Mitigation Measures: None are required.

g. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. There are no residences or structures on or near the Project site that would be at increased risk of wildfire due to the Project. There are no wildlands in the area. Once constructed, the road will not create an increased risk of fire. There is *no impact*.

Mitigation Measures: None are required.

X. HYDROLOGY AND WATER QUALITY

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| 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"/> | <input type="checkbox"/> | <input 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| i. Result in substantial erosion or siltation on- or off- site; | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv. impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

X. HYDROLOGY AND WATER QUALITY

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | <input type="checkbox"/> | <input type="checkbox"/> | <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 type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

RESPONSES

- a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact With Mitigation. The Project has the potential to impact water quality standards and/or waste discharge requirements during construction (temporary impacts) and operation. Impacts are discussed below.

Tulare County is located within the jurisdiction of the Central Valley Regional Water Quality Control Board (CVRWQCB). Tulare County is included in the Water Quality Control Plan for the Tulare Lake Basin. This basin includes the drainage area of the San Joaquin Valley south of the San Joaquin River, and only drains north into the San Joaquin River in years of extreme rainfall. The basin comprises approximately 10.5 million acres, of which 3.25 million acres are in Federal ownership. The closed nature of the Tulare Lake Basin allows minimal subsurface outflow, which leads to an accumulation of salts due to importation and evaporative uses of water. As a result, the largest water quality problem in the basin is the accumulation of salts. Overdrafting groundwater for municipal, agricultural, and industrial use compounds this problem.

The CVRWQCB attempts to maintain water quality through control of wastewater discharge. To regulate point sources of discharge, the agency administers the National Pollutant Discharge Elimination System permit program. Types of point sources in Tulare County include municipal wastewater, oil field wastewater, winery discharges, solid waste sites, and other industrial uses. Point source discharges must meet wastewater discharge requirements, or obtain a wastewater waiver. Non-point sources include

drainage and percolation from agriculture, forestry, recreation, and stormwater runoff. Non-point sources are difficult to identify, but can be mitigated by best management practices.

Construction

Grading, excavation and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

Three general sources of potential short-term construction-related stormwater pollution associated with the proposed Project are: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities which, when not controlled, may generate soil erosion and transportation, via storm runoff or mechanical equipment. Generally, routine safety precautions for handling and storing construction materials may effectively mitigate the potential pollution of stormwater by these materials. These same types of common sense, “good housekeeping” procedures can be extended to non-hazardous stormwater pollutants such as sawdust and other solid wastes.

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are also common sources of stormwater pollution and soil contamination. In addition, grading activities can greatly increase erosion processes.

Construction work proposed for the Project would necessitate temporary impacts to jurisdictional Waters of the United States (WOUS). These impacts would consist cutting into the spillway, followed by backfilling, and a lesser extent of filling below the ordinary high water (OHW) elevation of Lake Success. All of the proposed impacts to WOUS are considered to be temporary because the affected areas would still be above the OHW elevation of the lake following the completion of construction activities.

Two general strategies are recommended to prevent construction silt from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed. Secondly, the area should be secured to control offsite migration of pollutants. These Best Management Practices (BMPs) would be required in the Stormwater Pollution Prevention Plan (SWPPP) to be prepared prior to commencement of Project construction. When properly designed and implemented, these “good-housekeeping” practices are expected to reduce short-term construction-related impacts to less than significant.

In accordance with the National Pollution Discharge Elimination System (NPDES) Stormwater Program, the Project will be required to comply with existing regulatory requirements to prepare a SWPPP

designed to control erosion and the loss of topsoil to the extent practicable using BMPs that the Regional Water Quality Control Board (RWQCB) has deemed effective in controlling erosion, sedimentation, runoff during construction activities. The specific controls are subject to the review and approval by the RWQCB and are an existing regulatory requirement.

Operation

Once operational, the new roadway would not contribute significantly more runoff or polluted water than produced by the existing roadway. The Project would result in a minor amount of new impervious areas associated with installation of asphalt where it currently does not exist, but also will remove the existing roadway, thereby resulting in a similar amount of impervious surface as currently exists. The proposed new location of the road will be further from the lake than the existing road and is designed to direct stormwater run-off away from the lake. The Project will incorporate appropriate pollution prevention and BMPs in accordance with design standards and RWQCB requirements. The Project would not contribute significantly more runoff or polluted water than produced by the existing roadway. Although impacts are anticipated to be less than significant, the following mitigation measures are included to ensure impacts remain less than significant.

Mitigation Measures:

HYD-1: Prior to construction, the contractor would be required to prepare and implement a SWPPP and would obtain a National Pollution Discharge Elimination System permit, as applicable, and a Construction General Permit from the CVRWQCB, including a spill prevention plan detailing the construction activities to take place, BMPs to be implemented to prevent any discharges of contaminated stormwater into waterways, and inspection and monitoring activities that would be conducted.

HYD-2: As there would be no significant effects on water resources, water quality, or jurisdictional Waters of the United States, no compensatory mitigation would be required. However, the following standard BMPs would be implemented to avoid or minimize any effects of construction. Additional BMPs could be identified as part of the construction permits and the Section 401 certification. Implementation of these BMPs would help ensure that effects on water quality and WOUS would remain at less-than-significant levels. Standard BMPs include:

- Appropriate erosion control measures would be incorporated into the SWPPP by the construction contractor in order to prevent sediment from entering waterways and to minimize temporary turbidity impacts. Examples include, but are not limited to: straw bales/wattles, erosion blankets, silt fencing, silt curtains,

mulching, revegetation, and temporary covers. Sediment and erosion control measures would be maintained by the contractor during construction at all times. Control measures would be inspected periodically by the construction contractor, particularly during and after significant rain events.

- The contractor would use a water truck or other appropriate measures to control fugitive dust on haul roads, construction areas, and stockpiles.
- A fuels spill management plan would be developed for the Project by the construction contractor and would be implemented by the contractor.
- Construction equipment and vehicles would be fueled and maintained in specified staging areas only, which would be designed to capture potential spills. These areas cannot be near any ditch, stream, or other body of water or feature that may convey water to a nearby body of water.
- Fuels and hazardous materials would not be stored on site. Any spills of hazardous material would be cleaned up immediately by the construction contractor.
- Construction vehicles and equipment would be inspected frequently and appropriately maintained by the construction contractor to help prevent dripping of oil, lubricants, or any other fluids.
- Construction activities would be scheduled by the contractor to avoid as much of the wet season as practicable. Construction personnel would be trained in storm water pollution prevention practices by the construction contractor.
- In areas proposed for revegetation, initiation and completion of revegetation work would be done by the contractor in a timely manner to control erosion.
- Implementation and adherence to any additional requirements as mandated by the CGP and the Section 401 certificate. The construction contractor would obtain the CGP while the Corps would obtain the Section 401 certificate. The contractor would be responsible for implementing requirements set forth in these two permits.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. The proposed Project, once operational, will not require on-going use of water and therefore would not affect an aquifer or local water table. Therefore, the Project will have *no impact*.

Mitigation Measures: None are required.

- 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 offsite;
 - ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - 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
 - iv. impede or redirect flood flows?

Less Than Significant Impact. The Project includes minor changes to the existing stormwater drainage pattern of the area through cut/fill of the spillway and the installation of the proposed roadway. As described in impact a. above, the Project would not contribute significantly more runoff or polluted water than produced by the existing roadway and drainage patterns would not be significantly altered. In addition, the Project would not otherwise degrade water quality. Therefore, the Project will have a *less than significant impact*.

Mitigation Measures: See Mitigation Measures under Impact a. above.

- d. In flood hazard, tsunami or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant Impact. The existing roadway is subject to submersion by the lake depending on water levels. The proposed realigned roadway will be located further away from the lake than the existing road, thereby providing a more reliable access during high flow years to the west side of Success Lake. As described in impact a. above, the Project would not contribute significantly more runoff or polluted water than produced by the existing roadway / drainage patterns, and the risk of release of pollutants due to project inundation is similar to existing conditions.. Therefore, the Project will have a *less than significant impact*.

Mitigation Measures: None are required.

- e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact. The Project is required to comply with all rules, regulations and policies pertaining to water quality (see Response a. above and associated mitigation). The Project would not otherwise conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, any impacts are *less than significant*.

Mitigation Measures: None are required.

XI. LAND USE AND PLANNING

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| a. Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

RESPONSES

- a. Physically divide an established community?
- b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The construction and operation of the Project would not cause any land use changes in the surrounding vicinity nor would it divide an established community. The relocated road will continue to provide access to the area and will not result in a conflict with any land use plans, policies or regulations.

Success Lake falls within the Foothill Growth Management Plan for Tulare County. This plan includes a comprehensive statement of the development policies and standards that prescribe land use and circulation patterns for the foothill region of Tulare County. The plan encompasses 675,641 acres of land bounded on the east by the Federally owned parks in the Sierra Nevada and some privately-owned lands on the San Joaquin Valley floor. Nearly 85% of the land within this region is dedicated to agricultural uses. The lands that are developable are located mainly along transportation corridors where geographic and geological characteristics are conducive to development. In total, less than one percent of land within this region is vacant or unused.

The Tulare County General Plan (2012) is unlike other community plans because it applies to the area surrounding an incorporated city rather than an unincorporated community. The plan covers areas

inside an urban development boundary, but outside the city limits. The plan defines an urban boundary that guides development around the city. The policies of the plan guide future growth by establishing guidelines to achieve and maintain a well-balanced land use pattern, ensuring compatibility among adjacent uses and satisfying the economic, social, and environmental requirements of the community. The Project does not conflict with any adopted plans. Therefore, the Project will have *less than significant impacts*.

Mitigation Measures: None are required.

XII. MINERAL RESOURCES

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| 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 type="checkbox"/> | <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 type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

RESPONSES

- 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?
- 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?

No Impact. There are no known mineral resources in the proposed Project area and the site is not included in a State classified mineral resource zones. Therefore, there is *no impact*.

Mitigation Measures: None are required.

XIII. NOISE

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|
| 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"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

RESPONSES

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?

b. Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact With Mitigation. Success Lake is vastly surrounded by a natural environment. The nearest sensitive receptors to the spillway are two residents, located 0.35 and 1.9 miles away, respectively, and local wildlife and recreationists using the reservoir area. The existing noise conditions in the vicinity of the Project site are influenced primarily by surface transportation noise emanating from vehicle traffic on area roadways (e.g., SR 190 and SR 65). Noise from surrounding operations (e.g., watercraft on Success Lake), in addition to noise from outdoor activities areas (e.g.,

people talking, dogs barking, operation of landscaping and agricultural equipment) also contribute, to a lesser extent, to the existing noise environment.

Short-term (Construction) Noise Impacts

Proposed Project construction-related activities will involve temporary noise sources and are anticipated to begin in 2020 through 2021. Typical construction related equipment include graders, trenchers, small tractors and excavators. During the proposed Project construction, noise from construction related activities will contribute to the noise environment in the immediate vicinity. Activities involved in construction will generate maximum noise levels, as indicated in Table 3, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise controls.

Table 3
Typical Construction Noise Levels

| Type of Equipment | dBA at 50 ft | |
|-------------------------|--------------------------------|-----------------------------|
| | Without Feasible Noise Control | With Feasible Noise Control |
| Dozer or Tractor | 80 | 75 |
| Excavator | 88 | 80 |
| Scraper | 88 | 80 |
| Front End Loader | 79 | 75 |
| Backhoe | 85 | 75 |
| Grader | 85 | 75 |
| Truck | 91 | 75 |

The Project will also require limited blasting to assist in the cut/fill efforts proposed to take place within the spillway. Figure 3 shows the potential blast radii associated with the Project. The construction contractor and the Lead Agency will be responsible for notifying local residents and landowners of the intent to conduct a blast. Refer to the noise mitigation measures for the specific restrictions on blasting.

The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in both CEQA documents and local noise ordinances, which generally recognize the reality that short-term noise from construction is inevitable and cannot be mitigated beyond a certain level. Thus, local agencies frequently tolerate short-term noise at levels that they would not accept for permanent noise sources. A more severe approach would be impractical and might preclude the kind of construction activities that are to be expected from time to time in public environments. Most residents near public use areas recognize this reality and expect to hear construction activities on occasion.

Although not anticipated to be significant, impacts will remain less than significant with mitigation measures.

Long-term (Operational) Noise Impacts

The primary source of on-going noise from the proposed Project will be from vehicles traveling on the roadway. However, since the road is only being realigned and is not being expanded (additional vehicle capacity), the Project, once constructed, will not generate noise that is greater than existing conditions. As such, any impacts would be *less than significant*.

Mitigation Measures:

NOI-1: Construction Noise

- All contractor construction equipment will comply with Tulare County noise level performance standards (Tulare County 2012). All construction will occur Monday through Saturday between 7 a.m. and 7 p.m.
- No construction shall occur on Sundays or national holidays without a permit from the County to minimize noise impacts associated with development near sensitive receptors.
- A contractor-prepared *Construction Noise and Vibration Monitoring Plan* (CNVMP) before beginning work on the Project. The plan would be prepared by an acoustical consultant recognized by Tulare County. The CNVMP would include site-specific noise and vibration attenuation measures to ensure that maximum feasible noise and vibration attenuation is achieved. The CNVMP would include as many of the control strategies listed below as are feasible for this Project. Project workers would be trained on the CNVMP before construction begins.
- Monitor construction noise for the Project duration. The most potentially affected of the four sensitive receptors at the following locations would be selected: residences (two receptors), and the west side recreation area (one receptor), and primary haul routes (two sensitive locations). Summaries of measured noise levels would be provided weekly or more often, if noise complaints arise.
- Equip all equipment with noise control devices (e.g., mufflers), in accordance with manufacturers' specifications.
- Inspect all equipment periodically to ensure proper maintenance and presence of noise control devices (e.g., lubrication, mufflers that do not leak, and shrouding).
- Use materials for temporary barriers sufficient to last through construction and maintain in good condition.
- Prevent equipment from idling more than five minutes.

- Limit blasting to daytime, and employ other measures to limit noise and vibration of blasting, such as burying charges and/or using blasting mats, spacing timing of shots, using appropriate shot size, or other measures determined by a qualified blasting engineer.
- Designate a disturbance coordinator and conspicuously post a 24-hour contact number around the Project site, and supply to nearby residents. The disturbance coordinator would receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem.
- Provide written notice of construction-related activities to nearby sensitive receptors identifying the type, duration, and frequency of activities and a mechanism to register complaints.
- Prevent trucks and bulldozers from operating within 60 feet of any sensitive structure. If operation of equipment closer than 60 feet is required, vibration monitoring would be conducted to ensure that levels do not exceed the allowable thresholds established in this study.
- Encourage the hauling of material along sensitive routes only from 8 AM to 5 PM (daytime hours).
- Discourage the use of engine braking (“jake brakes”) along sensitive routes.
- Encourage truckers to reduce engine noise when shifting in noise sensitive areas, and post these areas.
- Conducted all rock blasting under the guidance of a qualified blasting consultant. Charges would be buried with sufficient overburden and shot timing would be included to minimize noise associated with blasting.
- Notify all residences and businesses within 2,500 feet of construction areas prior to conducting blasting.

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?

No Impact. The Project is not located within the vicinity of a private airstrip or an airport land use plan. Therefore, there is *no impact*.

Mitigation Measures: None are required.

XIV. POPULATION AND HOUSING

Would the project:

- a. Induce substantial 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)?
- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

| Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|--------------------------------------|---|------------------------------------|--------------|
|--------------------------------------|---|------------------------------------|--------------|

| | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

| | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

RESPONSES

- a. Induce substantial 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)?
- b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. There are no new homes associated with the proposed Project and there are no residential structures currently on-site. The proposed Project consists of relocating an existing road. The proposed Project will not affect any regional population, housing, or employment projections anticipated by Tulare County policy documents. There is *no impact*.

Mitigation Measures: None are required.

XV. PUBLIC SERVICES

Would the project:

| | | | | |
|--------------------------------------|-------------------------------------|------------------------------------|--------------|--|
| | Less than Significant | | | |
| Potentially Significant Impact | With Mitigation Incorporation | Less than Significant Impact | No Impact | |

- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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:

| | | | | |
|--------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

RESPONSES

- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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:

Fire protection?

No Impact. The proposed Project site will continue to be served by the California Department of Forestry and Fire Protection (Cal Fire) which maintains a station at 26488 Avenue 140 in Porterville, CA,

approximately four miles west of the Project site. No additional fire personnel or equipment is anticipated, as the site is already served by the Fire Station. There is *no impact*.

Police Protection?

No Impact. The proposed Project will continue to be served by the Tulare County Sheriff's Department, which maintains a substation in Porterville. No additional sheriff personnel or equipment is anticipated. There is *no impact*.

Schools?

No Impact. The direct increase in demand for schools is normally associated with new residential projects that bring new families with school-aged children to a region. The proposed Project does not contain any residential uses. The proposed Project, therefore, would not result in an influx of new students in the Project area and is not expected to result in an increased demand upon District resources and would not require the construction of new facilities. There is *no impact*.

Parks?

Less Than Significant Impact. The Project would not result in an increase in demand for parks and recreation facilities because it would not result in an increase in population. However, the existing road (Worth Drive / Avenue 146) allows for public access to the west side of the reservoir including the Rocky Hill Recreation Area when the reservoir is not at full capacity. Access to the area will be maintained during construction for the homeowner who uses the road and USACE will evaluate with the contractor for opening the recreational facilities and road during weekends if it is safe. Accordingly, the proposed Project would have a *less than significant impact* on parks.

Other public facilities?

No Impact. The proposed Project is not growth inducing and is within the land use and growth projections identified in the County's General Plan and other infrastructure studies. The Project, therefore, would not result in increased demand for, or impacts on, other public facilities such as library services. Accordingly, *no impact* would occur.

Mitigation Measures: None are required.

XVI. RECREATION

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Does the project 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

RESPONSES

- 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?
- b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact. Water-based recreational opportunities to local residents and tourists are considered a significant part of the economy in the Porterville area. Water sports, camping, hunting, fishing, boating, and picnicking are main attractions of Success Lake. There are a number of other water use activities, such as jet skiing, boating, and swimming. About 15 to 20% of the total recreational use is devoted to fishing. Because of the reservoir’s outstanding warm water fishery, fishing is actively pursued each month of the year, with fishing tournaments almost every weekend.

Success Lake recreation facilities include day-use areas, camping facilities, and a commercial marina. Boating and fishing are allowed 24 hours, and the summer night bass fishing is excellent. There is one marina located on the reservoir. Boat rentals, boat slips, jet skis, bait, tackle, food, and fuel are available at Success Lake Marina located on the east side of the reservoir. Overnight houseboat rentals are also available from Success Lake Marina.

Other facilities include the park headquarters, Rocky Hill, Tule, and Vista Point recreation areas, and a wildlife area. The park headquarters is a day-use area that receives fewer than 2,000 visitors annually. Two parking lots provide space for 30 cars. An interpretive trail is onsite. Rocky Hill is a day-use area that is popular for picnicking and fishing. There are eight picnic sites and enough parking for 50 cars/trailers. One launch ramp (two lanes), a courtesy dock, and a fish cleaning station are provided. Tule is available for both day-use and camping opportunities. Water, toilets, eight large arbors, multiple picnic sites, and two parking lots provide parking for 125 cars/trailers. Year-round camping is provided at 104 sites. Additionally, two launch ramp (four lanes), and two courtesy docks are provided. Vista Point is a day-use facility that is void of both water and toilet facilities. The facility has enough parking for 25 cars. The Wildlife Area is a day-use site with well water, toilet facilities, and enough parking for 50 car/trailers. The 1,400-acre wildlife area on the northwest side of the reservoir is open for public use with hunting allowed, shotguns only, during appropriate seasons. Parking around the reservoir is limited to 400 designated spaces; however, adequate parking is available on roadsides surrounding the reservoir.

Annual recreation use around Success Lake is approximately 500,000 visits, with its peak use during the months of April through July. Recreational visitation numbers indicate that Success Lake has consistently had between 2.5 and 3 million visitor-hours each year. Based on an 8-hour recreation visitor-day, it is estimated that 350,000 recreation visitor-days are spent in and around Success Lake.

The Project would not result in an increase in demand for parks and recreation facilities because it would not result in an increase in population. However, the existing road (Worth Drive / Avenue 146) allows for public access to the west side of the reservoir including the Rocky Hill Recreation Area when the reservoir is not at full capacity. Access to the area will be maintained during construction for the homeowner who uses the road and USACE will evaluate with the contractor for opening the recreational facilities and road during weekends if it is safe.

Therefore, since the proposed Project would not cause physical deterioration of existing recreational facilities from increased usage or result in the need for new or expanded recreational facilities, the Project would have a *less than significant impact* on recreation. Although less than significant impacts are anticipated, the following mitigation measures will ensure impacts remain less than significant.

Mitigation Measures:

REC-1:

- Coordinate public announcement of construction schedule with local residents.
- Schedule blasting and excavation outside the recreation season to the extent possible.

XVII. TRANSPORTATION/
TRAFFIC

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

RESPONSES

- a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?
- c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- d. Result in inadequate emergency access?

Less than Significant Impact. State Route 190 is a lightly traveled highway going from Porterville, along Success Lake, to Springville and Eagle Mountain Casino. The casino, whose entrance is about 10 miles north of Success Lake, is operated on the Tule Indian Reservation. Highway 190 is the primary access for the casino, especially on weekends. Springville, with a population of approximately 1,100, is residence to many commuters who travel State Route 190 to Porterville during the week. Avenue 146

also connects the City of Porterville to Success Dam at the southern end of the reservoir. The Success Lake Recreation Area is accessible from the town of Strathmore via Avenue 196 to Avenue 176.

The subject roadway realignment (portion of Worth Drive / Avenue 146) is located on the southwestern side of Success Lake, in the vicinity of the existing dam and is aligned down the invert of the existing Success Lake emergency spillway.

The proposed action would construct the spillway cut and road realignment, and provide more reliable access during high flow years to the west side of Lake Success. The existing road (Worth Drive / Avenue 146) allows for public access to the west side of the reservoir including the Rocky Hill Recreation Area when the reservoir is not at full capacity. Access to the area will be maintained during construction for the homeowner who uses the road and USACE will evaluate with the contractor for opening the recreational facilities and road during weekends if it is safe. Although no significant impacts are anticipated, the following mitigation measures would be implemented to minimize effects on traffic that may occur during the proposed spillway cut and road realignment.

Mitigation Measures:

TRA-1:

- Coordinate with affected residents and the landowners prior to and during construction.

XVIII. TRIBAL CULTURAL RESOURCES

Would the project:

| | | | | |
|--------------------------------------|-------------------------------------|------------------------------------|--------------|--|
| | Less than Significant | | | |
| Potentially Significant Impact | With Mitigation Incorporation | Less than Significant Impact | No Impact | |

a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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

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 the Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

RESPONSES

- a). Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
- 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
 - 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant Impact. A Tribal Cultural Resource (TCR) is defined under Public Resources Code section 21074 as a site, feature, place, cultural landscape that is geographically defined in terms of size and scope, sacred place, and object with cultural value to a California Native American tribe that are either included and that is listed or eligible for inclusion in the California Register of Historic Resources or in a local register of historical resources. In addition, the Lower Tule River Irrigation District, acting as the Lead Agency, supported by substantial evidence, can choose at its discretion to treat the resource as a TCR. As discussed herein, under Section V, Cultural Resources, criteria (b) and (d), no known archeological resources, ethnographic sites or Native American remains are located on the proposed Project site. As discussed under criterion (b) implementation of Mitigation Measure CUL-1 would reduce impacts to unknown archaeological deposits, including TCRs, to a less than significant level. As discussed under criterion (d), compliance with California Health and Safety Code Section 7050.5 would reduce the likelihood of disturbing or discovering human remains, including those of Native Americans.

As described in Section V – Cultural Resources, USACE has initiated Section 106 consultation regarding this undertaking and proposed Programmatic Agreement (PA) with the following Indian tribes and Native American communities identified by the California Native American Heritage Commission as having cultural resources interests in the Project area: Tule River Indian Tribe, Santa Rosa Rancheria Tachi Yokut Tribe, Kern Valley Indian Community, Tubatulabals of Kern Valley, and Wuksache Indian Tribe/Eshom Valley Band. USACE will consult with these parties on the development of the PA, to be fully executed prior to the approval of the expenditure of funding for road relocation construction.

An opportunity has been provided to Native American tribes listed by the Native American Heritage Commission during the CEQA process as required by AB 52 and opportunities for consultation will continue prior to and throughout the pre-construction phase of the proposed Project. Therefore, this

Initial Study has been completed consistent and compliant with AB 52. Any impacts to TCR would be considered *less than significant*.

Mitigation Measures: No additional measures are required.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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 type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

RESPONSES

- 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?
- b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
- 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?
- 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?
- e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact. Neither the existing road nor the proposed realigned road will use utilities on an on-going basis (water, electricity, solid waste, etc.). However, during construction, the Project will use a minor amount of water for activities such as for dust suppression; electricity for construction equipment; and Project construction may generate a minor amount of solid waste. Once constructed, there are no utility requirements for the Project. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

| | Potentially Significant Impact | Less than Significant With Mitigation Incorporation | Less than Significant Impact | No Impact |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| 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 checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/> |

RESPONSES

- a. Substantially impair an adopted emergency response plan or emergency evacuation plan?
- 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?
- 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?

- 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?

Less Than Significant Impact. There are no residences or structures on or near the Project site that would be at risk of wildfire. Once constructed, the road will not create an increased risk of fire as there is limited vegetation in the area and the Project itself does not expose people or structures to increased fire risks. Emergency access will be maintained in the area at all times. Therefore, there is a *less than significant impact*.

Mitigation Measures: None are required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

| | | | |
|--------------------------------------|-------------------------------------|------------------------------------|--------------|
| | Less than Significant | | |
| Potentially Significant Impact | With Mitigation Incorporation | Less than Significant Impact | No Impact |

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

RESPONSES

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict

the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the proposed Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to *less than significant*.

b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less than Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The proposed Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc.). The impact is *less than significant*.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to *less than significant*.

LIST OF PREPARERS

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- Eric Limas, General Manager

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- Eric Tomasovic, Environmental Coordinator

Appendix A

CalEEMod Output Files

Road Construction Emissions Model, Version 9.0.0

| Daily Emission Estimates for -> Tule River Road Realignment | | | | | | | | | | | | | | |
|---|---------------|--------------|---------------|----------------|------------------------|------------------------------|-----------------|-------------------------|-------------------------------|---------------|---------------|---------------|---------------|----------------|
| Project Phases (Pounds) | ROG (lbs/day) | CO (lbs/day) | NOx (lbs/day) | PM10 (lbs/day) | Exhaust PM10 (lbs/day) | Fugitive Dust PM10 (lbs/day) | PM2.5 (lbs/day) | Exhaust PM2.5 (lbs/day) | Fugitive Dust PM2.5 (lbs/day) | SOx (lbs/day) | CO2 (lbs/day) | CH4 (lbs/day) | N2O (lbs/day) | CO2e (lbs/day) |
| Grubbing/Land Clearing | 0.53 | 10.55 | 2.57 | 10.16 | 0.16 | 10.00 | 2.20 | 0.12 | 2.08 | 0.02 | 1,786.26 | 0.43 | 0.04 | 1,810.17 |
| Grading/Excavation | 2.76 | 52.90 | 17.08 | 10.77 | 0.77 | 10.00 | 2.57 | 0.49 | 2.08 | 0.14 | 14,411.68 | 2.48 | 1.05 | 14,786.29 |
| Drainage/Utilities/Sub-Grade | 2.13 | 42.02 | 9.45 | 10.49 | 0.49 | 10.00 | 2.43 | 0.35 | 2.08 | 0.09 | 9,032.11 | 1.60 | 0.41 | 9,195.37 |
| Paving | 0.88 | 20.47 | 3.24 | 0.21 | 0.21 | 0.00 | 0.16 | 0.16 | 0.00 | 0.03 | 2,926.47 | 0.74 | 0.06 | 2,962.45 |
| Maximum (pounds/day) | 2.76 | 52.90 | 17.08 | 10.77 | 0.77 | 10.00 | 2.57 | 0.49 | 2.08 | 0.14 | 14,411.68 | 2.48 | 1.05 | 14,786.29 |
| Total (tons/construction project) | 0.28 | 5.42 | 1.54 | 1.20 | 0.07 | 1.12 | 0.28 | 0.05 | 0.23 | 0.01 | 1,330.75 | 0.24 | 0.08 | 1,361.89 |

Notes:
 Project Start Year -> 2020
 Project Length (months) -> 12
 Total Project Area (acres) -> 50
 Maximum Area Disturbed/Day (acres) -> 1
 Water Truck Used? -> Yes

| Phase | Total Material Imported/Exported Volume (yd ³ /day) | | Daily VMT (miles/day) | | | |
|------------------------------|--|---------|-----------------------|-----------------|----------------|-------------|
| | Soil | Asphalt | Soil Hauling | Asphalt Hauling | Worker Commute | Water Truck |
| Grubbing/Land Clearing | 0 | 0 | 0 | 0 | 280 | 40 |
| Grading/Excavation | 998 | 0 | 1,500 | 0 | 760 | 40 |
| Drainage/Utilities/Sub-Grade | 331 | 0 | 510 | 0 | 680 | 40 |
| Paving | 0 | 0 | 0 | 0 | 520 | 40 |

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.
 Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.
 CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

| Total Emission Estimates by Phase for -> Tule River Road Realignment | | | | | | | | | | | | | | |
|--|------------------|-----------------|------------------|-------------------------|---------------------------|---------------------------------|--------------------------|----------------------------|----------------------------------|------------------|------------------|------------------|------------------|-----------------|
| Project Phases (Tons for all except CO2e. Metric tonnes for CO2e) | ROG (tons/phase) | CO (tons/phase) | NOx (tons/phase) | Total PM10 (tons/phase) | Exhaust PM10 (tons/phase) | Fugitive Dust PM10 (tons/phase) | Total PM2.5 (tons/phase) | Exhaust PM2.5 (tons/phase) | Fugitive Dust PM2.5 (tons/phase) | SOx (tons/phase) | CO2 (tons/phase) | CH4 (tons/phase) | N2O (tons/phase) | CO2e (MT/phase) |
| Grubbing/Land Clearing | 0.01 | 0.14 | 0.03 | 0.13 | 0.00 | 0.13 | 0.03 | 0.00 | 0.03 | 0.00 | 23.58 | 0.01 | 0.00 | 21.68 |
| Grading/Excavation | 0.18 | 3.49 | 1.13 | 0.71 | 0.05 | 0.66 | 0.17 | 0.03 | 0.14 | 0.01 | 951.17 | 0.16 | 0.07 | 885.33 |
| Drainage/Utilities/Sub-Grade | 0.07 | 1.39 | 0.31 | 0.35 | 0.02 | 0.33 | 0.08 | 0.01 | 0.07 | 0.00 | 298.06 | 0.05 | 0.01 | 275.29 |
| Paving | 0.02 | 0.41 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 57.94 | 0.01 | 0.00 | 53.21 |
| Maximum (tons/phase) | 0.18 | 3.49 | 1.13 | 0.71 | 0.05 | 0.66 | 0.17 | 0.03 | 0.14 | 0.01 | 951.17 | 0.16 | 0.07 | 885.33 |
| Total (tons/construction project) | 0.28 | 5.42 | 1.54 | 1.20 | 0.07 | 1.12 | 0.28 | 0.05 | 0.23 | 0.01 | 1330.75 | 0.24 | 0.08 | 1,235.50 |

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.
 Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.
 CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.
 The CO2e emissions are reported as metric tons per phase.