



**Humboldt  
Redwood™**

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# **Snowy Plover Annual Report**

## **2014**

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### *Gravel Extraction Surveys*

**February 1, 2015**



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 2014 HRC conducted gravel extraction operations on the Truck Shop and 3-Mile bars near Scotia, triggering snowy plover surveys.

Four reconnaissance-level surveys were completed on the two gravel bars prior to operations as required, with no detections of snowy plovers.

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**

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## 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 nivosus*) for implementation of gravel extraction permits on gravel bars upriver from the Rio Dell Bridge. In 2014 HRC conducted gravel extraction operations on the Truck Shop and 3-Mile gravel bars along the Eel River near Scotia, CA, triggering the snowy plover surveys.

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) 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 previously 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 2014.

In 2003 the USFWS clarified that the HCP reconnaissance-level surveys are 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

In 2014 HRC contracted with Sean McAllister to conduct the reconnaissance-level snowy plover surveys. Mr. McAllister has nearly 20 years experience with snowy plovers on the lower Eel River, and 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 2014).

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

In 2014, HRC planned to conduct gravel extraction operations on the Truck Shop and 3-Mile gravel bars along the mainstem Eel River near Scotia. Operations were scheduled to begin after 15 August, and so the plover surveys were scheduled to accommodate the requirements for reconnaissance-level surveys. However, operations were delayed while all appropriate permits and notifications were completed. In order to maintain the survey scheduling requirements, Mr. McAllister was asked to continue with periodic surveys of the bars until operations were to begin.

Ultimately, 4 complete surveys were conducted on the gravel bars between 29 July and 22 August (Table 1). No snowy plovers were detected on any of the surveys. When operations had not begun as of 28 August, HRC contacted the USFWS and CDFW and requested that no further surveys be required in 2014. Concurrence was received from Ms. Susan Sniado of CDFW via email on 18 September.

26 other species were detected on the surveys (Table 2). In 2014 the agencies requested that HRC also pay particular attention to the possible presence of special status species, willow flycatcher (*Empidonax trailii*) and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), which have known, although rare, occurrences elsewhere along the lower Eel River. Neither of these species was detected.



Gravel operations began on 29 and 30 September on the Upper Truck Shop and 3-Mile bars, which was after the end of the snowy plover nesting period (15 September). The gravel extraction activities concluded on 14 October.

**Table 1. 2014 Gravel Bar Survey Dates and Results.**

GRAVEL BAR	SURVEY #	SURVEY DATE	SNOWY PLOVERS DETECTED?
Truck Shop	1	7/29/2014	No
	2	8/5/2014	No
	3	8/12/2014	No
	4	8/22/2014	No
3-Mile	1	7/29/2014	No
	2	8/5/2014	No
	3	8/12/2014	No
	4	8/22/2014	No

**Table 2. Other Species Detected on 2014 SNPL Surveys.**

Mallard	<i>Anas platyrhynchos</i>
Common Merganser	<i>Mergus merganser</i>
California Quail	<i>Callipepla californica</i>
Great Blue Heron	<i>Ardea herodias</i>
Great Egret	<i>Ardea alba</i>
Turkey Vulture	<i>Cathartes aura</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
Killdeer	<i>Charadrius vociferus</i>
Spotted Sandpiper	<i>Actitis macularius</i>
Greater Yellowlegs	<i>Tringa melanoleuca</i>
Least Sandpiper	<i>Calidris minutilla</i>
Vaux's Swift	<i>Chaetura vauxi</i>
Belted Kingfisher	<i>Megaceryle alcyon</i>
Western Wood-Pewee	<i>Contopus sordidulus</i>
Black Phoebe	<i>Sayornis nigricans</i>
Steller's Jay	<i>Cyanocitta stelleri</i>
Common Raven	<i>Corvus corax</i>
Tree Swallow	<i>Tachycineta bicolor</i>
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>
Barn Swallow	<i>Hirundo rustica</i>
Chestnut-backed Chickadee	<i>Poecile rufescens</i>
Cedar Waxwing	<i>Bombycilla cedrorum</i>
Yellow Warbler	<i>Setophaga petechia</i>
Wilson's Warbler	<i>Cardellina pusilla</i>
American Goldfinch	<i>Spinus tristis</i>

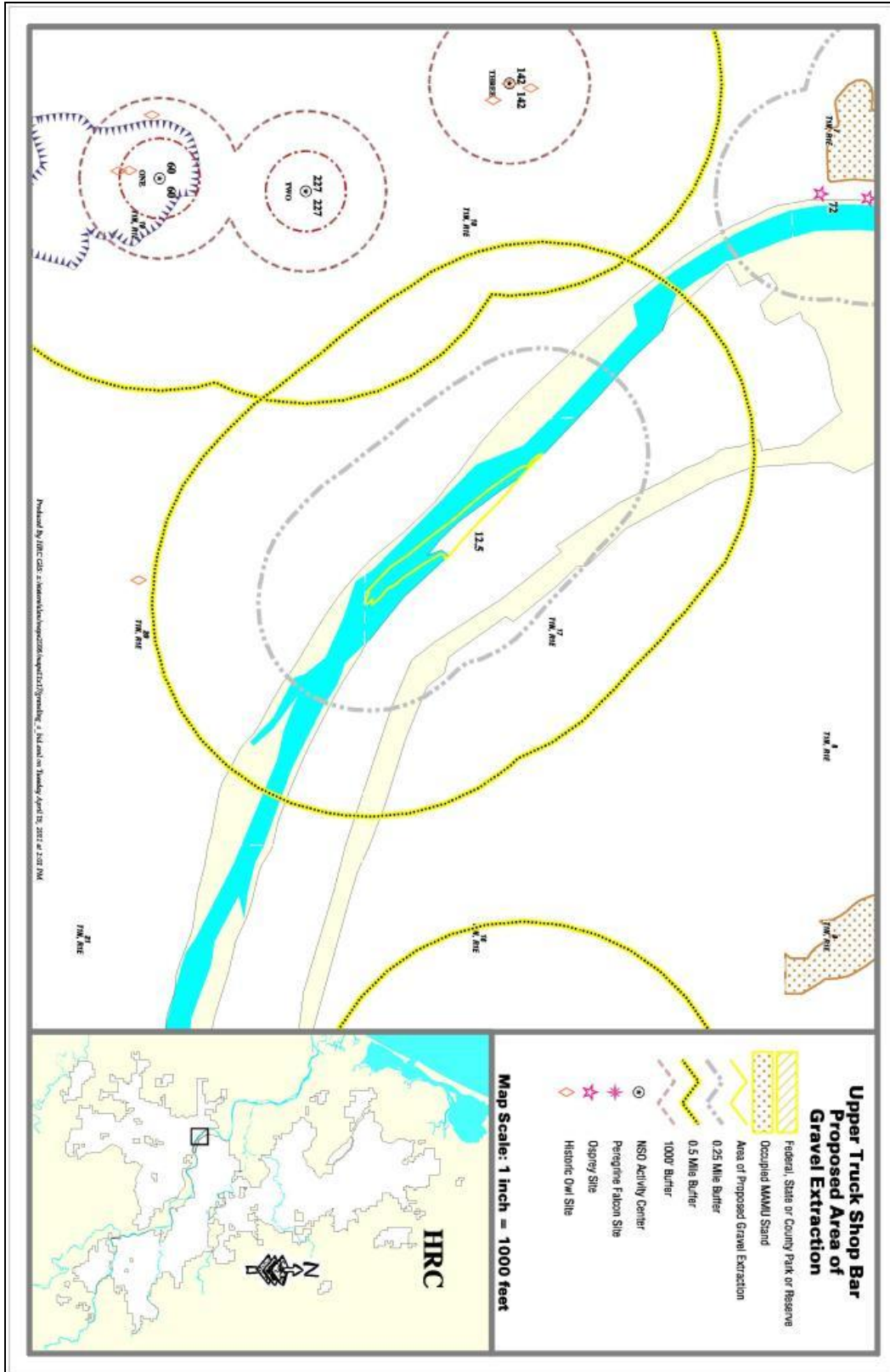


Figure 1. Upper Truck Shop Bar.

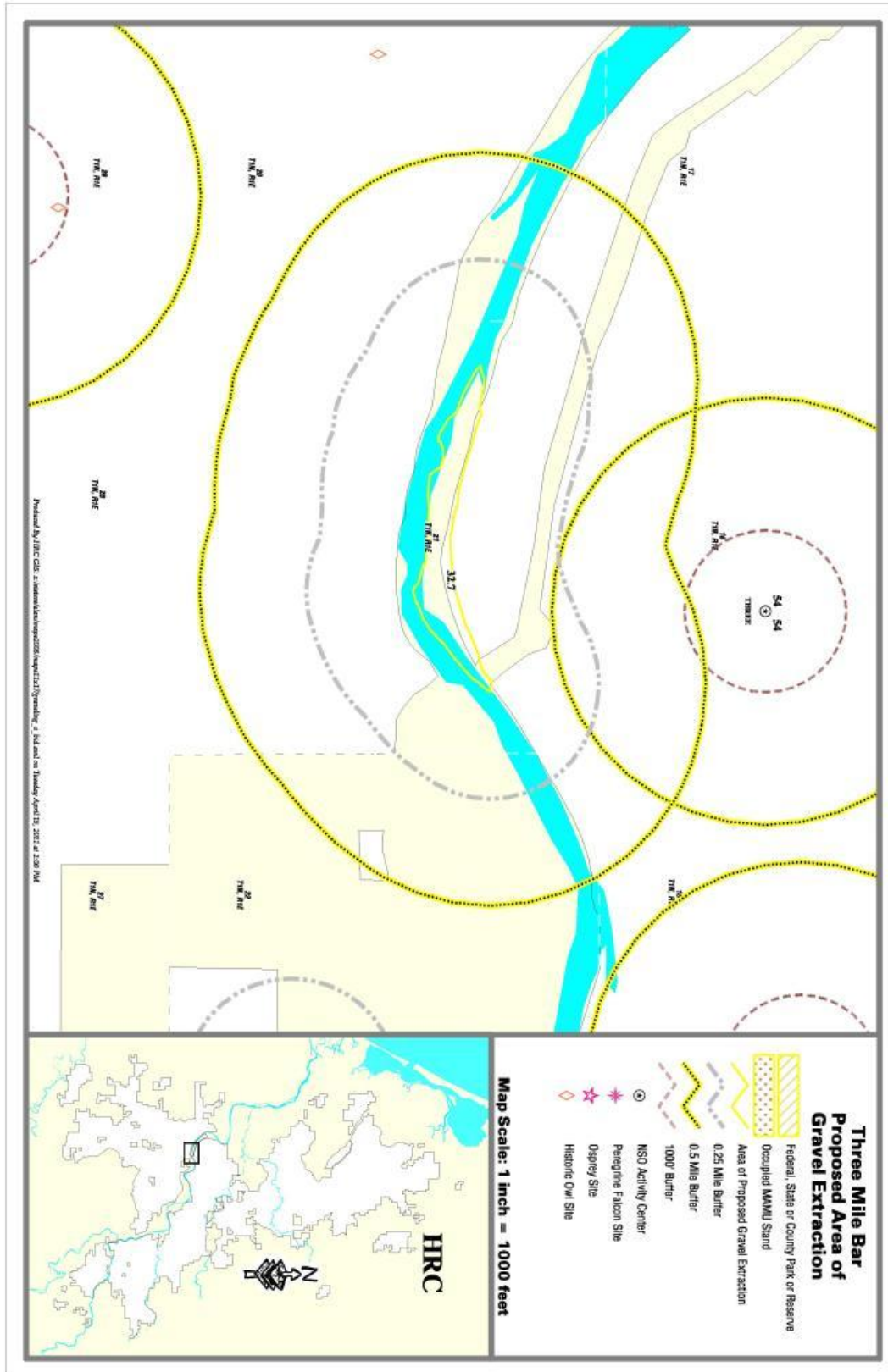


Figure 2. 3-Mile Bar.



**Figure 3. Truck Shop Bar on the Eel River prior to operations in 2011 (conditions were similar in 2014, no photos available).**



**Figure 4. Excavator on Truck Shop Bar during 2012 operations (2014 operations similar).**



**Figure 5. Excavator and trench on Truck Shop Bar during 2012 operations (2014 operations similar).**

## **DISCUSSION**

Four snowy plover surveys were conducted on both the Truck Shop and 3-Mile bars for HRC in 2014. No snowy plovers were detected. Although methods have not been consistent over all years, the 2014 surveys marked more than 12 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 narrowing of the canyon, and differences in nesting substrate (for example, see previous HRC annual reports). Recent research indicates that snowy plovers nest on wider beaches compared to random locations (Patrick and Colwell 2014).

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.

Colwell et al (2014) reported that the number of breeding adult snowy plovers increased slightly in recovery unit 2 over 2013, as did the total number of breeding locations, although there was apparently no breeding on the lower Eel River again. In 2014, most Humboldt County plovers nested at Clam Beach, Mad River beach, the Eel River Wildlife Area, and Centerville Beach.

The recovery unit population has grown due to:

- Immigration into the zone, primarily from Oregon, and
- A large percentage of adults that bred locally in 2013 returned to breed in 2014 (Colwell et al 2014).

Predation of eggs and young by ravens, 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.

## **RECOMMENDATIONS**

- Continue using reconnaissance-level surveys as currently required for gravel extraction operations.
- No changes in monitoring strategies or intensity are recommended at this time.

## 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.
- Colwell, M.A., D.M. Herman, A.M. Patrick, M.J. Lau, S.D. Leja, A.D. DeJoannis, D.J. Orluck, D.P. Harvey, K.L. Bonnette, G.B. Sandy, E.J. Feucht, M.R. Greitl, J.A. Ruvalcaba, and S.E. McAllister. **Final Report: 2014 Snowy Plover Breeding in Coastal Northern California, Recovery Unit 2.** Final report submitted to U.S. Fish and Wildlife Service. 15 pp.
- Patrick, A.M. and M.A. Colwell. 2014. Snowy Plovers select wide beaches for nesting. Wader Study Group Bulletin. 121(2): 17-20.
- McAllister, S. 2012. **Upper Truck Shop Snowy Plover Survey Results.** Memorandum to Sal Chinnici, Humboldt Redwood Co. September 24, 2012. 1 p.
- McAllister, S. 2014. **Upper Truck Shop and 3-Mile Gravel Bar Snowy Plover Survey Results.** Memorandum to Sal Chinnici, Humboldt Redwood Co. September 15, 2014. 3 pp.
- 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**

### **MCALLISTER MEMORANDUM: UPPER TRUCK SHOP AND 3-MILE GRAVEL BAR**

## MEMORANDUM

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

From: Sean E. McAllister

Date: September 15, 2014

Re: Snowy Plover Surveys – Upper Truck Shop and 3-Mile gravel bars

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Dear Sal,

As per your request, I performed 4 consecutive weekly surveys for **Western Snowy Plover** (*Charadrius nivosus nivosus*) at the two sites, known as 'Upper Truck Shop' and 'Three-Mile Bridge' gravel bars, along the Eel River just upstream from the town of Scotia. Surveys were performed July 29<sup>th</sup>, August 5<sup>th</sup>, 12<sup>th</sup> and 22<sup>nd</sup>, 2014.

I have nearly 20 years of experience with Snowy Plovers on the lower Eel River, where a population of up to 40 breeding adults have bred.

Survey methods involved walking and stopping frequently to scan 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 bars. River levels dropped considerably between the first and the final surveys which resulted in a slightly larger survey area with each successive survey. Please see Table 1 for coordinates of start and end points. Photos depicting the actual survey routes are also attached. A thorough search was made for Snowy Plover adults, young and eggs.

No Snowy Plovers were detected during any of the four surveys at either site.

During each survey, a complete list of all bird species was kept, and particular attention was paid to the possible presence of special status species, **Willow Flycatcher** (*Empidonax traillii*) and Western **Yellow-billed Cuckoo** (*Coccyzus americanus occidentalis*), which have known, albeit rare, occurrences elsewhere along the lower Eel River. Neither of these species was detected.

A complete list of all species detected for both sites and all dates combined is attached as Table 2.

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

Sincerely,

Sean McAllister  
(707) 496-8790  
[whiteouters@gmail.com](mailto:whiteouters@gmail.com)

**Table 1.** Coordinates for survey start and end points for first and last surveys only, showing expanded survey area due to drop in river level.

3-Mile	Start (upstream) UTM NAD83	End (downstream) UTM NAD83
29-Jul	409516E, 4478988N (WPT #190)	408363E, 4479029N (WPT#191)
22-Aug	409581E, 4479043N (WPT#195)	408346E, 4479051N (WPT#203)
Upper Truck Shop	Start (upstream) UTM NAD83	End (downstream) UTM NAD83
29-Jul	407386E, 4479511N (WPT#192)	406815E, 4480081N (WPT#193)
22-Aug	407468E, 4479486N (WPT#208)	406812E, 4480082N (WPT#215)

**Table 2.** Species List for Three-mile Bridge and Upper Truck Shop gravel bars July 29, August 5,12,22 2014.

Mallard	<i>Anas platyrhynchos</i>
Common Merganser	<i>Mergus merganser</i>
California Quail	<i>Callipepla californica</i>
Great Blue Heron	<i>Ardea herodias</i>
Great Egret	<i>Ardea alba</i>
Turkey Vulture	<i>Cathartes aura</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>
Red-tailed Hawk	<i>Buteo jamaicensis</i>
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Cedar Waxwing	<i>Bombycilla cedrorum</i>
Yellow Warbler	<i>Setophaga petechia</i>
Wilson's Warbler	<i>Cardellina pusilla</i>
American Goldfinch	<i>Spinus tristis</i>

**Photo 1.** Three-mile Bridge gravel bar Snowy Plover survey tracks and waypoints. Waypoints shown only for first and last surveys. Track for survey on Aug 5<sup>th</sup> not shown.



**Photo 2.** Upper Truck Shop gravel bar Snowy Plover survey tracks and waypoints.

