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Biological Resources Survey

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May 17, 2018

Scott Butler, RPF
Environmental Resource Management
7000 Leicester Ct.
Castle Pines, CO 80108
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RE: Bergman Winery Permit
Section 22 T8N, R6W, MDB&M - Napa County

Scott,

This is an assessment for northern spotted owls (*strix occidentalis caurinia*), or NSOs, for the Bergman Winery Project located at 3285 St. Helena Highway North near St. Helena, California. The Project proposes to build a winery. A northern spotted owl assessment was completed in January of 2016; however, the project has since been altered, therefore, this is an updated review. The Project now proposes to remove 4 conifer trees and approximately 24 deciduous trees.

Known Northern Spotted Owl Territories:

According to the California Department of Fish & Wildlife's spotted owl viewer dated 17MAY18, there is one known northern spotted owl territory within 1.3 miles of the Project (Attachment #1). An assessment area of 1.3 miles from the project area was used (Attachment #2). The 1.3 mile assessment area was created by USFWS for a Take Avoidance of northern spotted owls within the California Interior (outside the redwood zone). Although Napa County does have redwoods, the environmental conditions in the area are hotter/drier than the coastal redwood zone; therefore, the 1.3 mile assessment area was used for this Project. A summary of the report includes:

Owls Sites Found (there is one known NSO territory within 1.3 miles of the Project Area):

- NAP005 – Northern Spotted Owl Territory is located approximately 2,570' (within ½ mile) from the Project Area. This territory is based upon a pair of NSOs located with 1 young in 1989. The territory was found active in 1987, 1989, 1990, 1991, and 1998. Surveys in 2000 and 2002 did not detect any NSOs.

Northern Spotted Owl Habitat:

The attributes for northern spotted owl habitat includes a forest with:

- Dense, multi-layered canopy of several trees species.
- Trees of varying sizes and ages.
- Abundant logs, snags/cavity trees, and trees with broken tops or platform-like substrates (i.e. broken tops, mistletoe, debris piles, or old raptor/squirrel nests).
- Open spaces among lower branches to allow flight under the canopy.

USFWS more specifically defines northern spotted owl habitat within the California Interior as follows:

- High Quality Nesting/Roosting Habitat: Mixed tree species with basal area of 210+ ft² and ≥ 15 " quadratic mean diameter, and ≥ 8 trees per acre of trees ≥ 26 " in diameter at breast height, and $\geq 60\%$ canopy closure.
- Suitable Nesting/Roosting Habitat: Mixed tree species with basal area ranging from 150 - 180+ ft² and ≥ 15 " quadratic mean diameter, and ≥ 8 trees per acre of trees ≥ 26 " in diameter at breast height, and $\geq 60\%$ canopy closure.
- Suitable Foraging Habitat: Mixed tree species with basal area ranging from 120 - 180+ ft² and ≥ 13 " quadratic mean diameter, and ≥ 5 trees per acre of trees ≥ 26 " in diameter at breast height, and a mix of $\geq 40\%$ to 100% canopy closure.
- Low Quality Foraging Habitat: Mixed tree species with basal area ranging from 80 - 120+ ft² and ≥ 11 " quadratic mean diameter, and $\geq 40\%$ canopy closure.

Project Area:

The Project Area is on the edge of an existing vineyard and mixed second-growth forest (Attachment #3). The overstory vegetation includes Douglas-fir, pine, redwood, madrone, and oaks. The trees to be removed occur along the edge of the forest and existing vineyard and driveway.

Existing vineyard and forest edge:



View of the area adjacent to flat along the edge of foraging habitat



View of flat area where winery building will occur



Foraging Habitat near the Project Area



The building location of the winery is within unsuitable northern spotted owl habitat due to lack of trees and existing vineyard; however, the trees to be removed do occur along the edge of suitable marginal foraging habitat. In addition, there is suitable northern spotted owl habitat within ¼ mile of the Project Area. To prevent disturbance to potential northern spotted owls, seasonal restrictions apply unless protocol surveys within the habitat is completed.

Conclusions for Bergman Winery Project:

The closest known northern spotted owl territory is located 2,570' from the Project Area. The removal of a few trees along the edge of the forest will not change the northern spotted owl habitat in the area; however, seasonal restrictions are required to prevent potential disturbance to owls.

The seasonal restrictions to prevent potential disturbance to owls includes no cutting trees between 01FEB – 09JUL unless protocol level surveys are completed within the suitable habitat within 1.4 miles of the Project Area.

This is a general assessment of northern spotted owls for the above listed project area. This is not a complete Biological Assessment for all listed species for an EIR/EIA, nor can it be used in place of USFWS Protocol Surveys.

If you have questions regarding this information, please feel free to contact me.

Gone Hooting,

Pamela Town

Pamela Town
Consulting Wildlife Biologist

Attachments:

- 1: CA Fish & Wildlife Report #1 – NSO Database
- 2: Topographical Map of NSOs within 1.3 Miles of Bergman Winery Project (1 page)
- 3: Aerial Photo of Landscape around Bergman Winery Project (1 page)

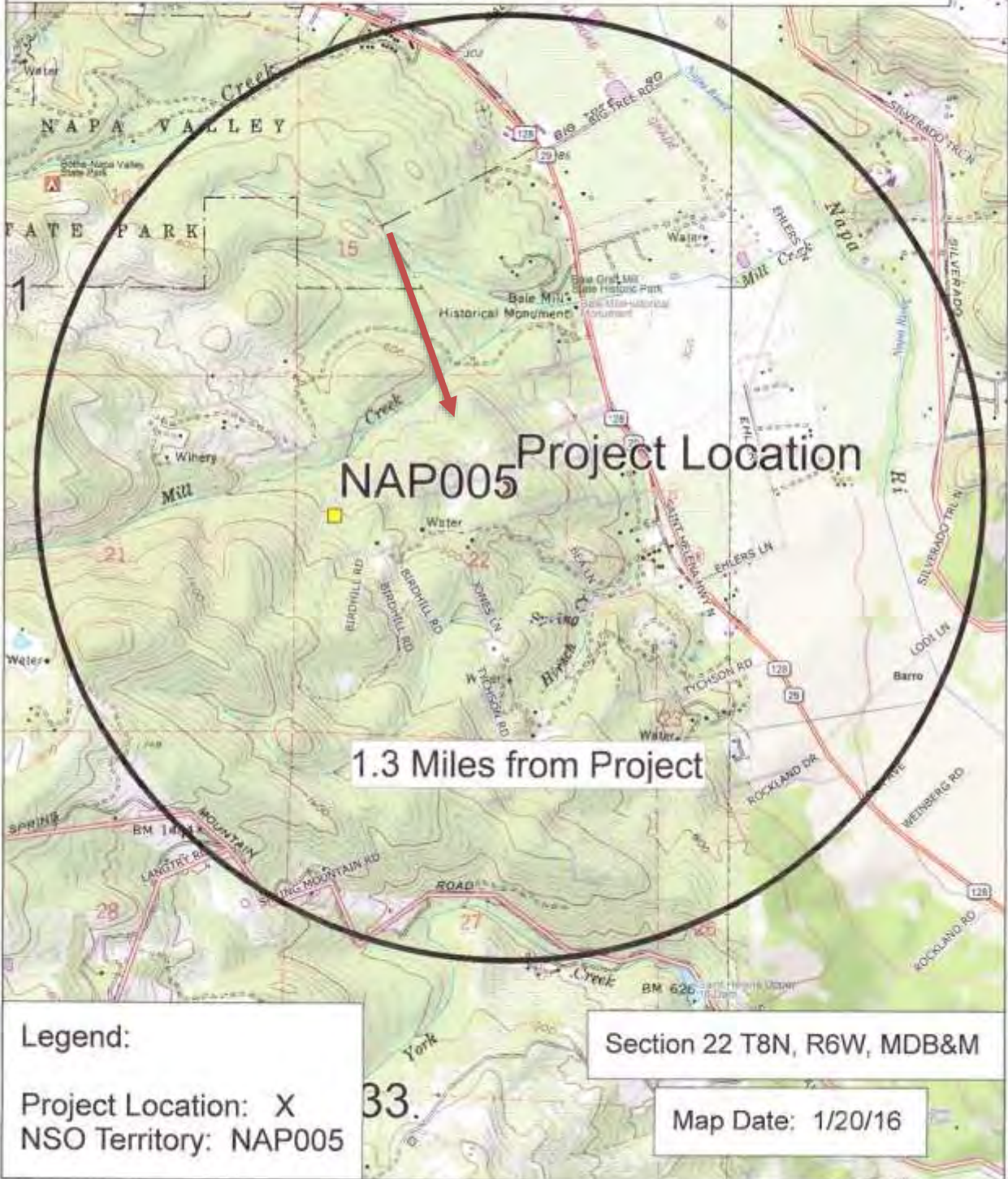
References:

Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls. Endorsed by the U.S. Fish & Wildlife Service. February 2, 2011 and Revised January 9, 2012.

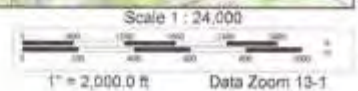
Important Information for Timber Operations Proposed within the Range of the Northern Spotted Owl. California Department of Forestry & Fire Protection. February 2008.

Northern Spotted Owl Viewer (BIOS CA Natural Diversity Database). Managed by California Department of Fish & Wildlife.

Northern Spotted Owl Territories within 1.3 miles of Bergman Winery



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Attachment #3



Bergman Winery
& Surrounding Landscape

Data Version Date:
04/26/2018

Report Generation Date:
5/17/2018

Report #1 - Spotted Owl Sites Found
Known Spotted Owl sites having observations
within the search area.



Meridian, Township, Range, Section (MTRS) searched:

M_08N_06W Sections(08,09,10,11,12,13,14,15,16,17,20,21,22,23,24,25,26,27,28,29,32,33,34,35,36);

NOTES:

Bergman Winery

<i>Masterowl</i>	<i>Subspecies</i>	<i>LatDD NAD83</i>	<i>LonDD NAD83</i>	<i>MTRS</i>	<i>AC Coordinate Source</i>
NAP0001	NORTHERN	38.539867	-122.546050	M 08N 06W 17	Contributor
NAP0005	NORTHERN	38.532391	-122.521177	M 08N 06W 22	Contributor
NAP0033	NORTHERN	38.508038	-122.526177	M 08N 06W 33	Contributor

Data Version Date:
04/26/2018
Report Generation Date:
5/17/2018



Report #2 - Observations Reported

List of observations reported by site.

Meridian, Township, Range, Section (MTRS) searched:

M_08N_06W Sections(08,09,10,11,12,13,13,14,15,16,17,20,21,22,23,24,25,26,27,28,29,32,33,34,35,36);

NOTES:

Bergman Winery

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
Masterowl: NAP0001 Subspecies: NORTHERN											
POS	1978-04-12		1	UU				38.539691	-122.543733	M 08N 06W 17	Activity center
POS	1978-07-23		1	UU				38.534905	-122.555283	M 08N 06W 20	Quarter-section centroid
POS	1978-08-08		2	UUUU				38.539691	-122.543733	M 08N 06W 17	Activity center
POS	1979-04-07		2	UMUF	Y			38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1979-04-08		1	UF		Y		38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1979-05-02		1	UF		Y		38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1979-05-10					Y	2	38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1979-05-14					Y	1	38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1979-05-30					Y	1	38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1979-06-16					Y	1	38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1979-07-29					Y	1	38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1980-05-19		1	UU	Y	Y	1	38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1980-06-08		1	UF		Y		38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1980-06-10		1	UF		Y		38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1981		1	UU				38.545439	-122.550168	M 08N 06W 17	Section centroid
NEG	1981-04-09		0					38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	1981-04-30		0					38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
NEG	1981-05-25		0					38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1982		2	UMUF	Y		1	38.539691	-122.543733	M 08N 06W 17	Activity center
NEG	1982-05-07		0					38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
NEG	1982-05-24		0					38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1983		2	UMUF	Y		2	38.539691	-122.543733	M 08N 06W 17	Activity center
POS	1984-04-06		1	UF	Y	Y	1	38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1984-05-16					Y	1	38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1984-08-07		2	UMUF	Y		1	38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1984-08-07		2	UMUF	Y		1	38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1985-04-05		1	UF		Y		38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1985-05-28					Y	2	38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1985-06-09		1	UF		Y		38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1986-04-22		2	UMUF	Y			38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1986-04-29		2	UMUF	Y	Y		38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1986-05-21		1	UF		Y		38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1986-06-15		1	UF		Y		38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1987		2	UMUF	Y			38.539691	-122.543733	M 08N 06W 17	Activity center
POS	1987-05-13		2	UMUF	Y			38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1987-05-25		2	UMUF	Y			38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1987-05-30		2	UMUF	Y			38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1987-06-06		2	UMUF	Y			38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1988-05-04		1	UM				38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
NEG	1988-05-20	1200	0					38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1988-05-31		1	UM				38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1989-04-11		2	UMUF	Y			38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1989-04-22		1	UM				38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1989-05-13		1	UU				38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1989-05-20	1900	2	UMUF	Y			38.539691	-122.543733	M 08N 06W 17	Activity center
POS	1989-05-26		2	UMUF	Y	Y	1	38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1989-06-12	1900	2	UMUF		Y		38.539073	-122.546950	M 08N 06W 17	Contributor
POS	1989-07-30	0555	2	UMUF	Y		1	38.534418	-122.527692	M 08N 06W 21	Quarter-section centroid
NEG	1991		0					38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1991-04-14	1910	1	UM				38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1992		1	UM				38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	1993-05-01	0705	1	UU				38.545439	-122.550168	M 08N 06W 17	Section centroid
NEG	1993-08-04	0709	0					38.545439	-122.550168	M 08N 06W 17	Section centroid
NEG	1994-01-01	0230	0					38.545439	-122.550168	M 08N 06W 17	Section centroid
POS	1996-01-01	1735	1	UM	Y			38.543151	-122.547059	M 08N 06W 17	Contributor
POS	1996-01-01	1803	1	UF	Y			38.542914	-122.542460	M 08N 06W 17	Contributor
POS	1996-04-20	1920	1	UM				38.545439	-122.550168	M 08N 06W 17	Section centroid
POS	1997-08-04	1930	1	UM				38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
NEG	1997-08-10	2001	0					38.545439	-122.550168	M 08N 06W 17	Section centroid
NEG	2000-02-16	1037	0					38.545052	-122.532028	M 08N 06W 16	Section centroid
POS	2000-03-11	1730	2	UMUF				38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	2000-04-22	1859	2	UMUF	Y	Y		38.542015	-122.555067	M 08N 06W 17	Quarter-section centroid
POS	2000-06-11	0945	2	UMUF	Y	Y	1	38.539611	-122.558042	M 08N 06W 17	Contributor
POS	2000-06-29	1155	1	UF		Y	1	38.542015	-122.555067	M 08N 06W 17	Quarter-section centroid
POS	2002-04-13	1715	2	UMUF	Y	Y	1	38.539691	-122.543733	M 08N 06W 17	Contributor
NEG	2002-05-04	1951	0					38.545439	-122.550168	M 08N 06W 17	Section centroid
NEG	2002-05-10	2024	0					38.545439	-122.550168	M 08N 06W 17	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2002-05-21	2034	1	UM				38.542015	-122.555067	M 08N 06W 17	Quarter-section centroid
POS	2002-05-25	2006	1	UM				38.545439	-122.550168	M 08N 06W 17	Section centroid
NEG	2002-05-30	2135	0					38.545439	-122.550168	M 08N 06W 17	Section centroid
POS	2002-06-12	2134	1	UF				38.545439	-122.550168	M 08N 06W 17	Section centroid
POS	2002-06-29	1922	1	UF		Y	1	38.542015	-122.555067	M 08N 06W 17	Quarter-section centroid
NEG	2002-07-02	2131	0					38.542242	-122.582552	M 08N 07W 13	Quarter-section centroid
NEG	2003-02-07	1806	0					38.545439	-122.550168	M 08N 06W 17	Section centroid
POS	2003-05-04	1125	1	UM				38.542015	-122.555067	M 08N 06W 17	Quarter-section centroid
NEG	2003-05-08	1052	0					38.545439	-122.550168	M 08N 06W 17	Section centroid
POS	2003-05-26	2046	1	UU				38.542015	-122.555067	M 08N 06W 17	Quarter-section centroid
POS	2004-02-05	1501	1	UU				38.542015	-122.555067	M 08N 06W 17	Quarter-section centroid
POS	2004-04-26	1138	2	UMUF	Y	Y		38.545439	-122.550168	M 08N 06W 17	Section centroid
NEG	2005-04-17	1419	0					38.545439	-122.550168	M 08N 06W 17	Section centroid
POS	2005-04-18	1543	1	UM				38.541700	-122.545854	M 08N 06W 17	Quarter-section centroid
POS	2010-03-21		2	UMUF	Y			38.543540	-122.536938	M 08N 06W 16	Contributor
AC	2012-05-28	1638	2	UMUF	Y	Y		38.539867	-122.546050	M 08N 06W 17	Contributor

Masterowl: NAP0005 Subspecies: NORTHERN

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	1983-12-27		1	UU				38.534425	-122.518352	M 08N 06W 22	Quarter-section centroid
POS	1987		2	UMUF	Y			38.534410	-122.532293	M 08N 06W 21	Half-section centroid
POS	1987		2	UMUF	Y			38.534425	-122.518352	M 08N 06W 22	Quarter-section centroid
AC	1989-07-30	0630	2	UMUF	Y		1	38.532391	-122.521177	M 08N 06W 22	Contributor
POS	1989-07-30		2	UMUF	Y		1	38.534418	-122.527692	M 08N 06W 21	Quarter-section centroid
POS	1990-04-29	1640	1	UM				38.534425	-122.518352	M 08N 06W 22	Quarter-section centroid
POS	1991-01-01	0343	1	UM				38.532391	-122.521177	M 08N 06W 22	Contributor
POS	1991-04-11	1629	1	UM				38.530855	-122.513729	M 08N 06W 22	Section centroid
POS	1991-05-05	2045	1	UM				38.532391	-122.521177	M 08N 06W 22	Contributor
POS	1991-09-29	2028	1	UM				38.534425	-122.518352	M 08N 06W 22	Quarter-section centroid
NEG	1992		0					38.530855	-122.513729	M 08N 06W 22	Section centroid
NEG	1992-03-01	1757	0					38.530855	-122.513729	M 08N 06W 22	Section centroid
NEG	1993-04-03	2031	0					38.534418	-122.527692	M 08N 06W 21	Quarter-section centroid
NEG	1996-10-13	1935	0					38.534425	-122.518352	M 08N 06W 22	Quarter-section centroid
POS	1998	0215	2	UMUF				38.534418	-122.527692	M 08N 06W 21	Quarter-section centroid
NEG	2000-04-03	2228	0		Y			38.530904	-122.532304	M 08N 06W 21	Section centroid
NEG	2000-05-16	2001	0					38.534418	-122.527692	M 08N 06W 21	Quarter-section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2000-06-29	1925	0					38.530904	-122.532304	M 08N 06W 21	Section centroid
NEG	2002-02-08	2400	0					38.534418	-122.527692	M 08N 06W 21	Quarter-section centroid
NEG	2002-02-08	2400	0					38.534425	-122.518352	M 08N 06W 22	Quarter-section centroid
NEG	2002-03-12	2400	0					38.534425	-122.518352	M 08N 06W 22	Quarter-section centroid
NEG	2002-06-10	2400	0					38.534425	-122.518352	M 08N 06W 22	Quarter-section centroid
NEG	2002-06-10	2400	0					38.534418	-122.527692	M 08N 06W 21	Quarter-section centroid
Masterowl: NAP0033 Subspecies: NORTHERN											
POS	1995-06-26	2129	2	UMUF	Y			38.513105	-122.518884	M 08N 06W 27	Quarter-section centroid
POS	1995-07-12	2045	1	UM				38.513105	-122.518884	M 08N 06W 27	Quarter-section centroid
POS	1997-03-18	1900	1	UM				38.513105	-122.518884	M 08N 06W 27	Quarter-section centroid
POS	1997-03-31	1832	1	UM				38.513105	-122.518884	M 08N 06W 27	Quarter-section centroid
POS	1997-04-19	1510	2	UMUF	Y	N		38.515786	-122.515552	M 08N 06W 27	Contributor
POS	1999-03-28	1905	1	UM				38.513105	-122.518884	M 08N 06W 27	Quarter-section centroid
POS	2000-06-29	2206	1	UM				38.516446	-122.514033	M 08N 06W 27	Section centroid
NEG	2001-01-01	0225- 0240	0					38.513105	-122.518884	M 08N 06W 27	Quarter-section centroid
NEG	2001-02-08	2059	0					38.516446	-122.514033	M 08N 06W 27	Section centroid
NEG	2001-02-16	1716	0					38.516446	-122.514033	M 08N 06W 27	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2001-03-02	1834	0					38.516446	-122.514033	M 08N 06W 27	Section centroid
POS	2001-03-16	1951	1	UM				38.513105	-122.518884	M 08N 06W 27	Quarter-section centroid
NEG	2001-07-24	2035	0					38.516446	-122.514033	M 08N 06W 27	Section centroid
NEG	2002-02-02	2400	0					38.516446	-122.514033	M 08N 06W 27	Section centroid
NEG	2002-02-15	1854	0					38.516446	-122.514033	M 08N 06W 27	Section centroid
NEG	2002-02-26	1905	0					38.516446	-122.514033	M 08N 06W 27	Section centroid
POS	2002-04-07	2130	1	UM				38.513105	-122.518884	M 08N 06W 27	Quarter-section centroid
NEG	2002-05-21	2400	0					38.516446	-122.514033	M 08N 06W 27	Section centroid
NEG	2002-06-10	2400	0					38.516446	-122.514033	M 08N 06W 27	Section centroid
NEG	2003-02-05	1900	0					38.516446	-122.514033	M 08N 06W 27	Section centroid
NEG	2003-03-17	2026	0					38.516446	-122.514033	M 08N 06W 27	Section centroid
NEG	2003-05-19	2135	0					38.516205	-122.495360	M 08N 06W 26	Section centroid
NEG	2004-02-28	1828	0					38.516446	-122.514033	M 08N 06W 27	Section centroid
POS	2004-04-11	2031	1	UM				38.513269	-122.528209	M 08N 06W 28	Quarter-section centroid
NEG	2004-05-25	2050	0					38.516446	-122.514033	M 08N 06W 27	Section centroid
NEG	2005-02-10	1935	0					38.516446	-122.514033	M 08N 06W 27	Section centroid
NEG	2005-02-28	1942	0					38.516446	-122.514033	M 08N 06W 27	Section centroid

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
POS	2005-03-11	1942	1	UM				38.513269	-122.528209	M 08N 06W 28	Quarter-section centroid
NEG	2006-03-02	1823	0					38.516784	-122.532613	M 08N 06W 28	Section centroid
NEG	2006-04-14	2025	0					38.516784	-122.532613	M 08N 06W 28	Section centroid
NEG	2006-05-18	2231	0					38.516784	-122.532613	M 08N 06W 28	Section centroid
NEG	2006-06-15	2131	0					38.516784	-122.532613	M 08N 06W 28	Section centroid
POS	2007-02-19	1900	1	UM				38.516784	-122.532613	M 08N 06W 28	Section centroid
POS	2007-04-07	2319	2	UMUF	Y			38.517672	-122.531541	M 08N 06W 28	Contributor
POS	2007-04-14	2110	1	UM				38.520334	-122.527910	M 08N 06W 28	Quarter-section centroid
NEG	2008-02-02	1921- 1931	0					38.519823	-122.538135	M 08N 06W 28	Contributor
NEG	2008-02-02	1956- 2006	0					38.516342	-122.520582	M 08N 06W 27	Contributor
NEG	2008-02-02	1935- 1945	0					38.516989	-122.529967	M 08N 06W 28	Contributor
AC	2008-02-28	2023	2	UMUF	Y			38.508038	-122.526177	M 08N 06W 33	Contributor
NEG	2008-02-28	1955- 2005	0					38.516989	-122.529967	M 08N 06W 28	Contributor
NEG	2009-02-27	1820- 1831	0					38.510599	-122.530073	M 08N 06W 28	Contributor
NEG	2009-02-27	1851- 1901	0					38.519823	-122.538135	M 08N 06W 28	Contributor
POS	2009-02-27	1845	1	UM				38.514056	-122.526726	M 08N 06W 28	Contributor
NEG	2009-03-17	2111- 2121	0					38.511147	-122.532072	M 08N 06W 28	Contributor

Type	Date	Time	#Adults	Age/Sex	Pair	Nest	#Young	Latitude DD NAD83	Longitude DD NAD83	MTRS	Coordinate Source
NEG	2009-03-17	2127- 2137	0					38.519823	-122.538135	M 08N 06W 28	Contributor
NEG	2009-03-17	2056- 2106	0					38.516989	-122.529967	M 08N 06W 28	Contributor
NEG	2009-03-17	2143- 2153	0					38.516361	-122.520642	M 08N 06W 27	Contributor
NEG	2009-04-06	2108- 2118	0					38.519823	-122.538135	M 08N 06W 28	Contributor
NEG	2009-04-06	2125- 2135	0					38.516361	-122.520642	M 08N 06W 27	Contributor
NEG	2009-04-06	2052- 2102	0					38.511147	-122.532072	M 08N 06W 28	Contributor
NEG	2009-04-06	2038- 2048	0					38.516989	-122.529967	M 08N 06W 28	Contributor
NEG	2009-05-18	2042- 2052	0					38.511147	-122.532072	M 08N 06W 28	Contributor
NEG	2009-05-18	2058- 2108	0					38.519823	-122.538135	M 08N 06W 28	Contributor
NEG	2009-05-18	2030- 2040	0					38.516989	-122.529967	M 08N 06W 28	Contributor
POS	2009-05-18	2120	1	UM				38.515220	-122.521262	M 08N 06W 27	Contributor
POS	2011-05-20	2133	1	UM				38.516816	-122.530266	M 08N 06W 28	Contributor
POS	2012-05-21	2147	1	UM				38.515450	-122.520100	M 08N 06W 27	Contributor
Additional surveys within the search area with no Spotted Owls detected											
NEG	2008-02-02	2018- 2028	0					38.508201	-122.493778	M 08N 06W 35	Contributor