

REDWOOD NATIONAL AND STATE PARKS

2006 INCIDENTAL TAKE SUMMARY REPORT TO US FISH AND WILDLIFE SERVICE

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

**Compiled by
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7 March 2007**

I. Summary

This incidental take report describes Redwood National and State Parks (RNSP) 2006 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 0.25 mile buffer distance around any potential noise disturbance source. 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 not used to calculate incidental take acreages. Per the guideline's instructions, the new noise disturbance buffer distances will be applied to future calculations for next year's (2007) incidental take reporting.

Approximately 5,770 acres of potentially occupied suitable marbled murrelet habitat and 250 acres of unsurveyed suitable spotted owl habitat at or within 0.25 miles of project activities were potentially impacted by noise disturbance. Approximately 11 acres of suitable marbled murrelet habitat were degraded and 17.8 acres of suitable marbled murrelet habitat were subjected to an increased predation threat due to project activities.

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 2006. A separate report will be submitted to the USFWS containing information on beach vehicle use levels and law enforcement beach patrols.

The escaped Xowannutuk prescribed fire occurred in late October 2003 and destroyed 1.2 acres of suitable marbled murrelet habitat. A follow up consultation entitled "An addendum to the Biological Assessment of Impacts to Terrestrial Threatened and Endangered Species From the 2002 Prescribed Burns in Redwood National and State Parks due to the escaped Xowannutuk prescribed fire and subsequent suppression activities" was prepared and the final draft was submitted in early November 2004. This consultation was terminated by the USFWS due to workload priorities (R. Hamlin pers. comm.) and no official incidental take was authorized nor will any take be reported.

Summaries of the status of all non-emergency projects with permitted 2006 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 275 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 100 acres of potentially occupied marbled murrelet and spotted owl 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 1,470 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 early March. 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 125 acres of potentially occupied spotted owl and marbled murrelet habitat being impacted by noise disturbance.

One day of grading occurred on Pacomo Road after Memorial Day resulting in 97 acres of potentially occupied marbled murrelet habitat being impacted by noise disturbance.

All 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. No spotted owl habitat was impacted by facility maintenance in the state parks because recent surveys indicated that habitat within 0.25 miles 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 were implemented in 2006. No periodic maintenance or drainage repair projects were implemented in 2006.

(BO Ref. No. 1-14-98-F-145) Skunk Cabbage Memorial Grove Trail

Visitor use along this trail resulted in 59 acres of occupied marbled murrelet habitat being potentially impacted by visual disturbance. Incidental take for the spotted owl did not occur because the trail was surveyed and results indicated that spotted owls have not reoccupied the historic activity center (both members of the historic pair were killed). The area formerly occupied by the spotted owl pair was occupied by a reproductive pair of barred owls in 2003 while only a single male barred owl was found from 2004 to 2006.

(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 2006 resulting in 1,577 acres of potentially occupied marbled murrelet habitat being disturbed by project activity noise.

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 2005. To date, no spotted owls have been detected within 0.25 mile 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 2006.

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

In 2006 all watershed restoration activities took place after 15 September. Reported here are projected versus actual statistics relative to lengths of road removed, 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) for each road segment, because only portions of segments described in the BA were completed in 2006. Total ground disturbance figures will be reported in future reports as projects are completed in their entirety.

The description of the roads and projected length and acre figures in this table are presented as they were in the 2006 BA. With the exception of the A100/A130 upgrade, work at all sites listed below represent partially completed projects with work remaining to be done in subsequent years.

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Roads Treated in 2006	Projected Length to be Removed	Actual Length Removed	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/A130 Connector-Upgrade	0.00	0.00	0.0	0.0	5.5 (5.4 OG and 0.1 R)	5.5 (5.4 OG and 0.1 R)
A140 Manning Creek	0.48	0.86	11.3	10.9	8.4	8.0
A140 South	1.06	0.99	0.0	0.0	1.2	1.0
A130- 2007 OG/MAMU Buffer	0.85	0.53	0.2	0.03	1.1	0.9
A140- 2007	0.62	0.07	0.0	0.0	0.0	0.0
A100 South-2008 OG Buffer	0.78	0.38	0.8	0.1	9.9 (7.0 OG, 2.9 R)	2.4 (2.0 OG, 0.4 R)
Totals	3.8	2.8	12.3	11.0	26.1	17.8

Marbled murrelet surveys took place between 28 May and 3 August 2006. Seventy-five stations were surveyed among 14 sites. Occupied behaviors were recorded at station E6-3 near the junction of Holter Ridge and Geneva Roads on 3 June and 17 June. Presence was incidentally recorded in this general vicinity on 10 June and again from the station on 29 June. Presence also was recorded on 19 July from station N-2, south and west of the occupied behaviors at E6-3. None of the detections in 2006 were near roads treated in 2006.

(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 0.25 mile habitat buffer, in 2006.

(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 2006 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.

III. Contributors

Jeff Bomke, CDPR Maintenance Chief
Stephen Fisher, CDPR Trails Coordinator
Corky Farley, NPS Supervisory Park Ranger
Richard Mayle, NPS Roads and Trails Foreman
Mike Sanders, 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 2006			
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	1,567	0	NSPO surveys
Down Tree Removal	125	125	
Brushing Trails	275	0	NSPO surveys
Temporary Bride Installation	100	0	NSPO surveys
Sub Total	2,067	125	
Watershed Rest./1-14-98-F-134 and 8-14-1998-0134	0	0	
Skunk Cabbage Trail/1-14-98-F- 145	59	0	NSPO surveys
Howland Hill Rd Re-profiling/ 1-14-99-F-112	1,577	0	NSPO surveys
Helicopter Use/1-14-2001-888	0	N/A	
Mill & Lost Trail Culvert Replacement/8-14-2005-2558	0	0	NSPO surveys
Total Potential Noise Disturbance Incidental Take	5,770 acres	250 acres	
	Marbled Murrelet Habitat Acres Degraded	Marbled Murrelet Habitat Acres Subject to Increased Predation	
Watershed Restoration in Lost Man Cr/1-14-2001-1010	11	17.8	

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