

REDWOOD NATIONAL AND STATE PARKS

2007 INCIDENTAL TAKE SUMMARY REPORT TO US FISH AND WILDLIFE SERVICE

**NORTHERN SPOTTED OWL
MARBLED MURRELET
WESTERN SNOWY PLOVER**

**Compiled by
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I. Summary

This incidental take report describes Redwood National and State Parks (RNSP) 2007 operations that may have adversely impacted potentially occupied northern spotted owl and marbled murrelet habitat and western snowy plover individuals.

Please note that the noise disturbance acreages presented here were calculated using a 500 foot buffer distance around most potential noise disturbance sources. New noise disturbance buffer distance guidelines issued by the Arcata Office of US Fish and Wildlife Service in July of 2006 (USFWS ref. # 8-14-2006-2887) were used to calculate incidental take acreages. Per the guideline's instructions, the new noise disturbance buffer distances were applied to this year's (2007) incidental take reporting. This year's reported noise disturbance acreages are lower than in previous year's reports where all noise sources were assessed using a 0.25 mile buffer distance.

Approximately 3,344 acres of potentially occupied suitable marbled murrelet habitat at or within 500 feet to a quarter mile, depending on the loudness of the noise source emanating from project activities, were potentially impacted by noise disturbance. Approximately three acres of suitable marbled murrelet habitat were degraded. Approximately 10,306 acres of suitable marbled murrelet habitat were subjected to an increased predation threat due to project activities and/or park visitor use.

Approximately 2,854 acres of unsurveyed spotted owl habitat at or within 500 feet to a quarter mile, depending on the loudness of the noise source emanating from project activities, were potentially impacted by noise disturbance.

No snowy plovers were observed to have been killed by vehicles driving on park beaches or by visitors walking on park beaches. It is highly unlikely that any unobserved plover deaths occurred because no plovers were observed nesting in RNSP in 2007. A separate report will be submitted to the USFWS containing information on beach vehicle use levels and law enforcement beach patrols.

Summaries of the status of all non-emergency projects with permitted 2007 incidental take are presented in the narrative statements below and in Table 1.

II. Potential Adverse Impacts Associated With Individual Biological Opinions

(BO Ref. # 1-14-98-F-24) Annual Maintenance (Facilities, Roads, and Trails)

Brushing with power tools occurred along the lower 1.5 miles of the Redwood Creek Trail once per month in April, May, and June, for approximately 5 hours on each of the three days. This resulted in 91 acres of potentially occupied marbled murrelet and spotted owl habitat being impacted by noise disturbance. Temporary trail bridge installation on Redwood Creek Trail occurred once in June for 5 hours resulting in 10 acres of potentially occupied marbled murrelet habitat being impacted by noise disturbance.

The A-9-9, A-9-7 and A-9-9 roads were maintained with a grader in May for two days for approximately 6 hours on each day. This resulted in 36 acres of potentially occupied marbled murrelet habitat being impacted by noise disturbance.

One downed tree was removed with a chainsaw for six hours for one day from the Tall Trees Trail in May resulting in 17 acres of potentially occupied marbled murrelet habitat being impacted by noise disturbance. No potentially occupied spotted owl habitat was impacted by noise disturbance because the area is currently occupied by a barred owl pair.

One downed tree was removed with a chainsaw for four hours along the Orick Horse Trail in April resulting in 17 acres of potentially occupied spotted owl and marbled murrelet habitat being impacted by noise disturbance.

Mowing and chainsaw work occurred in Elk Prairie Campground (aka Prairie Creek Campground) on May 10th, before Memorial day, resulting in 380 acres of potentially occupied marbled murrelet habitat being impacted by noise. All other facility maintenance in the three state parks occurred between Memorial Day and Labor Day, when ambient background noise is equal to, or greater than, noise generated by maintenance activities. No spotted owl habitat was impacted by facility maintenance in the state parks because recent surveys indicated that habitat within 500 feet of these sites was not occupied by spotted owls.

(BO Ref # 1-14-98-F-134 and BO Ref. No. 8-14-1998-0134) Watershed Restoration Program (1998) and amendment

No road removal projects covered under this biological opinion were implemented in 2007. No non routine maintenance or drainage repair projects were implemented in 2007 during the spotted owl or marbled murrelet noise restriction period.

(BO Ref No. 1-14-99-F-112) Howland Hill Road Re-profiling and Re-engineering

This consultation required specific information to be reported annually during the life of this project. Maintenance, including ripping the surface and reshaping, occurred along the entire road in 2007. No noise disturbance acres will be reported here to avoid “double counting”

because the same area was impacted by large numbers of visitors driving on Howland Hill Road throughout the year and are reported as part of the Trail Plan incidental take section below.

Specific information required by the BA/BO is as follows:

1. *Actions performed, including equipment used:* The road was ripped in its entirety, shaped, watered, and rolled to provide compaction. Two motor graders, one water truck, one roller, and one bulldozer were the types of equipment used to do this work.
2. *Dates work occurred:* Ten days, early to mid June.
3. *Length of road where annual maintenance occurred:* 10 miles.
4. *Length of road re-engineered/re-profiled:* 0 miles.
5. *Cumulative amount of road re-engineered/re-profiled to date:* To date an estimated 3 miles of road has been re-engineered.
6. *Results of annual spotted owl surveys:* Spotted owl surveys are done along this road every other year, with the most recent survey done in 2007. To date, no spotted owls have been detected within 500 feet of the road. However, we have numerous records of barred owls, some of which may be associated with the reproductive pair at Cedar Creek, occurring at a number of locations along the spotted owl survey route.

(BO Ref. No. 1-14-2001-888) Helicopter Use

No helicopter use by protection park rangers occurred in 2007.

(BO Ref. No. 8-14-2006-2836) Lost Man Creek Erosion Control and Disturbed Land Restoration

Reported here are projected versus actual start dates for individual road projects and statistics relative to projected versus actual acres of marbled murrelet habitat degraded and acres of marbled murrelet habitat subjected to increased predation threat. Not reported are projected versus actual acres of total ground disturbance (including unsuitable habitat) and length of road removed for each road segment. This is due to the fact that in some cases only partial segments of roads were removed including segments on a number of roads slated for completion in 2008 and 2009 as opposed to 2007. Total ground disturbance and road length figures will be reported in the final report at the end of the project in 2009.

The description of the roads and projected start dates and acre figures in this table are presented as they were in the 2006 BA.

Roads Treated in 2007	Projected Start Date	Actual Start Date	Projected Acres of MAMU Habitat Degraded	Actual Acres of MAMU Habitat Degraded	Projected Acres of MAMU Habitat Subject to Increased Predation	Actual Acres of MAMU Habitat Subjected to Increased Predation
A100 South-2007 ¹	7/10/07	7/14/07	2.5	0.2	5.1	2.9
A100 South- 2008	9/16/08	9/20/07	0.8	0.0	9.9 (7.0 OG, 2.9 Resid.)	0.2 Resid.

Roads Treated in 2007	Projected Start Date	Actual Start Date	Projected Acres of MAMU Habitat Degraded	Actual Acres of MAMU Habitat Degraded	Projected Acres of MAMU Habitat Subject to Increased Predation	Actual Acres of MAMU Habitat Subjected to Increased Predation
OG Buffer ¹						
A100/A140 Connector	7/10/09	7/24/07	0.0	0.0	0.4	0.3
A111 ¹	7/10/08	9/7/07	0.4	0.8	3.2	3.1
A120	7/10/07	6/19/07	0.0	0.0	0.6	0.5
A130- 2006 OG/ MAMU Buffer	9/16/06	9/26/07	0.5	0.3	2.2	2.1
A130- 2007 OG/MAMU Buffer	9/16/07	9/10/07	0.2	0.0 (in 2006 and 2007)	0.2	0.2
A140- Manning Creek	9/16/06	9/16/06 and 6/18/07	0.4	0.3	0.4 (2007)	0.5 (2007)
A140- 2007	7/10/07	9/10/07	0.0	0.0	0.0	0.0
A142	7/10/07	9/21/07	0.0	0.0	0.0	0.1
A150- OG Buffer	9/16/08	6/26/07	0.0	0.0	0.9 (OG)	1.2
A150	7/10/08	6/28/07	0.2	0.0	0.2	0.3
A160- 2009 OG Buffer ¹	9/16/09	10/17/07	0.7	0.0	13.8 (12.5 OG and 1.3 Resid)	0.4 (Resid)
A170 OG Buffer	9/16/09	8/4/07	1.0	0.2	1.6	1.2
A170	7/10/09	8/20/07	0.0	0.0	0.2	1.2
B200/B500 Connector ¹	7/10/08	8/15/07	0.4	0.3	3.0	0.9
No. Branch No. Fork	7/10/07	8/15/07	0.1	0.4	3.8	2.2
Upper B500	7/10/08	7/20/07	0.1	0.0	1.3	0.0
Totals	—	—	7.3	2.5	46.8	17.3

¹ Partially completed in 2007

Start dates in bold above indicate where work was begun either in an occupied site buffer or in the old growth 0.25 mi buffer prior to 16 September. These early start dates were due to confusion over the 2006 harassment guidelines which indicated that a 500 ft noise disturbance buffer would suffice for heavy equipment operation. What was omitted from the guidelines was discussion of the back-up beepers on the equipment which are above the decibel level threshold

for a 500 ft buffer. Because of this, 114 acres of potentially suitable marbled murrelet habitat, including 99 acres of contiguous old growth, may have been impacted by noise disturbance. Back-up beepers were not used on equipment operating on the A120 inside the occupied site buffer, for which 2 acres of incidental take due to noise disturbance was authorized.

Cumulatively between 2006 and 2007 13.5 acres of potentially suitable residual old growth habitat has been degraded and 35.1 acres treated may result in increased predation threat due to project activities.

Marbled murrelet surveys took place between 11 May and 1 August 2007. Seventy-five stations were surveyed among 14 sites. There was only one detection of a single bird (presence) in 2007, at station D1-5 on 16 July. This detection was not near any roads treated in 2007.

(BO Ref. No. 8-14-2005-2558) Mill Creek and Lost Man Creek Trails Culvert Replacement

No work occurred during the breeding season within suitable marbled murrelet habitat, or in the 500 foot buffer, in 2007.

(BO Ref. No. 8-14-2001-0953) Vehicle Beach Access

No snowy plovers were observed to have been killed by vehicles driving on park beaches. It is highly unlikely that any unobserved plover deaths occurred because no plovers were observed nesting in RNSP in 2007 during regular, bimonthly breeding season protocol surveys. A separate report will be submitted to the USFWS containing information on beach vehicle use levels and law enforcement beach patrols.

(BO Ref. No. 8-14-2003-1517) Trail and Backcountry Management Plan

Marbled murrelets were disturbed by noise generated by park visitors using existing facilities (i.e. roads and campgrounds) across 2,171 acres of suitable habitat. No new facilities which would cause noise disturbance of marbled murrelets were completed in 2007 and thus no disturbance occurred from those sources. The East Side Trail was not completed in 2007 and so no disturbance occurred due to the use of chainsaws to clear fallen trees. Marbled murrelets experienced an increased risk of predation across 10,289 acres of suitable habitat due to park visitor use of existing facilities (e.g. campgrounds, trailheads, picnic areas, trailheads). No new facilities were completed in 2007 which would cause an additional increased predation threat through use by park visitors.

Spotted Owls were disturbed by noise generated by park visitors using exiting facilities (i.e. roads and campgrounds) across 2,604 acres of suitable habitat. No new facilities which would cause noise disturbance of spotted owls were completed in 2007 and thus no disturbance occurred from those sources. The East Side Trail was not completed in 2007 and so no disturbance occurred due to the use of chainsaws to clear fallen trees.

No snowy plovers were recorded during regular surveys the 2007 breeding season in RNSP, so no disturbance of breeding birds is expected to have occurred due to visitor use of park beaches. Up to eight snowy plovers were present at various times during the non-breeding season. Some disturbance of these individuals may have occurred due to visitor use of park beaches. This

disturbance, however, was most likely of a low level because beach visitation during the fall, winter and spring is low in RNSP.

(BO Ref. No. 8-14-2004-2133/81331-2008-F-0027) South Fork Lost Man Creek Second Growth Management Plan

No project activities took place in 2007 so there was no noise disturbance to marbled murrelets.

III. Contributors

Judy Wartella, GIS Specialist
Jeff Bomke, CDPR Maintenance Chief
Stephen Fisher, CDPR Trails Coordinator
Corky Farley, NPS Supervisory Park Ranger
Richard Mayle, NPS Roads and Trails Foreman
Neil Youngblood, NPS Geologist
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IV. Personal Communications

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TABLE 1. SUMMARY OF MARBLED MURRELET AND SPOTTED OWL POTENTIAL INCIDENTAL TAKE IN REDWOOD NATIONAL AND STATE PARKS IN 2007			
BA/BO	Marbled Murrelet Habitat Acres Potentially Impacted by Noise Disturbance*	Northern Spotted Owl Habitat Acres Potentially Impacted by Noise Disturbance*	Comments
Annual Maintenance/1-14-98-F-24			
Brushing and Grading Roads	36	0	NSPO surveys
Down Tree Removal	34	34	
Brushing Trails	91	91	
Temporary Bridge Installation	10	0	NSPO surveys
Campground Maintenance	380	0	NSPO surveys
Sub Total	508	125	
Watershed Rest./1-14-98-F-134 and 8-14-1998-0134	0	0	
Howland Hill Rd Re-profiling/ 1-14-99-F-112	0	0	MAMU superseded by Trail Plan NSPO surveys
Helicopter Use/1-14-2001-888	0	N/A	
Watershed Restoration in Lost Man Cr/1-14-2001-1010	114	0	NSPO surveys
Mill & Lost Trail Culvert Replacement/8-14-2005-2558	0	0	NSPO surveys
Trail Plan/8-14-2003-1517	2,171	2,604	NSPO surveys
SF Lost Man Crk Second Growth Manang. Plan/ 8-14-2004-2133	0	0	Not implemented in 2007
Total Disturbance Incidental Take	3,344 acres	2,854 acres	
	Marbled Murrelet Habitat Acres Degraded	Marbled Murrelet Habitat Acres Subject to Increased Predation*	
Watershed Restoration in Lost Man Cr/1-14-2001-1010	3	17	
Trail Plan/8-14-2003-1517	N/A	10,289	
Total Degraded Habitat and Increased Predation Incidental Take	3 acres	10,306 acres	

*** Acres potentially impacted are based on the assumption that all acres were occupied by the species of concern at the time of project implementation.**