

RICHARDSON GROVE OPERATIONAL IMPROVEMENT PROJECT

Humboldt County, California
District 1 – HUM – 101 – PM 1.1/2.2
46480

Finding of No Significant Impact



Prepared by the State of California Department of Transportation



May 2017



CALIFORNIA DEPARTMENT OF TRANSPORTATION

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

**RICHARDSON GROVE
OPERATIONAL IMPROVEMENT PROJECT**

**Humboldt County, California
District 1 – HUM – 101 – PM 1.1/2.2
01-46480**

The California Department of Transportation (Caltrans) has determined that the proposed build alternative will have no significant impact on the human environment. This Finding of No Significant Impact (FONSI) is based on:

- Final Environmental Assessment, Volumes I and II
- Supplement to the Final Environmental Assessment and Responses to Comments
- The updates and revision to the Final Environmental Assessment and Supplement to the Final Environmental Assessment identified in this document
- Supporting technical studies:
 - Biological Assessment for Potential Impacts to Marbled Murrelet (*Brachyramphus marmoratus*), Marbled Murrelet Critical Habitat, and Northern Spotted Owl (*Strix occidentalis caurina*)
 - Biological Assessment for Potential Impacts to Coho Salmon (*Oncorhynchus kisutch*), Chinook Salmon (*Oncorhynchus tshawytscha*), Steelhead Trout (*Oncorhynchus mykiss*), their Designated Critical Habitat, and Essential Fish Habitat Assessment for Pacific Salmon
 - Historic Properties Survey Report
 - Natural Environment Study Addendum
 - Programmatic Section 4(f) Evaluation
 - Visual Impact Assessment Addendum 3



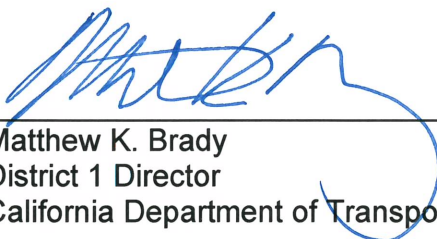
- Visual Impact Assessment Addendum 4
- Water Quality Assessment Report

These documents have been independently evaluated by Caltrans and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. These documents provide sufficient evidence and analysis for determining that an EIS is not required. Project information supporting this determination can be found on the pages following the signature below. Caltrans takes full responsibility for the accuracy, scope, and content of this FONSI.

The environmental review, consultation, and any other action required with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327.

May 1, 2017

Date



Matthew K. Brady
District 1 Director
California Department of Transportation



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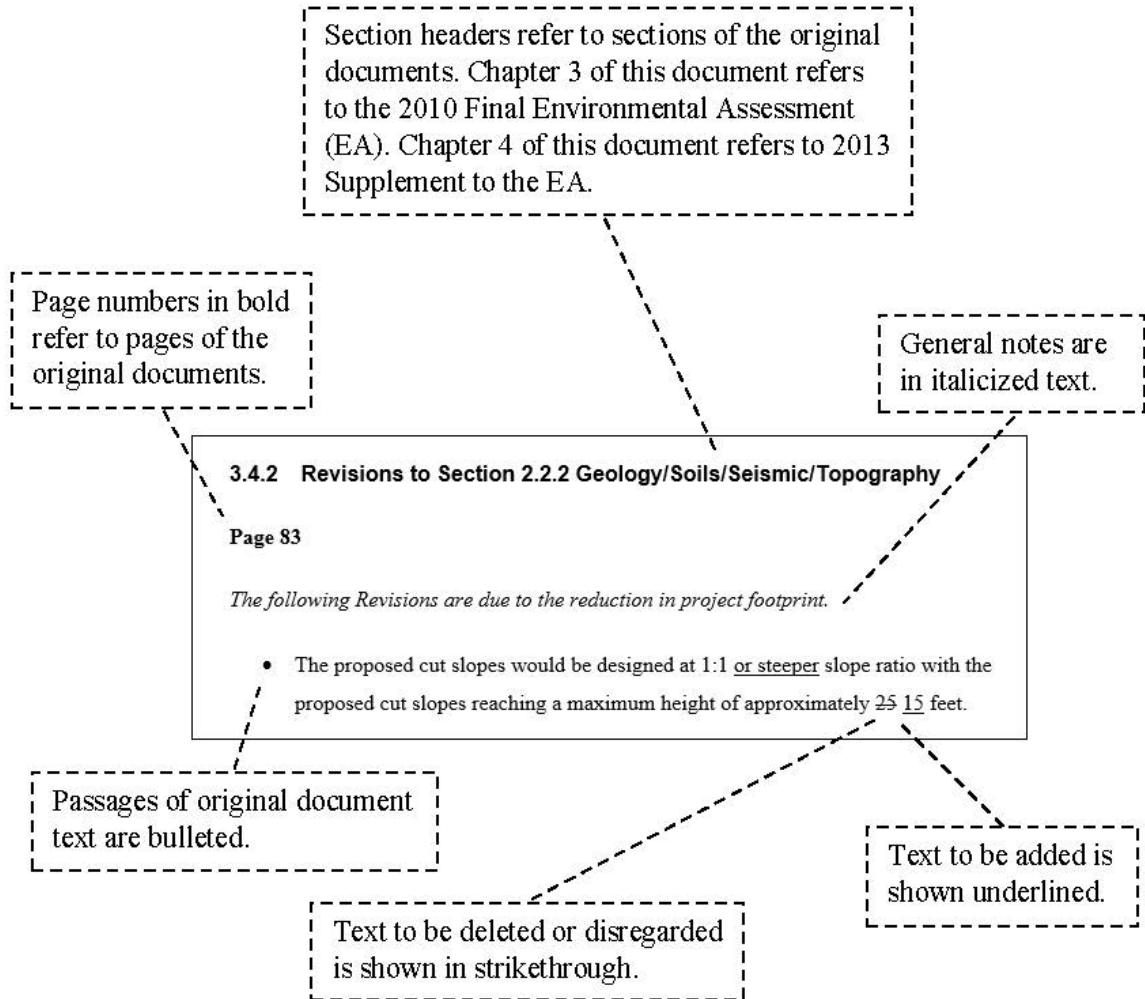
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About this Document



Please note: the 2010 Final Environmental Assessment and the 2013 Supplement to the Final Environmental Assessment are available at dot.ca.gov/dist1/d1projects/richardson_grove/.



Summary

This document is intended to present revisions and updates to the 2010 Final Environmental Assessment and 2013 Supplement to the Final EA for the Richardson Grove Operational Improvement Project (project), due to recent minor modifications to the project.

The Department of Transportation (Caltrans) proposes to construct minor adjustments to the roadway alignment on U.S. Highway (US) 101 between post miles (PM) 1.1 and 2.2 in Humboldt County. The project, which runs through Richardson Grove State Park, would allow access by industry standard-sized trucks that conform to the Surface Transportation Assistance Act (STAA). STAA trucks are currently restricted north of Leggett, a community located approximately 15 miles south of the project area. Based on the Final Environmental Assessment (Final EA) for the project, dated May 18, 2010, Caltrans issued a Finding of No Significant Impact (FONSI), which stated that, “the preferred alternative will have no significant impact on the human environment.”

After the completion of additional studies, a Supplement to the Final EA (Supplement) was prepared in September 2013 to present a reassessment of potential project impacts to old growth redwood trees (*Sequoia sempervirens*) based on updated tree maps and data, and updates to the numbers and species of trees to be removed. This information and analysis was completed in accordance with the April, 2012, order of the United States District Court for the Northern District of California in *Bair v. California State Department of Transportation*, 867 F.Supp.2d 1058 (2012). In the decision, the court specifically ordered that Caltrans “prepare accurate maps” signed by a qualified engineer, and “number each ancient redwood, clearly identify it in the map, identify its root zone, and set forth the environmental issues to each one. The written analysis and the maps should be readable together without doubt as to which tree is which.” The maps, studies, and analysis set forth in the Supplement comply with the court’s order.

The Supplement also presented the results of two years of surveys for the marbled murrelet (MAMU), a species listed as threatened (federal) and endangered (state), which was not found to be present in the project area. Additionally, the Supplement presented minor changes to the design of existing and proposed barrier rail end treatments.

Since the preparation of the Supplement, the project footprint has been reduced slightly and surveys for northern spotted owl (NSO) have found none present to date. Old growth redwood trees with proposed ground disturbance within the root health zone (a distance of five times its diameter) have been reanalyzed, in accordance with the guidelines set forth in the District Court's April, 2012, order, to determine potential impacts based on the reduced project footprint, including shallower excavations in the park. A water quality improvement, proposed to decrease impervious surface in the project area by removing a park restroom no longer in service, has been implemented by State Parks. To comply with federal standards, minor changes (replacing the metal beam guardrail with a shorter metal beam guardrail crash cushion) are proposed to the existing barrier rail at each of the four corners of the Richardson Grove Undercrossing. Two minor changes are proposed at the north end of the project outside of the park: extend the barrier at the northerly end of the proposed retaining wall by ten feet and angle it away from traffic, and place a crash cushion on the gabion wall at the southerly end of the retaining wall. In light of the aforementioned minor changes to the project, this document presents further updates to Caltrans' environmental documentation. Collectively, the 2010 Final Environmental Assessment, the 2013 Supplement, and the revisions and updates from this document constitute the "Revised EA" ordered by the District Court in its April 2012 decision.

No old growth redwood trees would be removed or materially impaired by this project. In consultation with State Parks, Caltrans has defined "old growth redwood trees" for this project as redwood trees with a diameter of 30 inches or larger, measured at breast height (54 inches above the ground).

Chapter 1 Introduction

1.1 Type of Environmental Document

This document is a Finding of No Significant Impact (FONSI) for the proposed Richardson Grove Operational Improvement Project (project). The scope of the proposed project has been slightly reduced since the 2010 Final EA and the 2013 Supplement.

1.2 About the Project

Caltrans proposes to make minor adjustments to a one-mile section of US Highway 101 (US 101) located one mile north of the Mendocino/Humboldt County line and approximately eight miles south of the community of Garberville. A portion of the proposed modifications would take place on the roadway within the boundaries of Richardson Grove State Park. The purpose of the proposed project is to adjust the roadway alignment to allow access by industry standard-sized trucks conforming to the Surface Transportation Assistance Act (STAA). STAA vehicles are defined as having either a 48-foot trailer, or as having a 53-foot trailer with a limit of 40 feet in distance from the kingpin of the cab to the rear axle of the trailer. STAA trucks have been restricted from this section of US 101 because the tight radius curves between the large redwood trees make it difficult for the longer trucks to stay within the travel lane without using part of the opposing lane of traffic (“off-tracking”) or traveling off the roadway onto unpaved shoulders. The proposed roadway adjustments to accommodate these standard-sized trucks would improve goods movement and the operation of US 101. This project also improves safety for other large vehicles such as recreational vehicles and for all users of this portion of US 101.

No old growth redwood trees would be removed or impaired by this project.

1.3 Incorporation by Reference

This document makes minor corrections, clarifications, and updates to the 2010 Final Environmental Assessment (EA) and the 2013 Supplement to the Final Environmental Assessment (Supplement). It also provides project updates that have occurred since the Supplement. Except for the minor changes and additional studies as noted in this document, all other information in the Final EA and the Supplement remains accurate. Collectively, the 2010 Final Environmental Assessment, the 2013 Supplement, and the revisions and updates from this document constitute a “Revised EA” for the project.

1.4 Public and Agency Involvement

The following public meetings have been held.

Table 1 Richardson Grove Public Meetings

Date	Event	Location
09/26/2007	Public Meeting	Benbow
02/20/2008	Public Meeting	Eureka
05/14/2008	Public Scoping Meeting	Fortuna
12/15/2008	Public Hearing	Fortuna

The following public comment periods have occurred.

Table 2 Richardson Grove Public Comment Periods

Dates	Reason
09/26/2007	Public Meeting
02/20/08-03/12/08	Public Meeting
05/02/08-06/10/08	Public Scoping Comment Period
12/05/08-03/12/09	Draft Environmental Document Review Period
09/21/13-10/21/13	Public Review Period for the Supplement to the EA

1.5 Project History

The North Coast has long been at an economic disadvantage due to the prohibition on trucks conforming to the Surface Transportation Assistance Act of 1983. These trucks are used across the nation and can be longer than the currently-allowed California Legal size trucks. Both classes of trucks have the same weight limit of 80,000 pounds.

A long-standing transportation goal for Humboldt County, a project to improve the operation of US 101 at Richardson Grove has been a topic of discussion for decades. Caltrans rejected options requiring removal of old growth redwood trees in Richardson Grove State Park early in the process. Bypass options were studied. All bypass alternatives were found to have unacceptably large environmental impacts, in addition to being prohibitively expensive. Plans for a new alignment were permanently set aside in 2001.

In 2007, Caltrans engineers were asked to review the existing alignment through Richardson Grove State Park. They determined that slight changes to the current alignment would allow safe passage of two STAA trucks traveling in opposite directions through the tightest curves on this section of road. The minor changes to the alignment would not require removal of any old growth redwoods trees. Engineering and environmental studies commenced.

Detailed information about the project was provided in the Draft Environmental Impact Report/Environmental Assessment, which was circulated to the public from December 4, 2008, to March 12, 2009. A Final Environmental Impact Report (EIR)/Environmental Assessment (EA) and Programmatic Section 4(f) Evaluation was signed on May 18, 2010. The EIR was prepared in order to comply with the California Environmental Quality Act (CEQA). The EA, its Finding of No Significant Impact (FONSI), and the Section 4(f) Evaluation were prepared in compliance with the National Environmental Policy Act (NEPA) and the US Department of Transportation Act of 1966.

In September 2013, a Supplement to the Final EA was prepared to present the results of a revised assessment of potential project impacts to old growth redwood trees. This information and analysis was completed in accordance with the April 2012 order of the United States District Court for the Northern District of California in *Bair v. California State Department of Transportation*, which ordered that Caltrans “prepare accurate maps” signed by a qualified engineer, and “number each ancient redwood, clearly identify it in the map, identify its root zone, and set forth the environmental issues to each one. The written analysis and the maps should be readable together without doubt as to which tree is which.” The maps, studies, and analyses set forth in the Supplement comply with the court’s order.

The Supplement also presented information on proposed minor modifications to the existing barrier rail, the results of surveys for the marbled murrelet (MAMU), as well as updated information on the trees to be removed, none of which are old growth redwood trees. The Supplement was circulated for public comment and responses were prepared to address substantive comments on the project that were received, and to correct or clarify statements or omissions in the Supplement.

This document further updates the environmental documentation in light of minor changes to the project made in 2015. The scope of the proposed project has been slightly reduced since the 2010 Final EA and the 2013 Supplement.

Chapter 2 Updates to the Project Description

Minor design changes were made in 2015 to reduce the project footprint; this reduced the estimated amounts of cut (excavation) and fill, impervious surface, and tree removals.

- The total number of trees that would need to be removed for the project has decreased from 54 to 38, none of which are old growth redwoods.
- The disturbed soil area would be estimated at 0.67 acre, rather than 0.73.
- The amount of new impervious surface would be 0.23 acre, rather than 0.30 acre. Approximately 0.06 acre of existing pavement would also be removed. The net increase in impervious surface for the project would be 0.17 acre.
- The estimated volume of excavated material is now 570 cubic yards, rather than 2,530 cubic yards; the estimated volume of fill is 395 cubic yards, rather than 1,045 cubic yards.

Project design changes include a reduction in the depth of excavation for new road sections from 18 to 24 inches throughout the project limits to a maximum depth of 12 inches within Richardson Grove State Park. This reduction was made by project engineers through a reevaluation of soils within the project limits as part of an effort to further reduce impacts. This evaluation also allowed for steeper slopes, resulting in the reduction of disturbed soil area. Cut banks were steepened from a slope of 1.5:1 to 1:1 or steeper, where possible. Amounts of disturbed soil and fill required for the realignment were reduced by eliminating proposed 2-foot shoulders where not essential to achieve the Project Purpose and Need. At the south end of the proposed retaining wall, a crash cushion would be placed.

Reduction of the project footprint is also a result of changes to the proposed culvert work. Three culverts (PM 1.28, PM 1.34 and PM 1.35) previously proposed to be replaced are now proposed only to be extended, where needed, and fitted with new drainage inlets. Culvert work at PM 1.18 (extend culvert and replace headwall), PM 1.78 (install a new downdrain to connect to an existing culvert and extend berm), and PM 2.10 (replace

culvert, install slotted drain, and replace failed downdrain) would remain as proposed in the 2010 Final EA.

The 2010 Final EA identified a number of avoidance and minimization measures. Several of these measures would typically be considered standard measures and would be included as a part of a project description. For this project, updates to the project description include, but are not limited to, the following standard measures and Best Management Practices (BMPs):

- Structural stormwater controls (rock slope protection, dikes)
- Soil stabilization practices (vegetation, erosion control blankets)
- Silt fences/fiber rolls to control sediment discharge during construction
- Measures to prevent construction equipment effluents from contaminating soil or waters in the construction site, such as absorbent pads
- Excavated spoils controlled to prevent sedimentation to watercourses
- Weed-free straw mulch and fiber rolls applied to exposed soil areas for over-wintering
- Contractor-developed and implemented site-specific BMPs and emergency spill controls
- Concrete debris or contact water not allowed to flow into waterways
- Concrete not poured within flowing water in the waterways
- Water that has come into contact with setting concrete pumped into a tank truck for disposal at an approved disposal site or settling basin
- Concrete truck washouts located at upland staging areas a minimum of 50 feet away from watercourses
- Removal of invasive plants

Chapter 3 Revisions to the 2010 Final EA

3.1 Revisions to the Final EA Summary

Page ii

- Six redwoods ranging in size from four to ~~nineteen~~ twenty-one inches at diameter breast height (diameter of the tree trunk 4.5 feet above ground) as well as ~~twenty~~ fourteen Douglas fir trees ranging from four to twenty three inches at diameter breast height are proposed to be removed within the project limits.

3.2 Revisions to the Final EA Chapter 1 Proposed Project

3.2.1 Revisions to Section 1.1 Introduction

Page 2

- This project ~~is programmed in~~ would be amended into the 2008 State Highway Operation Protection Plan/Program (SHOPP) for ~~\$5.5~~ \$8.36 million for construction and ~~\$154,000~~ \$77,100 for Right of Way for a total of ~~\$5.65~~ \$8.44 million.

3.2.2 Revisions to Section 1.2 Purpose and Need

The Project Purpose and Need has not changed since the 2010 Final EA.

3.2.3 Revisions to Section 1.3 Project Description

The following Updates to the Project Description reflect a minor reduction in the project footprint. The addition of minor barrier rail modifications at the bridge was discussed in the Supplement.

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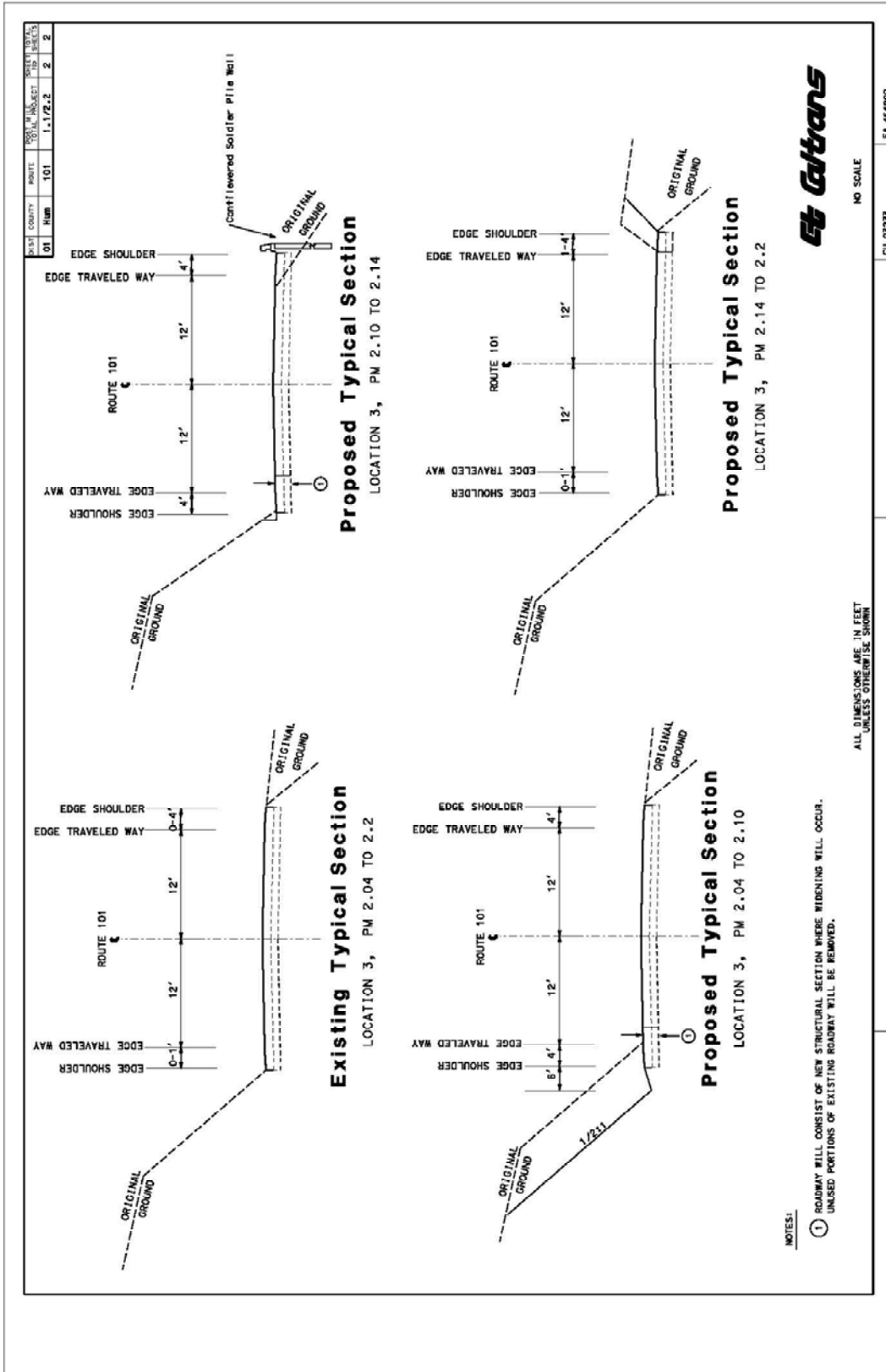
The following reference has been updated.

- ~~(See Figure 4 Project Features Map)~~ (Figure 4 has been replaced with Figure 2 Updated Project Features Map in this document).

The following reference has been corrected.

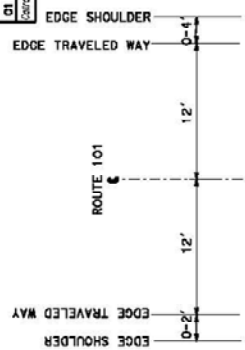
- ~~See Figure 5 and layout maps in Appendix L.~~ The Typical Cross Section figure (Figure 5 in the 2010 Final EA) was inadvertently omitted from some copies of the document. The following Figure 1 Typical Cross Section supersedes prior versions.

Figure 1 Typical Cross Section

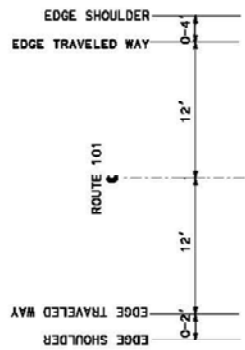


STATE	COUNTY	ROUTE	POST MILE	SECTION	SHEET NO.	TOTAL SHEETS
01	101	1.1/2.2	1	2		

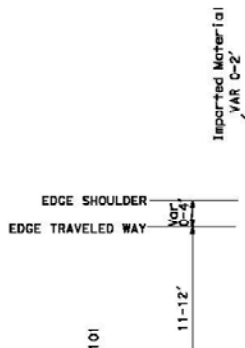
CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2012 MISSOURI ROAD & BUILDING CODES.



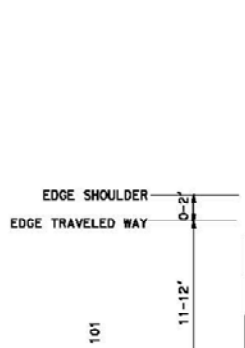
Proposed Typical Section
 LOCATION 1, PM 1.2 TO 1.70
 (BEGIN TO RICHARDSON GROVE PARK ENTRANCE)



Existing Typical Section
 LOCATION 1, PM 1.2 TO 1.70
 (BEGIN TO RICHARDSON GROVE PARK ENTRANCE)



Proposed Typical Section
 LOCATION 2, PM 1.70 TO 2.04
 (RICHARDSON GROVE PARK AREA)



Existing Typical Section
 LOCATION 2, PM 1.70 TO 2.04
 (RICHARDSON GROVE PARK AREA)

- NOTES:
- EXISTING ROADWAY HAS 0 - 2' SHOULDERS. OLGROWTH REDWOOD TREES LIE ADJACENT TO THE TRAVELED WAY. PROPOSED ROADWAY WILL BE WIDENED AS NEEDED TO ACCOMMODATE LARGE VEHICLES. EXISTING OLGROWTH REDWOODS SHALL REMAIN.
 - ROADWAY WILL CONSIST OF NEW STRUCTURAL SECTION WHERE WIDENING WILL OCCUR.
 - UNUSED PORTIONS OF EXISTING ROADWAY WILL BE REMOVED.
 - THE ENTRANCE TO RICHARDSON GROVE IS NEAR POSTMILE 1.73
 - WORK IN LOCATION 2 WILL CONSIST OF GRADING OFF EXISTING ODGC AND REPLACE IN KIND ON EXISTING ALIGNMENT.



EA 444600
 CU 03233

3.2.4 Revisions to Section 1.4 Alternatives

The updated Proposed Build Alternative reflects a minor reduction in the project footprint and the addition of minor barrier rail modifications.

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The scope of the drainage work has been further reduced. Please see Preferred Alternative section below.

- ~~Culvert modifications include replacing the culvert at PM 1.34 instead of installing a pipe liner, and eliminating the pipe liner at the culvert at PM 1.18.~~

In 2012, the Department of Parks and Recreation proceeded with their own project with an independent Categorical Exemption under CEQA (State Clearinghouse Number 2012018008) to remove the defunct restroom.

- ~~Water quality improvement includes removing a restroom no longer in service near the Visitor Center in the park which would decrease the impervious surface in the general project area.~~

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Preferred Alternative

Refinements to Segment 1 (PM 1.1/1.7):

- ~~Two 12-foot lanes with 2-foot shoulders are proposed where possible~~ Minor widening is proposed as needed to accommodate STAA trucks.
- The main areas of cut and fill include: PM 1.35 to PM 1.36 cut with approximately ~~300 cubic yards~~ 60 cubic yards; PM 1.37 to PM 1.39 fill with approximately 200 cubic yards; and PM 1.56 to PM 1.61 fill with approximately ~~200 cubic yards~~ 30 cubic yards.

- ~~The 18-inch diameter culverts at PM 1.28 and PM 1.35 would be replaced with 24-inch diameter culverts. The 18-inch diameter culvert at PM 1.34 would be replaced with an 18-inch diameter culvert.~~ The 18-inch diameter culverts at PM 1.28, 1.34, and 1.35 would be extended and fitted with new drainage inlets.

Proposed work in Segment 2 has not changed since the 2010 Final EA.

Refinements to Segment 3 (PM 2.04/2.2):

- From PM 2.02 to ~~PM 2.07~~ PM 2.06, ~~two 12-foot lanes with two 2-foot shoulders are proposed~~ there would be a gradual increase in road width, which has very little shoulder at present, to two 12-foot lanes with 4-foot shoulders.
- From ~~PM 2.07 to PM 2.14~~ PM 2.06 to PM 2.15, two 4-foot shoulders are proposed. For the remainder of this segment, the roadway would transition from the two 4-foot shoulders to the existing roadway width.

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Since the 2010 Final EA, a Douglas-fir tree adjacent to the east side of the road at PM 2.10 died and was removed by PG&E to protect nearby power lines. This tree would have shielded the south end of the guardrail to be built on top of the retaining wall. Since the tree has been removed, a crash cushion is now proposed to be installed at the south end of the guardrail.

- A concrete barrier with a metal bike railing would be installed on top of the soldier pile wall ~~and a metal beam guardrail barrier would be installed on top of~~ and extend across the gabion wall which would be visible to the motorists. A crash cushion would be installed at the south end of the wall.

Additional refinements to Segment 3:

- The main area of cut in this segment is from PM 2.04 to PM 2.10 to accommodate the wider shoulders. This cut would result in approximately ~~2,200~~ 500 cubic

yards of excess material and extends from the Singing Trees facility south to just past the park boundary.

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- A 24-inch diameter culvert at PM 2.10 would be replaced with a 24-inch diameter culvert, extended approximately 7 feet upstream and 7 feet downstream, a new overside drain installed, and a new inlet structure constructed.

Other Elements of the Preferred Alternative

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In 2012, the Department of Parks and Recreation proceeded with their own project with an independent Categorical Exemption under CEQA (State Clearinghouse Number 2012018008) to remove the defunct restroom.

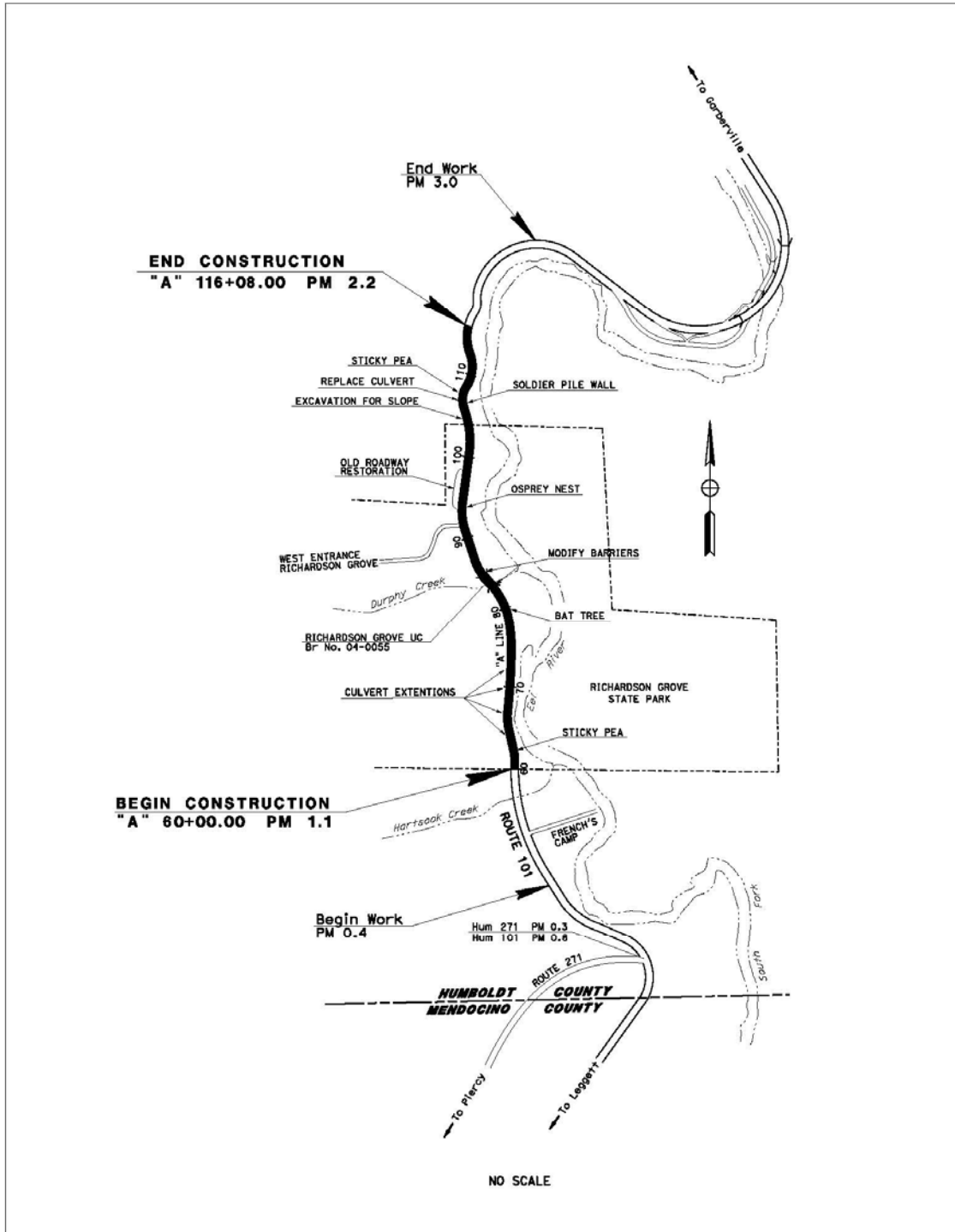
- ~~• As the proposed project results in an increase in impervious surfaces in the project area, options were considered that would result in decreasing impervious surfaces in the general area. Working with State Park staff, one improvement project was identified that would reduce the amount of existing impervious surface area within Richardson Grove State Park. This improvement would include removal of a public restroom at the Visitor Center that is adjacent to a leaning redwood tree. This restroom is currently closed to the public due to the threat of the tree falling onto the restroom. By removing the restroom and its foundation approximately 900 square feet of hardened surface would be removed. Removing the foundation will require use of heavy equipment to break up the concrete. Excavation would be approximately 12 inches in depth. As the restroom is not currently in use, there would not be an impact to park visitors.~~

In addition to the design exceptions listed in the Final EA, a mandatory design exception to lane width would be obtained.

- The proposed project would require mandatory design exceptions to the following Caltrans highway design standards:
 - Minimum Design Speed and Curve Radii
 - Shoulder Width
 - Minimum Super-elevation Rate
 - Stopping Sight Distance
 - Minimum Distance to a Fixed Object
 - Corner Sight Distance
 - Lane Width

The following replaces Figure 4 Project Features Map.

Figure 2 Updated Project Features Map



3.2.5 Revisions to Section 1.5 Permits and Approvals Needed

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The following replaces the table on page 34 of the 2010 Final EA.

Table 3 Updated Permits and Approvals Needed

Agency	Permit/Approval	Status
United States Fish and Wildlife Service (USFWS)	Section 7 Consultation for Threatened and Endangered Species Review and Comment on 404 Permit	Biological Opinion (BO) by US Fish and Wildlife Service issued January 2009. Letter of Concurrence from USFWS was received March 29, 2017.
United States Army Corps of Engineers	Section 404 Permit for filling or dredging waters of the United States.	404 permit application submitted after final environmental document.
California Department of Fish and Game-Wildlife	1602 Agreement for Streambed Alteration Consistency Determination for marbled murrelet under Section 2080.1 of the Fish and Game Code	1602 permit application submitted after final environmental document. expires 12/23/2020. Consistency Determination was deemed by CDFG not to be necessary based on information in the Biological Opinion. No consistency determination would be required as there would be no take of species as defined in the California Fish and Game Code.
Regional Water Quality Control Board	401 Certification National Pollution Discharge Elimination System (NPDES)	Application for Section 401 Certification & Waste Discharge Requirements anticipated after final environmental document.
State Office of Historic Preservation	Section 106 Consultation for historic resources Review and Comment on 404 Permit	Concurrence on No Adverse Effect Determination with Standard Conditions In Appendix F of the 2010 Final EA.
California Department of Parks and Recreation	Section 4(f) Consultation for impacts to public parklands	Concurrence of the Programmatic Section 4(f) Evaluation provided in Appendix B of the 2010 Final EA.
National Park Service	Wild and Scenic River Act Consultation	Concurrence letter of the Wild and Scenic River evaluation is provided in Appendix G of the 2010 Final EA. A second concurrence letter was received on June 18, 2015, based on updates to the project description.
<u>NOAA National Marine Fisheries Service</u>	<u>Section 7 Consultation for Threatened and Endangered Species and Designated Critical Habitat</u> <u>Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response</u>	<u>Letter of Concurrence from NMFS was issued January 23, 2017.</u>

3.3 Revisions to Final EA Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization and/or Mitigation Measures

3.3.1 Revisions to Section 2.1.5 Traffic and Transportation/Pedestrian and Bicycle Facilities

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- The full width of the traveled way, except for segment 3 when the signal and one-way traffic is in place, shall be open for use by the public traffic from the proceeding Friday to the following Monday for the following events:
 - Annual Redwood Run and Music Festival held the second weekend in June
 - Annual Kate Wolf Music Festival held the last weekend in June
 - ~~Fortuna Redwood AutoXpo the last weekend in July~~
 - Annual Reggae on the River and/or Reggae Rising Festival held the first weekend in August (for this event, lane closure restrictions are in effect from Thursday to Monday)
 - ~~Annual Earthdance Festival held the third weekend in September~~

3.3.2 Revisions to Section 2.1.6 Visual/Aesthetics

A fourth Addendum to the Visual Impact Assessment has been prepared to assess the reduction in project footprint and to incorporate the results of the latest tree assessment (Yniguez, Dennis. 2015. Final Report: An Evaluation of Potential Effects on Old-Growth Redwoods from Implementation of the Richardson Grove Operational Improvement Project). The conclusions in the 2010 Final EA remain valid. The following Revisions are due to the reduction in project footprint and design refinements.

Reductions have been made to work proposed in Segment 1, including minimized shoulder widths and steepened embankment slopes. Work proposed to Segment 2, which includes repaving and restriping but no widening or alignment shift, has not changed.

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Segment 3

- While a portion of this cut occurs within the park requiring ~~about ten~~ two trees to be removed from the park, the use in this area of the park is residences for park staff.
- Since the wall is constructed below the roadway, what is visible to the motorist would be a concrete Type 80 (refer to simulation in Appendix K) safety barrier with bicycle rail on top which extends approximately 180 feet in length and rises 54 inches in height with a crash cushion on the south end. (See Section 3.2.4 of this document.)

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- Construction of the wall would require the removal of ~~five~~ six trees.

3.4 Revisions to Section 2.2 Physical Environment

3.4.1 Revisions to Section 2.2.1 Water Quality and Storm Water Runoff

A Water Quality Assessment Report has been prepared. The conclusions in the 2010 Final EA remain valid. The following Revisions are due to the reduction in project footprint and design refinements.

Page 79

- The proposed project would not make substantial changes to existing drainage patterns but would make a small increase in impervious surface area with additional pavement (~~0.3~~ 0.23 acres).

Approximately 0.06 acre of existing pavement would also be removed for the project. The net increase in impervious surface for the project would be 0.17 acre.

In 2012, the Department of Parks and Recreation proceeded with their own project with an independent Categorical Exemption under CEQA (State Clearinghouse Number 2012018008) to remove the defunct restroom.

- ~~• Working with State park staff, one improvement project was identified that would reduce the amount of existing impervious surface area within Richardson Grove State Park. This improvement would include removal of a public restroom at the Visitor Center that is adjacent to a leaning redwood tree. This restroom is currently closed to the public due to the threat of the tree falling onto the restroom. By removing the restroom and its foundation approximately 900 square feet of hardened surface would be removed. Removing the foundation will require use of heavy equipment to break up the concrete. Excavation would be approximately 12 inches in depth.~~

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The culvert work has been reduced at five of the six culvert locations.

- ~~The existing perforated culvert at PM 1.35 and rusted culverts at PM 1.28 and PM 1.34 will be replaced. At the culvert at PM 1.18 the existing headwall will be replaced with a drainage inlet while maintaining the existing pipe. At PM 1.78, roadside water presently draining down an eroded steep slope to a drainage will be redirected into an overside 12 inch drain which will be connected to the 48 inch existing culvert.~~

See Revisions to Section 1.4 Alternatives of this document for a complete description of the reduction of work at culverts.

3.4.2 Revisions to Section 2.2.2 Geology/Soils/Seismic/Topography

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The following Revisions are due to the reduction in project footprint.

- The proposed cut slopes would be designed at 1:1 or steeper slope ratio with the proposed cut slopes reaching a maximum height of approximately ~~25~~ 15 feet.

3.4.3 Revisions to Section 2.2.3 Hazardous Waste/Materials

An updated Aerially Deposited Lead Site Investigation Report (Geocon Consultants Inc., March 2015) has been prepared. The update was necessary since shoulder excavation depths are more shallow than originally studied in the 2008 report. Shallower excavations would result in a different waste profile, so a new waste evaluation was performed. The conclusions in the 2010 Final EA remain valid. The following Revisions are due to the reduction in project footprint, design refinements, and the addition of barrier rail modifications at the bridge.

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- An investigation for aerially deposited lead for the proposed project included collecting soil samples along the unpaved shoulder and cut slope areas adjacent to US Route 101 within the project limits and then analyzing the samples in a California State certified laboratory. Results ~~are~~ were presented in the technical report, “Aerially Deposited Lead Site Investigation Report” (Geocon Consultants Inc., February 2008). Samples were reanalyzed based on the updated project footprint and presented in “Updated Aerially Deposited Lead Site Investigation Report” (Geocon Consultants Inc., March 2015). The 2015 report supersedes the 2008 report.

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Since the 2010 Final EA, there has been a reduction in the depth of excavation for new road sections from 18 to 24 inches throughout the project limits to a maximum depth of 12 inches within Richardson Grove State Park. This reduction was made by project engineers through a reevaluation of soils within the project limits as part of an effort to further reduce impacts.

- Excavation to a depth of 24 inches in the project area outside of the park and to a maximum of 12 inches in the park is expected with the exception of the wall location which would require excavation up to 20 feet.

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The following replaces the table on page 87 of the 2010 Final EA.

Table 4 Updated Lead Detection Results

Sample Excavation Depth	90% UCL* Total Lead (mg/kg)	90% UCL Predicted WET Lead (mg/l)	95% UCL Total Lead (mg/kg)	95% UCL Predicted WET Lead (mg/l)	Waste Classification
0 to 6 inches	35.1	2.7	37.4	2.9	Non-hazardous
Underlying soil (6 to 18 inches)	70.3	5.4	75.7	5.8	Hazardous
0 to 12 inches	56	4.3	59.9	4.6	Non-hazardous
Underlying soil (12 to 18 inches)	63.7	4.9	69.0	5.3	Hazardous
0 to 18 inches	58.6	4.5	62.9	4.8	Non-hazardous

* Note: UCL is upper confidence limits

- The Contractor will be required to prepare a Lead Compliance Plan (LCP) for worker safety due to aerially deposited lead issues as well as issues related to removing the pavement striping. This plan would include dust control specifications, health and safety plans for worker safety and material disposal considerations. Caltrans would also require the LCP to include perimeter air monitoring to ensure lead is not released from the site above the Cal-OSHA Permissible Exposure Limit (PEL) for workers or the public during construction.

3.5 Revisions to Section 2.3 Biological Environment

3.5.1 Revisions to Section 2.3.1 Natural Communities

The reduction in project footprint since the 2010 Final EA equates to reduced excavation and fill amounts and fewer trees to be removed. As before, no old growth redwood trees would be removed for this project.

- Most of the ground disturbance results from the excavation and fill to support the proposed realignments and occur at the following locations:
 - PM 1.35 to PM 1.36- Approximately ~~300~~ 60 cubic yards cut on western shoulder
 - PM 1.37 to PM 1.39- Approximately 200 cubic yards of fill on eastern shoulder (*No change*)
 - PM 1.56 to PM 1.61- Approximately ~~200~~ 30 cubic yards of fill on western shoulder
 - PM 1.65 to PM 1.75- Approximately ~~30~~ 10 cubic yards cut and ~~40~~ 15 cubic yards of fill on the eastern shoulder
 - PM 2.05 to PM 2.10- Approximately ~~2200~~ 500 cubic yards of cut on the western shoulder
 - PM 2.10 to PM 2.15- Approximately ~~600~~ 150 cubic yards fill on the eastern shoulder

Corrections to tree removal information:

- Of the ~~54~~ 38 trees proposed for removal with the preferred alternative, a little over half occur inside of the park (55%). ~~Nearly half~~ More than a quarter of the trees to be removed (~~44%~~) (26%) are tan oaks with ~~the majority~~ half ranging from four to twelve inches in diameter (~~see Table 8~~ see Table 5 in this document). Another 37 percent of the trees to be removed consist of Douglas-fir trees ranging from 4 inches to ~~23~~ 25 inches in diameter. Six redwood trees would be removed ranging from four inches to ~~nineteen~~ 21 inches in diameter. The two redwood trees to be removed from the park are ~~six inches and seven inches~~ and eight inches in diameter. Understory vegetation, including smaller “seedlings”, would also be removed. Subsequent to the draft environmental document, modifications were made to the retaining wall to reduce impacts. The wall was modified from an above the road retaining wall on the west side of the highway to a below the road retaining wall to the east of the highway. This resulted in a reduction in the number of tree removals necessary from approximately 87 trees to 54 trees. Further reductions to the project footprint have reduced the total number of trees to be removed to 38. As before, no old growth redwood trees are to be removed.

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- Approximately ~~¼~~ one tenth of an acre of tan oak-dominated woodlands would be removed for the cuts and fills. The majority of tree removal occurs at two areas: the proposed cut in the park at PM 1.36 (~~43~~ 8 trees) and the proposed cut that begins in the park at PM 2.04 and extends north of the park to PM 2.10 (~~40~~ 2 trees within the park and ~~48~~ 11 trees outside the park; see Appendix L [*of the 2010 Final EA*].)

Correction to the total disturbed area:

- It is estimated that the project would result in a total amount of disturbed area, that area between the cut/fill areas and the edge of the existing pavement, of approximately ~~0.73~~ 0.67 acres within the project limits.

The following replaces Table 8 - Trees Proposed to be Removed Within the Project Area on page 107 of the 2010 Final EA:

Table 5 Revised Trees Proposed to be Removed within the Project Area

Species	Size*	2010 Final EA Quantity	Number in the Park	Revised 2016 Quantity**	Revised Number in the Park
Redwood	4 - 8	4	2	2	2
Redwood	8-12	0	0	3	0
Redwood	12-18	1	0	0	0
Redwood	18-24	1	0	1	0
Redwood Total		6	2	6	2
Douglas Fir	4-8	3	0	3	1
Douglas Fir	8-12	6	5	4	3
Douglas Fir	12-18	9	4	2	2
Douglas Fir	18-26	2	1	5	1
Douglas Fir Total		20	10	14	7
Bigleaf Maple	4-8	0	0	1	1
Bigleaf Maple	8-12	0	0	2	2
Bigleaf Maple	12-18	1	1	1	1
Bigleaf Maple	18-24	1	1	1	1
Bigleaf Maple Total***		2	2	5	5
Tanoak	4-8	11	7	1	0
Tanoak	8-12	11	5	3	2
Tanoak	12-18	1	1	5	1
Tanoak	18-24	1	1	1	1
Tanoak Total		24	14	10	4
Other	4-8	1	1	1	1
Other	8-12	0	0	0	0
Other	12-18	1	1	0	0
Other	18-24	0	0	2	2
Other Total		2	2	3	3
Grand Total		54	30	38	21

* Tree sizes based on tree surveys conducted in 2013 and 2015.

** Revised quantity reflecting reduced project footprint.

*** The number of bigleaf maples to be removed has increased slightly due to installation of crash cushions and transition barriers at the Richardson Grove Undercrossing.

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- Within the project limits, there would be construction activities within the structural root zone of ~~approximately 74 redwood trees ranging in diameter from 18 inches to 15 feet (See Table 9)~~ of 78 old growth redwood trees; 72 of which occur within the boundaries of Richardson Grove State Park.

3.5.2 Revisions to Section 2.3.2 Wetlands and Other Waters

The culvert work has been reduced at five of the six culvert locations. See Revisions to Section 1.4 Alternatives of this document for a complete description of the reduction of work at culverts.

Page 118

- Work at the six culvert locations includes lengthening the culverts, replacing the culverts at PM ~~1.28, 1.35 and 2.10~~ with a 24-inch culverts, ~~replacing the culvert at PM 1.34 with an 18 inch culvert,~~ and extending an existing berm to direct water into a downdrain which will connect to the existing 48-inch culvert at PM 1.78. Work at the culvert at PM 1.18 includes replacing the existing headwall ~~with a drainage inlet~~ and maintaining the existing pipe in use.
- Work would also include constructing new inlet headwalls at PMs 1.28, and 1.34, and a new drop inlet at 1.35 and 2.10 and extending the cross drains. The existing headwalls would be demolished and removed and then rebuilt back away from the roadway edge by up to six ~~three to five~~ feet depending upon the location.

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Since the Final EA, culvert work has been reduced and prior conservative estimates of disturbed soil area have been refined.

- The proposed improvements would require temporary soil and vegetation disturbance in a 20 feet x 20 feet (400 square feet) area at both the inlet and outlet at each of the ~~five culverts (construction of the down drain would not require this disturbance)~~ an

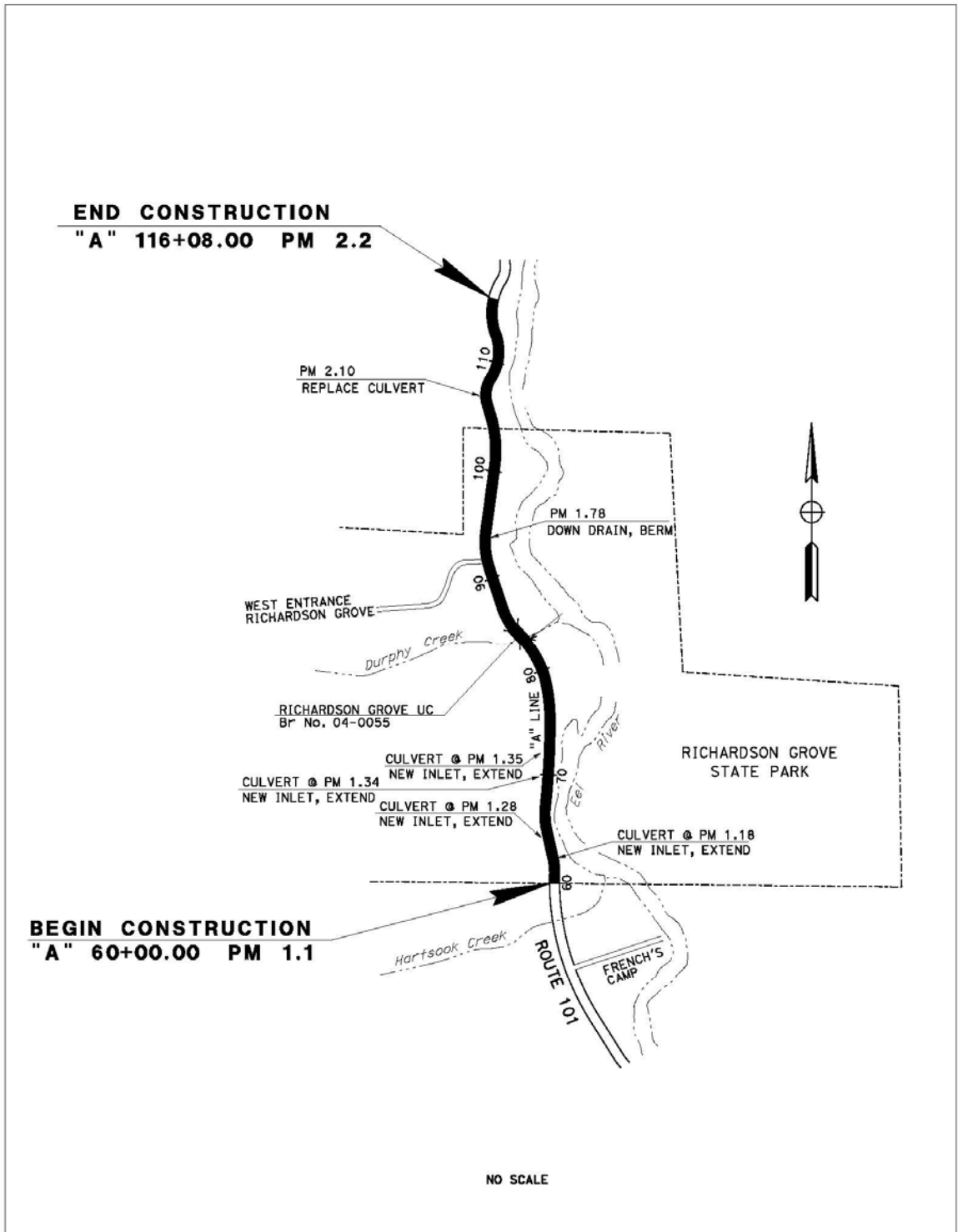
area of up to approximately 44 square feet at each of the culverts between PM 1.18 and PM 1.78. The replacement of the culvert at PM 2.10 would require 738 square feet of estimated temporary soil disturbance.

- Permanent impacts would result from lengthening the culverts at PM 1.18, PM 1.28, PM 1.34, and PM 1.35 ~~from 3 to 5 feet~~ and are expected to be minimal. There would be a beneficial impact resulting from the improvements at PM 1.78 and 2.10 which would improve water quality by reducing the erosion that was occurring.

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The information in Figure 9 Culvert Improvements has changed since the 2010 Final EA and the 2013 Supplement to the Final EA -- the culvert work has been reduced at five of the six culvert locations. The following figure replaces Figure 9.

Figure 3 Updated Culvert Improvements



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- Excess material excavated from the work site will be reused for the project. The remainder, if any, would be disposed of off-site at an approved disposal site away from any stream course or reused as fill onsite.

3.5.3 Revisions to Section 2.3.3 Plant and Animal Species

Since the 2010 Final EA and the 2013 Supplement to the Final EA, a Natural Environment Study (NES) Addendum (NES Addendum, Caltrans 2016b) has been prepared to provide updated information and analysis for the 2010 NES. The Addendum documented that additional occurrences of Lathyrus glandulosus (sticky pea) were found, including one on a proposed cut bank in the vicinity of PM 2.0 (Figure 2 of this document). In addition, Pacific lamprey (Entosphenus tridentatus), a state Species of Special Concern, was added from the 2015 record searches. Although no surveys were conducted for this project, Pacific lamprey are known to occur within the South Fork Eel River and its tributaries.

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- The sticky pea population near PM 1.18 would not be impacted by the proposed project as the area surrounding the population will be designated in the project plans and on the ground as an Environmentally Sensitive Area (ESA). This ESA will be fenced as a first order of work. The proposed project would cause minor, temporary impacts to a portion of the sticky pea population near PM 2.05 due to excavation for the new cutbank. Plants growing on the slope above the cut area are expected to expand naturally downslope onto the new cutbank over time. Effects to the population are considered negligible given the small scale of the impact and the likelihood that the plant will repopulate the disturbed area after construction.

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- No work will be done within the bed, on the bank, or in the channel of South Fork Eel River. ~~No~~ Minimal riparian vegetation will be removed. Potential impacts to water

quality would be insignificant or discountable through use of Best Management Practices. Therefore, this project would not adversely impact green sturgeon.

Although there would be no work in fish-bearing waters, this action may have a minor impact on Pacific lamprey due to the possibility of small amounts of turbidity reaching the South Fork Eel River from culvert work. The potential for impact is low, as culvert work would take place during the dry season when flows are less or there is no water present. Given the scale of the impact and the standard Best Management Practices for water quality protection, effects to Pacific lamprey and lamprey habitat would be negligible.

- ESA fencing will be installed during construction to protect the sticky pea population near PM 1.18 from potential construction impacts.

3.5.4 Revisions to Section 2.3.4 Threatened and Endangered Species

Since the 2010 Final EA and the 2013 Supplement to the Final EA, a Natural Environment Study (NES) Addendum (NES Addendum, Caltrans 2016b) has been prepared to provide updated information and analysis for the 2010 NES. A National Marine Fisheries (NMFS) Biological Assessment (Caltrans 2016c) has also been prepared. Updated species lists have been obtained from US Fish and Wildlife Service (USFWS) and NMFS.

In 2009, United States Fish and Wildlife (USFWS) issued a Biological Opinion (#8133 1-2008-F-0014; 8-14-2007-3281) for the potential impacts to MAMU, northern spotted owl (NSO), and MAMU critical habitat. After the USFWS issued the Biological Opinion, protocol-level surveys were conducted within the action area in 2011 and 2012 for MAMU, and in 2014, 2015 and 2016 for NSO; none were detected. USFWS subsequently lifted the sunrise and sunset work restrictions for MAMU given that surveys indicated probable absence of MAMU. The probable absence of both species prompted Caltrans to notify USFWS that the BO would no longer be used.

In March 2017, a reanalysis of the project prompted Caltrans to request additional technical assistance from the Arcata Field Office of the USFWS and to conclude that the appropriate

determination for MAMU, NSO, and MAMU critical habitat is “may affect, not likely to adversely affect”. A Letter of Concurrence from USFWS was received on March 29, 2017.

Surveys for both MAMU and NSO would be repeated in accordance with USFWS-approved protocols until the project is constructed. If subsequent surveys find either species to be present, or there are substantial changes to the project, Caltrans would reinstate consultation with USFWS.

*In 2014, in coordination with CDFW, the project area was evaluated for habitat for the newly designated state candidate species Townsend’s big-eared bat, *Corynorhinus townsendii*, and fisher (formerly Pacific fisher), *Pekania [Martes] pennanti*. Surveys of trees that would be removed for the project found none with cavities suitable for bats or fishers. CDFW concurred that the anticipated maximum equipment noise levels would be unlikely to result in take of Townsend’s big-eared bat. Fisher do not tolerate high levels of human activity and are therefore not likely to be present within the project limits given existing high disturbance levels associated with the campgrounds, the highway, and residences.*

The California Fish and Game Commission found that neither Townsend’s big-eared bat nor the Northern California Evolutionary Significant Unit of fisher warranted listing as threatened or endangered in August 2015. Both remain recognized as Species of Special Concern by the California Department of Fish and Wildlife.

In 2015, Caltrans requested technical assistance from NMFS to reevaluate the potential effects of the culvert work and proposed barrier rail modifications on listed fish species. As a result of the technical assistance, it was determined there was potential for the project to affect listed fish and their critical habitat, and Essential Fish Habitat (EFH). Caltrans prepared a biological assessment and EFH assessment and determined that the proposed action would result in insignificant or discountable effects to listed salmonids, their critical habitat, and EFH. Caltrans has concluded informal consultation with NMFS and a Letter of Concurrence was received on January 23, 2017.

- Northern California steelhead, Coho salmon, and Chinook salmon are likely present in Durphy Creek and the South Fork Eel River; however no work will be done within the bed, bank, or channel of ~~this stream~~ either watercourse. ~~These species are also present in the South Fork Eel River but no adverse impacts resulting from the project are anticipated to occur to the South Fork Eel River. It was determined that there would be “No Effect” to these species.~~ The project may affect, but is not likely to adversely affect listed fish species and their designated critical habitat.
- The proposed action may result in temporary adverse effects to EFH for coho salmon and Chinook salmon. However, given the nature of the potential effects (e.g., minor riparian vegetation removal), Caltrans has determined that there would be no long-term, permanent impacts to EFH for Pacific salmon.

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- The Biological Assessment that was prepared for this project in 2008 did not include bald eagle, coho salmon, Chinook salmon, or steelhead since at that time no adverse effects to these species are were anticipated to occur as a result of the project. After additional analysis was conducted, a second Biological Assessment was prepared and submitted to National Marine Fisheries Service (NMFS) in 2016 to reevaluate potential effects of the project on listed fish species, their designated critical habitat, and EFH.
- ~~Based on the information in the Biological Opinion, California Department of Fish and Game determined that a Consistency Determination for impacts to marbled murrelets was not required.~~ No consistency determination would be required as there would be no take of species as defined in the California Fish and Game Code.

Protocol-level surveys were conducted within the action area in 2011 and 2012 for MAMU, and in 2014 and 2015 for NSO; none were detected. Since the 2008 Biological Assessment presumed presence of NSO and MAMU and subsequent surveys indicated probable absence, Caltrans requested withdrawal of the resulting Biological Opinion from USFWS in September 2015.

Surveys for both MAMU and NSO would be repeated on a timetable in accordance with the approved protocols until the project is constructed. If subsequent surveys find either species to be present, or there are substantial changes to the project, Caltrans would reinitiate consultation with USFWS.

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- ~~Due to the sensitivity of the species, it was determined that the project “may affect, and is likely to adversely affect” marbled murrelet.~~ Protocol-level surveys indicate probable absence of MAMU within the project area; therefore, Caltrans determined, and USFWS concurred, that the project may affect, but is not likely to adversely affect MAMU.
- The US Fish and Wildlife Service concurred that the removal of proposed vegetation is unlikely to substantially alter the canopy characteristics of the forest in Richardson Grove State Park. The US Fish and Wildlife Service also concluded that the proposed action would not destroy or adversely modify designated critical habitat for the marbled murrelet.

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- Approximately ~~¼~~ one-tenth of an acre of the woodland would be removed as a result of the project.
- ~~Due to the sensitivity of the species, it has been determined that the proposed project “May Affect, and is likely to Adversely Affect” northern spotted owls.~~ Protocol level surveys indicate probable absence of NSO within the project area; therefore, the project may affect, but is not likely to adversely affect NSO.

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- ~~To minimize adverse noise impacts to migrating marbled murrelet during the breeding season (between March 24 and September 15) there will be no construction activity in the morning for a three-hour period starting one hour before sunrise until~~

~~two hours after sunrise, then in the evening no construction activity in the three hour period starting two hours before sunset until one hour after sunset.~~

3.5.5 Revisions to Section 2.3.5 Invasive Species

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- The project will result in approximately ~~1.07 acres~~ 0.67 acre of disturbed area.

3.6 Revisions to Section 2.4 Cumulative Impacts

The 2010 Final EA did not discuss cumulative truck traffic impacts because, as stated in Section 2.1.2 (Growth) of the 2010 Final EA, truck traffic is not anticipated to increase as a result of the project. Therefore, an analysis on the project's potential to have cumulative impacts on truck traffic was not warranted. Since the 2010 Final EA, the 2013 Final EA for a separate project, the 197/199 Safe STAA Access Project, included a truck traffic cumulative impacts analysis that considered the Richardson Grove Operational Improvement Project. Based on review of the 197/199 Safe STAA Access Project truck traffic cumulative analysis, Caltrans determined that the decision not to analyze cumulative impacts for truck traffic for this project remains valid. The information supporting this decision is as follows:

- *A study (Gallo) cited information from business owners in the region who estimated a reduction in the number of annual truck trips of 12.3 percent if the STAA restrictions through Richardson Grove were lifted. The reduction in the number of trips due to increased efficiency would likely offset any increase in number of trips due to reduced transportation costs.*
- *STAA trucks are subject to the same weight restriction as non-STAA trucks; the economic advantage for the longer vehicles is not present for heavy loads.*
- *The total number of trucks would not be likely to change regardless of truck size for routine, regular truck trips.*
- *It is not likely that truck traffic would be diverted from the I-5 corridor to use US 101 if the STAA restriction is lifted, as it would not be as economically feasible for the trucking companies to change their existing routes based upon fuel consumption and*

travel times, when compared to the straighter alignments and faster travel times of I-5 and Route 99 corridors.

- *Very little latent demand is expected with the removal of the STAA restriction.*

Additional analysis related to truck traffic was performed in support of the NMFS Biological Assessment (Caltrans 2016c) by the Caltrans District 1 Division of Planning. This analysis concluded, “Measureable increases in truck traffic volumes as a result of the . . . project are not expected” (K. Tucker, personal communication, May 2016).

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- ~~There are no known marbled murrelets in close proximity of the proposed project and the nearest northern spotted owl nest is 1/2 mile away. USFWS-approved protocol surveys conducted between 2011 and 2016 found neither NSO nor MAMU present in the project area.~~ The proposed project will not adversely modify designated critical habitat for the marbled murrelet. Due to the minimal long term impacts to ~~marbled murrelet, northern spotted owl, and the~~ designated MAMU critical habitat, as well as the conservation and enhancement ~~mitigation~~ measures incorporated into the project, impacts to the listed species and their designated critical habitat are not anticipated to result in substantial cumulative impacts.

The proposed project would have minimal impact on riparian communities and water quality and is not expected to result in any direct, indirect or cumulative adverse effects to listed fish species or their designated critical habitat. Due to excavation and removal of riparian vegetation, the project may adversely affect EFH for Pacific salmon. Caltrans has determined there would be no long-term, permanent impacts to EFH for Pacific salmon given the functional components of EFH elements would be restored once construction is complete.

- The proposed project would not remove any old growth redwoods. There are six redwoods that would be removed by the project ranging in size from six to ~~nineteen~~ twenty-four inches in diameter. Construction would occur within the structural root zone of old growth trees but these impacts are not anticipated to be substantial

~~adverse impacts with the proposed minimization measures in place.~~ Standard protective measures and other minimization measures would be incorporated into the proposed project. According to the Federal Highway Administration (FHWA) and the National Environmental Protection Act (NEPA), mitigations for project impacts are considered as far as feasible whether the impacts are significant or not. In addition, Caltrans developed and committed to measures to protect State Park resources in the federal Section 4(f) evaluation required under the Transportation Act of 1966.

Chapter 4 Revisions to the 2013 Supplement to the Final EA

4.1 Revisions to the Supplement Summary

Tree removal totals from the Supplement are replaced by Table 5 - Revised Trees Proposed to be Removed within the Project Area in this document. The Individual Tree Analysis attached to the Supplement has been replaced by Final Report (Tree Decisions 2015), which is available at www.dot.ca.gov/dist1/d1projects/richardson_grove/.

4.2 Revisions to the Supplement Chapter 1 Introduction

4.2.1 Revisions to Section 1.3 Incorporation by Reference

Since the release of the Supplement in 2013, a Douglas-fir tree adjacent to the east side of the road near PM 2.10 died and was removed by PG&E to protect nearby power lines. This tree would have shielded the south end of the metal beam guardrail to be built on top of the retaining wall. Since the tree has been removed, a crash cushion is now proposed to be installed at the south end of the metal beam guardrail.

4.3 Revisions to the Supplement Chapter 2 Affected Environment, Environmental Consequences and Avoidance and Minimization Measures

4.3.1 Revisions to Section 2.1 Affected Environment

After technical assistance was provided by USFWS, Caltrans concluded that the appropriate determination for MAMU, NSO, and MAMU designated critical habitat is “may affect, not likely to adversely affect”. A Letter of Concurrence was received from USFWS on March 29, 2017. USFWS lifted the sunrise and sunset work restrictions for MAMU given that surveys indicate probable absence of MAMU. Survey results were also provided to CDFW. Surveys for both species would be repeated on a timetable in accordance with the approved protocols

until the project is constructed, to ensure that, in the interim, re-occupation of the area by either species would be detected.

In 2015, Caltrans requested technical assistance from NMFS to reevaluate the potential effects of the culvert work and proposed barrier rail modifications on listed fish species. As a result of the technical assistance, it was determined there was potential for the project to affect listed fish and their critical habitat, and Essential Fish Habitat (EFH). Consequently, Caltrans conducted further analysis and determined the work may affect, but is not likely to adversely affect, listed fish species or their critical habitat. Because the project may have a minimal effect on EFH, a “no effect” determination is not appropriate. Consequently, the project may adversely affect EFH for species managed under the Pacific Coast Salmon Fishery Management Plans. Accordingly, Caltrans has concluded informal consultation with NMFS. A Letter of Concurrence was received from NMFS on January 23, 2017.

The Redwood series vegetation community has now been classified in the California Manual of Vegetation as the Sequoia sempervirens (Redwood forest) Alliance, to be consistent with federal standards (Sawyer et al. 2009). The area north of the park, including the area at the steep cut bank near PM 2.0, was classified in 2010 as the Tanoak series vegetation community because it is dominated by tanoak. The occurrence is here considered part of the Sequoia sempervirens (Redwood forest) Alliance.

A re-assessment of potential project impacts to individual old growth redwoods (Sequoia sempervirens) was conducted in 2015 based on updated tree data and the updated project description (reduced project footprint, reduced culvert work, and minor modifications to barrier rail). For the purposes of CEQA analysis, project effects were rated both with and without the use of special measures or techniques to protect old growth redwood roots.

Although this proposed work would not have a substantially adverse effect on special status biological resources in the project area, in accordance with NEPA and FHWA’s mitigation policy to minimize even less than significant impacts to the extent feasible, minimization measures are proposed. These minimization measures would also meet Caltrans stewardship

goals and commitments made to State Parks in compliance with the federal Section 4(f) evaluation.

4.3.2 Revisions to Section 2.2 Environmental Consequences

Since the preparation of the Supplement, the project footprint has been reduced slightly. Due to the reduced project footprint, the total number of trees to be removed has been reduced to 38. Please see Table 5 in this document, which replaces all previous versions. The tree removals would have a minimal impact on the ecological function and values of the Redwood forest Alliance.

Migratory birds may nest in trees and shrubs within or adjacent to the project limits. Most of the approximately 0.67 acre that would be disturbed by the project consists of sparse herbaceous vegetation along the roadway shoulders that is generally unsuitable nesting habitat for migratory birds. The three areas of tree removal are of a small enough size that there would be at most one or two nesting pairs in each area. Furthermore, the implementation of standard migratory bird protection measures would prevent impacts to migratory birds from tree removals.

The project is within designated critical habitat for MAMU. Neither tree removals nor potential root impacts to old growth redwoods would adversely modify MAMU designated critical habitat. None of the trees to be removed are old growth redwood trees and the mature redwood canopy would remain intact.

The reduction in footprint has also resulted in a lower number of old growth redwood trees with root health zones that intersect the proposed ground disturbance areas of the project. Please see the August 2015 arborist report, Final Report: An Evaluation of Potential Effects on Old-Growth Redwoods from Implementation of the Richardson Grove Operational Improvement Project, which replaces previous versions. The arborist report concluded that none of the proposed highway alterations, performed with or without the proposed minimization measures, are of sufficient magnitude to threaten the health or stability of any

old growth redwood. In each case, disturbance would be confined to a small percentage of the area occupied by roots and would be well within the adaptive capabilities of the trees.

4.3.3 Revisions to Section 2.3 Avoidance and Minimization Measures

The potential effects of the project on the Redwood forest Alliance and MAMU critical habitat would be negligible, therefore no out-of-kind mitigation is required. Work windows are not needed to minimize noise disturbance to NSO or MAMU due to the documented probable absence of these species from the project area.

Chapter 5 Updates to References

The following have been added to the list of references cited since the 2010 Final EA and the 2013 Supplement to the Final EA. These project documents are available at www.dot.ca.gov/dist1/d1/projects/richardson_grove/

California Department of Transportation. March 2015 *Construction Noise Analysis Update* (Caltrans 2015a)

California Department of Transportation. December 2015 *Water Quality Assessment Report* (Caltrans 2015b)

California Department of Transportation. January 2016 *Visual Impact Assessment Addendum 4* (Caltrans 2016a)

California Department of Transportation. March 2016 *Natural Environment Study Addendum* (Caltrans 2016b)

California Department of Transportation. October 2016 *Biological Assessment* (Caltrans 2016c)

Yniguez, Dennis. 2015. An Evaluation of Potential Effects on Old-Growth Redwoods from Implementation of the Richardson Grove Operational Improvement Project. Final Report submitted to California Department of Transportation, Eureka, CA

PERSONAL COMMUNICATION

Tucker, Kevin. Caltrans Senior Transportation Planner, 2016, memorandum