



**Humboldt  
Redwood™**

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# **Snowy Plover Annual Report**

## **2013**

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### *Gravel Extraction Surveys*

**February 1, 2014**



Cover photo: Sean McAllister

## **Project Description**

**Title:** Snowy Plover Surveys for Gravel Extraction

**Purpose:** Habitat Conservation Plan (HCP) monitoring

**Date Initiated:** March 1999

**Projected End Date:** Ongoing

**Manager:** Sal Chinnici, Forest Science Manager

### **Executive Summary:**

The HRC HCP Section 6.6 (PALCO 1999), Snowy Plover Conservation Plan, requires reconnaissance-level surveys for the Federally threatened snowy plover (*Charadrius nivosus*) for implementation of gravel extraction permits on Eel River gravel bars upriver from the Rio Dell bridge. In 2013 HRC did not conduct any gravel extraction operations, therefore no snowy plover surveys were conducted in 2013.

No change in monitoring strategies or intensity is recommended at this time.

**Reviewed:**

**Director, Forest Science**

Original signed by: \_\_\_\_\_

**Mike Miles**

**Project Manager / Primary Author**



\_\_\_\_\_  
**Sal Chinnici**

# TABLE OF CONTENTS

LIST OF TABLES ..... iv

LIST OF FIGURES ..... iv

PROJECT DOCUMENT DISTRIBUTION LIST ..... iv

Introduction..... 1

Methods ..... 1

Results..... 2

Discussion ..... 6

Recommendations..... 7

List of Citations..... 8

Appendix..... 9

    MRB Memorandum: Upper Truck Shop Snowy Plover Survey Results. .... 9

## LIST OF TABLES

Table 1. 2012 Gravel Bar Survey Dates and Results..... 2  
Table 2. Other Species Detected on 2012 SNPL Surveys. .... 3

## LIST OF FIGURES

Figure 1. Upper Truck Shop Bar..... 4  
Figure 2. Truck Shop Bar on the Eel River prior to operations in 2011 (conditions were similar in 2012).5  
Figure 3. Excavator on Truck Shop Bar during 2012 operations. .... 5  
Figure 4. Excavator and trench on Truck Shop Bar during 2012 operations..... 6

## PROJECT DOCUMENT DISTRIBUTION LIST

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## INTRODUCTION

The HRC HCP Section 6.6, Snowy Plover Conservation Plan, requires reconnaissance-level surveys for the federally threatened snowy plover (*Charadrius nivosus*) for implementation of gravel extraction permits on gravel bars upriver from the Rio Dell Bridge. In 2013 no gravel extraction operations were conducted by HRC.

The HRC gravel bars upriver from the mouth of the Van Duzen River do not currently require snowy plover surveys per the Army Corps of Engineers (ACOE) Letter of Permission (LOP 2009-1) for gravel mining in Humboldt County. However, the snowy plover is a covered species of the HRC HCP, and the U.S. Fish and Wildlife Service (USFWS) has recommended that surveys be completed prior to extraction, although at a less-intensive level than is required where plovers have been found nesting (e.g. near Fernbridge). The less-intensive level of survey effort is in recognition of the history of negative surveys for the area, in addition to the location of the HRC gravel bars several miles upriver from any known snowy plover nesting. Surveys have been conducted since 1996 for plovers and other avian species along the Eel River on gravel bars where extraction may take place, with no snowy plover detections recorded, including in 2012.

In 2003 the USFWS clarified the HCP reconnaissance-level surveys as those surveys conducted within a two week period prior to operations on the gravel bars. In keeping with the HCP requirements, if the reconnaissance-level surveys detect snowy plovers, full protocol surveys are to be conducted on all gravel bars within one mile of the detection, and mitigation measures applied for any nests that are found.

## METHODS

No gravel bar snowy plover surveys were conducted in 2013. In 2012 HRC contracted with Mad River Biologists (MRB) to conduct the reconnaissance-level snowy plover surveys. MRB possesses the USFWS-required permits and training to conduct surveys for this species.

During the surveys a qualified biologist traverses the gravel bars searching for snowy plovers, and also records other avian species that are detected. Methods involve walking and scanning with binoculars the entire exposed, contiguous gravel habitat, utilizing a 'zig-zag' transect

approach, beginning at the upstream end and finishing at the downstream terminus of the bar (McAllister 2012).

The reconnaissance-level surveys require each gravel bar to be thoroughly searched twice for plovers prior to extraction, with searches six to seven days apart, and apply to gravel bars that are to be operated on between March 1 and September 15.

## RESULTS

Again, no gravel extraction operations were planned or conducted by HRC in 2013, and no snowy plover surveys were conducted. Therefore, there are no survey results to report for the 2013 season.

In 2012, HRC had planned on harvesting gravel from the Upper Truck Shop bar. In addition, the start of gravel extraction was planned for September 1, 2012. Therefore, snowy plover surveys were scheduled for August 22 and 29, 2012 to accommodate the scheduling requirements for reconnaissance-level surveys.

Two surveys on the gravel bar were conducted as planned (Table 1). No snowy plovers were detected on any of the surveys. Ten other species were detected on the surveys (Table 2). Copies of original survey forms are available upon request.

Gravel operations were limited to the Upper Truck Shop bar (Figures 1-4), and did not begin until after the end of the snowy plover nesting period on September 15. The duration of extraction operations was from October 8 to October 22.

**Table 1. 2012 Gravel Bar Survey Dates and Results.**

GRAVEL BAR	SURVEY #	SURVEY DATE	SNOWY PLOVERS DETECTED?
Upper Truck Shop	1	8/22/2012	No
	2	8/29/2012	No

**Table 2. Other Species Detected on 2012 SNPL Surveys.****8/22/2012**

Killdeer	<i>Charadrius vociferus</i>
Spotted Sandpiper	<i>Actitis macularius</i>
Least Sandpiper	<i>Calidris minutilla</i>
Vaux's Swift	<i>Chaetura vauxi</i>
Chestnut-backed Chickadee	<i>Poecile rufescens</i>
American Robin	<i>Turdus migratorius</i>
Wrentit	<i>Chamaea fasciata</i>
Lazuli Bunting	<i>Passerina amoena</i>

**8/29/2012**

Osprey	<i>Pandion haliaetus</i>
Killdeer	<i>Charadrius vociferus</i>
Spotted Sandpiper	<i>Actitis macularius</i>
Purple Martin	<i>Progne subis</i>

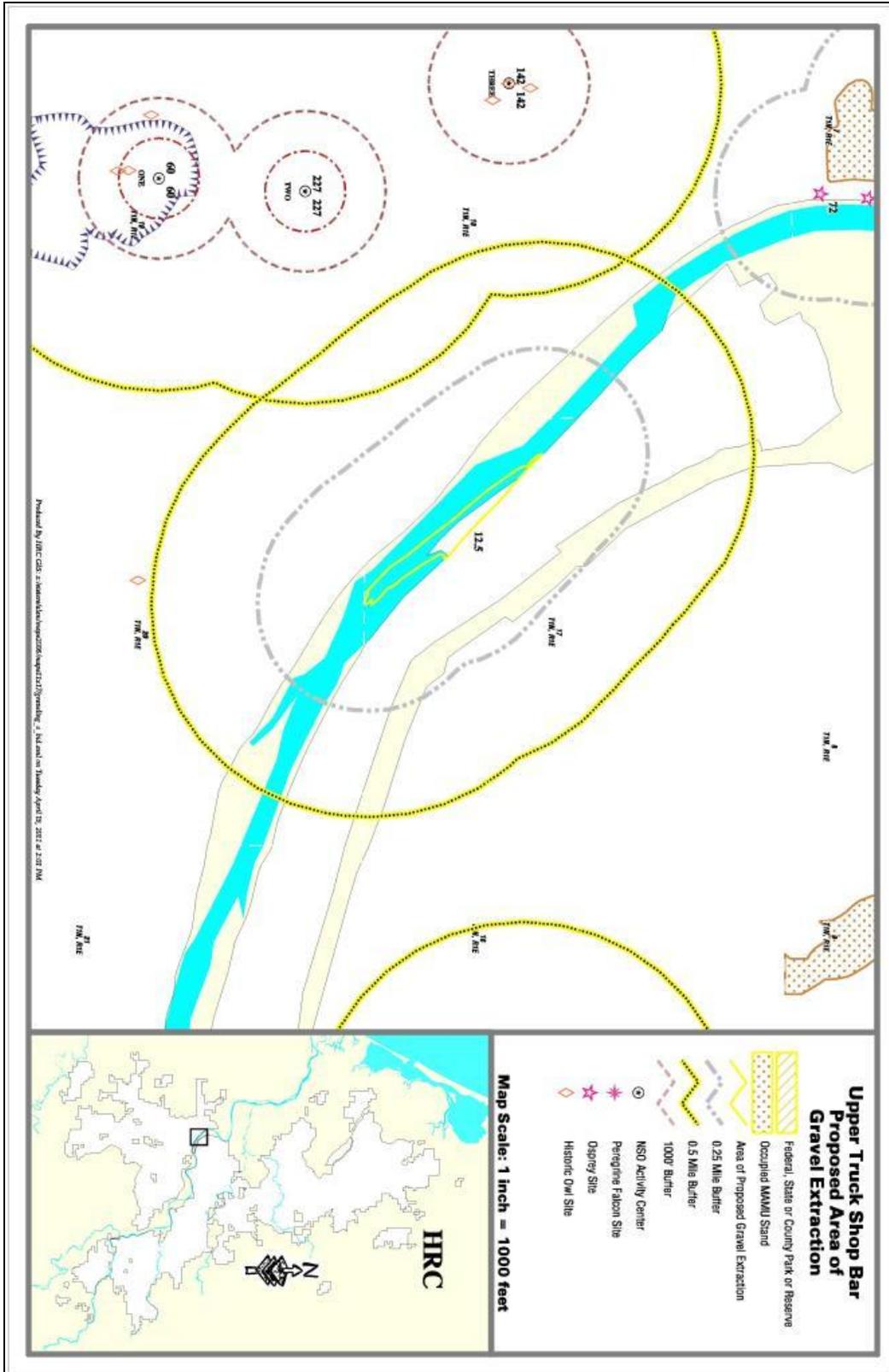


Figure 1. Upper Truck Shop Bar.



**Figure 2. Truck Shop Bar on the Eel River prior to operations in 2011 (conditions were similar in 2012).**



**Figure 3. Excavator on Truck Shop Bar during 2012 operations.**



**Figure 4. Excavator and trench on Truck Shop Bar during 2012 operations.**

## **DISCUSSION**

No snowy plover surveys were conducted for HRC in 2013. Regarding the previous year's surveys, although methods have not been consistent over all years, the 2012 surveys marked more than 11 years of snowy plover surveys on the HRC gravel bars along the Eel River, all with negative results. There may be several reasons why snowy plovers are not nesting further upriver than their current extent, for example on the HRC river bars. Some biologists have suggested a difference in nesting habitat; for example increasing confinement of the river channel, and differences in nesting substrate (for example, see previous HRC annual reports). Further investigation of potential differences in habitat type between those areas used for nesting on the lower Eel River near Fernbridge and the HRC gravel bars may be warranted.

In the Recovery Plan for the Pacific Coast Population of the Western Snowy Plover (USFWS 2007) HRC lands fall within Recovery Unit 2, including Del Norte, Humboldt, and Mendocino counties.

Although snowy plover breeding increased in the recovery unit in 2011, there was apparently no breeding on the lower Eel River (Colwell et al, 2011). Predation of eggs and young by crows,

gulls, and other species, as well as human disturbance of nesting habitat, continue to be significant problems for snowy plover reproduction in this recovery unit (Colwell et al, 2011).

In 2012 snowy plovers bred at 5 locations in Humboldt County, including Clam Beach, Big Lagoon, Mad River Beach, Eel River Wildlife Area, and Centerville Beach (Colwell et al, 2012), but again there was no breeding on Eel River gravel bars. Overall, reported nesting success was low. The recovery unit continues to be at risk due to occasional episodes of high over-winter mortality along with chronically low reproductive success (Colwell et al, 2012).

In 2013 snowy plover breeding was recorded at 6 locations in Humboldt County: Clam Beach, Gold Bluff Beach, Mad River Beach, Eel River Wildlife Area, Centerville Beach, and Ten Mile Beach (Colwell et al, 2013). Similar to the last two years, there was no breeding observed on Eel River gravel bars. There was a slight increase in the breeding population to approximately 42 adults, exceeding the total of 36 for both 2011 and 2012. However, reproductive success was again low, and the same risks to the population in the recovery zone stated above continue to apply (Colwell et al, 2013).

## **RECOMMENDATIONS**

- Continue using reconnaissance-level surveys as currently required for gravel extraction operations.
- If time and funding is available, work with HCP agencies to develop a potential strategy for habitat investigations on the Eel River.

## LIST OF CITATIONS

- Colwell, M.A., L.J. Eberhart-Phillips, R.R. LeValley, S.E. McAllister, A.M. Patrick, W.J. Pearson, and S.A. Peterson. **Final Report: 2011 Snowy Plover Breeding in Coastal Northern California, Recovery Unit 2.** Final report submitted to U.S. Fish and Wildlife Service. 10pp.
- Colwell, M.A., L.J. Eberhart-Phillips, D.M. Herman, W.P. Lawton, S.D. Leja, S.E. McAllister, D.J. Orluck, A.M. Patrick, J.L. Patterson, and S.A. Peterson. **Final Report: 2012 Snowy Plover Breeding in Coastal Northern California, Recovery Unit 2.** Final report submitted to U.S. Fish and Wildlife Service. 12pp.
- Colwell, M.A., A.M. Patrick, D.M. Herman, M.J. Lau, S.D. Leja, D.J. Orluck, A.D. DeJoannis, A.R. Gottesman, T.R. King, G.J. Moulton, and S.E. McAllister. **Final Report: 2013 Snowy Plover Breeding in Coastal Northern California, Recovery Unit 2.** Final report submitted to U.S. Fish and Wildlife Service. 14pp.
- McAllister, S. 2012. **Upper Truck Shop Snowy Plover Survey Results.** Memorandum to Sal Chinnici, Humboldt Redwood Co. September 24, 2012. 1 p.
- PALCO 1999. **Habitat conservation plan for the properties of The Pacific Lumber Company, Scotia Pacific Company LLC, and Salmon Creek Corporation.** The Pacific Lumber Company, Scotia, California, USA.
- U.S. Fish and Wildlife Service. 2007. **Recovery Plan for the Pacific Coast Population of the Western Snowy Plover (*Charadrius alexandrinus nivosus*).** In 2 volumes. Sacramento, California. Xiv + 751 pages.

## **APPENDIX**

### **MRB MEMORANDUM: UPPER TRUCK SHOP SNOWY PLOVER SURVEY RESULTS.**



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## MEMORANDUM

To: Sal Chinnici, Forest Sciences Manager, Humboldt Redwood Company LLC

From: Sean E. McAllister, Associate Biologist, Mad River Biologists

Date: September 24, 2012

Re: Upper Truck Shop Snowy Plover survey Results

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Under contract (#077-12) with Humboldt Redwood Company I performed surveys for Western Snowy Plover (*Charadrius alexandrinus nivosus*) at the site known as 'Upper Truck Shop' gravel bar along the Eel River just upstream from the town of Scotia. Two separate surveys were performed, first on August 18<sup>th</sup> and last on August 29<sup>th</sup>.

Methods involved walking and scanning with binoculars the entire exposed, contiguous gravel habitat, utilizing a 'zig-zag' transect approach, beginning at the upstream end and finishing at the downstream terminus of the bar. Coordinates for the area of survey coverage are as follows:

Date	Upstream Extent (UTM NAD83)		Downstream extent (UTM NAD83)	
	UTM Easting	UTM Northing	UTM Easting	UTM Northing
22-Aug	407326	4479513	406806	4480090
29-Aug	407328	4479525	406819	4480061

**No Snowy Plovers were detected during either survey.**

If there are any questions regarding the survey methods or results, please contact me.

Sincerely,

**ORIGINAL SIGNED BY**

Sean McAllister

Mad River Biologists