

Richardson Grove Operational Improvement Project Natural Environment Study Addendum

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Department of Transportation

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Richardson Grove Operational Improvement Project

Natural Environment Study Addendum

US Route 101, in Humboldt County near Garberville, from 0.5 mile south to
0.5 mile north of the Richardson Grove Undercrossing

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Summary

The Natural Environment Study (NES) for the Richardson Grove Operational Improvement Project (project), dated April 2010, provided information about the natural environment and species present in the project vicinity, and evaluated potential impacts of the proposed project on sensitive biological resources. This Natural Environment Study Addendum (Addendum) has been prepared to provide updated information and analysis for the 2010 NES.

This Addendum documents any changes in potential impacts of the proposed project based on:

- Updates to the project description, reducing the project footprint, reducing culvert work, and adding minor modifications to barrier rail;
- An updated assessment of tree impacts without the incorporation of any special protection measures for the purpose of the California Environmental Quality Act (CEQA) analysis – minimization measures would be incorporated as required by the National Environmental Policy Act (NEPA), Section 4(f) commitments, the Federal Highway Administration’s (FHWA) mitigation policy, and Caltrans stewardship goals; and
- Updated information on special status species, including results of additional plant and animal surveys, and any changes in impacts.

The 2010 NES concluded, “Although there is habitat for a number of special status species in the project vicinity, this work would not substantially adversely impact those species or their habitat.” Based on updates to the project description, Caltrans conducted additional analysis. 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 intends to consult with NMFS. The analysis indicated that all other conclusions made in the 2010 NES are still valid.

Surveys between 2011 and 2015 indicated that neither marbled murrelets (MAMU) nor northern spotted owls (NSO) are present in the project area; therefore, the project would not affect either species. Since no MAMU are present, USFWS lifted the sunrise and sunset work restrictions -- established for the project to prevent noise

disturbance of MAMU -- for five years (G. Schmidt, personal communication [email], June 18, 2013). Surveys for both species will be repeated (on a timetable in accordance with the approved protocols until the project is constructed) to ensure that if either species were to re-occupy the area in the interim, its presence would be detected.

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.

In 2014, with coordination from CDFW Liaison JoAnn Loehr, the project area was evaluated for habitat for newly designated state candidate species Townsend's big-eared bat, *Corynorhinus townsendii*, and 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.

Minimization measures are proposed, pursuant to NEPA and FHWA's mitigation policy, to minimize even less than significant impacts to the extent feasible. These minimization measures would also meet Caltrans stewardship goals and commitments made to State Parks in compliance with the federal Section 4(f) evaluation.

Table of Contents

Chapter 1. Introduction.....	1
1.1. Project Purpose and Need	1
1.2. Updates to the Project Description – Proposed Build Alternative.....	1
Chapter 2. Update to Study Methods	2
2.1. Regulatory Requirements	3
2.2. Personnel and Survey Dates	3
2.3. Agency Coordination	6
Chapter 3. Update to Results: Biological Resources Present.....	7
3.1. Description of Existing Biological and Physical Conditions	7
Vegetation.....	7
3.2. Special Status Resources in Project Area.....	7
Chapter 4. Updates to Project Impacts.....	11
4.1. Construction Noise	11
4.2. Construction Activity	11
4.3. Tree Removal	11
4.4. Root Impacts to Old Growth Redwoods	12
4.5. Culvert Work.....	15
4.6. Cumulative Impacts	15
4.7. Special Status Plant Species.....	15
4.8. Special Status Animal Species.....	16
Chapter 5. Updated Information on Minimization and Mitigation Measures	19
5.1. Marbled Murrelet Work Window	19
5.2. Tree and Shrub Removal	19
5.3. Revegetation	19
5.4. Rare Plants.....	19
5.5. Sediment and Erosion Control.....	19
5.6. Staging Areas	19
5.7. Update to Additional Measures	19
Chapter 6. Chapter 6. Additional References	20
Chapter 7. Updates to Appendices.....	22

Chapter 1. Introduction

1.1. Project Purpose and Need

The purpose and need for the project has not changed from the 2010 NES, which is to modify the roadway to accommodate STAA (Surface Transportation Assistance Act of 1982) trucks. No old growth redwood trees would be removed or threatened by this project.

1.2. Updates to the Project Description – Proposed Build Alternative

Design changes were made in 2015 to reduce the project footprint. This reduced the estimated amount of cut (excavation) and fill (embankment) as well as impervious surface from the 2010 proposed build alternative. The amount of disturbed soil is now estimated at 0.67 acre, rather than 0.73; the estimated volume of excavated material is now 570 cubic yards, rather than 2,530 cubic yards; the estimated volume of embankment placed is 395 cubic yards, rather than 1,045 cubic yards; and the amount of impervious surface in the project area would increase by only 0.23 acre, rather than 0.30 acre.

The depth of excavation for new road sections was also reduced, from a range of 18 to 24 inches throughout the project limits, to a maximum depth of 12 inches within the state park; cut banks were steepened from a slope of 1.5:1 to 1:1, and proposed 2-foot shoulders were eliminated from several areas. Three culverts (Post Mile (PM) 1.28, PM 1.34, and PM 1.35) previously proposed to be replaced are now proposed only to be extended and fitted with new drainage inlets.

The project footprint has been reduced. As a result, the number of trees to be removed has decreased from 54 to 38, none of which are old growth redwoods.

Bridge rail improvements are proposed for the four ends of the Richardson Grove Undercrossing. These improvements would replace the metal beam guardrail with a shorter metal beam guardrail crash cushion, and include concrete transition barriers between the old bridge barriers and the new crash cushions. End treatments to the proposed soldier pile wall at the north end of the project have been revised. Last, a water quality improvement (removal of a defunct restroom) in the park proposed by Caltrans to decrease impervious surface has since been implemented by the California Department of Parks and Recreation under separate environmental clearance. Updated maps are shown in Addendum Appendix A.

Chapter 2. Update to Study Methods

This section presents updated information about the methods used to evaluate the potential presence of natural communities of special concern, special status plant species, and special status wildlife species potentially affected by the project. The area that may be affected directly or indirectly by the project is defined here as the Biological Study Area (BSA).

The BSA (see Figure 2.1) includes the US 101 Corridor in Humboldt County from PM 1.1 to 2.2, the areas of proposed excavation and embankment activity, large trees whose roots have the potential to occur in the areas proposed for placing embankment or excavating, and the potential staging areas at Post Mile 2.2 in Humboldt County and US 101 in Mendocino County Post Mile R106.5. Also included are the South Fork Eel River in the project vicinity, affected tributaries, and associated areas of riparian vegetation. The BSA also includes areas that could be affected by the noise of construction; this includes a 0.25-mile buffer around the construction area.

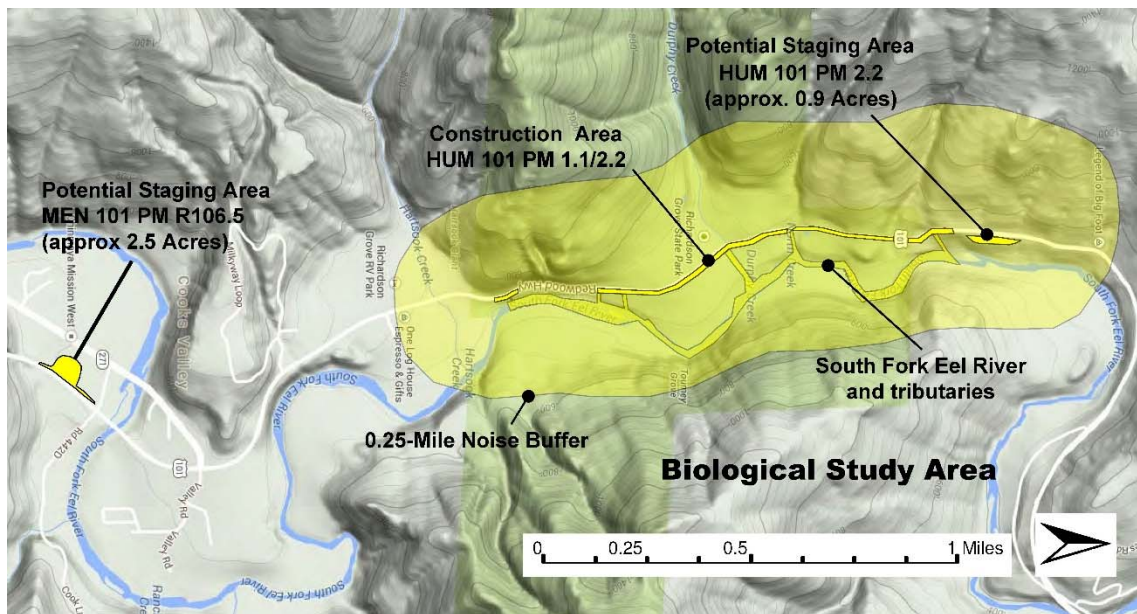


Figure 2.1. Richardson Grove Project Biological Study Area

Current information from federal and state resource agencies was reviewed to determine whether additional sensitive resources could potentially occur within the project vicinity. Sources included the California Department of Fish and Wildlife Natural Diversity Database (CDFW 2015) and the California Native Plant Society’s “Inventory of Rare and Endangered Plants of California” (CNPS 2015).

2.1. Regulatory Requirements

Surveys conducted for marbled murrelet (*Brachyrhampus marmoratus*) (MAMU) and northern spotted owl (*Strix occidentalis caurina*) (NSO) indicated that neither species was present. After technical assistance was provided by USFWS, Caltrans notified the USFWS in September of 2015 that there was no potential to affect these species, and it was no longer using the 2008 Biological Assessment of impacts to MAMU and NSO for the project. Survey results were also provided to CDFW. Surveys for both species will 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 in order to update the evaluation of the potential effects of the culvert work, roadway work, and proposed barrier rail modifications on listed fish species. As a result of the technical assistance, it was determined that there was potential for the project to affect listed fish and their critical habitat, as well as Essential Fish Habitat (EFH). Consequently, Caltrans conducted further analysis and intends to consult with NMFS.

In 2014, with technical assistance from CDFW Liaison JoAnn Loehr, the project area was evaluated for habitat for two state candidate species: Townsend's big-eared bat (*Corynorhinus townsendii*) (COTO), and Pacific fisher (*Pekania [Martes] pennanti*). An analysis of potential effects determined that the project would not result in take of COTO or Pacific fisher (see section 4.8). In April 2016, Pacific fisher was deemed not warranted for listing. There were no state or federally listed plants species found in updated surveys.

The EFH provisions of the Sustainable Fisheries Act are designed to protect fisheries habitat from being lost due to disturbance and degradation. The South Fork Eel River and Durphy Creek near the action area support EFH for species regulated under the Federal Pacific Coast Salmon Fishery Management Plan. Following a site visit in 2015 with a biologist from NMFS, Caltrans conducted an assessment of the potential effect of the project on EFH for Pacific Salmon. Based on this assessment, Caltrans intends to consult with NMFS.

2.2. Personnel and Survey Dates

An investigation was conducted for this Addendum to determine whether there are any additional sensitive biological resources within the project area. Updated lists of special status species and habitats potentially occurring within the project area were obtained from USFWS and NMFS (Appendix I). The CDFW's CNDDDB was also consulted for any changes. A 9-Quad

search of the CNPS Inventory of Rare and Endangered Plants Database was made to determine additional rare plants that might be in the project vicinity. An early season plant survey was conducted by a qualified Caltrans botanist on April 13, 2015; a late season survey was conducted on July 14, 2015. Protocol-level surveys were conducted for MAMU in 2011 and 2012, and for NSO in 2014 and 2015. Trees proposed to be removed for the project were surveyed for suitable habitat for COTO and fishers on December 17, 2013. Table 2.1 lists the latest survey dates, personnel, and qualifications.

Table 2.1. Survey Personnel Qualifications

Survey	Date	Personnel	Qualifications
NSO Surveys 2014	March-May 2014	Sean McAllister (Mad River Biologists)	College of the Redwoods, Eureka, California 1987-1993. Humboldt State University Wildlife Dept. Arcata, California 1995-1998. 20 years experience surveying Northern Spotted Owls
	June-August 2014	Steve Pagliughi (AECOM)	B.S., Fisheries and Wildlife Science; M.S., Fisheries Biology; 20 years experience.
NSO Surveys 2015	March-June 2015	Jason Meyer (Caltrans)	M.S. Wildlife Management, 2005, Humboldt State University; B.S. Wildlife Management, 1996 Purdue University; 7 years experience conducting USFWS Protocol NSO surveys.
		Coady Reynolds (Caltrans)	B.S., Wildlife, 2001, Humboldt State University. Four years experience conducting NSO protocol surveys.
		Denise Walker-Brown (Caltrans)	B.S., Wildlife Management, 1998 Humboldt State University. 15 years NSO protocol surveys, 10 years experience habitat and survey assessment.
		Katie Thoreson (Caltrans)	B.S., Wildlife, Humboldt State University (2005), 4 years experience conducting NSO surveys.
		Hilary Sundeen (Caltrans)	B.S. Wildlife Management, 2000, Humboldt State University. 6 years experience conducting NSO surveys for Pacific Lumber Company 1998-2004.
Bats and bat habitat	2014	Gail Popham (Caltrans)	M.S., Nat. Resources, Wildlife, 2000, Humboldt State University, B.S, Fisheries Science, Wildlife Science, 1996; Oregon State Univ. 15 years experience conducting biological surveys.
Fisher habitat	2014	Gail Popham (Caltrans)	Same as above
MAMU Surveys 2011	April-May 2011	Seth Taylor (ICF)	BS, Environmental Biology and Management, University of California Davis, 2007. Trained and certified (or recertified) through the Mad River Biologists Marbled Murrelet Observer Training Program.
		Leila Harris (ICF)	BA, Environmental Studies, Oberlin College, Ohio. Raptor Biology, Ornithology, and Wetland Ecology, UC Davis, California. Trained and certified (or recertified) through the Mad River Biologists Marbled Murrelet Observer Training Program.

Survey	Date	Personnel	Qualifications
		Steve Avery (ICF)	MA, Biology, University of Northern Colorado, Greeley, 1990. BS, Zoology/Wildlife Biology, Ohio University, Athens, 1985. Trained and certified (or recertified) through the Mad River Biologists Marbled Murrelet Observer Training Program.
2012 MAMU Surveys	April-May 2012	Leila Harris (ICF)	Same as above
		Steve Avery (ICF)	Same as above
Focused Floristic Survey	May 10, 2012	Valerie Gizinski (Caltrans)	Boston University, B.A. in Biology, 1972 Sonoma State University: M.A. in Biology, environmental emphasis, 1979 Advanced Plant Taxonomy, California State University, Sacramento, 1983 23 years experience conducting botanical surveys with CA Department of Parks and Recreation, 3 with Caltrans
		Gail Popham (Caltrans)	Same as above
Early Season Floristic Survey	April 13, 2015	Tami Camper	B.S. Env. Sci., 1999 Western Washington University.; M.S., Biology, 2007 Humboldt State University; 2002 Richard Chinn Wetland Delineation 40 hour course; 12 years experience performing botanical surveys in Northwestern California
Late season Floristic Survey	July 21, 2015	Tami Camper	Same as above
Tree Impact Analysis	April 2015	Dennis Yniguez	Registered Consulting Arborist #362 ISA Certified Arborist #WC0130 California Tree Service Contractor #679620 Certified Tree Risk Assessor #631

2.3. Agency Coordination

A 1602 Lake and Streambed Alteration Agreement was obtained from the Department of Fish and Wildlife on December 23, 2010. The term of the Agreement was extended until December 2020. On September 20, 2010, Caltrans received Section 404 Nationwide Permit 2009-00098 from the US Army Corps of Engineers (USACE), which expired in 2011. Consequently, Caltrans will submit a new Pre-construction Notification to the USACE prior to awarding the construction contract. Water Quality Certification WDID No. 1B10077WNHU was issued in June 2011, and expires on June 27, 2016. Consequently, Caltrans will apply for a new 401 Certification.

Chapter 3. Update to Results: Biological Resources Present

3.1. Description of Existing Biological and Physical Conditions

Vegetation

The Redwood series vegetation community is now classified in the California Manual of Vegetation as the *Sequoia sempervirens* (Redwood forest) Alliance, in order 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 the 2010 NES as the Tanoak series vegetation community because it is dominated by tanoak. Following further review, the presence of tanoak is likely due to natural or human-caused disturbance, and the occurrence is now considered part of the *Sequoia sempervirens* (Redwood forest) Alliance due to its location within the larger redwood forest.

3.2. Special Status Resources in Project Area

Natural Community of Special Concern

CDFW (http://www.dfg.ca.gov/biogeodata/vegcamp/natural_communities.asp) lists the *Sequoia sempervirens* (Redwood forest) Alliance (hereafter, Redwood Alliance) as a Natural Community of Special Concern, with a state rank of S3: Vulnerable in the state due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation from the state. It has a global rank of G3: At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors. Site quality is reduced by the presence of the highway and numerous facilities, observable throughout the project limits: paved parking lots, campgrounds, park buildings, private residences, businesses, park and private roads, unpaved parking areas, and hiking trails. French or Scotch broom, both of which are invasive/noxious according to Cal-IPC, are common at the margins of the forest.

Rare Plant Species

No additional plant species or special status plant species were found during the 2015 plant surveys. Several additional occurrences of *Lathyrus glandulosus* (sticky pea) were found, including one on a steep cutbank in the vicinity of PM 2.0. A map showing the additional locations can be found in Appendix G.

Special Status Animal Species

Pacific lamprey

One CDFW Species of Special Concern was added from the 2015 record searches, the Pacific lamprey. Lampreys are anadromous: born in freshwater streams, migrate out to the ocean, and return to fresh water as mature adults to spawn. They enter streams from July to October and spawn the following spring. Spawning takes place in low gradient sections of water, with gravel and sandy bottoms. Larvae swim to backwater or eddy areas of low stream velocity and live in soft sediments on the muddy bottoms for 4 to 6 years, moving only rarely to new areas. After metamorphosing, adults migrate to the ocean during high water periods in late winter or early spring. After 2 to 3 years in the ocean they return to freshwater to spawn. Although no surveys were conducted for this project, CNDDDB (CDFW 2015) shows Pacific lamprey in South Fork Eel River and its tributaries.

Northern spotted owl (NSO)

NSO advanced to State candidacy in 2013. It did, however, have Federal status in 2010 and was discussed in the 2010 NES. In 2009, the USFWS issued a Biological Opinion (#8133 1-2008-F-0014 8-14-2007-3281) for impacts to NSO associated with this project. Since the opinion was issued, Caltrans conducted USFWS-approved protocol surveys for NSO in 2014 and 2015 and found none present.

Marbled Murrelet (MAMU)

The USFWS Biological Opinion (#8133 1-2008-F-0014 8-14-2007-3281) also addressed impacts to MAMU. Since the opinion was issued, Caltrans conducted USFWS-approved protocol

surveys for MAMU in 2011 and 2012, and detected no murrelets in either year (ICF International 2011, 2012).

Townsend's big-eared bat (COTO)

COTO was advanced to State candidacy in 2013. COTO does not have Federal status, and was therefore not included in the 2010 NES.

COTO is primarily a cave dwelling species; however, it also uses cavities in large trees. Most COTO maternal roosts in tree basal hollows in California had entrances that were at least 15 cm (6 inches) high and 31 cm (12 inches) wide, and heights of roosts ranged from 2.4 to 4.9 meters (8 to 16 feet), with an area large enough to permit flight (Pierson and Rainey 1998). According to California Department of Fish and Wildlife Biologist Scott Osborn (personal communication 2014), COTO maternity roosts require trees with basal hollows at least 6 feet high by 2 feet wide. Cavities higher up in trees are not usually large enough to accommodate a maternity colony.

Trees to be removed were surveyed for suitable bat on December 17, 2013. None of the trees had cavities suitable for bats. Information on survey dates and personnel can be found in Table 2.1.

Pacific fisher

Pacific fisher advanced to State candidacy in 2013. It did, however, have Federal status in 2010 and was discussed in the 2010. A CDFW status review published on June 10, 2015 determined that the northern California Evolutionarily Significant Unit (ESU) of the fisher is not in serious danger or threatened. In April 2016, Pacific fisher was deemed not warranted for listing. Trees to be removed had been surveyed for suitable fisher habitat on December 17, 2013. None of the trees had cavities suitable for fishers. Information on survey dates and personnel can be found in Table 2.1.

Table 3.1. Updates and Additions to Special Status Resources in the Project Area

Scientific Name	Common Name	Status	Rationale
Mammals			
<i>Pekania [Martes] pennanti</i>	Pacific fisher	FT	Potential habitat present, no habitat trees would be removed
<i>Corynorhinus townsendii</i>	Townsend’s big-eared bat	SC	Newly listed CDFW candidate; roosting and maternity habitat present in trees, no habitat trees would be removed
Birds			
Various	Migratory birds	MBTA	Revised analysis
<i>Brachyrhampus marmoratus</i>	Marbled murrelet	FT/CT/CH	Protocol surveys-None present
<i>Charadrius nivosus ssp. nivosus</i>	Western snowy plover	FT/CSC	No suitable habitat in BSA
<i>Coccyzus americanus</i>	Yellow-billed cuckoo	FT/CE	No suitable habitat in BSA
<i>Strix occidentalis caurina</i>	Northern spotted owl	FT/SC	Protocol surveys-None present
Fish			
<i>Entosphenus Tridentatus</i>	Pacific lamprey	FSC/CSC	Added from CNDDDB
<i>Oncorhynchus kisutch</i>	Coho salmon Southern Oregon/California Coastal ESU	FT/CT/CH/EFH	Technical assistance and informal consultation with NMFS
<i>Oncorhynchus mykiss</i>	Northern California Coast Steelhead	FT/CH	Technical assistance and informal consultation with NMFS
<i>Oncorhynchus tshawytscha</i>	Chinook salmon Southern Oregon and California Coastal ESU	FT/EFH	Technical assistance and informal consultation with NMFS
Vascular Plants			
<i>Lathyrus glandulosus</i>	sticky pea	CRPR 4.3	Several new occurrences found
Vegetation Communities			
<i>Sequoia Sempervirens</i>	Redwood forest Alliance	G3/S3	Previously described as Redwood series
<p>CT: CA Threatened CE: CA Endangered SC: State Candidate for Listing FT: Federal Threatened CH: Critical Habitat Designated FSC: Federal Species of Concern EFH: Essential Fish Habitat FC: Federal Candidate for Listing SC: State Candidate for Listing CSC: California Species of Concern MBTA: Migratory Bird Treaty Act CRPR: California Rare Plant Rank, List 4.3: Uncommon in California; not very endangered in California. G3/S3: 21-100 element occurrences, or 3,000-10,000 individuals, or 10,000-50,000 acres (Globally/Statewide)</p>			

Chapter 4. Updates to Project Impacts

4.1. Construction Noise

Construction noise levels remain unchanged. Construction noise would not have a substantial impact on COTO or any other sensitive resource in the project area. For more detailed discussion, see Section 4.8.

4.2. Construction Activity

There is a potential for equipment to spread exotic plant species and pathogens during construction. This is a minor impact, as the areas that would be disturbed from construction occur primarily on the margins of the Redwood Alliance, and exotic plants and pathogens are already present where disturbance is anticipated (Y. Valacovich, personal communication, 2013). To further the Department's goal of controlling exotic species, standard Best Management Practices (BMPs) would be implemented for the Richardson Grove Project. These would include cleaning all off-road construction equipment of mineral soil and vegetation prior to initial entry into the project construction limits to avoid contributing weed seeds and pathogens to the site.

4.3. Tree Removal

Based on a reduced footprint, minor modifications to barrier railing, and tree re-mapping and re-measuring in 2013, the project would remove a total of 38 trees, reduced from 54. Within the park, 21 trees of various species (diameter at breast height (DBH) 4-26 inches) that are adjacent to the highway would be removed. Tree removal would not impact NSO dispersal and foraging habitat, based on survey results indicating NSO are not utilizing the project area. In addition, with technical assistance provided by USFWS, it was determined that none of the trees to be removed meet the criteria for a Primary Constituent Element (PCE) of MAMU critical habitat. Table 4.1 presents tree removal numbers based on the minor project changes and updated tree information.

Tree removal would have a minimal impact on the ecological function and values of the Redwood Alliance. This determination was based on the fact that none of the trees to be removed are old growth redwood trees (defined in consultation with State Parks as trees with a DBH of 30 inches or larger) and the mature redwood canopy would remain intact. Further, the Redwood Alliance in the project location is fragmented by the highway, private roads and residences, businesses, and park facilities including campgrounds and parking lots. Tree removal would not contribute to fragmentation of the forest, as it would occur adjacent to the existing highway and would be spread over a linear distance of only 1.1 mile.

Migratory birds may nest in trees and shrubs within or adjacent to the project limits. Three primary areas of tree removal with suitable habitat include:

1. Slope excavation near the south end of the project area on the west side of the highway at approximately PM 1.35;
2. Slope excavation near the north end of the project west of highway at approximately PM 2.04; and
3. Excavation for the retaining wall near the north end of the project on the east side of the highway at approximately PM 2.10.

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 small enough in size for at most one or two nesting pairs in each area. In compliance with the Migratory Bird Treaty Act and Fish and Game Code, it is Caltrans' standard practice to remove trees and shrubs outside of the bird breeding season. If this is not feasible, a preconstruction bird survey is conducted to ensure nests are not in the vegetation to be cleared. If an active nest is found, a species-appropriate buffer is established until nesting is complete. The implementation of standard migratory bird protection measures would prevent impacts to migratory birds.

4.4. Root Impacts to Old Growth Redwoods

A re-assessment of potential project impacts to individual old growth redwoods (*Sequoia sempervirens*) was conducted by an experienced arborist certified by the International Society of Arboriculture. The analysis was based on updated tree data and the updated project description (reduced project footprint, reduced culvert work, and minor modifications to barrier rail); but, for the purposes of CEQA analysis, did not incorporate the use of special measures or techniques that would avoid cutting structural roots. Every old growth redwood tree occurring a distance of five times its diameter or less from proposed ground disturbance was re-evaluated. The evaluation of 109 trees concluded that, without the use of minimization measures, one old growth redwood tree could potentially develop a lasting visible dieback of wood in the uppermost crown, but tree survival would not be threatened; 18 old growth redwoods could potentially have a short-term visible reduction in foliage density; and the remaining 90 trees would have no decline in foliage density or tree health (Yniguez 2015).

The analysis concluded that, “. . . implementation of the Richardson Grove Operational Improvement Project would not have any substantial detrimental effect on individual old-growth redwoods (*Sequoia sempervirens*) or the overall health of the stand of redwoods in Richardson Grove

(Yniguez 2015).” It would not affect the capacity of the forest canopy to provide shading, habitat, and other ecosystem functions. With technical assistance from the USFWS, Caltrans determined that the potential die-back of the top 10-15 feet of one old growth redwood would be a minor effect that would not adversely modify MAMU designated critical habitat.

Table 4.1 Updated numbers of trees to be removed for project

Species	Size*	2010 Final EIR/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
Tan Oak	4-8	11	7	1	0
Tan Oak	8-12	11	5	3	2
Tan Oak	12-18	1	1	5	1
Tan Oak	18-24	1	1	1	1
Tan Oak 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

4.5. Culvert Work

The area of temporary soil and vegetation disturbance reported in the 2010 NES has been updated, and is summarized in Table 4.2.

Table 4.2 Updated Disturbed Soil Areas (DSA) for Culvert/Drainage Work

Location/(PM)	2010 DSA Estimate* (square feet)	2016 DSA Estimate (square feet)
1.18	400	44
1.28**	800	39
1.34**	800	34
1.35**	800	34
1.78	400	36
2.10	800	738
TOTAL	4000	925

* 2010 estimates were very conservative. 2016 estimates have been refined.

** In 2010, these culverts were proposed for replacement. In 2016, they are proposed for extension and new drainage inlets.

4.6. Cumulative Impacts

There has been no change in determination from the 2010 NES.

4.7. Special Status Plant Species

The majority of the *L. glandulosus* (sticky pea) populations in the project area would not be affected by the project. The proposed excavation in the vicinity of PM 2.0 would affect a portion of the population encountered in 2015 surveys. Plants growing upslope above the cut area are expected to expand naturally downslope onto the new cutbank over time. Moreover, the occurrence is in the middle of the species' range, thereby less vulnerable to extinction and of less conservation value than a peripheral population (Leppig & White 2006). Due to the minor and short term impacts associated with this project, it is anticipated that this action would have negligible effect on *L. glandulosus*.

4.8. Special Status Animal Species

Townsend's big-eared bat (COTO)

The quality of the COTO habitat in the project area is reduced by the presence of anthropogenic disturbance including the state park facilities, private roads, private housing, businesses, and the highway. Surveys of trees to be removed for the project found none with cavities suitable for bats. The large old growth redwood trees in Richardson Grove that may provide suitable COTO roosting habitat would not be adversely impacted by the project. Therefore, no potential maternity roosts or night roosts would be removed for the project. The noise and activity disturbance generated by the construction of this project would not substantially exceed the existing disturbance levels due to highway traffic as well as park roads, operations, and visitors. Bats forage actively at night and roost during the day. Any lighting needed for night work is typically directed downward and would minimally impact bats, and may possibly attract food for bats.

The noise of the installation of piles for the retaining wall near PM 2.10 could disturb COTO maternity roosts if they are present within 0.25 mile of wall construction activity. Consequently, the Caltrans project engineer and biologist surveyed this area for suitable maternity roost trees. No suitable trees were found. Due to the minor, short-term noise disturbance associated with this project, it is anticipated that this action would have a negligible effect on COTO.

Pacific Fisher

In 2014, after technical assistance from CDFW Liaison JoAnn Loehr, Caltrans evaluated the project area for potential effects on state candidate species Pacific fisher (*Pekania [Martes] pennanti*). Trees to be removed and areas of potential disturbance were surveyed for fisher habitat, and none was found; thus, the action would not adversely affect Pacific fishers.

Listed Fish Species

The following listed species and their designated critical habitat have the potential to be impacted by the project:

- Southern Oregon/Northern California Coast coho salmon (*Oncorhynchus kisutch*) (Threatened)
- Northern California steelhead (*Oncorhynchus mykiss*) (Threatened)
- California Coastal Chinook salmon (*Oncorhynchus tshawytscha*) (Threatened)

The quality of the streams and riparian communities in the project area is diminished by the presence of exotic invasive plant species including *Genista monspessulana*, *Cytisus scoparius*, and *Geranium robertianum*, as well as anthropogenic features including culverts, the state park facilities, private roads, private housing, businesses, and the highway. No work is proposed within the bed, bank, or channel of Durphy Creek, which is designated critical habitat for all three listed salmonids. Approximately 15 linear feet of riparian vegetation (approximately 616 square feet), consisting of herbaceous species, shrubs, and small understory trees (two 4-12 inch DBH bigleaf maples) would be removed for installation of transition barriers and crash cushions near Durphy Creek. Durphy Creek is approximately 2.4 miles long (CDFW 2006). 15 linear feet is a negligible fraction (0.14%) of Durphy Creek's riparian area. Moreover, the disturbed area not occupied by the new barriers would be revegetated after construction. Because the area of understory riparian vegetation that would be removed is small, the vegetation removal for the barrier rail modifications is located a distance of 25 feet or more from critical habitat (Durphy Creek), and the mature redwood canopy would remain undisturbed, it is anticipated this action would have a negligible effect on riparian communities.

The culvert work at PM 1.18, 1.28, 1.34, 1.35, and 2.10 would require removal of approximately 900 square feet of herbaceous riparian vegetation (the proposed area of disturbance for the overside drain at PM 1.78 is upland, not riparian). Approximately 100 square feet of the disturbed riparian area would become impervious surface due to roadway modifications. The ditches and their riparian areas would be re-contoured and revegetated after construction; therefore, approximately 800 square feet of the disturbance would be temporary. The mature redwood canopy would remain undisturbed. For these reasons, it is anticipated this action would have a negligible effect on riparian communities.

There is a remote possibility of small amounts of turbidity reaching Durphy Creek and the South Fork Eel River from culvert and barrier rail work due to vegetation removal and excavation. However, there would be no work in fish-bearing waters, the area of disturbance is small, and culvert work would take place during the dry season when flows are lowest or absent. As a result, any impacts to listed fish and their habitat would likely be negligible. In addition, standard water quality Best Management Practices (BMPs) that are implemented for all Caltrans projects would reduce even further the negligible impacts to water quality and minimize the movement of soils and sediment both into and within receiving waters.

Because of the negligible effects to riparian communities and water quality, the project is not expected to result in any direct, indirect or cumulative adverse impacts to listed fish species; their available spawning or rearing habitat; and would not be expected to modify their designated

critical habitat adversely. Due to excavation and removal of riparian vegetation, the project has the potential to affect EFH. Though the potential to impact listed fish, their designated critical habitat, and EFH could be considered negligible, Caltrans plans to consult with NMFS.

Pacific lamprey

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. For these reasons, and due to the small area of disturbance described above under *Listed Fish Species*, the project would have a negligible impact on Pacific lamprey or its habitat.

Chapter 5. Updated Information on Minimization and Mitigation Measures

5.1. Marbled Murrelet Work Window

Since surveys indicated no MAMU are present, USFWS lifted work restrictions -- established for the project to prevent noise disturbance of MAMU -- for five years.

5.2. Tree and Shrub Removal

No change to tree and shrub removal measures.

5.3. Revegetation

No change to revegetation measures.

5.4. Rare Plants

No change to rare plant protection measures.

5.5. Sediment and Erosion Control

No change to sediment and erosion control measures.

5.6. Staging Areas

No change to staging area measures.

5.7. Update to Additional Measures

The potential effects of the project on the Redwood 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 absence of these species from the project area.

Minimization measures are proposed, pursuant to NEPA and the Federal Highway Administration's mitigation policy to minimize even less than significant impacts to the extent feasible. Minimization and avoidance measures would also meet Caltrans' stewardship goals and commitments made to State Parks in compliance with the federal Section 4(f) evaluation. Aside from work windows, which are not needed due to the absence of NSO or MAMU, measures that would be implemented for the project include all those reported in the 2010 NES.

Chapter 6. Chapter 6. Additional References

California Department of Fish and Wildlife (CDFW). 2006. Fisheries Branch -- Stream Inventory Reports Documents. Durphy Creek.
<https://nrm.dfg.ca.gov/documents/ContextDocs.aspx?cat=Fisheries--StreamInventoryReports>

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CNPS, Rare Plant Program. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website <http://www.rareplants.cnps.org> [accessed 26 June 2014].

ICF International. October 2011. *Methods and Results of Surveys for Marbled Murrelets in Richardson Grove State Park*. Report prepared for the Department of Transportation, District 1, Eureka, CA.

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Leppig, Gordon, White, J.W. 2006. *Conservation of Peripheral Plant Populations in California*. Madroño, Vol. 53, No. 3, pp. 264–274, 2006

Pierson, E., W.E. Rainey. 1998. *Distribution, Status, and Management of Townsend's Big-Eared Bat (*Corynorhinus Townsendii*) in California*. California Department of Fish and Game, Bird and Mammal Conservation Program Report. 96-7:1–34. Available from: California Department of Fish and Game, 1416 Ninth Street, Sacramento, CA 95814.

Sawyer, J. O., T. Keeler-Wolf, J. Evens. 2009. *A Manual of California Vegetation*. California Native Plant Society. Sacramento, California.

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 COMMUNICATIONS

Ashton, Diane. NMFS Fisheries Biologist, 2015, phone conversations

Bernard, Rebecca. NMFS Fisheries Biologist, 2015-2016, emails, in-person conversations, and phone conversations

Hostler, Clarence. NMFS Fisheries Biologist, 2015-2016, emails and phone conversations

Jahn, Jeffrey. NMFS Supervisory Fish Biologist, 2016, email

Loehr, JoAnn. CDFW Environmental Scientist, 2015, emails, in-person conversations, and phone conversations

Osborn, Scott. CDFW Environmental Scientist, 2014, emails and in-person conversations

Schmidt, Gregory. Fish & Wildlife Biologist, Endangered Species Program, US Fish & Wildlife Service, email

Valacovich, Yana. Forest Advisor and Humboldt-Del Norte County Director, University of California Division of Agriculture and Natural Resources, 2013, in-person conversation

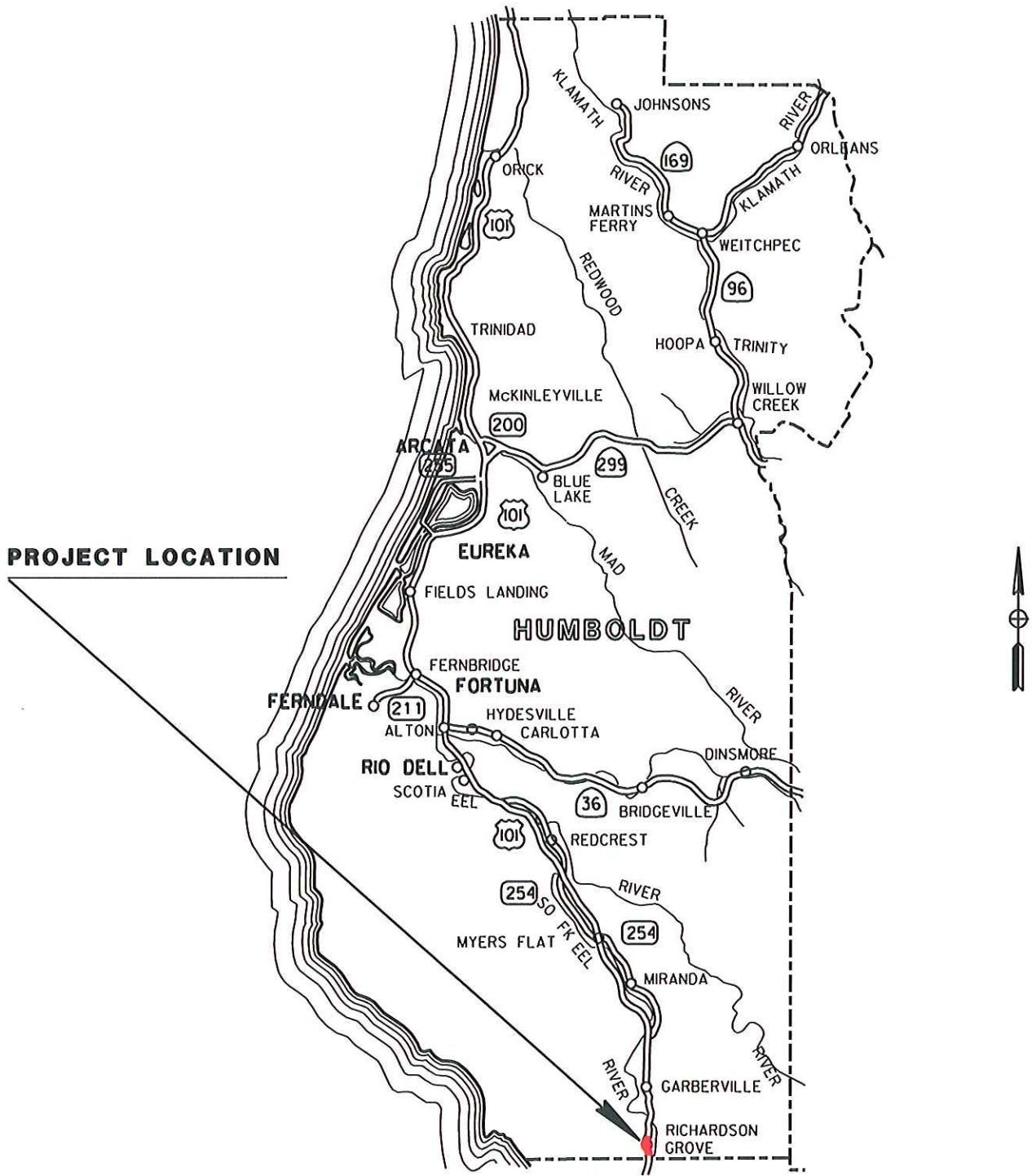
Chapter 7. Updates to Appendices

2010 NES Appendices		2016 NES Addendum Appendices		Other
Appendix A	Project Location Maps	Replaced by Appendix A Addendum	Updated Location Maps	
Appendix B	Project Plans			Replaced by Caltrans Project Plans (2015), included as Appendix C to Final Report (Yniguez 2015)
Appendix C	Trees to be Removed	Replaced by Table 4.1 in 2016 NES Addendum	Updated numbers of trees to be removed for project	
Appendix D	Tree Root Impacts			Replaced by Final Report (Yniguez 2015)
Appendix E	Project Noise Levels	No change		
Appendix F	Results of Floristic Surveys (2007)	Appendix F Addendum (No new species found)	Results of Floristic Surveys (2012-2015)	
Appendix G	Location Map of Rare Plants	Replaced by Appendix G Addendum	Updated Location Map of Rare Plants	
Appendix H	List of Special Status Species	Supplemented by		
		Appendix H Addendum	Additional Special Status Species in 9-Quad Area	
		Appendix I Addendum	USFWS Official Species List and NMFS Official Species List	

NES Addendum Appendices

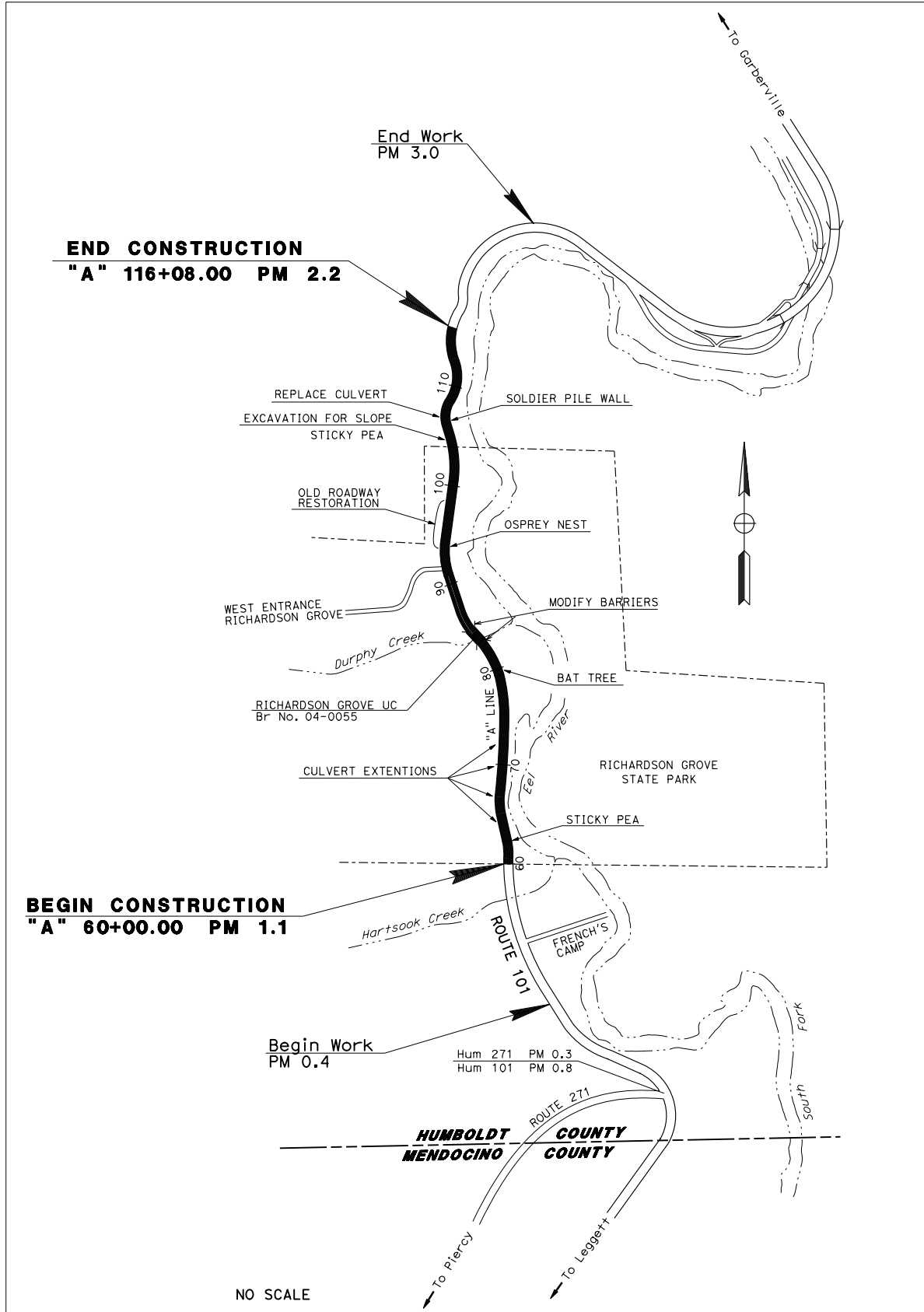
Maps 2 and 3 updated

Richardson Grove
Operational Improvements



LOCATION MAP

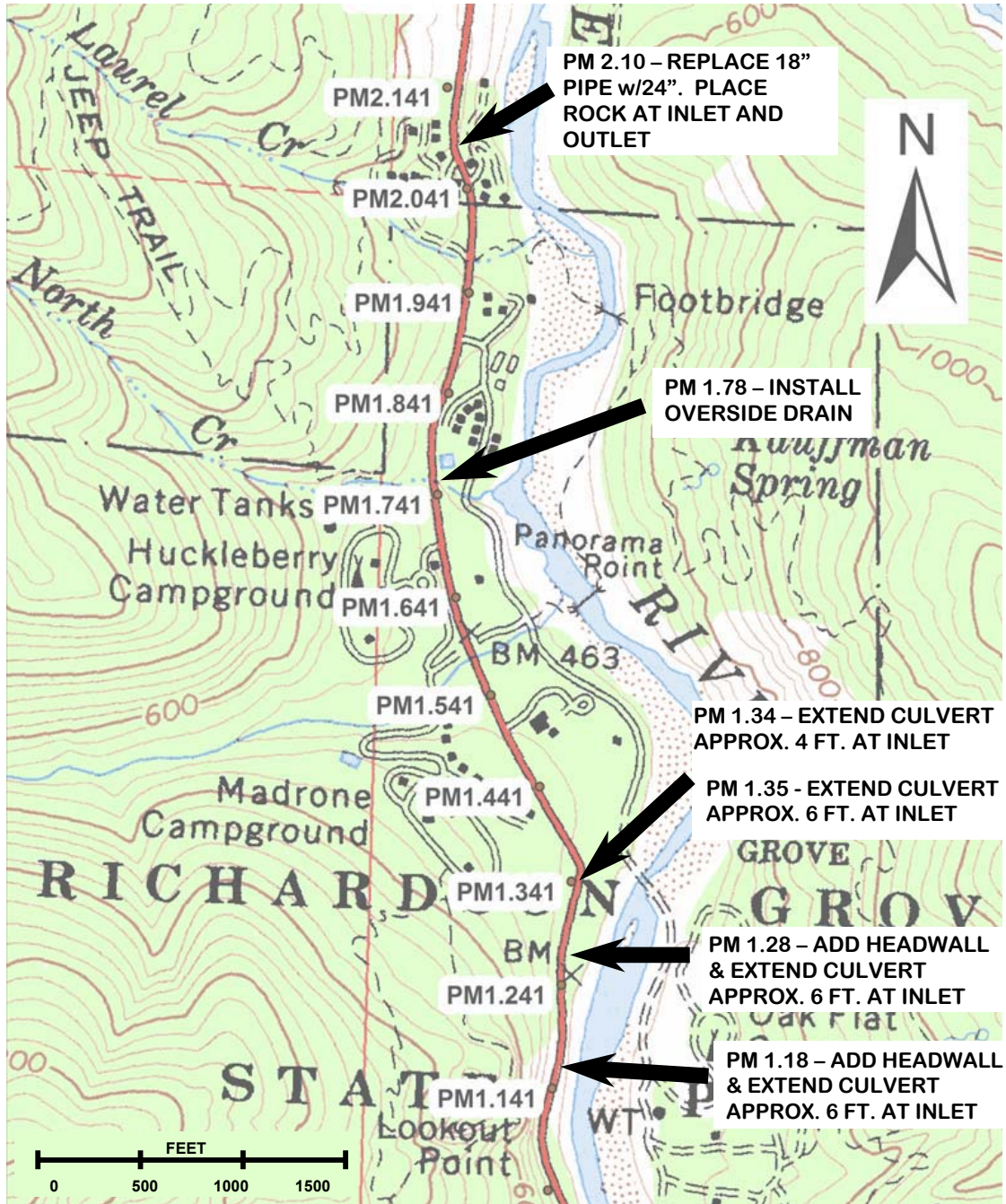
Appendix A Addendum. Area Map with project overview (2 of 3)



Appendix A Addendum. Culvert Locations Map (3 of 3)

Garberville USGS 7.5 Minute Quadrangle

T5S, R3E, S 11 & 12



Appendix B. Replaced by Attachment A of Final Report (Tree Decisions 2015)

Available at www.dot.ca.gov/dist1/d1projects/richardson_grove/

Appendix C. Replaced by Table 4.1 of NES Addendum

Appendix D. Replaced by Final Report (Tree Decisions 2015)

Available at www.dot.ca.gov/dist1/d1projects/richardson_grove/

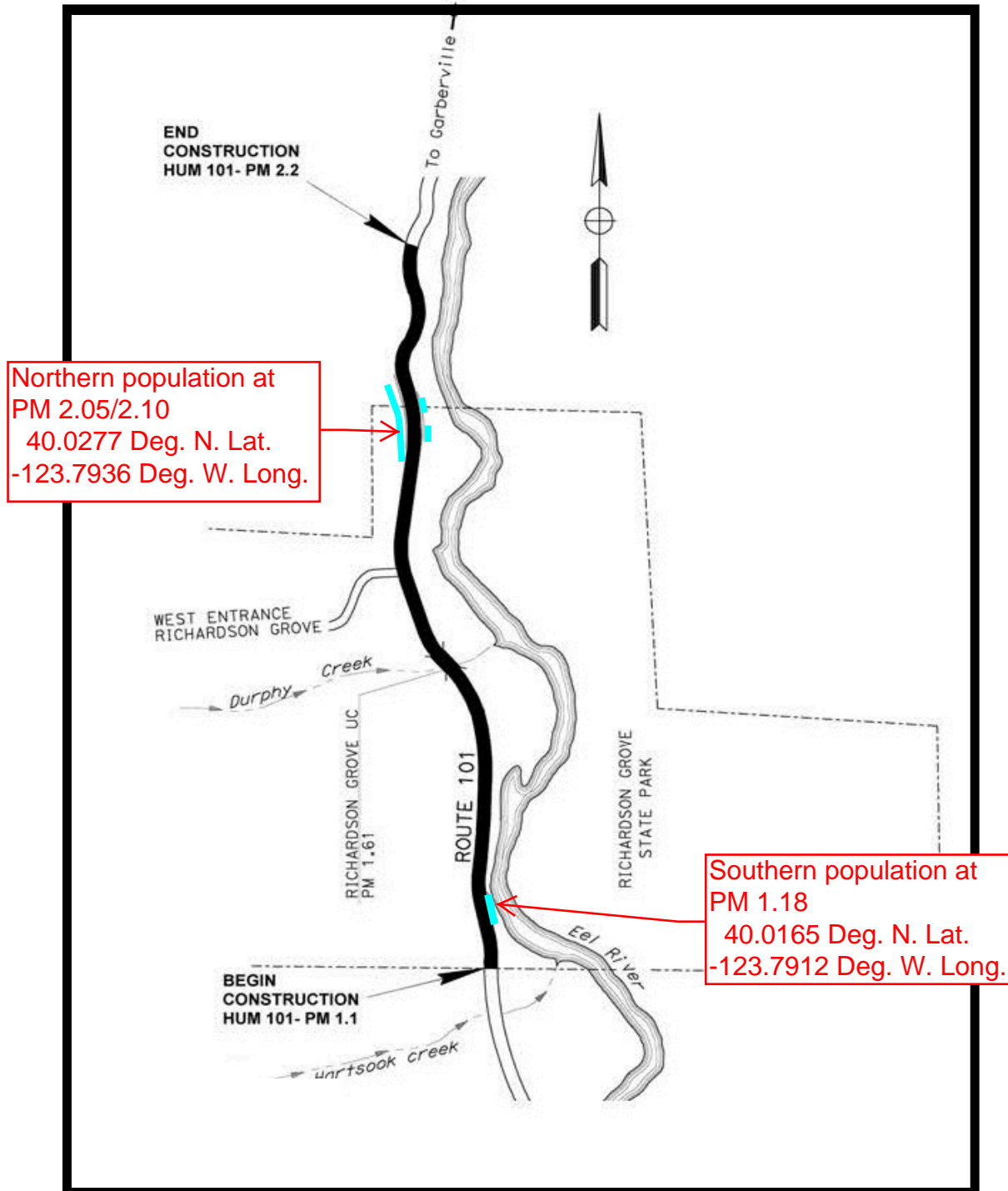
Appendix E. No change from 2010 NES

Appendix F Addendum. Results of Floristic Surveys (2007-2015)

No additional species since 2010 NES

Appendix G Addendum. Updated Location Map of Rare Plants

Lathyrus glandulosus (sticky pea) along US Route 101 near Richardson Grove State Park.



Note: Population at PM 1.18 will be protected by ESA fencing during construction.

Appendix H Addendum. Additional Special Status Species in 9-Quad Area

Garberville, Piercy, Bear Harbor, Fort Seward, Harris, Noble Butte, Miranda, Ettersburg, and Briceland.

Species on 2010 List (but not on 2015 List)

Scientific Name	Common Name	Status			General Habitat Description/ Flowering Period	Habitat Present/ Absent	Rationale
		Fed	St	CNPS			
PLANTS							
<i>Arctostaphylos canescens</i> ssp. <i>sonomensis</i>	Sonoma manzanita	None	None	1B.2	Chaparral, Lower montane coniferous forest sometimes serpentinite. Blooms Jan-Apr (Jun).	A	Surveys found none
<i>Cardamine pachystigma</i> var. <i>dissectifolia</i>	dissected-leaved toothwort	None	None	3	Chaparral, Lower montane coniferous forest/usually serpentinite, rocky. blooming period Feb-May.	A	Surveys found none
<i>Didymodon norrisii</i>	Norris' beard-moss	None	None	2.2	Cismontane woodland, lower montane coniferous forest/intermittently mesic, rock.	A	Surveys found none
<i>Erigeron biolettii</i>	streamside daisy	None	None	3	Broadleaved upland forest, Cismontane woodland, North Coast coniferous forest /rocky, mesic, blooming period Jun-Oct.	A	Surveys found none
<i>Lathyrus glandulosus</i>	sticky pea	None	None	4.3	Cismontane woodland. Blooming period Apr-June.	HP	Found in Survey
<i>Monardella villosa</i> ssp. <i>globosa</i>	robust monardella	None	None	1B.2	Broadleaved upland forest (openings), Chaparral (openings), Cismontane woodland, Coastal scrub, Valley and foothill grassland. Blooms Jun-Jul (Aug).	HP	Surveys found none
BIRDS							
<i>Haliaeetus leucocephalus</i>	Bald eagle	D	E	N/A	Nests and roosts in large diameter trees or snags near large water bodies where prey is abundant	HP	tential to occur; suitable habitat present

Appendix H Addendum. Additional Special Status Species in 9-Quad Area

Garberville, Piercy, Bear Harbor, Fort Seward, Harris, Noble Butte, Miranda, Ettersburg, and Briceland.

Species on 2015 List (but not on 2010 List)

Scientific Name	Common Name	Status			Rationale
		Fed	St	CNP	
BIRDS					
<i>Charadrius nivosus ssp. nivosus</i>	Western Snowy Plover	T	CSC	N/A	No habitat in Project Area
PLANTS					
<i>Calamagrostis foliosa</i>	leafy reed grass	None	S3	4.2	Surveys found none
<i>Ceanothus foliosus var. vineatus</i>	Vine Hill ceanothus	None	S1	1B.1	Surveys found none
<i>Coptis laciniata</i>	Oregon goldthread	None	S3	4.2	Surveys found none
<i>Kopsiopsis hookeri</i>	Small groundcone	None	S1S2	2B.3	Surveys found none
<i>Mitellastra caulescens</i>	leafy-stemmed mitrewort	None	S4	4.2	Surveys found none
<i>Sidalcea malachroides</i>	maple-leaved checkerbloom	None	S3	4.2	Surveys found none
<i>Silene campanulata ssp. campanulata</i>	Red Mountain catchfly	None	S3	4.2	Surveys found none
<i>Usnea longissima</i>	Methuselah's beard lichen	None	S4	4.2	Surveys found none
INVERTEBRATES					
<i>Bombus caliginosus</i>	obscure bumble bee	None	S1S2	N/A	Unlikely to be present - Low quality habitat in project area
<i>Noyo intersessa</i>	Ten Mile shoulderband	None	S2	N/A	Unlikely to be present - Low quality habitat in project area

KEY:

(CSC) California Species of Concern
 (E) Endangered. Listed in the Federal Register as being in danger of extinction
 (T) Threatened. Listed as likely to become endangered within the foreseeable future (C) Candidate. Candidate which may become a proposed species (D) Delisted

State Status: S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state. S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state. S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state. S4 = Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors.

CNPS Listing:

- List 1A: Plants Presumed Extinct in California
- List 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
- List 2: Plants Rare, Threatened, or Endangered in California, but more common elsewhere
- List 3: Plants About Which We Need More Information - A Review List
- List 4: Plants of Limited Distribution - A Watch List

Threat Ranks

- 0.1-Seriously threatened in California (high degree/immediacy of threat)
- 0.2-Fairly threatened in California (moderate degree/immediacy of threat)
- 0.3-Not very threatened in California (low degree/immediacy of threats or no current threats known)

Appendix I Addendum. USFWS Official Species List



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Arcata Fish and Wildlife Office

1655 HEINDON ROAD

ARCATA, CA 95521

PHONE: (707)822-7201 FAX: (707)822-8411



Consultation Code: 08EACT00-2016-SLI-0044

November 23, 2015

Event Code: 08EACT00-2016-E-00041

Project Name: Richardson Grove Operational Improvement Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having

Appendix I Addendum. USFWS Official Species List

similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment

Appendix I Addendum. USFWS Official Species List



United States Department of Interior
Fish and Wildlife Service

Project name: Richardson Grove Operational Improvement Project

Official Species List

Provided by:

Arcata Fish and Wildlife Office
1655 HEINDON ROAD
ARCATA, CA 95521
(707) 822-7201

Consultation Code: 08EACT00-2016-SLI-0044

Event Code: 08EACT00-2016-E-00041

Project Type: TRANSPORTATION

Project Name: Richardson Grove Operational Improvement Project

Project Description: Minor realignments and widening of US Route 101 between PM 1.1 and 2.2. in Humboldt County. This proposed action will involve pavement removal and repaving, work on six culverts, barrier rail replacement, retaining wall construction, slope excavations, equipment staging areas, and vegetation (herbaceous, shrub and tree) removal.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

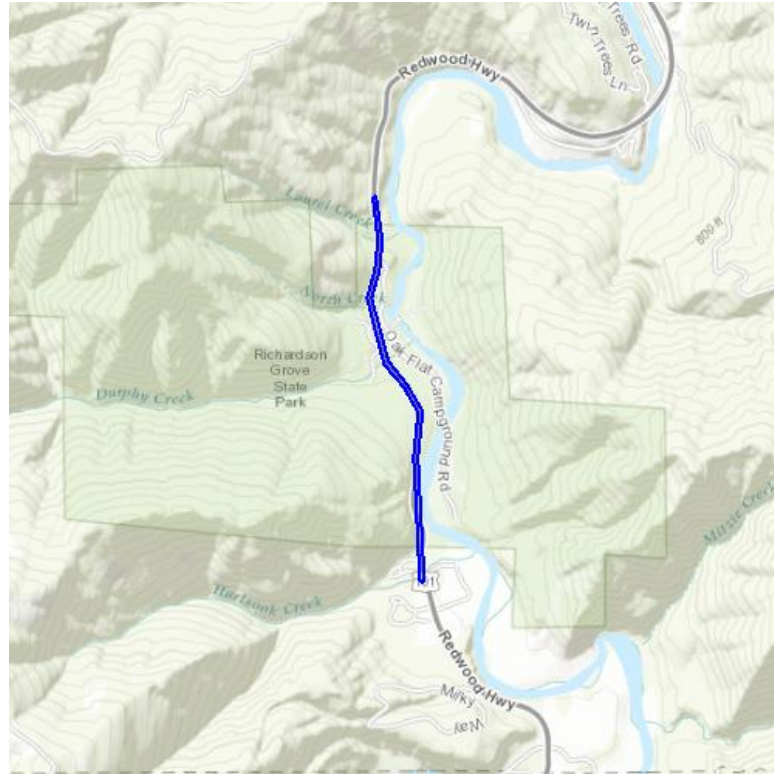
Appendix I Addendum. USFWS Official Species List



United States Department of Interior
Fish and Wildlife Service

Project name: Richardson Grove Operational Improvement Project

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-123.79142135668424 40.01554278445393, -123.79150583806958 40.01669236023364, -123.79117180390499 40.018770885775496, -123.7920735431555 40.01996369839462, -123.79325099476479 40.02107586029363, -123.7942962982109 40.02418216573701, -123.79386465176724 40.02547795099665, -123.79365506507445 40.026922371219726, -123.79399463239602 40.02887250100239, -123.79397168816541 40.028974959601015, -123.7938830149745 40.02903118474985, -123.79378055637586 40.02900824051925, -123.79372433122703 40.02891956732832, -123.79337898864557 40.026926278206375, -123.79359497337659 40.02542582746741, -123.79401497918707 40.02419629603533, -123.79301095265342 40.021216911031225, -123.79186177411849 40.02013854203395, -123.79089394793816 40.01884005660824, -123.79123236509285 40.01666488317351, -123.79080442913684 40.01092875463996, -123.79083733323364 40.01082904745585, -123.79093110356965 40.01078181053981, -123.79103081075375 40.010814714636616, -123.7910780476698 40.01090848497262, -123.79142135668424 40.01554278445393)))

Appendix I Addendum. USFWS Official Species List



United States Department of Interior
Fish and Wildlife Service

Project name: Richardson Grove Operational Improvement Project

Project Counties: Humboldt, CA

Appendix I Addendum. USFWS Official Species List



United States Department of Interior
Fish and Wildlife Service

Project name: Richardson Grove Operational Improvement Project

Endangered Species Act Species List

There are a total of 5 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Marbled murrelet (<i>Brachyramphus marmoratus</i>) Population: CA, OR, WA	Threatened	Final designated	
Northern Spotted owl (<i>Strix occidentalis caurina</i>) Population: Entire	Threatened	Final designated	
western snowy plover (<i>Charadrius nivosus ssp. nivosus</i>) Population: Pacific coastal pop.	Threatened	Final designated	
Yellow-Billed Cuckoo (<i>Coccyzus americanus</i>) Population: Western U.S. DPS	Threatened	Proposed	
Mammals			
fisher (<i>Martes pennanti</i>) Population: West coast DPS	Proposed Threatened		

Appendix I Addendum. USFWS Official Species List



United States Department of Interior
Fish and Wildlife Service

Project name: Richardson Grove Operational Improvement Project

Critical habitats that lie within your project area

The following critical habitats lie fully or partially within your project area.

Birds	Critical Habitat Type
Marbled murrelet (<i>Brachyramphus marmoratus</i>) Population: CA, OR, WA	Final designated

Appendix I Addendum. USFWS Official Species List



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Arcata Fish and Wildlife Office

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Consultation Code: 08EACT00-2016-SLI-0192

May 31, 2016

Event Code: 08EACT00-2016-E-00147

Project Name: Richardson Grove Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

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A Biological Assessment is required for construction projects (or other undertakings having

Appendix I Addendum. USFWS Official Species List

similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment

Appendix I Addendum. USFWS Official Species List



United States Department of Interior
Fish and Wildlife Service

Project name: Richardson Grove Project

Official Species List

Provided by:

Arcata Fish and Wildlife Office
1655 HEINDON ROAD
ARCATA, CA 95521
(707) 822-7201

Consultation Code: 08EACT00-2016-SLI-0192

Event Code: 08EACT00-2016-E-00147

Project Type: TRANSPORTATION

Project Name: Richardson Grove Project

Project Description: On U.S. (US) Route 101, Post Miles 1.1/2.2 in Humboldt County, the California Department of Transportation (Caltrans) proposes roadway improvements. The purpose of this work is to modify the roadway alignment to accommodate STAA (Surface Transportation Assistance Act of 1982) trucks. The need for the project is a result of non-standard curves, absence of shoulders, and fixed objects in close proximity of the traveled way.

The proposed work includes:

- Realignment of the existing roadway, including sliver widening,
- Upgrading six culverts,
- Upgrading the bridge approaches at PM 1.61 by replacing the metal beam guardrail with crash cushions and transition barriers requiring concrete footings, and
- Installing a soldier pile/gabion retaining wall at PM 2.10.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

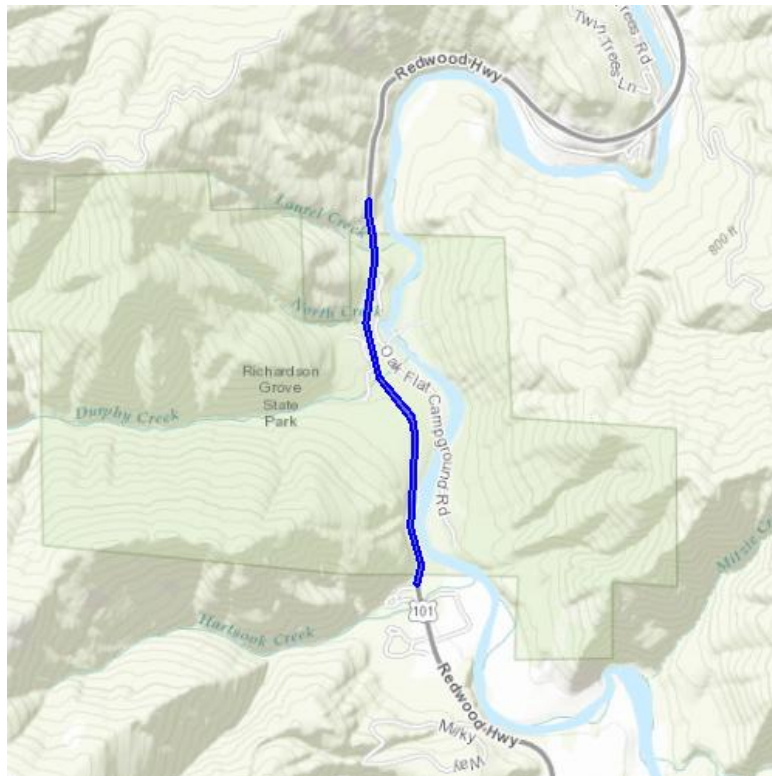
Appendix I Addendum. USFWS Official Species List



United States Department of Interior
Fish and Wildlife Service

Project name: Richardson Grove Project

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Humboldt, CA

Appendix I Addendum. USFWS Official Species List



United States Department of Interior
Fish and Wildlife Service

Project name: Richardson Grove Project

Endangered Species Act Species List

There are a total of 4 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Birds	Status	Has Critical Habitat	Condition(s)
Marbled murrelet (<i>Brachyramphus marmoratus</i>) Population: CA, OR, WA	Threatened	Final designated	
Northern Spotted owl (<i>Strix occidentalis caurina</i>) Population: Entire	Threatened	Final designated	
western snowy plover (<i>Charadrius nivosus ssp. nivosus</i>) Population: Pacific coastal pop.	Threatened	Final designated	
Yellow-Billed Cuckoo (<i>Coccyzus americanus</i>) Population: Western U.S. DPS	Threatened	Proposed	

Appendix I Addendum. USFWS Official Species List



United States Department of Interior
Fish and Wildlife Service

Project name: Richardson Grove Project

Critical habitats that lie within your project area

The following critical habitats lie fully or partially within your project area.

Birds	Critical Habitat Type
Marbled murrelet (<i>Brachyramphus marmoratus</i>) Population: CA, OR, WA	Final designated

Appendix I Addendum. NMFS Official Species List



UNITED STATES DEPARTMENT OF COMMERCE
 National Oceanic and Atmospheric Administration
 NATIONAL MARINE FISHERIES SERVICE
 West Coast Region
 1655 Heindon Road
 Arcata, California 95521-4573

Gail Popham
 Associate Environmental Planner
 California Department of Transportation
 1556 Union Street
 P.O. Box 3700
 Eureka, California 95501

Dear Ms. Popham,

Thank you for your August 26, 2015, request for a species list regarding the presence of Federally threatened or endangered species, or designated critical habitat listed under the Federal Endangered Species Act of 1973, as amended (ESA), that may be within the vicinity of, or affected by, the Richardson Grove Road Realignment Project located on US Route 101 at locations between PM 1.1 and 2.2 in Humboldt County, California.

The project site is also located within an area identified as essential fish habitat (http://www.westcoast.fisheries.noaa.gov/habitat/fish_habitat/efh_consultations_go.html) for species managed under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Therefore, we are providing a species list under the ESA and the MSA:

Species listed under the ESA that may be in the action area	Year First Listed	Status	Critical Habitat
Coho salmon (<i>Oncorhynchus kisutch</i>): Southern Oregon/Northern California Coast evolutionarily significant unit (SONCC ESU)	1997	Threatened ; 70 FR 37160, June 28, 2005	64 FR 24049, May 5, 1999
Chinook salmon (<i>Oncorhynchus tshawytscha</i>): California coastal ESU	1999	Threatened ; 64 FR 50394, September 16, 1999	70 FR 52488, September 2, 2005
Steelhead (<i>Oncorhynchus mykiss</i>): Northern California Distinct Population Segment (DPS)	2000	Threatened ; 71 FR 834, January 5, 2006	70 FR 52488, September 2, 2005

Appendix I Addendum. NMFS Official Species List

Species under the MSA that may have Essential Fish Habitat in the action area:
Coho salmon (<i>Oncorhynchus kisutch</i>): SONCC coho salmon ESU
Chinook salmon (<i>Oncorhynchus tshawytscha</i>): California coastal Chinook salmon ESU

Please contact Rebecca Bernard at 707-825-1622, or Rebecca.bernard@noaa.gov if you have any questions regarding this species list or require additional information.

Sincerely,

Lisa Van Atta
Acting Assistant Regional Administrator
California Coastal Office

cc: Steve Croteau, District 1, Caltrans