

**A Biological Assessment of Impacts to
Terrestrial Threatened Species
from the Nickerson Trail Bridge Replacement in
Redwood National and State Parks (RNSP)**

Prepared by:
Kristin Schmidt, Wildlife Biologist

26 January 2009

I. INTRODUCTION

The purpose of this biological assessment (BA) is to review the proposed Redwood National and State Parks (RNSP or “parks”) action, Nickerson Trail Bridge Replacement, in sufficient detail to determine if the proposed action may affect any threatened or endangered species and/or their critical habitats. This biological assessment is prepared in accordance with legal requirements set forth under section 7 of the Endangered Species Act (19 U.S.C. 1536 (c), 50 CFR 402), and meets the criteria for informal consultation with the United States Fish and Wildlife Service.

II. CONSULTATION TO DATE

The Nickerson Ranch Trail Bridge Replacement project was discussed at the 20 November 2008 Interagency Consultation Team meeting, along with two other projects, the Mill Creek Trail Bridge #1 and Mill Creek Trail Bridge #2 replacements. Wildlife biologist Kristin Schmidt and fishery biologist Baker Holden III reviewed all three of these sites in the field in August 2008. Due to the environmental circumstances and project design standards described in File Memos dated 20 August 2008 and 12 January 2009 it was determined that none of the replacement projects would impact the federally threatened SONCC coho salmon. Likewise none of the three bridge replacements would remove or in any way degrade suitable spotted owl and marbled murrelet habitat.

Due to a seasonal restriction limiting work to after September 15 at the Mill Creek Bridge #1 site and lack of suitable marbled murrelet nesting habitat within 500 ft of the Mill Creek Bridge #2 site, this BA will analyze noise disturbance impacts on the marbled murrelet at the Nickerson Ranch Trail site. Northern spotted owl surveys have been completed throughout this area with negative results.

III. CURRENT MANAGEMENT DIRECTION

Please refer to *A Conservation Strategy for Managing Threatened and Endangered Species in Redwood National and State Parks* (Sakai 2003) for a detailed summary of laws and policies that guide management of threatened and endangered species in RNSP.

The parks’ General Management Plan/General Plan (USDI and CDPR 1999) requires the parks to “support and facilitate appropriate public use and enjoyment of the parks....”, to “provide opportunities for public access to the full range of RNSP resources and in a variety of locations”, and “manage recreational activities and settings to protect resources, promote public safety, and minimize public use conflicts” (p.65).

IV. DESCRIPTION OF THE PROPOSED ACTION

The Nickerson Ranch Trail Bridge, located approximately 75 ft from Howland Hill Road on a tributary of Mill Creek in Jedediah Smith Redwoods State Park (JSRSP), has rotted and failed and has been removed from the waterway. The former 32-ft-long bridge required a retaining wall that was back-filled with drain rock. This wall also is rotten, has failed and will be removed.

The new bridge would be 38-ft-long and because of this increased length there is no need for a wall as the new structure will be up and away from the creek channel. There will be no need for a ramp or fill because the bridge will fit into the existing banks with excess fill material from the old wall to be used in the trail approaches. Minimal excavations will be needed to remove the old wood in this previously disturbed site.

The Nickerson Ranch Trail, which forms a loop with the Mill Creek Trail, is frequented year round by hikers. Despite the lack of a bridge the public is continuing to use the trail. This use is creating a safety concern, plus social trails created by the public are starting to impact the stream banks by introducing erosion and sediments into the creek.

The new structure will be prefabricated and will have wood laminate stringers. The hand rails, posts and tread will be of solid redwood construction. The bridge will be constructed using all current ADA guidelines; no steps will exist. Due to the close proximity of Howland Hill Road the old structure will be removed from the area by reducing it down and carrying it to the road. The debris will be taken to the campground service yard and disposed of properly.

During construction and post construction best management practices would include but not be limited to the following:

- the installation of silt fencing to prevent any excavation spoils from entering the stream;
- exposed soils would either be covered with duff or erosion cloth to prevent surface run off from eroding the soil surface;
- a tarp would be stretched out under the structure to prevent saw dust and wood chips from entering the waterway;
- excavations or movement of excess excavated soils would not be permitted during periods of heavy rain and stockpiled soils would be covered to prevent saturation in the event of any rain.

If any plant cover were required, plants from the surrounding area would be harvested for transplanting, thereby ensuring that the genetic make up of the plants in this area is preserved.

This project is being proposed to begin in early May 2009. The bridge would be pre-drilled, constructed off-site, and assembled on site, taking approximately 2 days to install with 2-3 hours of hammering at the end of the work day. Hammering is the only activity that is expected to generate noise above ambient background levels to a distance of 500 ft from the project site.

Measures to Minimize Impacts to Marbled Murrelets

To minimize disturbance to any nesting marbled murrelets within 500 ft of the project site, all work would occur between 2 hours after sunrise and 2 hours before sunset. No power tools would be used. All food scraps and other trash associated with the work crew would be packaged and disposed of off-site. Crews would be instructed to converse in normal conversational voice levels.

V. EXISTING ENVIRONMENT

The Nickerson Ranch Trail bridge site is located in the heart of Jedediah Smith Redwoods State Park above a small tributary of Mill Creek. It is surrounded by old growth conifer forest dominated by redwood. The tributary itself appears clean and clear and the stream channel is composed of small cobbles and coarse gravels. Although Howland Hill Road is approximately 75 feet from the bridge site, which is clearly visible from the road, when we visited this site in August 2008 at approximately 2:00 p.m. it was very quiet, e.g., there was no noticeable vehicle traffic and noise. There are times, particularly in the summer visitor season, when the road may be quite heavily traveled and then ambient background noise is relatively high.

VI. STATUS AND DISTRIBUTION OF LISTED SPECIES

Potentially suitable habitat for the marbled murrelet occurs within the project area. Please refer to *A Conservation Strategy for Managing Threatened and Endangered Species in Redwood National and State Parks* (Sakai 2003) for an in-depth species account, habitat status background, and literature summary.

A. Species Account

The statewide marbled murrelet survey in 1988 (Ralph et al. 1990) included transects in JSRSP in the vicinity of Walker Road (north of the project area) where marbled murrelets were detected. Cooper and Blaha (2004) in their radar survey detected the greatest number of landward flying murrelets near JSRSP, more than twice the average number that were detected in the Orick area of the national park. In addition, they detected murrelets flying inland in the evening, indicating nesting was occurring (Hebert and Golightly 2003). We assume that all old growth habitat within JSRSP is or has the potential to be occupied by marbled murrelets.

B. Habitat Status

There are approximately 10,000 acres of old growth redwood forest, suitable for marbled murrelet nesting, within JSRSP, which along with Del Norte Coast Redwood State Park makes up critical habitat unit CA-02-a. The habitat in the vicinity of the Nickerson Trail Bridge site consists of old growth redwood typical of other stands within the park, and includes primary constituent elements of critical habitat.

VII. IMPACTS TO THREATENED AND ENDANGERED SPECIES

A. Disturbance

The Nickerson Ranch Trail is a popular loop trail with the Mill Creek trail, and receives a steady amount of visitor use throughout the spring and summer. Any murrelets nesting near the project site have likely become accustomed to visitors talking and walking along the trail and crossing the bridge. This bridge replacement is to be used as a trail crew training project; training sessions are typically conducted in May. Crews would be instructed to speak in conversational voice levels and pack out all trash and food scraps.

Because the project will take place prior to onset of the visitor season (Memorial Day weekend) traffic on the adjacent Howland Hill Road would not be at its maximum. However, the road does receive a fair amount of use year round, and when vehicles do pass by they create noise in excess of the quiet natural ambient background noise level. Any murrelets selecting nest sites near this road are undoubtedly habituated to some level of disturbance associated with the road.

The bridge will be prefabricated and the parts assembled on site. No power tools would be used; the only noise generating activity would be due to hammering for 2-3 hours at the end of the afternoon. Requiring a daily limited operating period between two hours post sunrise and two hours before sunset would ensure that murrelets flying in to nest sites in the peak activity periods would not be disturbed.

In summary, due to the project site's location within 75 ft of Howland Hill Road, the daily work restriction, the limited number of work days, and the relatively short periods of hammering late in the afternoon, disturbance to marbled murrelets from the proposed project is expected to be minimal.

B. Loss and Modification of Suitable Habitat

There will be no loss or modification of suitable habitat, including critical habitat.

C. Cumulative Effects

There are no cumulative effects anticipated.

VIII. DETERMINATION

Based on the nature and timing of the proposed action, it is my determination that the Nickerson Ranch Trail Bridge replacement in JSRSP may affect but is not likely to adversely affect the marbled murrelet.

VIX. MANAGEMENT RECOMMENDATIONS

There are no management recommendations

X. CONTRIBUTORS

Stephen Fisher, Trails Supervisor, California Dept of Parks and Recreation
Baker Holden III, Fishery Biologist, Redwood National and State Parks
Aida Parkinson, Environmental Specialist, Redwood National and State Parks

XI. LITERATURE CITED

- Cooper, B.A. and R.J. Blaha. 2004. Determining population trends of marbled murrelets in that portion of conservation zone 4 north of the PALCO HCP area. Draft interim report, ABR, Inc. Forest Grove, Oregon. 28 pp.
- Hebert, P.N. and R.T. Golightly. 2003. Breeding biology and human-caused disturbance to nesting of marbled murrelets (*Brachyramphus marmoratus*) in northern California. Unpub. Prog. Rept, Humboldt State University, Dept of Wildlife, Arcata, CA.
- Ralph, C.J., P.W.C. Paton, A. Zakis, G. Strachan. 1990. Breeding distribution of the marbled murrelet in Redwood National Park and vicinity during 1988. Pages 57-70 in C. van Riper III, T.J. Stohlgren, S.D. Veirs, Jr., and S.C. Hillyer (Tech. Eds.). Examples of resource inventory and monitoring in National Parks in California. Proceedings of the Third Biennial Conference on Research in California's National Parks, Series No. 8. U.S. Dept. of the Interior, National Park Service, Washington, D.C.
- Sakai, H. 2003. A conservation strategy for managing threatened and endangered species in Redwood National and State Parks. Unpub. Rep. on file at South Operations Center, Orick, CA
- [USDI] U.S. Department of the Interior and [CDPR] California Department of Parks and Recreation. 1999. Redwood National and State Parks, Humboldt and Del Norte Counties; final general management plan/ general plan; environmental impact statement/ environmental impact report. Vol. 1. Crescent City, CA: USDI National Park Service and California Department of Parks and Recreation.



United States Department of the Interior



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In Reply Refer To:
8-14-2008-3559
81331-2009-I-0058

Memorandum

To: Park Superintendents, Redwood National and State Parks
Crescent City, California

From: Field Supervisor, Arcata Fish and Wildlife Office
Arcata, California

Subject: Informal Consultation on the Nickerson Ranch Trail Bridge Replacement Project in
Redwood National and State Parks, Del Norte County, California

This memorandum responds to your January 29, 2009, letter requesting the Fish and Wildlife Service's (Service) concurrence with your determination of effects for the Nickerson Ranch Trail Bridge Replacement Project in Redwood National and State Parks (Parks). You determined the action may affect, but is not likely to adversely affect the federally threatened marbled murrelet (*Brachyramphus marmoratus*). This response is prepared in accordance with the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act) and its implementing regulations (50 CFR §402).

This consultation is based on information provided in your January 26, 2009, biological assessment and other sources of information. The biological assessment contains a complete description of the proposed action and its effects on the marbled murrelet and is hereby incorporated by reference. Documents related to this consultation are on file in this office.

The proposed action is to replace the existing Nickerson Ranch Trail Bridge on the Mill Creek Trail in Jedediah Smith Redwoods State Park. This bridge is located on a tributary of Mill Creek approximately 75 feet from Howland Hill Road. The new bridge will be pre-drilled, constructed off-site, and assembled on-site. Work at the site is expected to take approximately 2 days with 2 to 3 hours of hammering at the end of each work day. On-site work will occur in early May 2009.

Concurrence

Marbled Murrelet

The Service concurs with your determination that the project may affect, but is not likely to adversely affect the marbled murrelet, based on the following factors:

1. No suitable nesting habitat will be removed or degraded
2. Crews will be instructed to keep noise to the minimum level possible and to remove all food scraps and trash from the area, thus minimizing the attraction of scavenging birds such as jays and raven. The bridge site is located on a trail that receives a moderate amount of visitor use during the murrelet breeding season; therefore, the presence of the work crews is not anticipated to significantly disturb nesting murrelets.
3. No mechanized equipment or power tools will be used. All construction will be limited to the period 2 hours after sunrise and 2 hours before sunset. Any disturbance to nesting murrelets is expected to be insignificant due to the project's location within 75 feet of Howland Hill Road, daily work hour restrictions, limited number of work days (two), and the relatively short period of hammering (2 to 3 hours) late in the afternoon.
4. Injury or harm to marbled murrelets is not anticipated because no trees will be cut

This concludes informal consultation on the Nickerson Trail Bridge Replacement Project in the Parks. If you have any questions or concerns about this consultation or the consultation process in general, please feel free to contact Robin Hamlin at (707) 822-7201.

cc:

RNSP, Orick, CA (Attn: K. Schmidt)

CDFG, Eureka (Attn: W. Condon)