



Photo credit: US Fish and Wildlife Service

Submitted to:
Mark Miller, Forester
Trout Mountain Forestry
260 SW Madison Ave, Ste 117
Corvallis, OR 97333

Submitted by:
Turnstone Environmental Consultants, Inc.
P.O. Box 816
Philomath, OR 97370



Final Report:

**CORVALLIS
WATERSHED
2013-2014
MARBLED
MURRELET
SURVEY
RESULTS**

TABLE OF CONTENTS

List of Tables	2
List of Figures	2
Introduction	3
Methodology	3
Initial Habitat Assessment.....	3
Survey Stations	4
Survey Methods.....	4
Survey Data / Quality Control.....	4
Personnel	5
Staff Training	5
Crew Organization.....	5
Results	6
Conclusion	7
Recommendations	7
Appendix A – Survey Summary and Map	9
Appendix B – Station Information	14
Appendix C – 2013 Data	17
Appendix D - 2014 Data	86

LIST OF TABLES

Table 1. Survey Areas and Stations	3
Table 2. 2013 Marbled Murrelet Detection Summary.	6
Table 3. 2014 Marbled Murrelet Detection Summary.	7
Table 4. 2013 Marbled Murrelet Survey Results.	9
Table 5. 2014 Marbled Murrelet Survey Results.	11
Table 6. Survey Station UTM.....	14

LIST OF FIGURES

Figure 1. Staff Organizational Chart 2013	5
Figure 2. Staff Organizational Chart 2014	6
Figure 3. Marbled Murrelet Detection Overview Map.....	13
Figure 4. MAMU Survey Station Map.....	16



INTRODUCTION

Turnstone Environmental Consultants Inc. (Turnstone) was contracted to survey approximately 509 acres for marbled murrelets (MAMU) for the City of Corvallis within the City of Corvallis Watershed. The area of investigation was located in the Oregon coast range and is referred to in this report as the "Watershed." The habitat delineation portion of this project entailed a thorough evaluation of the Watershed in order to determine its suitability as MAMU nesting habitat. The goal of the survey portion of this project was to determine the presence of MAMU within the delineated suitable habitat. This report summarizes the survey results of the two-year protocol.

METHODOLOGY

Initial Habitat Assessment

During the 2013 field season, Turnstone biologists set stations based on habitat identified using GIS shapefiles provided by Trout Mountain Forestry. Habitat was determined in accordance with USFWS guidelines for the Proposed Timber Management Projects within the Inland Range of the Marbled Murrelet in the North Coast Province of Oregon (USFWS, 2004). Each survey site is less than 150 acres and required at least five visits per nesting season to determine presence/occupancy.

Turnstone reviewed all proposed harvest units and their respective contiguous and adjacent habitat, taking into account Trout Mountain Forestry's GIS data and current aerial photos to estimate the number of survey stations. Additionally, potential MAMU habitat was identified on adjacent property (USFS & private property) in GIS using the MAMU habitat suitability model developed at the Pacific Northwest Research Station for the 15-year Review of the Northwest Forest Plan.

As stated in the aforementioned USFWS guidance document, if suitable MAMU habitat was located within a particular harvest unit, then that habitat along with any contiguous suitable habitat with 0.25 mile of the harvest boundary was delineated as a survey area. Alternatively, if a harvest stand does not contain suitable MAMU habitat, then all suitable habitat within a 726-foot buffer around the harvest unit was delineated as a survey area.

Table 1. Survey Areas and Stations

Survey Areas	Suitable Habitat within Harvest Unit?	Suitable Habitat (ac)	Survey Stations Set
OHA	Yes	69.35	6
OHB	Yes	48.53	5(6*)
OHC	Yes	87.65	6
YHA	No	66.02	7
YHB	No	16.63	3
YHC	No	91.31	6
YHD	No	68.87	6
YHE	No	60.55	5
Totals:		508.91	44
YH = young harvest units; OH; = older harvest units; *Additional station set in 2014.			



Survey Stations

At the start of the 2013 survey season (May 1, 2013), Turnstone biologists optimally located 44 MAMU survey stations in the 8 survey areas. Survey stations were established according to the Pacific Seabird Group's (PSG) "Methods for Surveying Marbled Murrelets in Forests: A Revised Protocol for Land Management and Research" (Mack et al, 2003; "PSG Protocol"). Actual field placement of the stations included local consideration of topography, canopy openings, and site accessibility. One additional station was placed in OHB in 2014 based on MAMU activity in 2013. Stations and access routes were flagged, mapped and recorded on a station location data form.

Survey Methods

Turnstone scheduled and conducted MAMU surveys according to the PSG Protocol. In Year-1, surveys took place between May 1 and July 26, 2013; in Year-2, surveys occurred between May 1 and August 4, 2014.. Surveys are generally two hours and began a minimum of forty-five minutes before sunrise and extended to a minimum of seventy-five minutes after sunrise – longer if MAMU detections occurred during the final fifteen minutes of the survey. Each protocol survey visit consisted of the following:

- The early morning arrival of a certified MAMU surveyor at a predetermined survey station.
- The voice recording (into a handheld voice recorder) of any MAMU activity, noise level, and weather conditions (including cloud cover, ceiling height, wind speed, and precipitation).
- The transcription of voice recordings onto survey forms.

PSG Protocol stipulates that all survey sites receive a minimum of five visits and a maximum of nine visits throughout the survey season, depending on whether or not MAMU presence is detected during the first five visits. If a MAMU is detected during that time, a maximum of four additional survey visits are conducted in an effort to positively determine MAMU occupancy.

Survey visits are distributed across the survey season according to the scheduling guidelines in the PSG Protocol. There are no more than thirty and no less than six days between site visits, except in the occurrence of a presence detection during the fifth visit, at which point the next four site visits may be clustered as close as two days apart, if necessary. Each site receives its first site visit within the first three weeks of May. During the peak MAMU activity period of early July, two site visits are conducted in strict adherence with PSG protocol guidelines. For a five-visit site, the last two visits occur after June 30 but before July 18. This allows adequate time to add four additional site visits if MAMU presence is established during the fifth survey. If the site is considered a nine-visit site, it receives four of the nine visits after June 30 with at least two of these visits occurring during the first three weeks of July.

Survey Data & Quality Control

Standard survey forms were labeled with survey site name, station number, visit number, date surveyed, and number and type of detections encountered.

Prior to submission to City of Corvallis, survey data passed through three levels of review. First, surveyors reviewed their own data forms before submitting them to the field coordinator. The field coordinator further inspected the data forms for completeness, legibility and accuracy before submitting them to the project manager. The project manager reviewed data forms once more – for a third level of quality control – before entering the survey information into a database.



In addition, survey schedules were reviewed weekly by the field coordinator throughout the survey season in order to ensure strict adherence to the PSG Protocol.

PERSONNEL

Staff Training

Marbled murrelet training was conducted during the weeks of April 22, 2013, and April 21, 2014 in Prairie Creek State Park, California. Turnstone staff and Mad River Biologists provided the training to field crews. Certification was completed April 25-26, 2013 and April 24-25, 2014.

All Turnstone personnel were required to take and successfully pass MAMU surveyor certification and hearing evaluations in 2013 and 2014.

Crew Organization

Based on the projected MAMU survey workload for the City of Corvallis, Turnstone established a six-member project crew for 2013. The project crew was based out of Corvallis, Oregon. Jeff Reams, Project Manager, and John Koloszar, Field Coordinator, worked with surveyors Amy Anderson, Shawn Brady, Jesse Ritter, Eric Russel, Sara Taylor, and Justin Votos to successfully complete the 2013 murrelet surveys. In 2014, Sarah Yarwood, Project Coordinator, worked with surveyors Miles Smith, Josh Stewart, and Justin Votos, along with a second crew led by Jordan Gomes: Shawn Brady, Kaitlin Harrigan, Travis Hussey, Kyle Pillsbury, helped to complete the 2014 murrelet surveys.

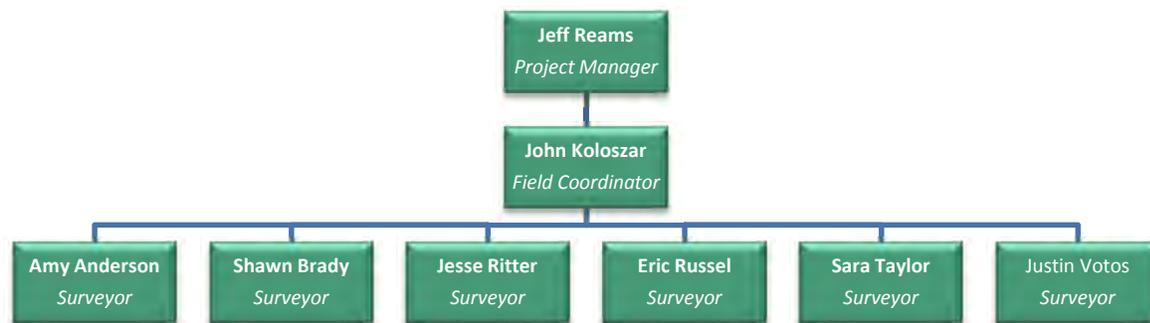


Figure 1. Staff Organizational Chart 2013



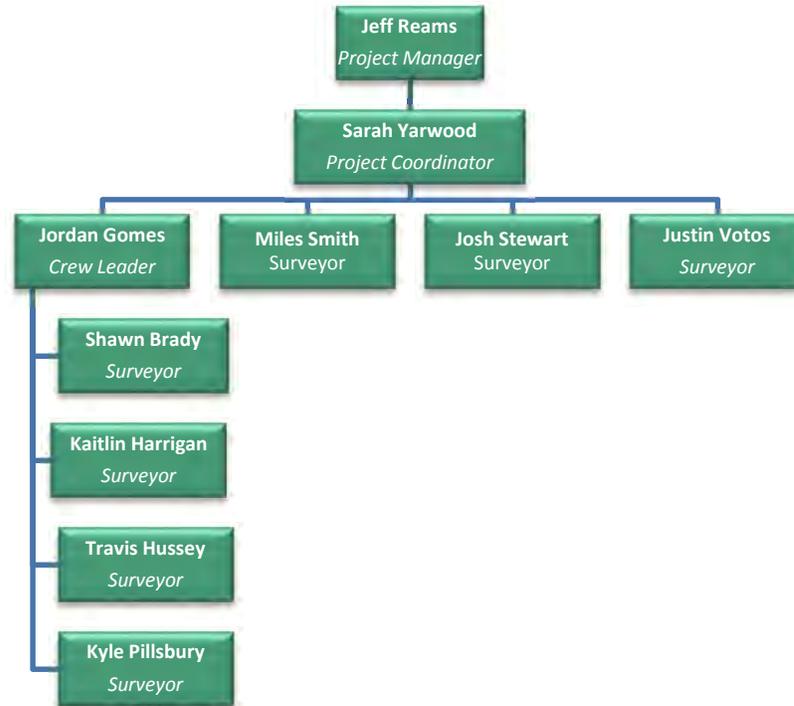


Figure 2. Staff Organizational Chart 2014

RESULTS

Year-1, 2013

A total of 49 surveys were completed to protocol in eight sites on the Watershed in 2013 (Appendix B, Table 4). Biologists recorded murrelet activity on nine of the 49 protocol surveys. Thirty-eight individual detections were recorded across four of the eight sites. There were no detections in survey sites, OHA, OHC, YHA and YHC. The four survey sites with detections included OHB and YHB, YHD, and YHE (Table 1). Survey sites OHB, YHD and YHE all had occupied behavior observed while YHB had only presence detections.

Table 2. 2013 Year 1 Marbled Murrelet Detection Summary.

Survey Sites	Visit #	STA #	Comp. Date	# DETS	# AUD	# VIS	#SUB	TOTAL #DETS
OHB	4	OHB3	7/1/2013	1	1	0	0	4
	5	OHB5	7/8/2013	3	2	1	1	
YHB	2	YHB1	5/23/2013	1	1	0	0	9
	5	YHB2	7/2/2013	1	1	0	0	
	6	YHB3	7/9/2013	1	1	0	0	
	7	YHB1	7/19/2013	6	6	0	0	
YHD	6	YHD1	7/19/2013	23	21	3	1	23
YHE	1	YHE1	5/16/2013	1	0	1	1	2
	3	YHE2	5/23/2013	1	1	0	0	

DETS = Number of detections; # AUD = Number of Heard Detections; # VIS = Number of Visual Detections; # SUB = Number of Subcanopy Detections



Year-2, 2014

A total of 46 surveys were completed to protocol in six sites in 2014 (Appendix B, Table 5). Site OHB had occupied behavior observed in Year-1 and was surveyed in Year-2 beyond protocol requirements in an attempt to gather additional information on murrelet activity within the site. No murrelet activity was recorded in OHB in 2014. Sites YHD and YHE were not surveyed in Year-2 due to occupancy detections in 2013.

Two individual presence detections were recorded in site YHC. There were no detections in sites YHA, YHB, OHA, OHB, and OHC.

Table 3. 2014 Year 2 Marbled Murrelet Detection Summary.

Survey Site	Visit #	STA #	Comp. Date	# DETS	# AUD	# VIS	#SUB	TOTAL #DETS
YHC	2	YHC3	5/14/2014	1	1	0	0	2
	8	YHC6	7/23/2014	1	1	0	0	
# DET = Number of detections; # AUD = Number of Heard Detections; # VIS = Number of Visual Detections; # SUB = Number of Subcanopy Detections								

CONCLUSION

A site is considered occupied when murrelets are observed by a certified biologist exhibiting sub-canopy behaviors. Sub-canopy behaviors are any behavior that occur at or below the forest canopy (Mack 2003). Because survey sites, OHB, YHD and YHE all had sub-canopy detections, they are considered occupied sites and need no further surveys according to the PSG Protocol (Mack et al, 2003).

When a survey area is divided into more than one site, the collective outcomes determine the status of the survey area (Mack et al, 2003). OHB is a subdivision of continuous habitat that includes subdivisions OHA and OHC. All three would be considered occupied since OHB had the sub-canopy detection, and has continuous habitat between sites. YHE and YHD also had sub-canopy detections and are subdivisions of continuous habitat with YHC, making all three occupied.

YHB had documented presence detection but not occupancy. There were only audio detections which cannot be attributed to below canopy behavior. Four additional site visits (9 total) were conducted at this site in Year-1 and an additional 9 visits in Year-2. No further surveys are required for 5-years and is cleared for proposed management according to the PSG Protocol (Mack et al, 2003).

YHA is the only site that had no detections. No further surveys are required for 5-years and is cleared for proposed management activities according to the PSG Protocol (Mack et al, 2003).

RECOMMENDATIONS

Sites with MAMU occupancy and their respective contiguous habitat would follow guidelines based on the Marbled Murrelet Recovery Plan (USFWS September 1997). Section 3.1.1.3 states to maintain and enhance buffer habitat surrounding occupied habitat. Buffer widths should be a minimum of 300-600 feet and should consist of whatever age stand is present, including existing plantations (which should be managed to provide replacement habitat)."



Protection Measures to ensure that the proposed action would not adversely affect MAMU would include:

- Prohibit the removal or damage of potential structure;
- Prohibit timber harvest and associated ground disturbances during the murrelet nesting period (April 1-September 15);
- Maintain a 150-foot un-thinned buffer around all trees with potential structure;
- Maintain an average canopy closure of at least 60 percent post treatment (averaged over a 40 acre area) in the zone between 150 feet and 300 feet.;
- Maintain an average canopy closure of at least 40 percent post treatment (averaged over a 40 acre area) in the zone between 300 feet and 600 feet.

Management of these stands is guided by the Corvallis Forest Stewardship Plan, developed by the City of Corvallis and Trout Mountain Forestry. Site-specific prescriptions will be prepared for each harvest unit as part of the harvest planning process. These thinning prescriptions on harvest units adjacent to sites confirmed with occupied behavior can in fact promote older forest characteristics needed for nesting murrelets. It is highly recommended that a consultation with USFWS be conducted to discuss a harvest plan that will fulfill the needs of the City of Corvallis while protecting nesting habitat of the marbled murrelet.



APPENDIX A – SURVEY SUMMARY AND MAP

Table 4. 2013 Marbled Murrelet Survey Results.

SURVEY SITES	STATION	VISIT NUMBER	SURVEY DATE	NUMBER OF DETECTIONS	COMMENTS
OHA	OHA5	1	5/11/2013	0	
	OHA6	2	5/23/2013	0	
	OHA4	3	6/6/2013	0	
	OHA2	4	6/24/2013	0	
	OHA1	5	7/2/2013	0	
	OHA3	6	7/8/2013	0	
OHB	OHB4	1	5/11/2013	0	
	OHB1	2	6/6/2013	0	
	OHB2	3	6/20/2013	0	
	OHB3	4	7/1/2013	1	Loud heard to south, nearly overhead.
	OHB5	5	7/8/2013	3	Faint heard to the south and east. Single bird seen below canopy in NNW accompanied by audible (multiple overlapping).
	OHB1	6	7/17/2013	0	
OHC	OHC1	1	5/16/2013	0	
	OHC6	2	5/23/2013	0	
	OHC4	3	6/6/2013	0	
	OHC3	4	6/13/2013	0	
	OHC2	5	7/2/2013	0	
	OHC5	6	7/9/2013	0	
YHA	YHA7	1	5/12/2013	0	Heard BAEA, M-STOC (100m at 252°)
	YHA5	2	5/23/2013	0	
	YHA1	3	6/13/2013	0	
	YHA2	4	6/20/2013	0	
	YHA4	5	7/1/2013	0	
	YHA6	6	7/12/2013	0	
	YHA3	7	7/21/2013	0	



SURVEY SITES	STATION	VISIT NUMBER	SURVEY DATE	NUMBER OF DETECTIONS	COMMENTS
YHB	YHB3	1	5/13/2013	0	
	YHB1	2	5/23/2013	1	Moderate to Loud heard detection to the SouthWest (multiple overlapping)
	YHB2	3	6/7/2013	0	
	YHB3	4	6/13/2013	0	
	YHB1	5	6/20/2013	0	
	YHB2	6	7/2/2013	1	Faint heard to the north. Sound was moving to the S (multiple, not overlapping).
	YHB3	7	7/9/2013	1	Faint keers/groans to the WNW (multiple overlapping).
	YHB1	8	7/19/2013	6	Audio detections only.
	YHB2	9	7/26/2013	0	
YHC	YHC5	1	5/11/2013	0	
	YHC3	2	5/31/2013	0	
	YHC2	3	6/24/2013	0	
	YHC6	4	7/2/2013	0	
	YHC4	5	7/13/2013	0	
	YHC1	6	7/21/2013	0	
YHD	YHD6	1	5/13/2013	0	
	YHD5	2	5/31/2013	0	
	YHD2	3	6/24/2013	0	
	YHD4	4	7/3/2013	0	
	YHD3	5	7/11/2013	0	
	YHD1	6	7/19/2013	23	20 heard only detections. 2 visual detections above canopy and 1 visual of MAMU flying through the area below canopy height.
YHE	YHE1	1	5/16/2013	1	Seen, Fly-through at or below canopy
	YHE1	2	5/17/2013	0	Attempt confirmation of previous day's detection
	YHE2	3	5/23/2013	1	Loud heard detection to the North. Sound was moving to the NE (multiple overlapping)



Table 5. 2014 Marbled Murrelet Survey Results.

SURVEY SITES	STATION	VISIT NUMBER	SURVEY DATE	NUMBER OF DETECTIONS	COMMENTS
OHA	OHA2	1	5-1-14	0	
	OHA3	2	5-15-14	0	Bald eagle
	OHA1	3	6-5-14	0	
	OHA6	4	7-1-14	0	
	OHA4	5	7-17-14	0	
	OHA5	6	7-24-14	0	
OHB	OHB1	1	5-5-14	0	
	OHB6	2	5-16-14	0	
	OHB4	3	5-29-14	0	
	OHB3	4	6-16-14	0	Cougar encounter within 25 m of station
	OHB1	5	6-25-14	0	
	OHB5	6	7-1-14	0	
	OHB2	7	7-12-14	0	
	OHB4	8	7-23-14	0	
	OHB3	9	8-1-14	0	
OHC	OHC6	1	5-6-14	0	
	OHC1	2	5-26-14	0	
	OHC4	3	6-20-14	0	
	OHC3	4	7-9-14	0	Barred owl
	OHC5	5	7-17-14	0	
	OHC2	6	7-24-14	0	
YHA	YHA7	1	5-2-14	0	Barred owl
	YHA6	2	5-20-14	0	Barred owl
	YHA2	3	6-4-14	0	
	YHA4	4	6-19-14	0	
	YHA1	5	7-2-14	0	
	YHA3	6	7-10-14	0	Osprey
	YHA5	7	7-29-14	0	Osprey
YHB	YHB2	1	5-9-14	0	
	YHB3	2	5-16-14	0	
	YHB1	3	6-4-14	0	
	YHB3	4	6-16-14	0	
	YHB2	5	6-24-14	0	
	YHB1	6	7-3-14	0	
	YHB3	7	7-11-14	0	
	YHB2	8	7-23-14	0	
	YHB1	9	7-30-14	0	

SURVEY SITES	STATION	VISIT NUMBER	SURVEY DATE	NUMBER OF DETECTIONS	COMMENTS
YHC	YHC2	1	5-2-14	0	
	YHC3	2	5-14-14	1	Multiple overlapping keers to the NW
	YHC5	3	5-22-14	0	Barred owl
	YHC4	4	6-4-14	0	
	YHC6	5	6-18-14	0	
	YHC1	6	7-3-14	0	Barred owl
	YHC2	7	7-15-14	0	
	YHC6	8	7-23-14	1	Single keer faint to the NW
	YHC3	9	8-4-14	0	



Corvallis Watershed 2013-2014
Marbled Murrelet Detections

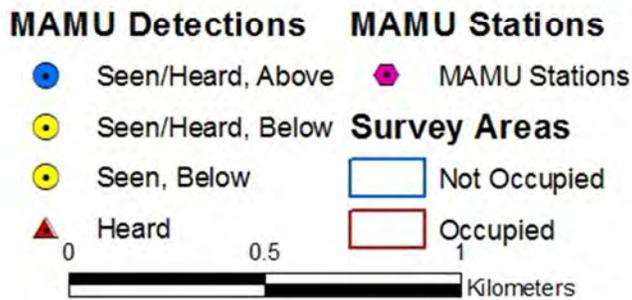
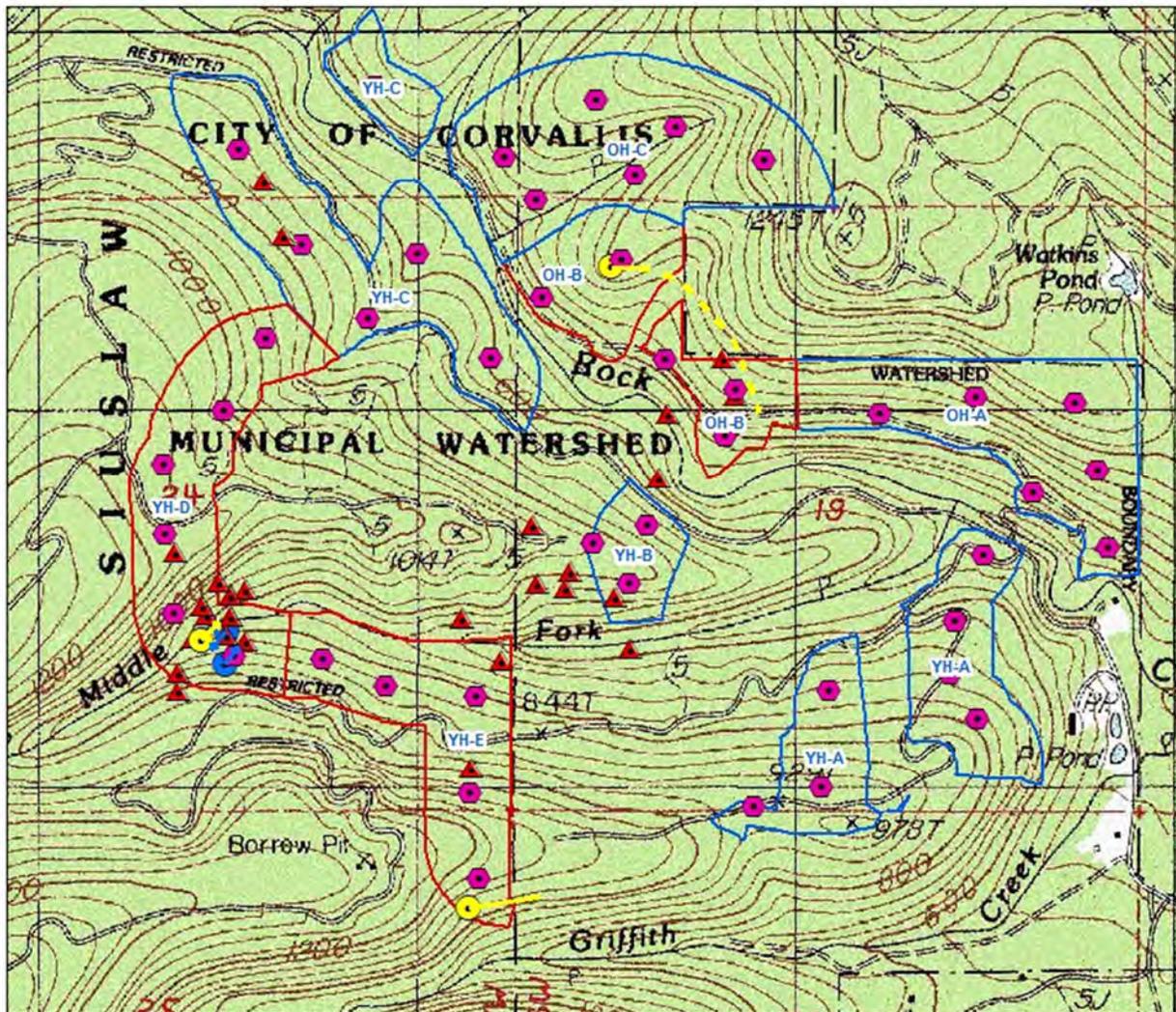


Figure 3. Marbled Murrelet Detection Overview Map



APPENDIX B – STATION INFORMATION

Table 6. Survey Station UTM's.

SURVEY SITES	STATIONS	NAD83X	NAD83Y
OHA	OHA1	463125	4929192
	OHA2	463380	4929238
	OHA3	463711	4928049
	OHA4	463641	4929219
	OHA5	463533	4928983
	OHA6	463729	4928837
OHB	OHB1	462443	4929597
	OHB2	462719	4929132
	OHB3	462746	4929257
	OHB4	462233	4929497
	OHB5	462559	4929337
	OHB6	462602	4929457
OHC	OHC1	462136	4929870
	OHC2	462865	4929850
	OHC3	462480	4929823
	OHC4	462377	4930022
	OHC5	462588	4929951
	OHC6	462248	4929767
YHA	YHA1	462972	4928200
	YHA2	462992	4928461
	YHA3	463386	4928385
	YHA4	463313	4928505
	YHA5	463292	4928639
	YHA6	463337	4928839
	YHA7	462793	4928149
YHB	YHB1	462464	4928742
	YHB2	462494	4928903
	YHB3	462396	4928851
YHC	YHC1	462083	4929291
	YHC2	461904	4929615
	YHC3	461598	4929636
	YHC4	461433	4929890
	YHC5	461794	4930058
	YHC6	461773	4929444
YHD	YHD1	461263	4928660
	YHD2	461240	4928872
	YHD3	461393	4929201
	YHD4	461460	4929421
	YHD5	461422	4928552
	YHD6	461230	4929018



SURVEY SITES	STATIONS	NAD83X	NAD83Y
YHE	YHE1	462067	4927961
	YHE2	462044	4928187
	YHE3	461821	4928470
	YHE4	461654	4928543



Corvallis Watershed MAMU Survey Stations

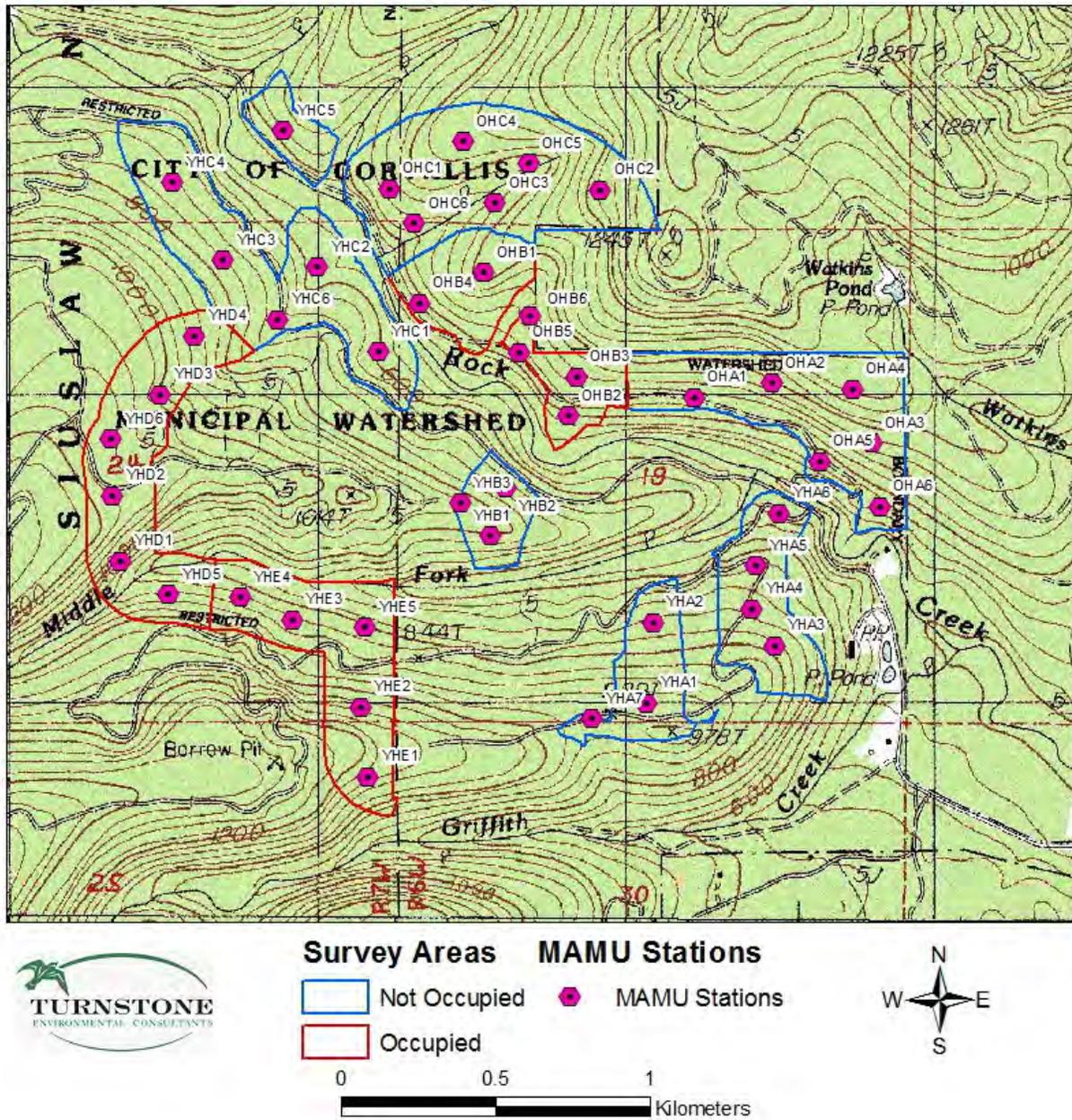


Figure 4. MAMU Survey Station Map.



APPENDIX C – 2013 DATA



OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/ABK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 05 Day 11 Year 2013

Area Name: Corvallis Watershed Site Name / Number: OHA Station Number: 5

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) NE, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 463533 N (y) coordinate: 4928983 Source: GIS Datum: NAD83 FOM: -

Observer (s) Name: Amy Anderson Initials: AAA Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 560 (ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: ✓ Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0550 Source: Corvallis USNO Begin Survey Time: 0505 End Survey Time: 0705

Temperature at Sunrise: 50 ° Temperature at End of Survey: 50 ° (circle one) C or (F) revised: 2/2000

TIME	VERTICAL VIEWING		HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER			VISIBILITY TO 2 CANOPY	RAIN	FOG			
0505	HI	3	Y	Y	N	N	N	0	N	BEGIN
0540	HI	1	Y	Y	N	N	N	0	N	CLOUD ↓
0550	HI	1	Y	Y	N	N	N	0	N	Sunrise
0705	HI	1	Y	Y	N	N	N	0	N	End

Ceiling: UL = Unlimited (clear), HI => >2.0 canopy height, MID => >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): JK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 05 Day 23 Year 2013

Area Name: CORVALLIS WATERSHED Site Name / Number: OHA Station Number: 6

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) SE, of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 463729 N (y) coordinate: 4928837 Source: GIS Datum: NAD 83 FOM: -

Observer (s) Name: JEFF REAMS Initials: JTR Affiliation: TURNSTONE Phone: (503) 283-5338

Station Elevation: 540 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, (Upper 1/3), Ridgetop

Station Placement (circle one): (Inside) Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: METERS

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0538 Source: USNO Begin Survey Time: 0452 End Survey Time: 0652

Temperature at Sunrise: 44 ° Temperature at End of Survey: 44 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
<u>0452</u>	<u>H</u>	<u>3</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>N</u>	<u>N</u>	<u>-</u>	<u>0</u>	<u>N</u>	<u>BEGIN SURVEY</u>
<u>0538</u>	<u>H</u>	<u>3</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>N</u>	<u>N</u>	<u>-</u>	<u>0</u>	<u>N</u>	<u>SUNRISE</u>
<u>0652</u>	<u>H</u>	<u>3</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>N</u>	<u>N</u>	<u>-</u>	<u>0</u>	<u>N</u>	<u>END SURVEY</u>

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/BLK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 06 Year 2013

Area Name: Corvallis Watershed Site Name / Number: OHA Station Number: 4

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) NE, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 0463641 N (y) coordinate: 4929219 Source: GIS Datum: NAD83 FOM: —

Observer (s) Name: Eric Rossel Initials: ER Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 920 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: Meters

Station Canopy Cover (circle one): 1 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0529 Source: Corvallis USNO Begin Survey Time: 0444 End Survey Time: 0644

Temperature at Sunrise: 55 ° Temperature at End of Survey: 57 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0444	H	0	Y	Y	Y	N	N	N	N	N	Start of Survey
0529	H	0	Y	Y	Y	N	N	N	N	N	Sunrise
0605	H	0	Y	Y	Y	N	N	N	N	M	Machinery heard in West
0644	H	0	Y	Y	Y	N	N	N	N	M	End of Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y AK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 24 Year 2013

Area Name: Corvallis Watershed Site Name / Number: OHA Station Number: 2

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) NE, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 463380 N (y) coordinate: 4929238 Source: GIS Datum: NAD83 FOM: -

Observer (s) Name: Amy Anderson Initials: AA Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 780 (Ft) M Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3) Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, (3) = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0529 Source: Corvallis USNO Begin Survey Time: 0444 End Survey Time: 0644

Temperature at Sunrise: 51 ° Temperature at End of Survey: 52 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0444	H1	3	Y	Y	Y	N	N	N	1	N	BEGIN Survey
0529	H1	3	Y	Y	Y	N	N	N	1	N	SUNRISE
0644	H1	3	Y	Y	Y	N	N	N	1	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/TK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 07 Day 01 Year 2013

Area Name: Corvallis Watershed Site Name / Number: OHA Station Number: 1

Station Location - T 12 (circle one) N of (S), R 6 (circle one) E of (W), S 19, QQ (1/16) NE, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 463125 N (y) coordinate: 4929192 Source: _____ Datum: NAD83 FOM: -

Observer (s) Name: Sarah Yarwood Initials: SDY Affiliation: TELI Phone: (541) 929-7542

Station Elevation: 660 (Ft) / M Position on Slope (circle one): Bottom/plain, (Lower 1/3), Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, (4) = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0533 Source: USNO Begin Survey Time: 0448 End Survey Time: 0648

Temperature at Sunrise: 64 ° Temperature at End of Survey: 64 ° (circle one) C or (F) revised: 2/2000

TIME	VERTICAL VIEWING		HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER			VISIBILITY TO 2 CANOPY	RAIN	FOG			
0448	UL	0	Y	Y	N	N	N	0	N	Begin Survey 65°F
0533	UL	0	Y	Y	N	N	N	0	N	Sunrise 64°F
0648	UL	0	Y	Y	N	N	N	0	N	End Survey 64°F

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JP

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 7 Day 8 Year 2013

Area Name: Corvallis Watershed Site Name / Number: OHA Station Number: 3

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) NE, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 463711 N (y) coordinate: 4929049 Source: GIS Datum: NAD83 FOM: -

Observer (s) Name: J.A. Votaw Initials: JAV Affiliation: TEC Phone: (503) 293-3333

Station Elevation: 755 (Ft) M Position on Slope (circle one): Bottom/plain, (Lower 1/3), Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): (Inside) Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: METERS

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, (3 = 51 to 75%), 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Corvallis.

Official Sunrise Time: 0537 Source: USNO Begin Survey Time: 0452 End Survey Time: 0652

Temperature at Sunrise: 51 ° Temperature at End of Survey: 55 ° (circle one) C or (F) revised: 2/2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0452	UL	0	N	Y	Y	N	N	-	1	N	START SURVEY
0537	UL	0	Y	Y	Y	N	N	-	1	N	SUNRISE
0652	UL	0	Y	Y	Y	N	N	-	1	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <=2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y AK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 05 Day 11 Year 2013

Area Name: Corvallis Watershed / Old Harvest B Site Name / Number: OHB Station Number: 4

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) NW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462233.2 N (y) coordinate: 4929497 Source: GIS Datum: NAD83 FOM: —

Observer (s) Name: Shawn Brady Initials: SJB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 570 (Ft) / M Position on Slope (circle one): (Bottom/plain) Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): (Inside) Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): (1 = 0 to 25%) 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Corvallis

Official Sunrise Time: 0530 Source: USNO Begin Survey Time: 0505 End Survey Time: 0705

Temperature at Sunrise: 50 ° Temperature at End of Survey: 63 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0505	HI	3	Y	Y	Y	N	N	N	0	C	Start Survey
0550	HI	1	Y	Y	Y	N	N	N	0	C	Clouds cleared @ ~0540
0705	HI	1	Y	Y	Y	N	N	N	0	C	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y / BK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 06 Year 2013

Area Name: Corvallis Watershed / OLD HARVEST B Site Name / Number: 04B1 Station Number: 1

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) NW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462443 N (y) coordinate: 4929597 Source: GIS Datum: NAD83 FOM: -

Observer (s) Name: JESSE RITTER Initials: JCR Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 790 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3), Upper 1/3, Ridgetop

Station Placement (circle one): (Inside) Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, (2 = 26 to 50%), 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

CORVALLIS

Official Sunrise Time: 0529 Source: USNO Begin Survey Time: 0444 End Survey Time: 0644

Temperature at Sunrise: 54 ° Temperature at End of Survey: 50 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0444	UL	0	Y	Y	Y	N	N	N	0	N	BEGIN SURVEY
0529	UL	0	Y	Y	Y	N	N	N	0	N	SUNRISE
0644	UL	0	Y	Y	Y	N	N	N	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <=2.0 canopy height, LO =<1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

JCR

OREGON MARBLED MURRELET FOREST SURVEY FORM

Corvallis Watershed

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/GR

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 20 Year 2013

Area Name: Old Harvest B Site Name / Number: OHB Station Number: 2

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) NW, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 462718.9 N (y) coordinate: 4929132 Source: GIS Datum: NAD 83 FOM: -

Observer (s) Name: Shawn Brady Initials: SSB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 580 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3), Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, (2 = 26 to 50%), 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0528 Source: USNO Begin Survey Time: 0443 End Survey Time: 0643

Temperature at Sunrise: 49 ° Temperature at End of Survey: 49 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING		HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER			VISIBILITY TO 2 CANOPY	RAIN	FOG			
0443	HI	3	Y	Y	N	N	N	0	N	Start Survey
0528	HI	3	Y	Y	N	N	N	0	N	Sunrise
0540	HI	2	Y	Y	N	N	N	0	N	Clouds ↓
0643	HI	2	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 3

(Y or N, initials): Y JK

Total Detections: 1

Species of Concern (circle one, details on last pg.): Y or N

Month 07 Day 01 Year 2013

Area Name: Corvallis Watershed / Old Harvest + B Site Name / Number: OH B Station Number: 3

Station Location - T 12 (circle one) N or S, R 6 (circle one) E or W, S 19, QQ (1/16) NW, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 462746 N (y) coordinate: 4929257 Source: GIS Datum: NAD83 FOM: —

Observer (s) Name: J. Koloszar Initials: JK Affiliation: Turnstone Phone: (503) 283-5338

Station Elevation: 700 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: Meters

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0533 Source: Corvallis UNSD Begin Survey Time: 0448 End Survey Time: 0648

Temperature at Sunrise: 65 ° Temperature at End of Survey: 65 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0448	UL	0	Y	Y	Y	N	N	N	0	N	Begin Survey
0533	UL	0	Y	Y	Y	N	N	N	0	N	Sunrise
0648	UL	0	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

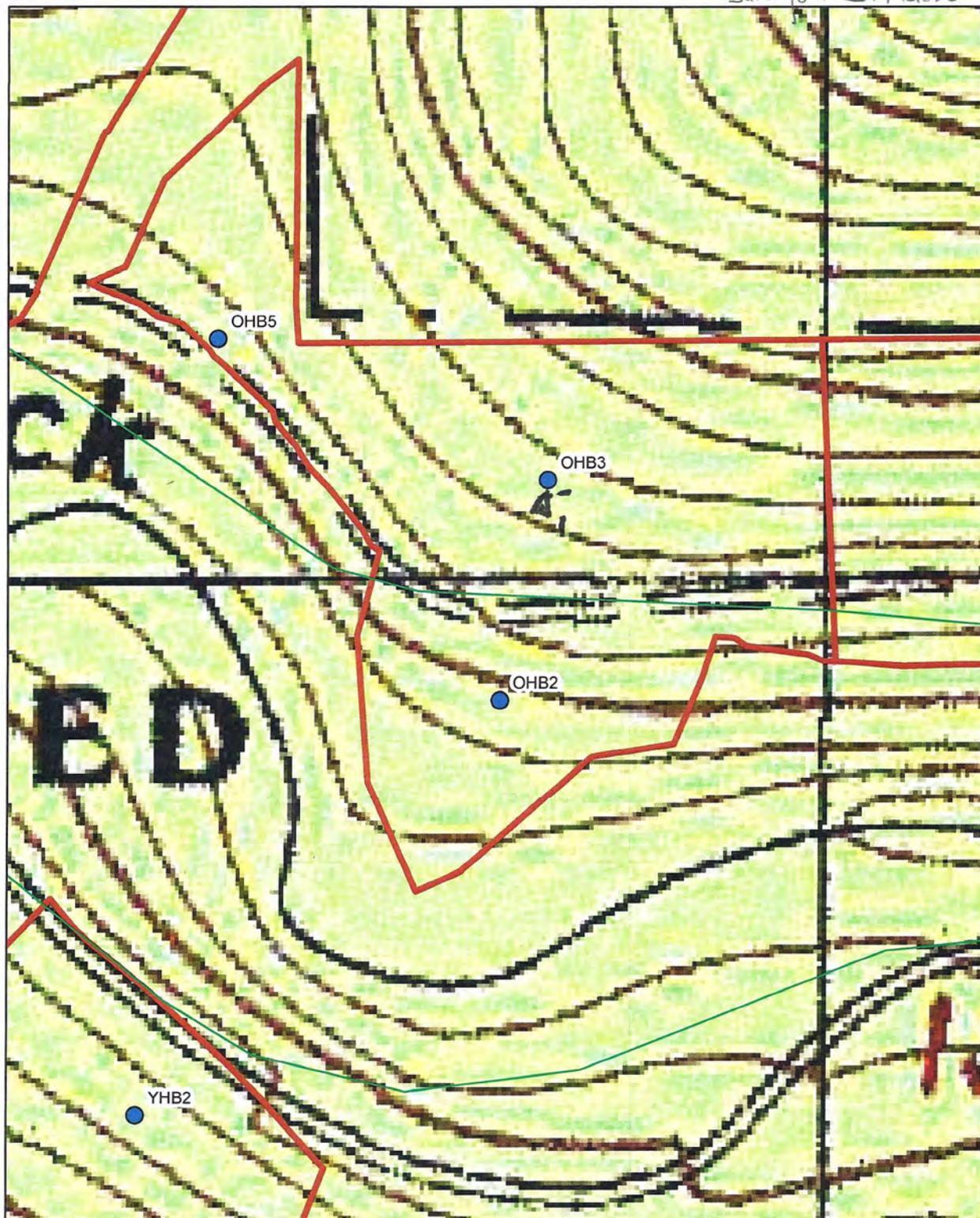
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

Corvallis Watershed - OHB3, July 1, 2013 Detection

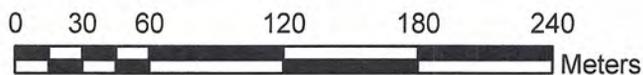
Surveyor: J. Kaloszar



Legend

● 2013 MAMU Stations

▭ Survey Areas



OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 3

(Y or N, initials): Y/GR

Total Detections: 3

Species of Concern (circle one, details on last pg.): Y or (N)

Month 07 Day 08 Year 2013

Area Name: Covallis Watershed / OLD HARVEST B

Site Name / Number: OHB

Station Number: 5

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) NW, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462559.2 N (y) coordinate: 4929337 Source: GIS Datum: NAD83 FOM: -

Observer (s) Name: Sarah Yarwood Initials: SDY Affiliation: Turnstone Phone: (541) 929-7542

Station Elevation: 620 (Ft) / M Position on Slope (circle one): Bottom/plain, (Lower 1/3), Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, (3) = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0537 Source: USNO Begin Survey Time: 0452 End Survey Time: 0652

Temperature at Sunrise: 51 ° Temperature at End of Survey: 52 ° (circle one) C or (F) revised: 2/2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0452	UL	0	Y	Y	Y	N	N	N	0	N	Start Survey
0522	H1	1	Y	Y	Y	N	N	N	0	N	↑ clouds
0537	H1	1	Y	Y	Y	N	N	N	0	N	51°F Sunrise
0540	H1	3	Y	Y	Y	N	N	N	0	N	↑ clouds, thin
0554	H1	1	Y	Y	Y	N	N	N	0	N	↓ clouds
0633	H1	2	Y	Y	Y	N	N	N	0	N	↑ clouds
0635	H1	1	Y	Y	Y	N	N	N	0	N	↓ clouds
0644	H1	2	Y	Y	Y	N	N	N	0	N	↑ clouds
0652	H1	2	Y	Y	Y	N	N	N	0	N	52°F End survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <= 2.0 canopy height, LO = <=1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

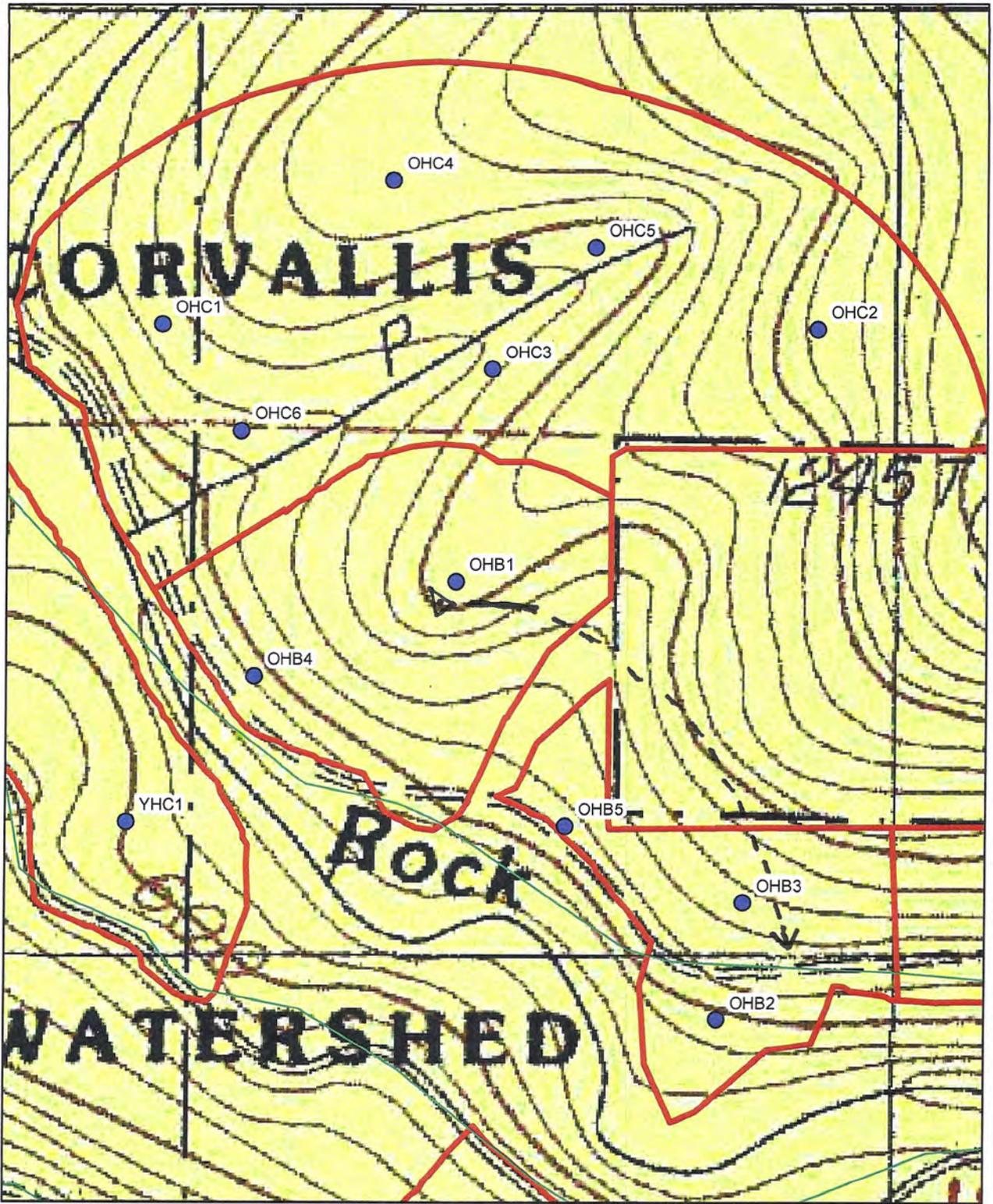
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

Corvallis Watershed - OHB & OHC



Legend

- 2013 MAMU Stations
- ▭ Survey Areas



OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y / JK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 07 Day 17 Year 2013

Area Name: Corvallis Watershed, Old Harvest B Site Name / Number: 04B Station Number: 1

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) NW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462443 N (y) coordinate: 4929597 Source: GIS Datum: NAD83 FOM: -

Observer (s) Name: John Kolosek Initials: JKK Affiliation: Turnstone E.C. Phone: (503) 283-5236

Station Elevation: 790 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3), Upper 1/3, Ridgetop

Station Placement (circle one): (Inside) Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: meters

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0545 Source: USNO Begin Survey Time: 0500 End Survey Time: 0700

Temperature at Sunrise: 0 Temperature at End of Survey: 0 (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING		HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER			VISIBILITY TO 2 CANOPY	RAIN	FOG			
0500	H1	3	Y	Y	N	N	N	0	N	Begin
0545	H1	3	Y	Y	N	N	N	0	N	Sunrise
0700	H1	3	Y	Y	N	N	N	0	N	End.

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <= 2.0 canopy height, LO =<1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y / BK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 08 Day 16 Year 2013

Area Name: Corvallis Watershed / Old Harvest C

Site Name / Number: OHC

Station Number: 1

Station Location - T 12 (circle one) N or (S), R 7 (circle one) E or (W), S 13, QQ (1/16) SE, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 462135.7 N (y) coordinate: 4929870 Source: GIS Datum: NAD83 FOM: —

Observer (s) Name: Shawn Brady Initials: SB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 690 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3), Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, (3 = 51 to 75%), 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0544 Source: Corvallis USNO Begin Survey Time: 0459 End Survey Time: 0659

Temperature at Sunrise: 51 ° Temperature at End of Survey: 51 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0459	HI	3	Y	Y	Y	N	N	N	0	N	Begin Survey
0544	HI	3	Y	Y	Y	N	N	N	0	N	Sunrise
0637	HI	2	Y	Y	Y	N	N	N	0	N	Reduced Clouds
0659	HI	2	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/B14

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 05 Day 23 Year 2013

Area Name: Corvallis Watershed / OLD HARVEST C Site Name / Number: OHC- Station Number: 6

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E of (W), S 19, QQ (1/16) NW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462248 N (y) coordinate: 4929767 Source: G15 Datum: NAD83 FOM: -

Observer (s) Name: JESSE RETTER Initials: JCR Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 670 (F) M Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3), Upper 1/3, Ridgetop

Station Placement (circle one): (Inside) Outside

Distance from Survey Site Boundary: 0 Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, (2 = 26 to 50%), 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0537 Source: CORVALLIS USNO Begin Survey Time: 0452 End Survey Time: 0652

Temperature at Sunrise: 44 ° Temperature at End of Survey: 44 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0452	HI	3	Y	Y	Y	N	N	N	1	N	BEGIN SURVEY
0537	HI	3	Y	Y	Y	N	N	N	1	N	SUNRISE
0652	HI	3	Y	Y	Y	N	N	N	1	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/AA

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 06 Day 06 Year 2012

Area Name: Corvallis Watershed
OID HARVEST C

Site Name / Number: OH C

Station Number: 4

Station Location - T 12 (circle one) N or S, R 6 (circle one) E or W, S 18, QQ (1/16) SW, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462377 N (y) coordinate: 4930022 Source: GPS Datum: NAD83 FOM: —

Observer (s) Name: Amy Anderson Initials: AA Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 850 Ft / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0529 Source: USNO Begin Survey Time: 0444 End Survey Time: 0644

Temperature at Sunrise: 49 ° Temperature at End of Survey: 49 ° (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0444	UL	0	Y	Y	Y	N	N	N	0	N	BEGIN Survey
0529	UL	0	Y	Y	Y	N	N	N	0	N	Sunrise
0644	UL	0	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <2.0 canopy height, LO =<1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

55 617

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/JSK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 13 Year 2013

Area Name: Old Harvest C Site Name / Number: OHC-3 Station Number: 3

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 18, QQ (1/16) SW, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462480 N (y) coordinate: 4929823 Source: G15 Datum: NAD83 FOM: -

Observer (s) Name: JESSE RITTER Initials: JSK Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 760 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3), Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, (3 = 51 to 75%), 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

CORVALLIS

Official Sunrise Time: 0528 Source: USNO Begin Survey Time: 0443 End Survey Time: 0643

Temperature at Sunrise: 48 ° Temperature at End of Survey: 48 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0443	HI	3	Y	Y	Y	L	N	N	Ø	N	BEGIN SURVEY
0528	HI	3	Y	Y	Y	L	N	N	Ø	N	SUNRISE
0643	HI	3	Y	Y	Y	L	N	N	Ø	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/BJK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 7 Day 2 Year 2013

Area Name: OLD Harvest C Site Name / Number: OHC Station Number: 2

Station Location - T 12 (circle one) N or S, R 6 (circle one) E or W, S 18, QQ (1/16) SW, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 462865 N (y) coordinate: 4929850 Source: GIS Datum: NAD83 FOM: -

Observer (s) Name: J. Kolostar Initials: JKL Affiliation: Turnstone Phone: (503) 283-5338

Station Elevation: 1080 Ft M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: meters

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0533 Source: USNO Begin Survey Time: 0448 End Survey Time: 0648

Temperature at Sunrise: 65 ° Temperature at End of Survey: 65 ° (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0448	UL	0	Y	Y	Y	N	N	N	0	N	Start Survey
0533	UL	0	Y	Y	Y	N	N	N	0	N	Sunrise
0648	UL	0	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <2.0 canopy height, LO =<1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____

Quad. Code _____ Photo Code _____ General Location _____

Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____

Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y / JVC

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 7 Day 9 Year 2013

Area Name: Corvallis Watershed
Old Harvest C

Site Name / Number: OHC

Station Number: 5

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 18, QQ (1/16) SW, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 462588 N (y) coordinate: 4929951 Source: GIS Datum: NADE83 FOM: _____

Observer (s) Name: Jessie D. Vance Initials: JAV Affiliation: TRC Phone: (503) 283-3333

Station Elevation: 790 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: Meters

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0538 Source: Corvallis USNO Begin Survey Time: 0453 End Survey Time: 0653

Temperature at Sunrise: 50 ° Temperature at End of Survey: 51 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0453	11	3	4	4	4	N	N	N	1	-	START SURVEY
0538	11	3	4	4	4	N	N	N	1	-	SUNRISE
0653	11	3	4	4	4	N	N	N	1	-	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Corvallis Watershed

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/LK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 05 Day 12 Year 2013

Area Name: Young Harvest A Site Name / Number: YHA Station Number: 7

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 30, QQ (1/16) NW, of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 462793 N (y) coordinate: 4928149 Source: GIS Datum: NAD83 FOM: -

Observer (s) Name: J. Koloszar Initials: LK Affiliation: Turnstone Phone: (503) 283-5338

Station Elevation: 930 (Ft)/ M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0548 Source: USNO *Corvallis* Begin Survey Time: 0503 End Survey Time: 0703

Temperature at Sunrise: 55 ° Temperature at End of Survey: 55 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0503	UL	0	Y	Y	Y	N	N	N	0	N	Begin Survey
0548	UL	0	Y	Y	Y	N	N	N	0	N	Official Sunrise
0703	UL	0	Y	Y	Y	N	N	N	0	N	End Survey
											* STOC 4 notes * 252° at 150m

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <=2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/BC

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or **(N)**

Month 05 Day 23 Year 2013

Area Name: Young Harvest A Site Name / Number: YHA Station Number: 5

Station Location - T 12 (circle one) N or **(S)**, R 6 (circle one) E or **(W)**, S 19, QQ (1/16) SE, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 463292 N (y) coordinate: 4928639 Source: GIS Datum: NAD83 FOM: /

Observer (s) Name: Sara Taylor Initials: SFT Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 640 **(Ft)** M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, **(Upper 1/3)**, Ridgetop

Station Placement (circle one): **(Inside)**, Outside

Distance from Survey Site Boundary: Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, **(4 = 76 to 100%)**

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0537 Source: Corvallis USNO Begin Survey Time: 0452 End Survey Time: 0652

Temperature at Sunrise: 43 ° Temperature at End of Survey: 45 ° (circle one) C or **(F)** revised: 2/2000

TIME	VERTICAL VIEWING		HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER			VISIBILITY TO 2 CANOPY	RAIN	FOG			
0452	HI	3	Y	Y	N	N	N	0	C	Begin survey
0537	HI	3	Y	Y	N	N	N	0	C	sunrise
0622	HI	2	Y	Y	N	N	N	0	C	
0641	HI	3	Y	Y	N	N	N	0	C	
0652	HI	3	Y	Y	N	N	N	0	C	end survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <= 2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y / SK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 13 Year 2013

Area Name: Young Harvest A Site Name / Number: YHA Station Number: 1

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) SW, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 462972 N (y) coordinate: 4928200 Source: GPS Datum: NAD 83 FOM: -

Observer (s) Name: Shawn Brady Initials: SJB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 940 (FL) M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, (Ridgetop)

Station Placement (circle one): (Inside) Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): (1 = 0 to 25%), 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0528 Source: CORVALLIS USNO Begin Survey Time: 0443 End Survey Time: 0643

Temperature at Sunrise: 48 ° Temperature at End of Survey: 47 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0443	HI	3	Y	Y	Y	L	N	N	0	N	Begin Survey
0528	HI	3	Y	Y	Y	L	N	N	0	N	Sunrise
0533	HI	3	Y	Y	Y	N	N	N	0	N	Rain ↓
0614	HI	3	Y	Y	Y	L	N	N	0	N	Rain ↑
0628	HI	3	Y	Y	Y	N	N	N	0	N	Rain ↓
0643	HI	3	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y / 6K

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 06 Day 20 Year 2013

Area Name: Corvallis Watershed / Young Harvest A

Site Name / Number: YHA Station Number: 2

Station Location - T 12 (circle one) N or S, R 6 (circle one) E or W, S 19, QQ (1/16) SE, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462992.3274 N (y) coordinate: 4928461.268 Source: GPS Datum: NAD83 FOM: ✓

Observer (s) Name: Sara Taylor Initials: SFT Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 740 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0528 Source: USNO Begin Survey Time: 0443 End Survey Time: 0643

Temperature at Sunrise: 51 ° Temperature at End of Survey: 51 ° (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING		HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER			VISIBILITY TO 2 CANOPY	RAIN	FOG			
0443	HI	3	Y	Y	N	N	N	0	N	begin survey
0528	HI	3	Y	Y	N	N	N	0	N	sunrise
0643	HI	3	Y	Y	N	N	N	0	N	end survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <= 2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JTR

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Cornellia Watershed

Month 07 Day 01 Year 13

Area Name: YOUNG HARVEST A Site Name / Number: YHA Station Number: 4

Station Location - T 12 (circle one) N or (S), R U (circle one) E or (W), S 19, QQ (1/16) SE, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 463313 N (y) coordinate: 4928505 Source: GIS Datum: NAD83FOM

Observer (s) Name: JEFF REAMS Initials: JTR Affiliation: TFCI Phone: (503) 929-7542

Station Elevation: 740 (Ft) / (M) Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3), Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: METERS

Station Canopy Cover (circle one): 1 = 0 to 25%, (2) = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0533 Source: USNO Begin Survey Time: 0448 End Survey Time: 0648

Temperature at Sunrise: 61 ° Temperature at End of Survey: 62 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING		HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER			RAIN	FOG	OTHER			
0448	HI	0	Y	Y	N	N	N	2	N	BEGIN SURVEY
0515										HEARD BAA A SAW JUV. ON NEST
0533	HI	0	Y	Y	N	N	N	1	N	SUNRISE
0648	HI	0	Y	Y	N	N	N	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <=2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____
 ** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/16K

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 7 Day 12 Year 2013

Area Name: Corvallis Watershed / Young Harvest A

Site Name / Number: YHA Station Number: 6

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) SE, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 463237 N (y) coordinate: 4928839 Source: GIS Datum: NAD83 FOM: -

Observer(s) Name: Justin A. Votas Initials: JAV Affiliation: TECI Phone: (503) 283-5338

Station Elevation: 490 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: meters

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0540 Source: Corvallis USNO Begin Survey Time: 0455 End Survey Time: 0655

Temperature at Sunrise: 51 ° Temperature at End of Survey: 53 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0455	HI	3	4	4	Y	N	N	-	1	N	START SURVEY
0540	HI	3	4	4	Y	N	N	-	1	N	SUNRISE
0655	HI	3	4	4	Y	N	N	-	1	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <=2.0 canopy height, LO = <=1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y / GK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 07 Day 21 Year 2013

Area Name: Young Harvest A Site Name / Number: YHA Station Number: 3

Station Location - T 12 (circle one) N or S, R 6 (circle one) E or W, S 19, QQ (1/16) SE, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 463356 N (y) coordinate: 4929385 Source: GPS Datum: NAD 83 FOM: -

Observer (s) Name: Shawn Brada Initials: SB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 770 (Ft) M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0548 Source: Corvallis USNO Begin Survey Time: 0503 End Survey Time: 0703

Temperature at Sunrise: 52 ° Temperature at End of Survey: 51 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0503	UL	0	Y	Y	Y	N	N	N	0	N	Start Survey
0548	UL	0	Y	Y	Y	N	N	N	0	N	Sunrise
0703	UL	0	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y / JGK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 05 Day 13 Year 2013

Area Name: Young Harvest B Site Name / Number: YHB Station Number: 3

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) SW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462396 N (y) coordinate: 4928851 Source: G15 Datum: NAD 83 FOM: -

Observer (s) Name: J. Koloszar Initials: JGK Affiliation: Turnstone Environ Phone: (503) 283-5338

Station Elevation: 820 (Ft) / M Position on Slope (circle one): Bottom/plain, (Lower 1/3), Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): (inside), Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0548 Source: USNO Begin Survey Time: 0503 End Survey Time: 0703

Temperature at Sunrise: 60 ° Temperature at End of Survey: 60 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING		HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER			VISIBILITY TO 2 CANOPY	RAIN	FOG			
0503	H1	3	Y	Y	N	N	N	0	N	Begin Survey
0548	H1	3	Y	Y	N	N	N	0	N	Sunrise
0703	H1	3	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <2.0 canopy height, LO =<1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____

Quad. Code _____ Photo Code _____ General Location _____

Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____

Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y / JK

Total Detections: 1

Species of Concern (circle one, details on last pg.): Y or **(N)**

Month 5 Day 23 Year 2013

Area Name: Corvallis Watershed / Young Harvest B

Site Name / Number: YHB

Station Number: 1

Station Location - T 12 (circle one) N or **(S)**, R 6 (circle one) E or **(W)**, S 19, QQ (1/16) SW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462464 N (y) coordinate: 4928742 Source: GIS Datum: NAD83 FOM: -

Observer (s) Name: J. Koloszar Initials: JK Affiliation: Turnstone Phone: (503) 283-5338

Station Elevation: 780 **(Ft)** / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, **(Upper 1/3)**, Ridgetop

Station Placement (circle one): **(Inside)** Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, **(4 = 76 to 100%)**

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0537 Source: Corvallis USNO Begin Survey Time: 0452 End Survey Time: 0652

Temperature at Sunrise: 46 ° Temperature at End of Survey: 46 ° (circle one) C or **(F)** revised: 2 / 2000

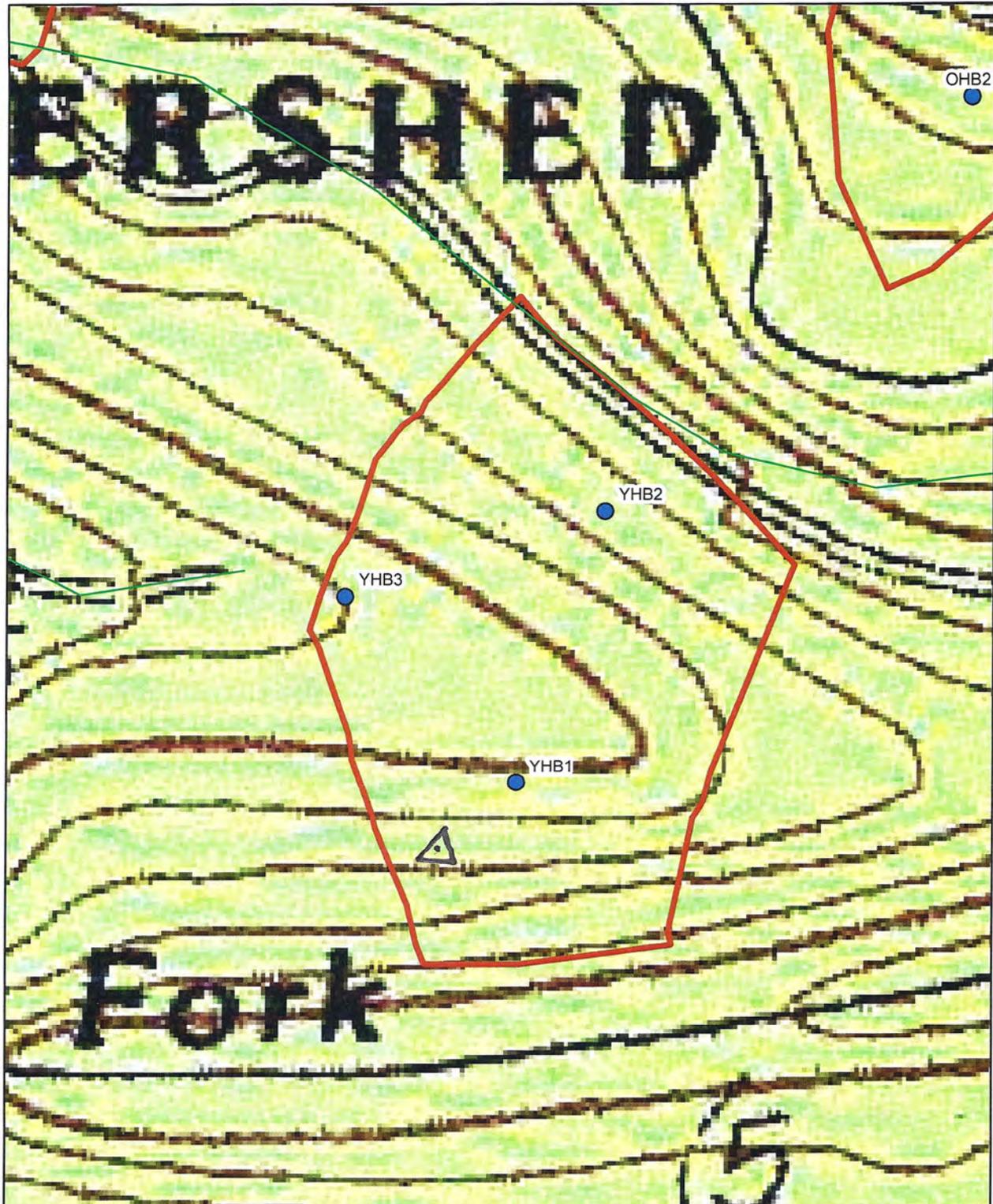
TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0452	H1	3	Y	Y	Y	N	N	N	0	N	Begin Survey
0537	H1	3	Y	Y	Y	N	N	N	0	N	Sunrise
0652	H1	3	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <=2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

Corvallis Watershed - YHB



Legend

● 2013 MAMU Stations

▭ Survey Areas

0 30 60 120 180 240
Meters



OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 6 Day 7 Year 2013

Area Name: Young Harvest B Site Name/Number: YHB Station Number: 2

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) SW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462494 N (y) coordinate: 4928902 Source: GPS Datum: NAD 83 FOM: _____

Observer (s) Name: J. Koloszar Initials: JK Affiliation: Turkstone Envir. Phone: (503) 283-5338

Station Elevation: 720 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3) Upper 1/3, Ridgetop

Station Placement (circle one): (Inside) Outside

Distance from Survey Site Boundary: 0 Units of Measure for ALL Horizontal Distances: Meters

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0529 Source: USNO Begin Survey Time: 0444 End Survey Time: 0644

Temperature at Sunrise: _____ ° Temperature at End of Survey: _____ ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING		HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER			RAIN	FOG	OTHER			
0444	UL	0	Y	Y	N	N	N	0	N	Start Survey.
0529	UL	0	Y	Y	N	N	N	0	N	Sunrise.
0644	UL	0	Y	Y	N	N	N	0	N	End Survey.

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 13 Year 2013

Area Name: Corvallis Watershed Site Name / Number: YH133 Station Number: YH133

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) SW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 0462396 N (y) coordinate: 4928851 Source: GPS Datum: NAD83 FOM: -

Observer(s) Name: ERIC Kessel Initials: ER Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 820 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3), Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: Meters

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, (3) = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0528 Source: USNO Begin Survey Time: 0643 End Survey Time: 0643

Temperature at Sunrise: 52 ° Temperature at End of Survey: 49 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0443	H	3	Y	Y	Y	L	N	N	0	N	Start Survey
0450	H	3	Y	Y	Y	N	N	N	0	N	
0500	H	3	Y	Y	Y	L	N	N	0	N	
0528	H	3	Y	Y	Y	N	N	N	0	N	Sunrise
0540	H	3	Y	Y	Y	N	N	N	0	M	Machinery in NW
0620	H	3	Y	Y	Y	L	N	N	0	N	Light rain
0643	H	3	Y	Y	Y	L	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <2.0 canopy height, LO =<1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

**OREGON
MARBLED MURRELET
FOREST SURVEY FORM**

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y AK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 06 Day 20 Year 2013

Area Name: Corvallis Watershed
YOUNG HARVEST B

Site Name / Number: YHB

Station Number: 1

Station Location - T 12 (circle one) N or S, R 6 (circle one) E or W, S 19, QQ (1/16) SW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462464.0662 N (y) coordinate: 4928741.563 Source: GPS Datum: NAD83 FOM: -

Observer (s) Name: Amy Anderson Initials: AA Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 780 (Ft) M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0528 Source: USNO Begin Survey Time: 0443 End Survey Time: 0643

Temperature at Sunrise: 48 ° Temperature at End of Survey: 49 ° (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0443	HI	3	Y	Y	Y	N	N	N	0	N	BEGIN Survey
0528	HI	3	Y	Y	Y	N	N	N	0	N	Sunrise
0534	HI	2	Y	Y	Y	N	N	N	0	N	
0643	HI	2	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 3

(Y or N, initials): Y 16K

Total Detections: 1

Species of Concern (circle one, details on last pg.): Y or (N)

Month 07 Day 02 Year 2013

Area Name: Young Harvest B Site Name / Number: Y4B Station Number: 2

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) SW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462494 N (y) coordinate: 4928903 Source: GPS Datum: NAD83 FOM: -

Observer (s) Name: Sarah Yarwood Initials: SDY Affiliation: TECT Phone: (541) 929-7542

Station Elevation: 720 (Ft) M Position on Slope (circle one): Bottom/plain, (Lower 1/3), Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, (4) = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0533 Source: USNO Begin Survey Time: 0448 End Survey Time: 0648

Temperature at Sunrise: 63 ° Temperature at End of Survey: 66 ° (circle one) C or (F) revised: 2/2000

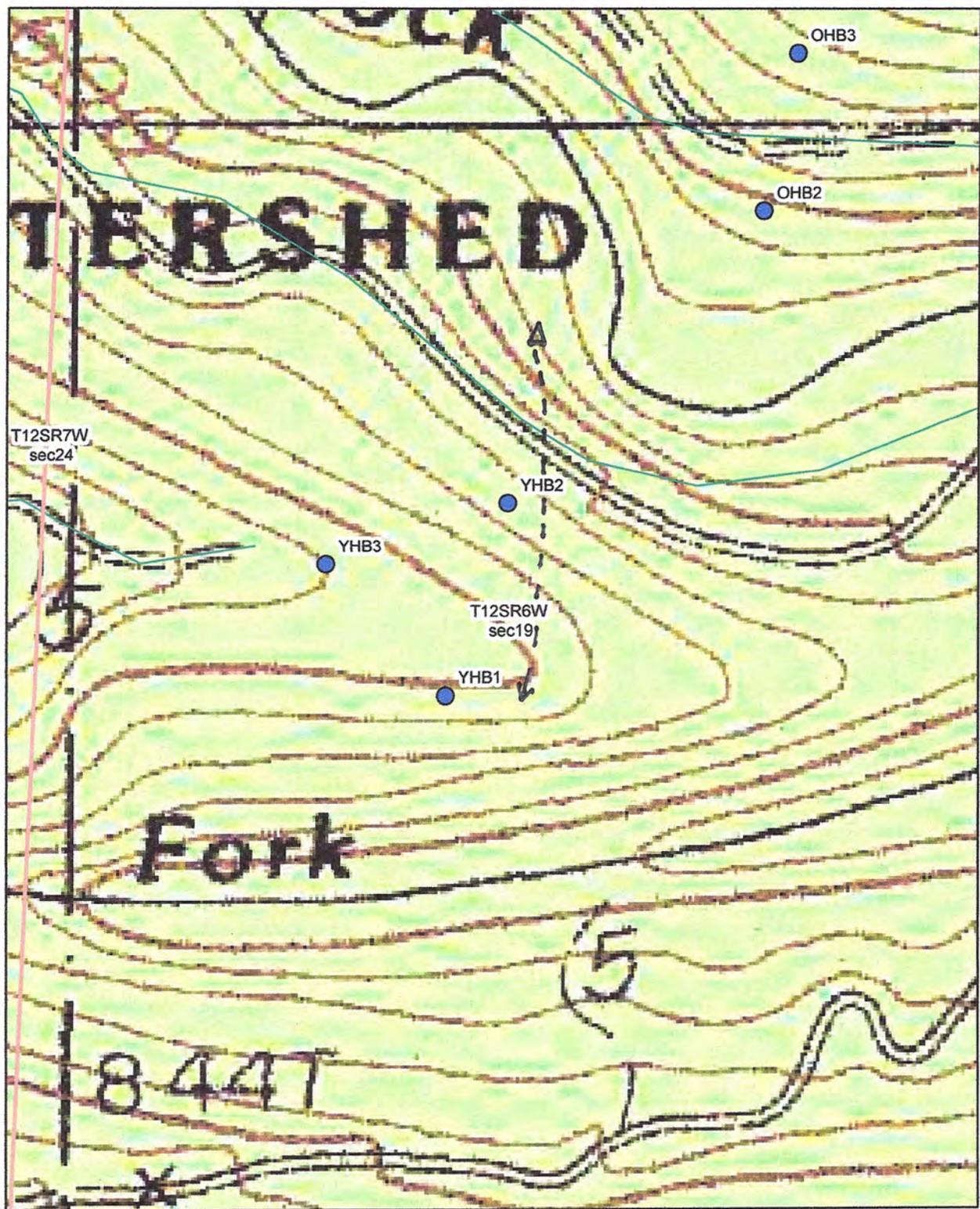
TIME	VERTICAL VIEWING		HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER			VISIBILITY TO 2 CANOPY	RAIN	FOG			
0448	UL	0	Y	Y	N	N	N	0	N	Survey Start 63°F
0533	UL	0	Y	Y	N	N	N	0	N	Sunrise 63°F
0648	UL	0	Y	Y	N	N	N	0	N	End Survey 66°F

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <= 2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

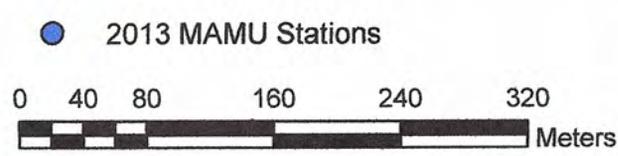
Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

Corvallis Watershed - YHB2, July 2, 2013 Detection



Legend



OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 3

(Y or N, initials): Y ~~N~~

Total Detections: 1

Species of Concern (circle one, details on last pg.): Y or N

Month 07 Day 09 Year 2013

Area Name: Corvallis Watershed
YOUNG HARVEST B

Site Name / Number: Y4B Station Number: 3

Station Location - T 12 (circle one) N or S, R 6 (circle one) E or W, S 19, QQ (1/16) SW, of Q (1/4) NW

UTM zone: 10 E(x) coordinate: 462396 N(y) coordinate: 4928851 Source: GIS Datum: NAD83 FOM: —

Observer (s) Name: Sarah Yarwood Initials: SDY Affiliation: TURNSTONE Phone: (541) 929-7542

Station Elevation: 820 Ft / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0538 Source: USNO Begin Survey Time: 0453 End Survey Time: 0653

Temperature at Sunrise: — Temperature at End of Survey: — (circle one) C or F revised: 2/2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0453	UL	0	Y	Y	Y	N	N	N	0	N	start survey
0500	UL	0	Y	Y	Y	N	N	N	1	N	↑ wind
0538	UL	0	Y	Y	Y	N	N	N	1	N	58° sunrise
0615	UL	0	Y	Y	Y	N	N	N	0	N	↓ wind
0653	UL	0	Y	Y	Y	N	N	N	0	N	58° end survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <2.0 canopy height, LO =<1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

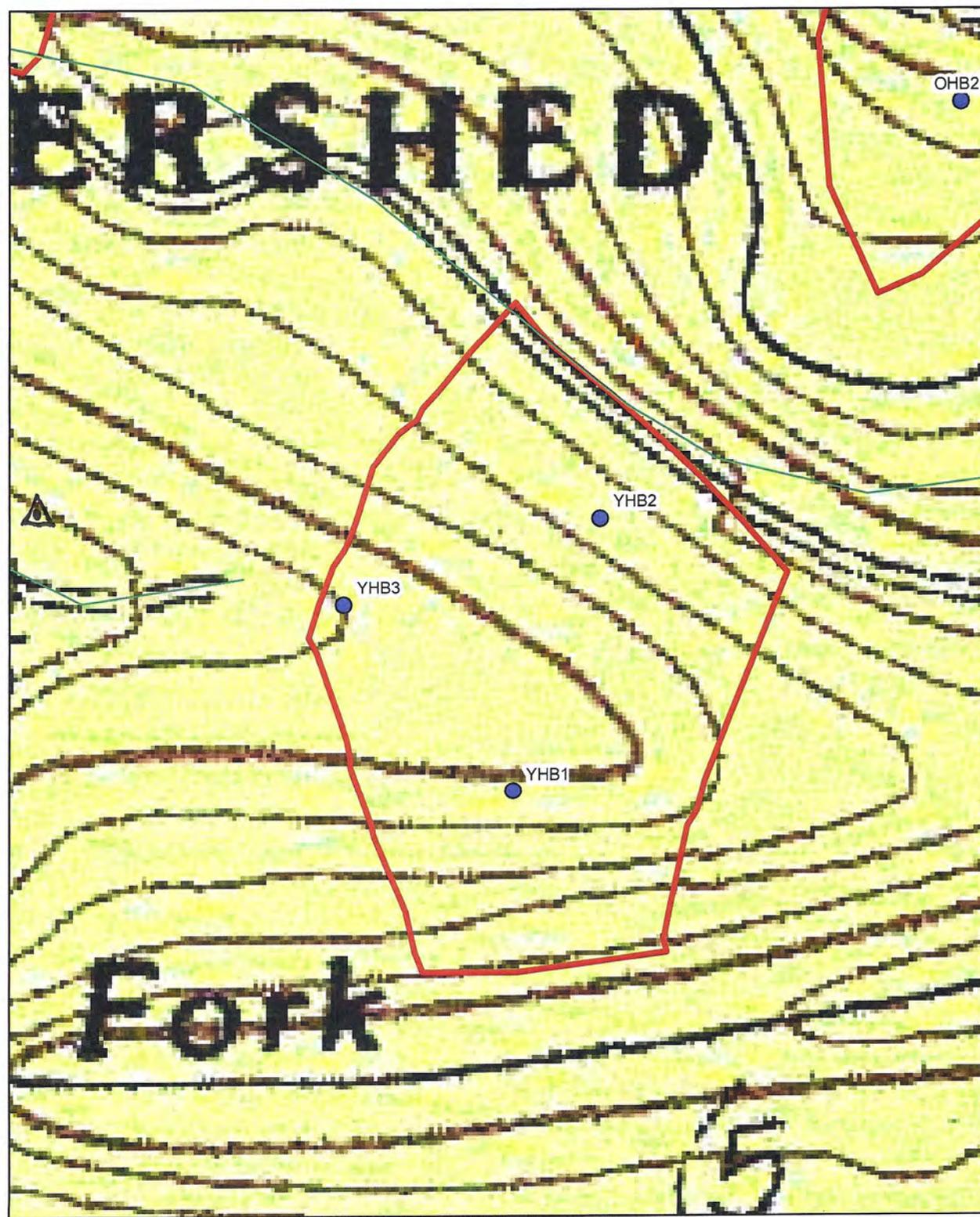
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

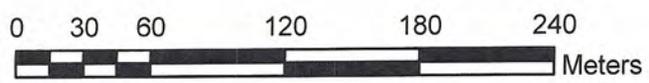
** ODFW DATABASE USE ONLY **

Corvallis Watershed - YHB



Legend

- 2013 MAMU Stations
- ▭ Survey Areas



OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 3

(Y or N, initials): Y/1614

Total Detections: 6

Species of Concern (circle one, details on last pg.): Y or (N)

Month 07 Day 19 Year 2013

Area Name: Young Harvest B Site Name/Number: YHB Station Number: 1

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) SW, of Q (1/4) MW

UTM zone: 10 E (x) coordinate: 462464 N (y) coordinate: 4928742 Source: GIS Datum: NAD83 FOM: _____

Observer (s) Name: Sarah Yarwood Initials: SDY Affiliation: TECI Phone: (541) 760-3898

Station Elevation: 780 (Ft) M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, (Upper 1/3), Ridgetop

Station Placement (circle one): (Inside) Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, (4) = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0546 Source: USNO Begin Survey Time: 0501 End Survey Time: 0701

Temperature at Sunrise: 52 ° (circle one) C or (F) Temperature at End of Survey: 52 ° (circle one) C or (F) revised: 2/2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0501	UL	0	Y	Y	Y	N	N	N	0	N	Start Survey
0546	UL	0	Y	Y	Y	N	N	N	0	N	Sunrise 52°F
0701	UL	0	Y	Y	Y	N	N	N	0	N	End Survey 52°F

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Detections - This Side Page Total: 6 Pg. 2 of 3
 Area Name: Young Harvest B
 Site Name / No: YHB
 Station Number: 1

Observer (s) Initials: SDY Month 07 Day 19 Year 2013
 Data Reference Number: _____ Units of Measure (circle one): U.S. / Metric

SURVEY ACTIVITY: **Note Significant Weather Changes on Page 1** revised: 2 / 2000

STATUS - I/O	DETECTION #	DETECTION TIME	INITIAL DETECTION DIRECTION	TYPE	AUDITORY					# BIRDS SEEN	BEHAVIOR	INITIAL FLIGHT DIRECTION	BIRD HEIGHT SEEN Canopy= 1.0	CLOSEST DIST. TO BIRDS SEEN (units)	DEPART FLIGHT DIRECTION	FINAL DETECTION DIRECTION	NOTES Heard Only Dist. To Birds (L= Loud, M= Moderate, F= Faint)
					VOCAL SERIES				OTHER								
					Start	End	#	OL									
		0501															Start survey
		0524															1st osprey
		0528															1st pygmy owl
	01	0536	WSWH	H	K	K	M	Y									(F) ~400m
	02	0538	WSWH	H	K	G	M	Y									(M) sounds like circling ~400m → ~200m
		0546															Sunrise
		0546															1st STJA
	03	0550	SWH	H	K	G	M	Y									(M) ~100m
	04	0550	SSE	H	K	G	M	N									(F) ~300m
	05	0552	SWH	H	K	K	M	Y									(F) ~400m
	06	0556	SWH	H	K	G	M	Y									(M) flying closer → S
		0654															1st Cooper's hawk
		0701															End survey

TYPE: H = Heard Only (no visual), S = Seen Only (silent), B = Both Seen and Heard.

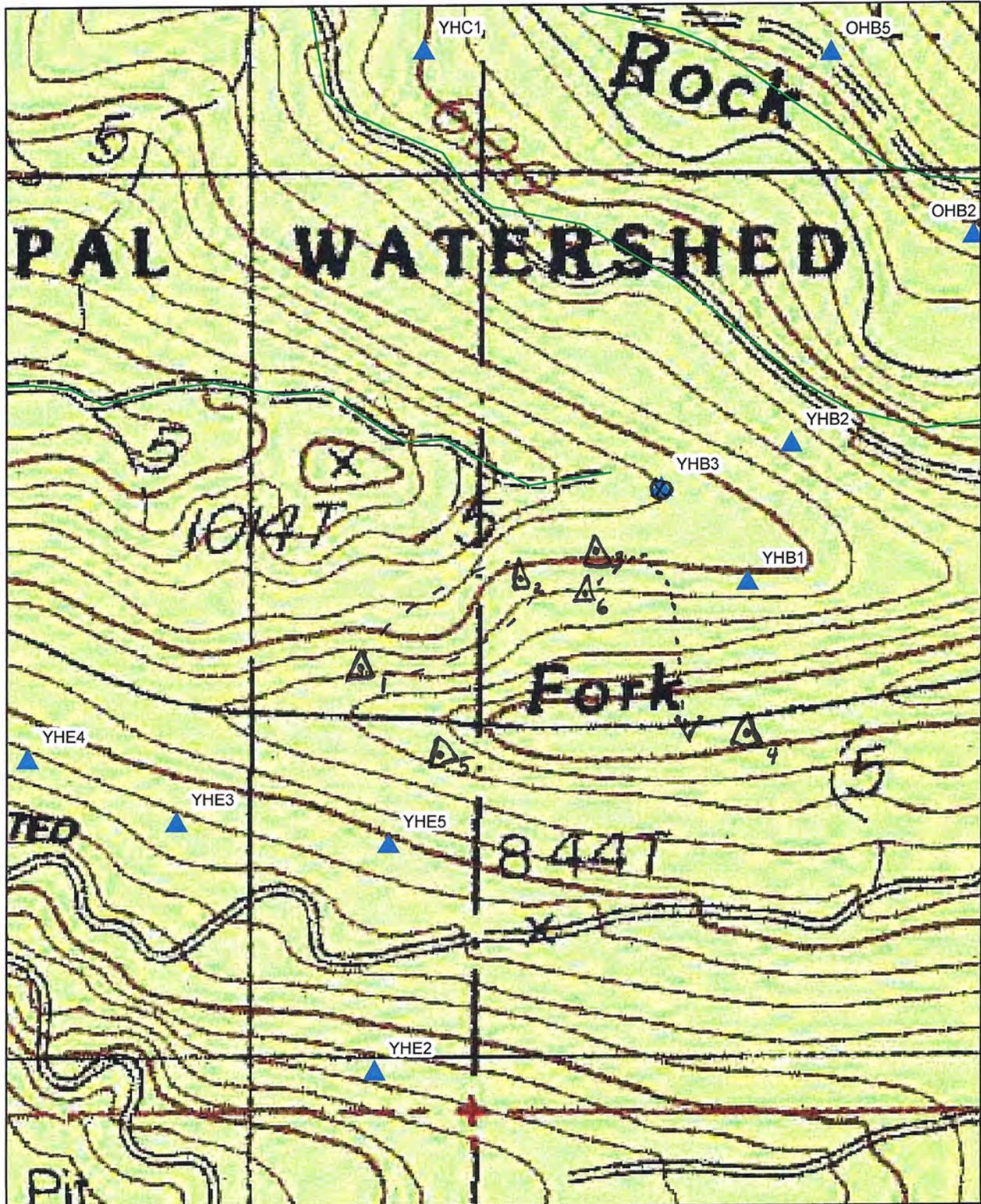
AUDITORY - Vocal Series (Vocalizations): K = KEER calls, G = Groan (alternate) calls, O = Whistle or Soft Que calls, U = Unknown, --- = None or N/A. Indicate the vocal type heard at both the start and end if calls grade between different types during the detection. Indicate the number heard 1-5 or M = Multiple. OL = Overlapping Vocalizations (Y or N).

AUDITORY - Other (Non-Vocal Sounds): W = Wing Sound, J = Jet Sound, --- = None or N/A. If both are heard write W/J.

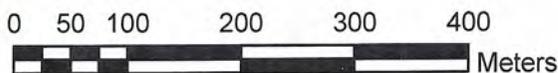
BEHAVIOR: F = Flight Over Canopy, C = Circle Over Canopy, T = Fly-Through At or Below Canopy (≤ 1.0), B = Circle At or Below Canopy (≤ 1.0), L = Seen Landing in or Departing From a Tree, S = Stationary Calling (fixed-point multiple calls <100 m), U = Unknown. (Check Reverse Side When Using 2-Sided Forms)

Corvallis Watershed - YHB1 MAMU Detections, 7/19/2013

P. 3 of 3
SDY



▲ 2013 MAMU Stations



OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y N

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 07 Day 26 Year 2013

Area Name: Young Harvest B Site Name / Number: YHB Station Number: 2

Station Location - T 12 (circle one) N or S, R 6 (circle one) E or W, S 19, QQ (1/16) SW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462494 N (y) coordinate: 4928903 Source: GIS Datum: NAD83 FOM: _____

Observer (s) Name: Sarah Yarwood Initials: SDY Affiliation: TECI Phone: (541) 929-7542

Station Elevation: 720 Ft M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0554 Source: USNO Begin Survey Time: 0509 End Survey Time: 0709

Temperature at Sunrise: 58 ° Temperature at End of Survey: 58 ° (circle one) C or F revised: 2/2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0509	UL	0	Y	Y	Y	N	N	N	0	N	Start survey
0554	UL	0	Y	Y	Y	N	N	N	0	N	Sunrise
0709	UL	0	Y	Y	Y	N	N	N	0	N	End survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <= 2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/EA

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 05 Day 11 Year 2013

Area Name: Young Harvest C

Site Name / Number: YHC

Station Number: 15

Station Location - T 12 (circle one) N or (S), R 7 (circle one) E or (W), S 13, QQ (1/16) SE, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 461799 N (y) coordinate: 4930058 Source: GIS Datum: NAD83 FOM: —

Observer (s) Name: Sara Taylor Initials: SFT Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 625 (Ft) / M Position on Slope (circle one): Bottom/plain, (Lower 1/3), Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, (4 = 76 to 100%)

ENVIRONMENTAL CONDITIONS: Corvallis

Official Sunrise Time: 05 50 Source: USNO Begin Survey Time: 05 05 End Survey Time: 07 05

Temperature at Sunrise: 49 ° Temperature at End of Survey: 50 ° (circle one) C or (F) revised: 2/2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0505	HI	3	Y	Y	Y	N	N	N	0	C	Begin survey
0537	HI	2	Y	Y	Y	N	N	N	0	C	Cloud ↓
0550	HI	2	Y	Y	Y	N	N	N	0	C	Sunrise
0640	HI	3	Y	Y	Y	N	N	N	0	C	cloud ↑
0705	HI	3	Y	Y	Y	N	N	N	0	C	End survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Corvallis Watershed

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or **(N)**

Month 05 Day 31 Year 2013

Area Name: Young Harvest Site Name / Number: YHC Station Number: 3

Station Location - T 12 (circle one) N or **(S)**, R 7 (circle one) E or **(W)**, S 24, QQ (1/16) NE, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 461598 N (y) coordinate: 4929636 Source: GPS Datum: NAD83 FOM: -

Observer (s) Name: Shawn Brady Initials: STB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 770 **(Ft)** M Position on Slope (circle one): Bottom/plain, Lower 1/3, **(Mid 1/3)**, Upper 1/3, Ridgetop

Station Placement (circle one): **(Inside)** Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, **(3 = 51 to 75%)**, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0532 Source: USNO Begin Survey Time: 0447 End Survey Time: 0647

Temperature at Sunrise: 43 ° Temperature at End of Survey: 43 ° (circle one) C or **(F)** revised: 2/2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0447	UL	0	Y	Y	Y	N	N	N	0	N	Start Survey
0532	UL	0	Y	Y	Y	N	N	N	0	N	Sunrise
0647	UL	0	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <= 2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y / GK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 24 Year 2013

Area Name: Corvallis Watershed
Young Harvest C Site Name / Number: WOSF - YHC2 Station Number: YHC2

Station Location - T 12 (circle one) N or (S), R 7 (circle one) E or (W), S 24, QQ (1/16) NE of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 461904 N (y) coordinate: 4929615 Source: GPS Datum: NAD83 FOM: -

Observer (s) Name: ERIC Kessel Initials: EKR Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 600 (Ft) M Position on Slope (circle one): Bottom/plain (Lower 1/3) Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: Meters

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0529 Source: USNO Begin Survey Time: 0444 End Survey Time: 0644

Temperature at Sunrise: 52 ° Temperature at End of Survey: 53 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0444	H1	3	Y	Y	Y	N	N	N	0	N	Start Survey
0529	H1	3	Y	Y	Y	N	N	N	0	N	Sunrise
0644	H1	3	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <=2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y N AK

Total Detections: 8

Species of Concern (circle one, details on last pg.): Y or N

Month 07 Day 02 Year 13

Area Name: Corvallis Watershed / YOUNG HARVEST C Site Name / Number: YAL Station Number: 6

Station Location - T 12 (circle one) N or S, R 7 (circle one) E or W, S 24, QQ (1/16) NE, of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 461773 N (y) coordinate: 4929444 Source: GPS Datum: NAD83 FOM: -

Observer (s) Name: JEFF TREAMS Initials: JTR Affiliation: TELI Phone: (541) 929-7542

Station Elevation: 710 (Ft) M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: METERS

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0533 Source: USNO Begin Survey Time: 0448 End Survey Time: 0648

Temperature at Sunrise: 59 ° Temperature at End of Survey: 59 ° (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
<u>0448</u>	<u>Y</u>	<u>D</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>1</u>	<u>N</u>	<u>BEGN SURVEY</u>
<u>0533</u>	<u>Y</u>	<u>O</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>0</u>	<u>N</u>	<u>SUNRISE</u>
<u>0648</u>	<u>Y</u>	<u>D</u>	<u>Y</u>	<u>Y</u>	<u>Y</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>0</u>	<u>N</u>	<u>END SURVEY</u>

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <=2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____
 ** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/BL

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 07 Day 13 Year 2013

Area Name: Young Harvest C Site Name / Number: YHC Station Number: 4

Station Location - T 12 (circle one) N or S, R 7 (circle one) E or W, S 13, QQ (1/16) SE, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 461433 N (y) coordinate: 4929890 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: S. Yarwood Initials: SDY Affiliation: Turnstone Phone: (541) 929-7542

Station Elevation: 740 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0541 Source: USNO Begin Survey Time: 0456 End Survey Time: 0656

Temperature at Sunrise: 58 ° Temperature at End of Survey: 58 ° (circle one) C or F revised: 2/2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0456	UL	0	Y	Y	Y	N	N	N	0	N	Start survey
0541	UL	0	Y	Y	Y	N	N	N	0	N	Sunrise
0656	UL	0	Y	Y	Y	N	N	N	0	N	End survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <=2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 07 Day 21 Year 2013

Area Name: Young Harvest C Site Name / Number: YHC Station Number: 1

Station Location - T 12 (circle one) N or S, R 6 (circle one) E or W, S 24, QQ (1/16) NE, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 0462083 N (y) coordinate: 4929291 Source: GPS Datum: NAD83 FOM: —

Observer (s) Name: Eric Rossel Initials: ESP Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 630 (Ft) M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: Meters

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0548 Source: Corvallis USNO Begin Survey Time: 0503 End Survey Time: 0703

Temperature at Sunrise: 50 ° Temperature at End of Survey: 50 ° (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0503	U	0	Y	Y	Y	N	N	N	0	C	Start Survey
0548	U	0	Y	Y	Y	N	N	N	0	C	Sunrise
0703	U	0	Y	Y	Y	N	N	N	0	C	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y / RK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 05 Day 13 Year 2013

Area Name: Corvallis Watershed Site Name / Number: YHD Station Number: 6

Station Location - T 12 (circle one) N or (S), R 7 (circle one) E or (W), S 24, QQ (1/16) NW, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 461230 N (y) coordinate: 4929018 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: Sarah Yarwood Initials: SDY Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 1164 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3), Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, (3 = 51 to 75%), 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0548 Source: USNO Begin Survey Time: 0503 End Survey Time: 0703

Temperature at Sunrise: 60 ° Temperature at End of Survey: 60 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0503	UL	0	Y	Y	Y	N	N	N	0	N	START SURVEY
0510	HI	1	Y	Y	Y	N	N	N	0	N	↑ cloud cover
0515	HI	3	Y	Y	Y	N	N	N	0	N	↑ cloud cover
0548	HI	3	Y	Y	Y	N	N	N	0	N	SUNRISE
0703	HI	3	Y	Y	Y	N	N	N	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____

Quad. Code _____ Photo Code _____ General Location _____

Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____

Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y ~~NA~~

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 24 Year 2013

Area Name: Young Harvest D Site Name / Number: YHD Station Number: 2

Station Location - T 12 (circle one) N or (S), R 7 (circle one) E or (W), S 24, QQ (1/16) SW, of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 461240 N (y) coordinate: 4928872 Source: GPS Datum: NAD 83 FOM: -

Observer (s) Name: Shawn Brady Initials: SSB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 1170 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, (Ridgetop)

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, (2) = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0629 Source: Corvallis USNO Begin Survey Time: 0444 End Survey Time: 0644

Temperature at Sunrise: 62 ° Temperature at End of Survey: 63 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0444	HI	3	Y	Y	Y	N	N	N	0	N	Start Survey
0529	HI	3	Y	Y	Y	N	N	N	0	N	Sunrise
0644	HI	3	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/AK

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 07 Day 03 Year 13

Area Name: YOUNG HARVEST Site Name / Number: YHD Station Number: 4

Station Location - T 12 (circle one) N or S, R 7 (circle one) E or W, S 24, QQ (1/16) NE of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 461960 N (y) coordinate: 4929421 Source: GIS Datum: GIS FOM: -

Observer (s) Name: JEFF REAMS Initials: JJR Affiliation: TECU Phone: (541) 929-7542

Station Elevation: 940 Ft / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: METERS

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0534 Source: USNO Begin Survey Time: 0449 End Survey Time: 0649

Temperature at Sunrise: 42 ° Temperature at End of Survey: 42 ° (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING		HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER			VISIBILITY TO 2 CANOPY	RAIN	FOG			
0449	HI	0	Y	Y	N	N	N	1	N	REMAIN SURVEY
0534	HI	0	Y	Y	N	N	N	0	N	SUNRISE
0649	HI	0	Y	Y	N	N	N	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to ≤ 2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____
**** ODFW DATABASE USE ONLY ****

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/BA

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 7 Day 11 Year 2013

Area Name: Young Harvest D Site Name / Number: YHD Station Number: 3

Station Location - T 12 (circle one) N or (S), R 7 (circle one) E or (W), S 24, QQ (1/16) NE, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 461393 N (y) coordinate: 4929201 Source: GIS Datum: NAD83 FOM: -

Observer (s) Name: Justin A. Hayes Initials: JAY Affiliation: Tec1 Phone: (503) 283-5828

Station Elevation: 1015 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, (Upper 1/3), Ridgetop

Station Placement (circle one): (Inside) Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: Meters.

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, (3 = 51 to 75%), 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0539 Source: Covallis USNO Begin Survey Time: 0954 End Survey Time: 0654

Temperature at Sunrise: 50 ° Temperature at End of Survey: 52 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0454	UL	0	4	4	4	N	N	-	0	N	START SURVEY
0539	UL	0	4	4	4	N	N	-	0	N	SUNRISE
0654	UL	0	4	4	4	N	N	-	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to ≤ 2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 6

(Y or N, initials): Y | ASK

Total Detections: 23

Species of Concern (circle one, details on last pg.): Y or N

Month 07 Day 19 Year 2013

Area Name: Young Harvest D Site Name / Number: YHD Station Number: 1

Station Location - T 12 (circle one) N or S, R 7 (circle one) E or W, S 24, QQ (1/16) SW, of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 461263 N (y) coordinate: 4928660 Source: GPS Datum: NAD 83 FOM: -

Observer (s) Name: J. Koloszar Initials: ASK Affiliation: Turnstone E.C. Phone: (503) 283-5338

Station Elevation: 980 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: meters

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0546 Source: Corvallis USNO Begin Survey Time: 0501 End Survey Time: 0701

Temperature at Sunrise: - Temperature at End of Survey: - (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0501	UL	0	Y	Y	Y	N	N	N	0	N	Begin Survey
0546	UL	0	Y	Y	Y	N	N	N	0	N	Official Sunrise
0701	UL	0	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Detections - This Side Page Total: _____

Pg. 2 of 6

 Observer (s) Initials: JGK

 Month 7 Day 19 Year 2013

 Area Name: Young Harvest D

 Site Name / No: YHD

Data Reference Number: _____

 Units of Measure (circle one): U.S. / Metric

 Station Number: 1

SURVEY ACTIVITY:

Note Significant Weather Changes on Page 1

revised: 2 / 2000

STATUS - I/O	DETECTION #	DETECTON TIME	INITIAL DETECTION DIRECTION	TYPE	AUDITORY					# BIRDS SEEN	BEHAVIOR	INITIAL FLIGHT DIRECTION	BIRD HEIGHT SEEN Canopy= 1.0	CLOSEST DIST. TO BIRDS SEEN (Meters) units	DEPART FLIGHT DIRECTION	FINAL DETECTION DIRECTION	NOTES Heard Only Dist. To Birds (L= Loud, M= Moderate, F= Faint)
					VOCAL SERIES				OTHER								
					Start	End	#	OL									
	01	0501	- - -		- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	Begin Survey
	02	0536	- NE	H	K	K	M	Y	-	-	U	-	-	-	-	-	(M)
	03	0536	E NE	H	K	K	M	Y	-	-	U	-	-	-	-	-	(M)
	04	0536	E SE	H	K	K	M	Y	-	-	U	-	-	-	-	-	(M) ESE → SE
	05	0537	E SE	B	K	K	M	Y	-	04	F	- SE	1.2	150	- SE	- SE	based on vocalizations these are same birds that I spotted back north
	06	0537	- SE	B	K	K	M	Y	-	04	F	- NW	1.2	200	E SE	- NW	
	07	0538	E NE	H	K	K	M	Y	-	-	U	-	-	-	-	-	(M)
	08	0547	- SE	S	-	-	-	-	-	02	T	- NE	0.8	100	- NE	E SE	
	09	0548	- S	H	K	K	K	N	-	-	U	-	-	-	-	-	(M) SE → NE
	10	0548	E SE	H	K	K	M	Y	-	-	U	-	-	-	-	-	(M)
	11	0549	E SE	H	K	K	M	Y	-	-	U	-	-	-	-	-	(L)
	12	0550	- E	H	K	K	N	-	-	U	-	-	-	-	-	-	(M)
	13	0551	E NE	H	K	K	I	N	-	-	U	-	-	-	-	-	(L)
	14	0553	E NE	H	K	K	M	Y	-	-	U	-	-	-	-	-	(F)
	15	0554	E NE	H	K	K	M	Y	-	-	U	-	-	-	-	-	(F)
	16	0554	- SE	H	K	K	M	Y	-	-	U	-	-	-	-	-	(L)
	17	0558	- E	H	K	K	M	Y	-	-	U	-	-	-	-	-	(F)
	18	0559	- S	H	K	K	M	Y	-	-	U	-	-	-	-	-	(M)
	19	0600	- S	H	K	K	M	Y	-	-	U	-	-	-	-	-	(F)
	19	0600	- E	H	K	K	M	N	-	-	U	-	-	-	-	-	(F)

TYPE: H = Heard Only (no visual), S = Seen Only (silent), B = Both Seen and Heard.

AUDITORY - Vocal Series (Vocalizations): K = KEER calls, G = Groan (alternate) calls, O = Whistle or Soft Que calls, U = Unknown, --- = None or N/A. Indicate the vocal type heard at both the start and end if calls grade between different types during the detection. Indicate the number heard 1-5 or M = Multiple. OL = Overlapping Vocalizations (Y or N).

AUDITORY - Other (Non-Vocal Sounds): W = Wing Sound, J = Jet Sound, --- = None or N/A. If both are heard write W/J.

BEHAVIOR: F = Flight Over Canopy, C = Circle Over Canopy, T = Fly-Through At or Below Canopy (≤ 1.0), B = Circle At or Below Canopy (≤ 1.0), L = Seen Landing in or Departing From a Tree, S = Stationary Calling (fixed-point multiple calls < 100 m), U = Unknown. (Check Reverse Side When Using 2-Sided Forms)

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): 9/76K

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 05 Day 31 Year 2013

Area Name: Corvallis Watershed / Young Harvest D

Site Name / Number: YHD

Station Number: 5

Station Location - T 12 (circle one) N or S, R 7 (circle one) E or W, S 24, QQ (1/16) SE, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 461422.2311 N (y) coordinate: 4928552.279 Source: GPS Datum: NAD83 FOM: ✓

Observer (s) Name: Sara Taylor Initials: SFT Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 900 Ft / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Corvallis

Official Sunrise Time: 0532

Source: USNO

Begin Survey Time: 0447

End Survey Time: 0647

Temperature at Sunrise: 42 °

Temperature at End of Survey: 42 ° (circle one) C or F

revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0447	HI	3	Y	Y	Y	N	N	N	0	N	begin survey
0532	HI	3	Y	Y	Y	N	N	N	0	N	sunrise
0605	HI	2	Y	Y	Y	N	N	N	0	N	
0620	UL	0	Y	Y	Y	N	N	N	0	N	
0647	UL	0	Y	Y	Y	N	N	N	0	N	end survey
											lots of corvid activity throughout survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

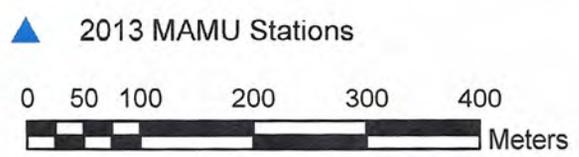
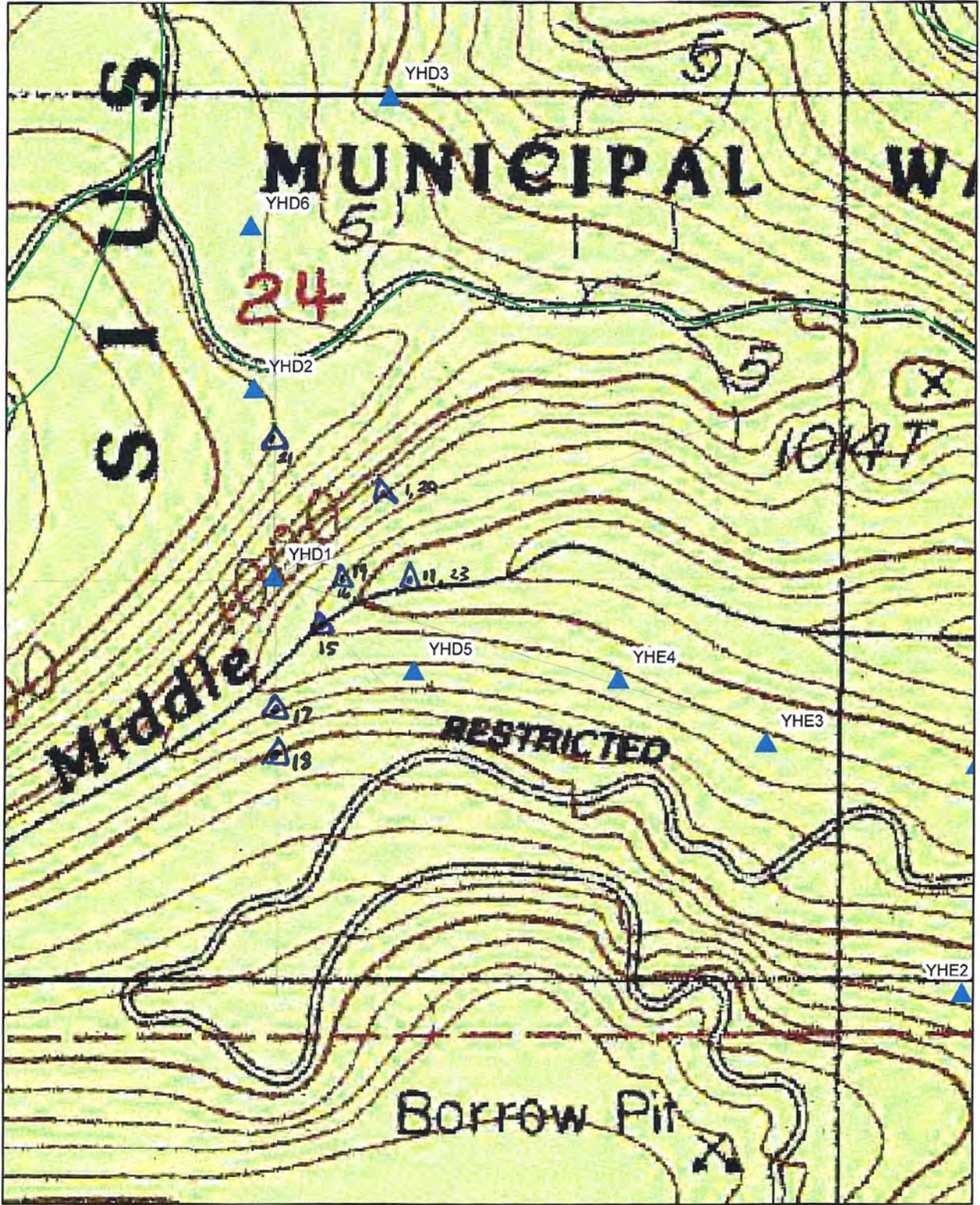
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

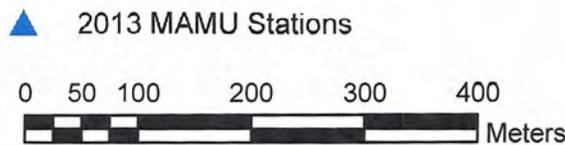
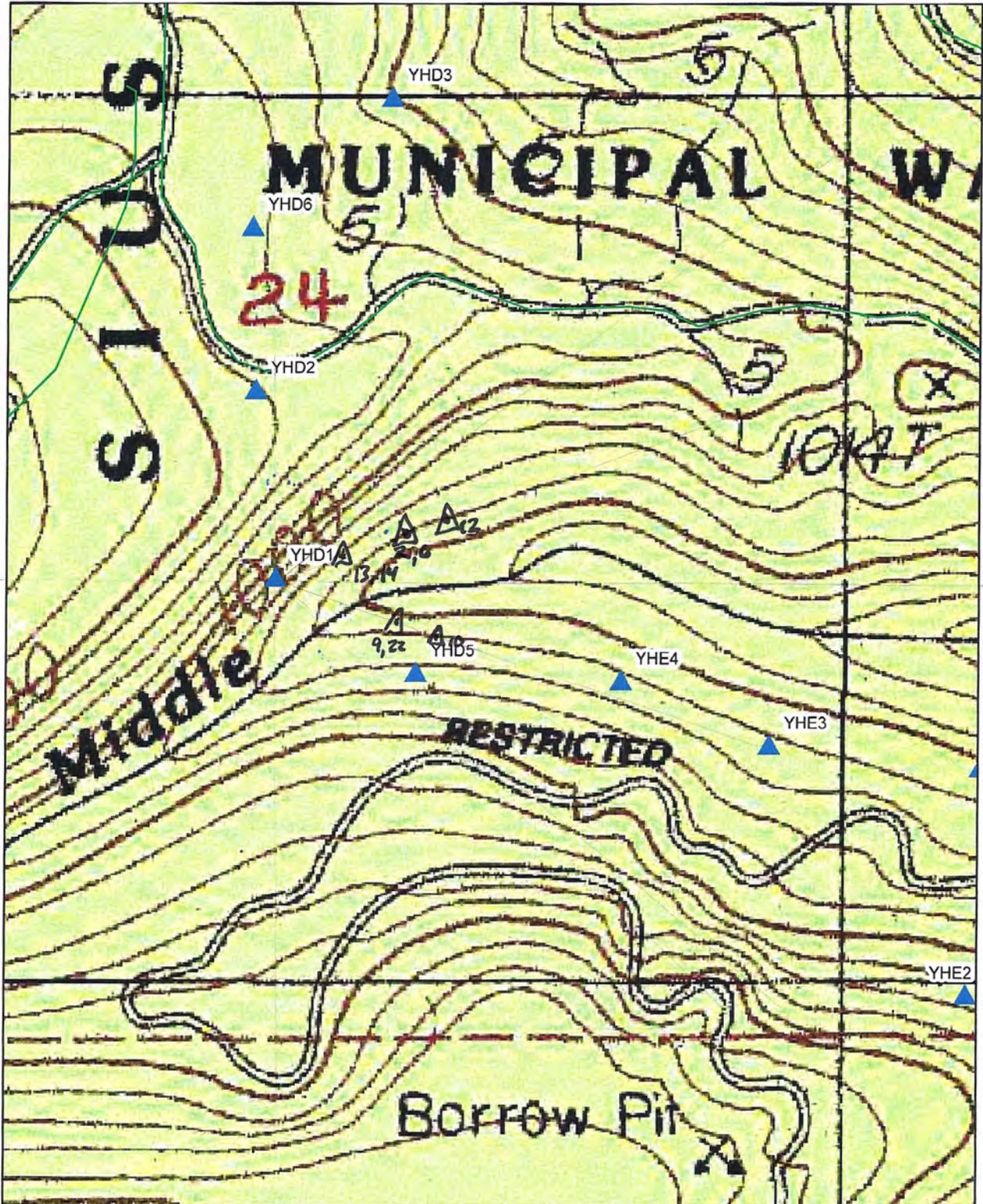
Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

Corvallis Watershed - YHD1 MAMU Detections, 7/19/2013



Corvallis Watershed - YHD1 MAMU Detections, 7/19/2013



OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 3

(Y or N, initials): Y AK

Total Detections: 1

Species of Concern (circle one, details on last pg.): Y or N

Month 05 Day 16 Year 2013

Area Name: YOUNG HARVEST E Site Name / Number: YAE Station Number: 1

Station Location - T 12 (circle one) N or S, R 7 (circle one) E or W, S 25, QQ (1/16) NE, of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 462067 N (y) coordinate: 4927961 Source: GPS Datum: NAD83 FOM: -

Observer (s) Name: Jesse Ritter Initials: JCR Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 1130 Ft / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0544 Source: CORVALLIS USNO Begin Survey Time: 0459 End Survey Time: 0659

Temperature at Sunrise: 50 ° Temperature at End of Survey: 50 ° (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0459	HI	3	Y	Y	Y	N	N	N	1	N	BEGIN SURVEY
0507	HI	3	Y	Y	Y	N	L	N	1	N	START FOG
0522	HI	3	Y	Y	Y	L	L	N	1	N	START RAIN
0532	HI	3	Y	Y	Y	L	N	N	1	N	STOP FOG
0539	HI	3	Y	Y	Y	N	N	N	1	N	STOP RAIN
0544	HI	3	Y	Y	Y	N	N	N	1	N	SUNRISE
0554	HI	3	Y	Y	Y	L	N	N	1	N	START RAIN
0611	HI	3	Y	Y	Y	L	N	N	2	N	START WIND
0621	HI	2	Y	Y	Y	N	N	N	2	N	STOP RAIN/SKYS CLEARED
0659	HI	2	Y	Y	Y	N	N	N	2	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

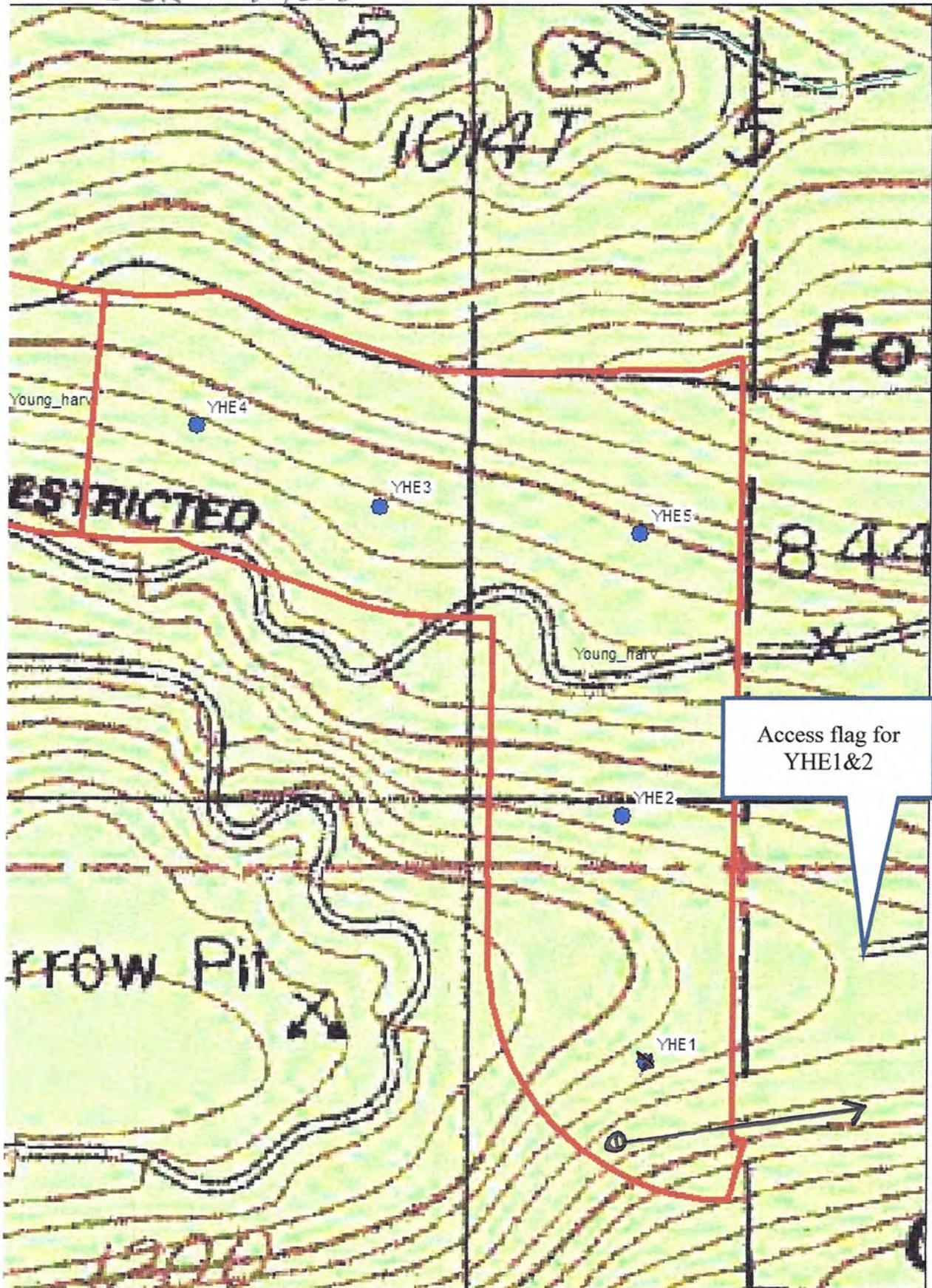
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

JCR 05/16/2013



OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y AB

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 05 Day 17 Year 2013

Area Name: Young Harvest E Site Name / Number: YHE Station Number: 1

Station Location - T 12 (circle one) N or S, R 7 (circle one) E or W, S 25, QQ (1/16) NE, of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 462067 N (y) coordinate: 4927961 Source: GPS Datum: NAD83 FOM: -

Observer (s) Name: Amy Anderson Initials: AAA Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 1130 Ft / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0543 Source: CORVALLIS USNO Begin Survey Time: 0458 End Survey Time: 0658

Temperature at Sunrise: 42 ° Temperature at End of Survey: 43 ° (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0458	HI	3	Y	Y	Y	N	N	N	0	N	BEGIN Survey
0543	HI	3	Y	Y	Y	N	N	N	0	N	Sunrise
0602	HI	2	Y	Y	Y	N	N	N	0	N	Cloud ↓
0631	HI	1	Y	Y	Y	N	N	N	0	N	Cloud ↓
0658	HI	1	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 3

(Y or N, initials): Y/BK

Total Detections: 1

Species of Concern (circle one, details on last pg.): Y or **(N)**

Month 05 Day 23 Year 2013

Area Name: Young Harvest E Site Name / Number: YHE Station Number: 2

Station Location - T 12 (circle one) N or **(S)**, R 7 (circle one) E or **(W)**, S 24, QQ (1/16) SE, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 462044 N (y) coordinate: 4928187 Source: GPS Datum: NAD 83 FOM: —

Observer (s) Name: Shawn Brady Initials: STB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 1080 **(Ft)** M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, **(Upper 1/3)**, Ridgetop

Station Placement (circle one): **(Inside)** Outside

Distance from Survey Site Boundary: — Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): **(1 = 0 to 25%)**, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0537 Source: Corvallis USNO Begin Survey Time: 0452 End Survey Time: 0652

Temperature at Sunrise: 42 ° Temperature at End of Survey: 43 ° (circle one) C or **(F)** revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0452	HI	3	Y	Y	Y	N	L	N	0	N	Start Survey
0537	HI	3	Y	Y	Y	N	L	N	0	N	Sunrise
0546	HI	3	Y	Y	Y	N	N	N	0	N	Fog ↓
0652	HI	3	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____

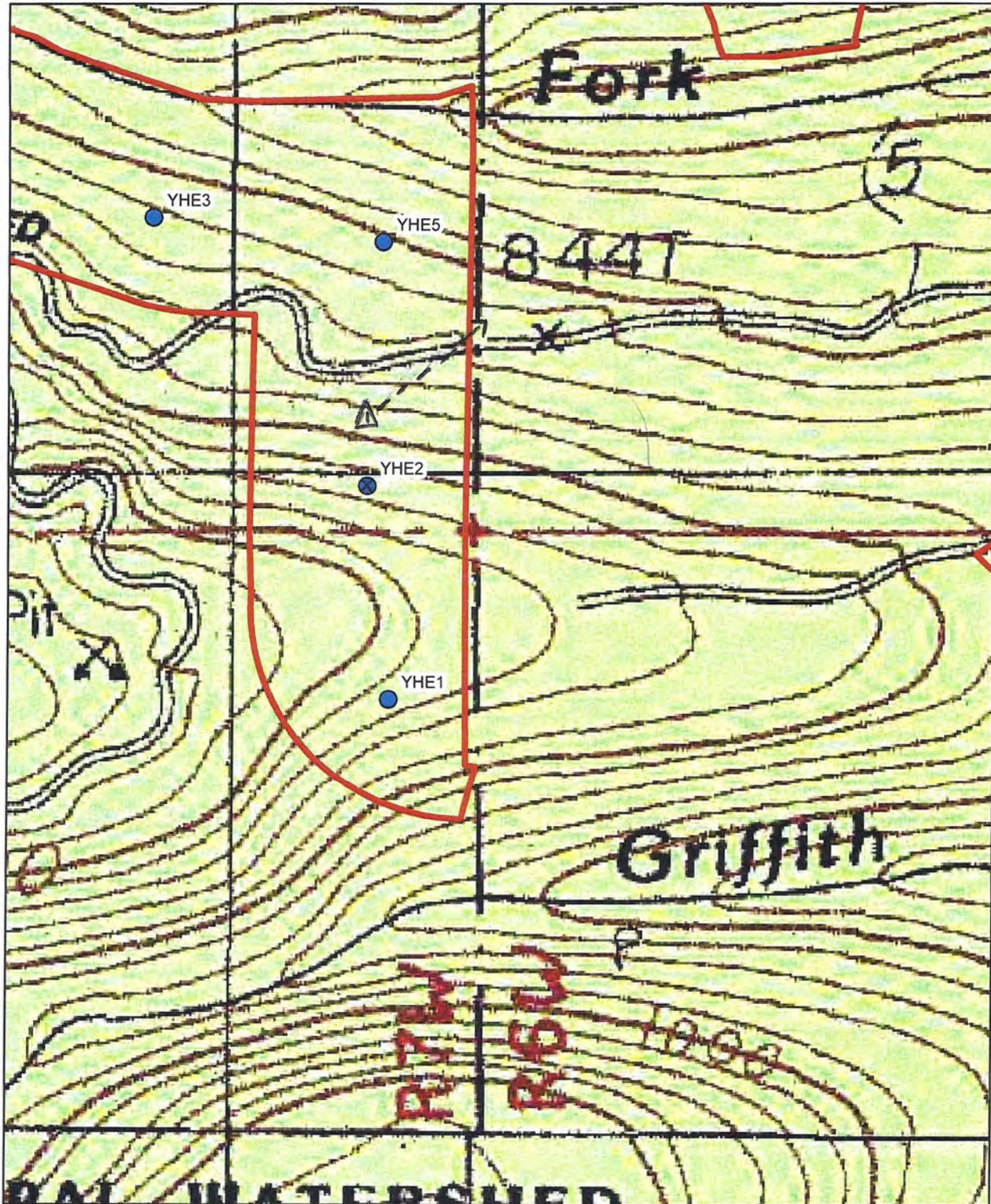
Quad. Code _____ Photo Code _____ General Location _____

Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____

Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

Corvallis Watershed



APPENDIX D – 2014 DATA



OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JLG

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 05 Day 01 Year 2014

Area Name: Old Harvest A Site Name / Number: OHA Station Number: 04A2

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) NE, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 463380 N (y) coordinate: 4929238 Source: GPS Datum: NAD83 FOM: -

Observer (s) Name: Shaun J. Brady Initials: SJB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 780 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3), Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, (3 = 51 to 75%), 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0603 Source: WOSF USNO Begin Survey Time: 0518 End Survey Time: 0718

Temperature at Sunrise: 52 ° Temperature at End of Survey: 52 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0518	UL	0	Y	Y	Y	N	N	-	0	N	Begin Survey
0603	UL	0	Y	Y	Y	N	N	-	0	N	Sunrise
0718	UL	0	Y	Y	Y	N	N	-	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____
 ** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials):

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 05 Day 02 Year 2014

Area Name: Young Harvest A

Site Name / Number: YHA

Station Number: YHA7

Station Location - T 12 N or S, R 6 E or W, S 30, QQ (1/16) NE, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462793 N (y) coordinate: 4928149 Source: GPS Datum: NAD83 FOM:

Observer (s) Name: S. Yarwood Initials: SDY Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 930 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0602

City: Philomath, OR

Begin Survey Time: 0517 End Survey Time: 0717

Temperature at Sunrise: 54 °F

Source: USNO

Temperature at End of Survey: 50 °F C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0517	UL	0	Y	Y	Y	N	N	N	1	N	begin survey, 54 deg F
0524	UL	0	Y	Y	Y	N	N	N	1	N	STVA male 8-notes, SSE 20m
0541	UL	0	Y	Y	Y	N	N	N	1	N	Bald eagle calling NE
0602	UL	0	Y	Y	Y	N	N	N	1	N	sunrise, 52 deg F
0605	HI	1	Y	Y	Y	N	N	N	1	N	cloud inc.
0608	HI	2	Y	Y	Y	N	N	N	1	N	cloud inc.
0631	HI	1	Y	Y	Y	N	N	N	0	N	cloud dec., wind dec.
0717	HI	1	Y	Y	Y	N	N	N	0	N	end survey, 50 deg F

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. Data Point No. Sequence No. Reference No.

Quad. Code Photo Code General Location

Data Entry Initials Data Entry Date Data QC Initials Data QC Date

Protocol Review Initials Review Date Highest Biological Status

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JLG

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 05 Day 05 Year 2014

Area Name: Old Harvest B Site Name / Number: OHB Station Number: 0181

Station Location - T 12 (circle one) N or S, R 6 (circle one) E or W, S 19, QQ (1/16) NW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462443 N (y) coordinate: 4929597 Source: GPS Datum: NAD 83 FOM: -

Observer (s) Name: Shawn J. Brady Initials: SJB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 790 Ft / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0558 Source: USNO ^{WOSF} Begin Survey Time: 0513 End Survey Time: 0713

Temperature at Sunrise: 42 ° Temperature at End of Survey: 43 ° (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0513	HI	3	Y	Y	Y	N	L	-	0	N	Begin Survey
0558	HI	3	Y	Y	Y	N	L	-	0	N	Sunrise
0614	HI	1	Y	Y	Y	N	L	-	0	N	Reduced Clouds
0645	HI	1	Y	Y	Y	N	N	-	0	N	Reduced Fog
0713	HI	1	Y	Y	Y	N	N	-	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____
 ** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JLG

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 05 Day 06 Year 2014

Area Name: Old Harvest C Site Name / Number: OHC Station Number: OHC6

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) NW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462248 N (y) coordinate: 4929867 Source: GPS Datum: NAD 83 FOM: -

Observer (s) Name: Shawn J. Brady Initials: SJB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 670 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3), Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, (3 = 51 to 75%), 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0556 Source: USNO ^{WOSF} Begin Survey Time: 0511 End Survey Time: 0711

Temperature at Sunrise: 44 ° Temperature at End of Survey: 45 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING		HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER			VISIBILITY TO 2 CANOPY	RAIN	FOG			
0511	HI	3	Y	Y	N	N	-	0	N	Begin Survey
0556	HI	3	Y	Y	N	N	-	0	N	Sunrise
0622	HI	2	Y	Y	N	N	-	0	N	Reduced Clouds
0637	HI	1	Y	Y	N	N	-	0	N	Reduced Clouds
0711	HI	1	Y	Y	N	N	-	0	N	End Survey
										AMCR

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____

Quad. Code _____ Photo Code _____ General Location _____

Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____

Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

Y or N, initials: [Signature]

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 05 Day 09 Year 2014

Area Name: Young Harvest B Site Name / Number: YHB Station Number: 7HB2

Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) NW, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462494 N (y) coordinate: 4928903 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: S. Yarwood Initials: SDY Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 720 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0553 City: Philomath, OR Begin Survey Time: 0508 End Survey Time: 0708

Temperature at Sunrise: 48 Source: USNO Temperature at End of Survey: 48 C or F revised: 2 / 2000

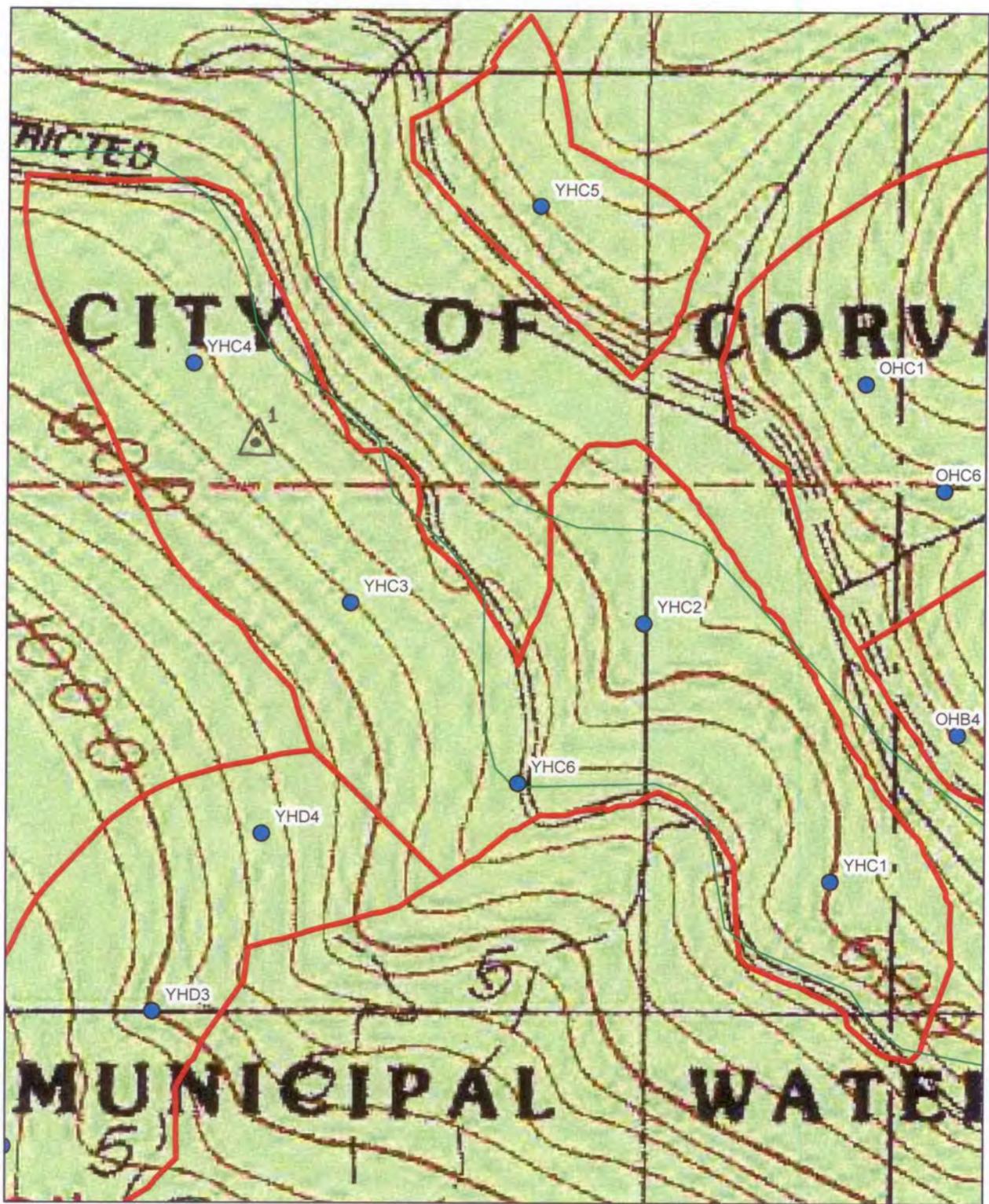
TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0508	HI	2	Y	Y	Y	L	N	N	0	N	begin survey
553	HI	2	Y	Y	Y	L	N	N	0	N	sunrise
0708	HI	2	Y	Y	Y	N	N	N	0	N	end survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

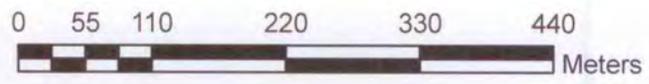
** ODFW DATABASE USE ONLY **

Corvallis Watershed - YHC



Legend

- 2013 MAMU Stations
- Survey Areas



OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JLG

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 05 Day 15 Year 2014

Area Name: Old Harvest A Site Name / Number: OHA Station Number: 0HA3

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) NE, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 463711 N (y) coordinate: 4928049 Source: GPS Datum: NAD83 FOM: -

Observer (s) Name: J. Gomes Initials: JLG Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 755 (Ft) / (M) Position on Slope (circle one): Bottom/plain, (Lower 1/3), Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: N/A Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, (4) = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0545 Source: USNO Begin Survey Time: 0455 End Survey Time: 0701

Temperature at Sunrise: 59 ° Temperature at End of Survey: 59 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND *	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0455	UL	0	Y	Y	Y	N	N	-	0	N	Begin Survey
0545	UL	0	Y	Y	Y	N	N	-	0	N	Sunrise
0550	HI	3	Y	Y	Y	N	N	-	0	N	Clouds move in
0701	HI	3	Y	Y	Y	N	N	-	0	N	End Survey
											*Occasional breeze of 2
											STJA
											Bats, BAEA, GRJA, CORA

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

Y or N, initials: [Signature]

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 05 Day 16 Year 2014

Area Name: Young Harvest B Site Name / Number: YHB Station Number: YAB3

Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) NW, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462396 N (y) coordinate: 4928851 Source: GPS Datum: _____ FOM: _____

Observer (s) Name: S. Yarwood Initials: SDY Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 820 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0545 City: Philomath, OR Begin Survey Time: 0500 End Survey Time: 0700

Temperature at Sunrise: 50 ° Source: USNO Temperature at End of Survey: 48 ° C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0500	UL	0	Y	Y	Y	N	N	N	0	N	begin survey
0545	UL	0	Y	Y	Y	N	N	N	0	N	sunrise, 50 F
0550	HI	2	Y	Y	Y	N	N	N	0	N	inc. clouds
0625	HI	1	Y	Y	Y	N	N	N	0	N	dec. clouds
0656	HI	3	Y	Y	Y	N	N	N	0	N	inc. clouds
0700	HI	3	Y	Y	Y	N	N	N	0	N	end survey, 48 F

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <= 2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Y or N, initials: YJA

Page 1 of 1

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N
Month 05 Day 20 Year 2014

Area Name: Young Harvest A

Station Location - T 12 Site Name / Number: YHA

N or S, R 6 E or W, S 19, QQ (1/16) NW, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 463400 N (y) coordinate: 4928815 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: S. Yarwood Initials: SDY Affiliation: Turnstone Env. Station Number: YHA6
Phone: (503) 283 - 5338

Station Elevation: 490 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop
Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0541 City: Philomath Begin Survey Time: 0456 End Survey Time: 0656
Temperature at Sunrise: 47 Source: USNO Temperature at End of Survey: 48 C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0456	UL	0	Y	Y	Y	N	N	N	0	N	
0551	UL	0	Y	Y	Y	N	N	N	0	N	begin survey, light ck noise
0656	UL	0	Y	Y	Y	N	N	N	0	N	sunrise, 47 F
						N	N	N	0	N	end survey 48 F

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____
**** ODFW DATABASE USE ONLY ****

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JVG

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 05 Day 26 Year 2014

Area Name: Old Harvest C Site Name / Number: OHC Station Number: OHC1

Station Location - T 12 (circle one) N or (S), R 7 (circle one) E or (W), S 13, QQ (1/16) SE, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 462136 N (y) coordinate: 4929870 Source: GPS Datum: NAD 83 FOM: -

Observer (s) Name: Shaan J. Brady Initials: SJB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 690 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, (Mid 1/3), Upper 1/3, Ridgetop

Station Placement (circle one): (Inside) Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, (3 = 51 to 75%), 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0635 Source: USNO WOSF Begin Survey Time: 0450 End Survey Time: 0650

Temperature at Sunrise: 53 ° Temperature at End of Survey: 52 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0450	HI	3	Y	Y	Y	N	N	-	0	N	Start Survey
0528	HI	2	Y	Y	Y	N	N	-	0	N	Clouds reduce
0535	HI	2	Y	Y	Y	N	N	-	0	N	Sunrise
0545	HI	1	Y	Y	Y	N	N	-	0	N	Clouds reduce
0650	HI	1	Y	Y	Y	N	N	-	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <= 2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/SJ

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 04 Year 2014

Area Name: Young Harvest C Site Name / Number: YHC Station Number: YHC4

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 24, QQ (1/16) SE, of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 462083 N (y) coordinate: 4929291 Source: GPS Datum: NAD83 FOM: -

Observer (s) Name: Shawn J. Brady Initials: SJB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 630 (Ft) / M Position on Slope (circle one): Bottom/plain, (Lower 1/3), Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0530 Source: WOSF USNO Begin Survey Time: 0445 End Survey Time: 0645

Temperature at Sunrise: 45 ° Temperature at End of Survey: 47 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0445	UL	0	Y	Y	Y	N	N	-	0	N	Begin Survey
0530	UL	0	Y	Y	Y	N	N	-	0	N	Sunrise
0608	HI	1	Y	Y	Y	N	N	-	0	N	Clouds Increase
0620	HI	2	Y	Y	Y	N	N	-	0	N	Clouds Increase
0645	HI	2	Y	Y	Y	N	N	-	0	N	End Survey
											STJA
											Conducted Survey 40m North of Point.

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials) W

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 04 Year 2014

Area Name: Young Harvest B Site Name / Number: YHB Station Number: YHB1

Station Location - T 12 N or S, R 06 E or W, S 19, QQ (1/16) NW, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462464 N (y) coordinate: 4928742 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: S. Yarwood Initials: SDY Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 780 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0530 City: Philomath Begin Survey Time: 0445 End Survey Time: 0645

Temperature at Sunrise: 46 Source: USNO Temperature at End of Survey: 46 C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0445	UL	0	Y	Y	Y	N	N	N	0	N	BEGIN SURVEY
0530	UL	0	Y	Y	Y	N	N	N	0	N	SUNRISE
0537	HI	3	Y	Y	Y	N	N	N	0	N	INC. CLOUDS
0545	HI	2	Y	Y	Y	N	N	N	0	N	DEC. CLOUDS
0645	HI	2	Y	Y	Y	N	N	N	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____
 ** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y SY

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 04 Year 2014

Area Name: YOUNG HARVEST A Site Name / Number: YHA Station Number: YHA2

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 19, QQ (1/16) SW, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 462992 N (y) coordinate: 4928461 Source: GPS Datum: NAD 83 FOM: -

Observer (s) Name: JUSTIN A. VOTDS Initials: JAV Affiliation: TRC Phone: (503) 283-5338

Station Elevation: 740 (Ft) / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, (Upper 1/3), Ridgetop

Station Placement (circle one): (Inside), Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: METERS

Station Canopy Cover (circle one): 1 = 0 to 25%, (2 = 26 to 50%), 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0530 Source: USNO Begin Survey Time: 0445 End Survey Time: 0649

Temperature at Sunrise: 51 ° Temperature at End of Survey: 51 ° (circle one) C or (F) revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0445	UL	0	Y	Y	Y	N	N	N	0	N	START SURVEY
0534	UL	0	Y	Y	Y	N	N	N	0	N	SUNRISE
0649	UL	0	Y	Y	Y	N	N	N	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials):

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or **(N)**

Month 06 Day 05 Year 2014

Area Name: Old Harvest A Site Name / Number: OHA Station Number: OHA 1

Station Location - T 12 (circle one) N or **(S)**, R 6 (circle one) E or **(W)**, S 19, QQ (1/16) SW, of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 463125 N (y) coordinate: 4929192 Source: GPS Datum: NAD83 FOM: -

Observer (s) Name: Shawn J. Brady Initials: SJB Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 660 Ft / M Position on Slope (circle one): Bottom/plain, **(Lower 1/3)**, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): **(Inside)** Outside

Distance from Survey Site Boundary: - Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, **(2 = 26 to 50%)**, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0529 Source: WOSF USNO Begin Survey Time: 0444 End Survey Time: 0644

Temperature at Sunrise: 47 ° Temperature at End of Survey: 47 ° (circle one) C or **(F)** revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0444	UL	0	Y	Y	Y	N	N	-	0	N	Start Survey
0529	UL	0	Y	Y	Y	N	N	-	0	N	Sunrise
0644	UL	0	Y	Y	Y	N	N	-	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y/S

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month June Day 16 Year 2014

Area Name: Young Harvest B Site Name / Number: YHB Station Number: YHB3

Station Location - T 12 (circle one) N or S, R 4 (circle one) E or W, S 19, QQ (1/16) NW, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462394 N (y) coordinate: 4928851 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: Mikes Smith Initials: MSS Affiliation: Turnstone Phone: (503) 283-5338

Station Elevation: 820 Ft / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: Meters

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0528 Source: USNO Begin Survey Time: 0433 End Survey Time: 0643

Temperature at Sunrise: 49.0 ° Temperature at End of Survey: 50.3 ° (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0433	HI	3	Y	Y	Y	L	N	N	0	N	Start Survey
0528	HI	3	Y	Y	Y	L	N	N	0	N	Sunrise
0643	HI	3	Y	Y	Y	L	N	N	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y SY

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 06 Day 16 Year 2014

Area Name: OLD HARVEST B Site Name / Number: OHB Station Number: OHB3

Station Location - T 12 (circle one) N or S, R 6 (circle one) E or W, S 19, QQ (1/16) SE, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 0462760 N (y) coordinate: 4929251 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: JOSH STEWART Initials: JWS Affiliation: TECI Phone: (503) 283-5338

Station Elevation: 700 (Ft) M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: N/A Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 05:28 Source: PHILOMATH USNO Begin Survey Time: 04:40 End Survey Time: 06:45

Temperature at Sunrise: 49.4 ° Temperature at End of Survey: 50.3 ° (circle one) C or (F) revised: 2/2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0440	HI	3	Y	Y	Y	N	N	N	0	N	BEGIN SURVEY
0528	HI	3	Y	Y	Y	N	N	N	1	N	SUNRISE
0606	HI	2	Y	Y	Y	L	N	N	1	N	RAIN BEGINS
0636	HI	2	Y	Y	Y	N	N	N	1	N	RAIN STOPS
0645	HI	2	Y	Y	Y	N	N	N	0	N	END SURVEY
											COUGAR ENCOUNTER - 25m!

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): [Signature]

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 18 Year 2014

Area Name: Young Harvest C Site Name / Number: YHC Station Number: YHC6

Station Location - T 12 N or S, R 7 E or W, S 24, QQ (1/16) NE, of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 461773 N (y) coordinate: 4929444 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: S. Yarwood Initials: SDY Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 710 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0528 City: Philomath Begin Survey Time: 0443 End Survey Time: 0643

Temperature at Sunrise: 46 Source: USNO Temperature at End of Survey: 46 C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0432	HI	1	Y	Y	Y	N	N	N	0	N	start survey
0517	HI	3	Y	Y	Y	N	N	N	0	N	inc clouds
0528	HI	3	Y	Y	Y	N	N	N	0	N	sunrise
0538	HI	3	Y	Y	Y	L	N	N	0	N	light rain
0550	HI	1	Y	Y	Y	N	N	N	0	N	dec cloud, rain stopped
0632	HI	2	Y	Y	Y	N	N	N	0	N	inc clouds
0643	HI	2	Y	Y	Y	N	N	N	0	N	end survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <= 2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____

Quad. Code _____ Photo Code _____ General Location _____

Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____

Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 06 Day 19 Year 2014

Area Name: YOUNG HARVEST A Site Name / Number: YHA Station Number: YHA4

Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) SW, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 463313 N (y) coordinate: 4928505 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: SARAH YARWOOD Initials: SDY Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 740 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0528 City: PHILOMATH Begin Survey Time: 0440 End Survey Time: 0643

Temperature at Sunrise: 46 ° Source: USNO Temperature at End of Survey: 46 ° C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0440	UL	0	Y	Y	Y	N	N	N	0	N	BEGIN SURVEY
0528	UL	0	Y	Y	Y	N	N	N	1	N	SUNRISE, WIND INC.
0625	HI	1	Y	Y	Y	N	N	N	1	N	CLOUD INC.
0643	HI	1	Y	Y	Y	N	N	N	1	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): YISY

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month June Day 20 Year 2014

Area Name: Old Harvest C Site Name / Number: OHC Station Number: OHC4

Station Location - T (2) (circle one) N or (S), R 6 (circle one) E or (W), S 18, QQ (1/16) SW, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462377 N (y) coordinate: 4730022 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: Miles Smith Initials: MSS Affiliation: Turnstone Phone: (503) 283-5338

Station Elevation: 850 Ft / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: meters

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0528 Source: Philomath USNO Begin Survey Time: 0440 End Survey Time: 0648

Temperature at Sunrise: 55° Temperature at End of Survey: 53° (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0440	UL	0	Y	Y	Y	N	N	N	0	N	Begin Survey
0528	UL	0	Y	Y	Y	N	N	N	0	N	Sunrise
0648	UL	0	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y Y

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 06 Day 24 Year 2014

Area Name: YOUNG HARVEST B Site Name / Number: YHB Station Number: YHB2

Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) NW, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462494 N (y) coordinate: 4928903 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: MILES SMITH Initials: MSS Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 720 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0529 City: PHILOMATH Begin Survey Time: 0444 End Survey Time: 0644

Temperature at Sunrise: 50 ° Source: USNO Temperature at End of Survey: 53 ° C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0444	UL	0	Y	Y	Y	N	N	N	0	N	BEGIN SURVEY
0529	UL	0	Y	Y	Y	N	N	N	0	N	SUNRISE
0644	UL	0	Y	Y	Y	N	N	N	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <= 2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____

Quad. Code _____ Photo Code _____ General Location _____

Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____

Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y GH

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 06 Day 25 Year 2014

Area Name: OLD HARVEST B Site Name / Number: OHB Station Number: OHB1

Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) NW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462443 N (y) coordinate: 4929597 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: MILES SMITH Initials: MSS Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 790 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0530 City: PHILOMATH Begin Survey Time: 0445 End Survey Time: 0645

Temperature at Sunrise: 57 Source: USNO Temperature at End of Survey: 57 C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0445	HI	3	Y	Y	Y	N	N	N	0	N	BEGIN SURVEY
0530	HI	3	Y	Y	Y	N	N	N	0	N	SUNRISE
0645	HI	3	Y	Y	Y	N	N	N	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

Y or N, initials:

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 07 Day 01 Year 2014

Area Name: OLD HARVEST B Site Name / Number: OHB Station Number: OHB5
 Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) SW, of Q (1/4) NW
 UTM zone: 10 E (x) coordinate: 462559 N (y) coordinate: 4929337 Source: GPS Datum: NAD83 FOM:
 Observer (s) Name: S. YARWOOD Initials: SDY Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 620 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop
 Station Placement: Inside, Outside
 Distance from Survey Site Boundary: Units of Measure for ALL Horizontal Distances: m
 Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0533 City: PHILOMATH Begin Survey Time: 0448 End Survey Time: 0648
 Temperature at Sunrise: 51 ° Source: USNO Temperature at End of Survey: 55 ° C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0448	UL	0	Y	Y	Y	N	N	N	0	N	START SURVEY
0533	UL	0	Y	Y	Y	N	N	N	0	N	SUNRISE
0648	UL	0	Y	Y	Y	N	N	N	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): YB

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month JULY Day 03 Year 2014

Area Name: YOUNG HARVEST B Site Name / Number: YHB Station Number: YHB1

Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) NW, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462464 N (y) coordinate: 4928742 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: MILES SMITH Initials: MSS Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 780 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0534 City: PHILOMATH Begin Survey Time: 0449 End Survey Time: 0649

Temperature at Sunrise: 54 ° Source: USNO Temperature at End of Survey: 57 ° C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0449	UL	0	Y	Y	Y	N	N	N	0	N	BEGIN SURVEY
0534	UL	0	Y	Y	Y	N	N	N	0	N	SUNRISE
0649	UL	0	Y	Y	Y	N	N	N	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y S

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month JULY Day 10 Year 2014

Area Name: YOUNG HARVEST A Site Name / Number: YHA Station Number: YHA3

Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) SW, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 463386 N (y) coordinate: 4928385 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: MILES SMITH Initials: MSS Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 770 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0539 City: PHILOMATH Begin Survey Time: 0454 End Survey Time: 0654
 Temperature at Sunrise: 55 °F Source: USNO Temperature at End of Survey: 53 °F C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0454	UL	0	Y	Y	Y	N	N	N	0	N	BEGIN SURVEY
0539	UL	0	Y	Y	Y	N	N	N	0	N	SUNRISE
0654	UL	0	Y	Y	Y	N	N	N	0	N	END SURVEY
											OSPREY ID TO WEST

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): JS

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month JULY Day 11 Year 2014

Area Name: YOUNG HARVEST B Site Name / Number: YHB Station Number: YHB3

Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) NW, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462396 N (y) coordinate: 4928851 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: MILES SMITH Initials: MSS Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 820 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0539 City: PHILOMATH Begin Survey Time: 0454 End Survey Time: 0654

Temperature at Sunrise: 58 ° Source: USNO Temperature at End of Survey: 58 ° C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0454	UL	0	Y	Y	Y	N	N	0	0	N	BEGIN SURVEY
0539	UL	0	Y	Y	Y	N	N	0	0	N	SUNRISE
0654	UL	0	Y	Y	Y	N	N	0	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JG

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 07 Day 12 Year 2014

Area Name: Old Harvest B Site Name / Number: OHB Station Number: OHBZ

Station Location - T 12 (circle one) N or S, R 6 (circle one) E or W, S 19, QQ (1/16) SE, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462719 N (y) coordinate: 4929132 Source: GPS Datum: NAD83 FOM: -

Observer (s) Name: Kyle Ransbury Initials: Kmp Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 580 Ft / M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: N/A Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0540 Source: USNO Begin Survey Time: 0455 End Survey Time: 0655

Temperature at Sunrise: 57 ° Temperature at End of Survey: 57 ° (circle one) C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0455	UL	0	Y	Y	Y	N	N	-	2	C	<i>c=light</i> Start survey
0540	UL	0	Y	Y	Y	N	N	-	2	C	Sunrise
0655	UL	0	Y	Y	Y	N	N	-	2	C	End survey

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to <=2.0 canopy height, LO =<=1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JIG

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or (N)

Month 07 Day 17 Year 2014

Area Name: Old Harvest C

Site Name / Number: OHC

Station Number: OHCS

Station Location - T 12 (circle one) N or (S), R 6 (circle one) E or (W), S 18, QQ (1/16) SE, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462588 N (y) coordinate: 4929951 Source: GPS Datum: NAD83 FOM: -

Observer (s) Name: Kyle Pillsbury Initials: kmp Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 790 Ft / (M) Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, (Upper 1/3) Ridgetop

Station Placement (circle one): (Inside) Outside

Distance from Survey Site Boundary: N/A Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover (circle one): 1 = 0 to 25%, (2 = 26 to 50%), 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0544

Source: corvallis
USNO

Begin Survey Time: 0459 End Survey Time: 0659

Temperature at Sunrise: 57 °

Temperature at End of Survey: 57 ° (circle one) C or (F)

revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0459	Hi	2	Y	Y	Y	N	N	-	1	N	Start survey
0544	Hi	2	Y	Y	Y	N	N	-	1	N	SUNRISE
0655	UL	0	Y	Y	Y	N	N	-	1	N	clouds ↓
0659	UL	0	Y	Y	Y	N	N	-	1	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y GY

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month JULY Day 17 Year 2014

Area Name: OLD HARVEST A Site Name / Number: OHA Station Number: OHA4

Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) SE, of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 463641 N (y) coordinate: 4929219 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: MILES SMITH Initials: MSS Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 920 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0545 City: PHILOMATH Begin Survey Time: 0500 End Survey Time: 0700

Temperature at Sunrise: 53 ° Source: USNO Temperature at End of Survey: 53 ° C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0500	UL	0	Y	Y	Y	N	N	0	0	N	BEGIN SURVEY
0545	UL	0	Y	Y	Y	N	N	0	0	N	SUNRISE
0700	UL	0	Y	Y	Y	N	N	0	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 3

(Y or N, initials): Y JLG

Total Detections: 1

Species of Concern (circle one, details on last pg.): Y or N

Month 07 Day 23 Year 2014

Area Name: Young Harvest C

Site Name / Number: YHC

Station Number: YHC6

Station Location - T 12 N or S, R 7 E or W, S 24, QQ (1/16) NE, of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 461773 N (y) coordinate: 4929444 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: S. Yarwood Initials: SDY Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 710 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0551

City: Philomath

Begin Survey Time: 0456 End Survey Time: 0706

Temperature at Sunrise: 57 °

Source: USNO

Temperature at End of Survey: 57 °

C or F

revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0458	HI	3	Y	Y	Y	L	N	N	0	N	start survey
0536	HI	3	Y	Y	Y	L	N	N	1	N	wind inc.
0551	HI	3	Y	Y	Y	L	N	N	0	N	sunrise, wind dec.
0613	MID	3	Y	Y	Y	N	N	N	0	N	ceiling dec., rain dec.
0640	HI	3	Y	Y	Y	N	N	N	0	N	ceiling inc.
0706	HI	3	Y	Y	Y	N	N	N	0	N	end survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____

Quad. Code _____ Photo Code _____ General Location _____

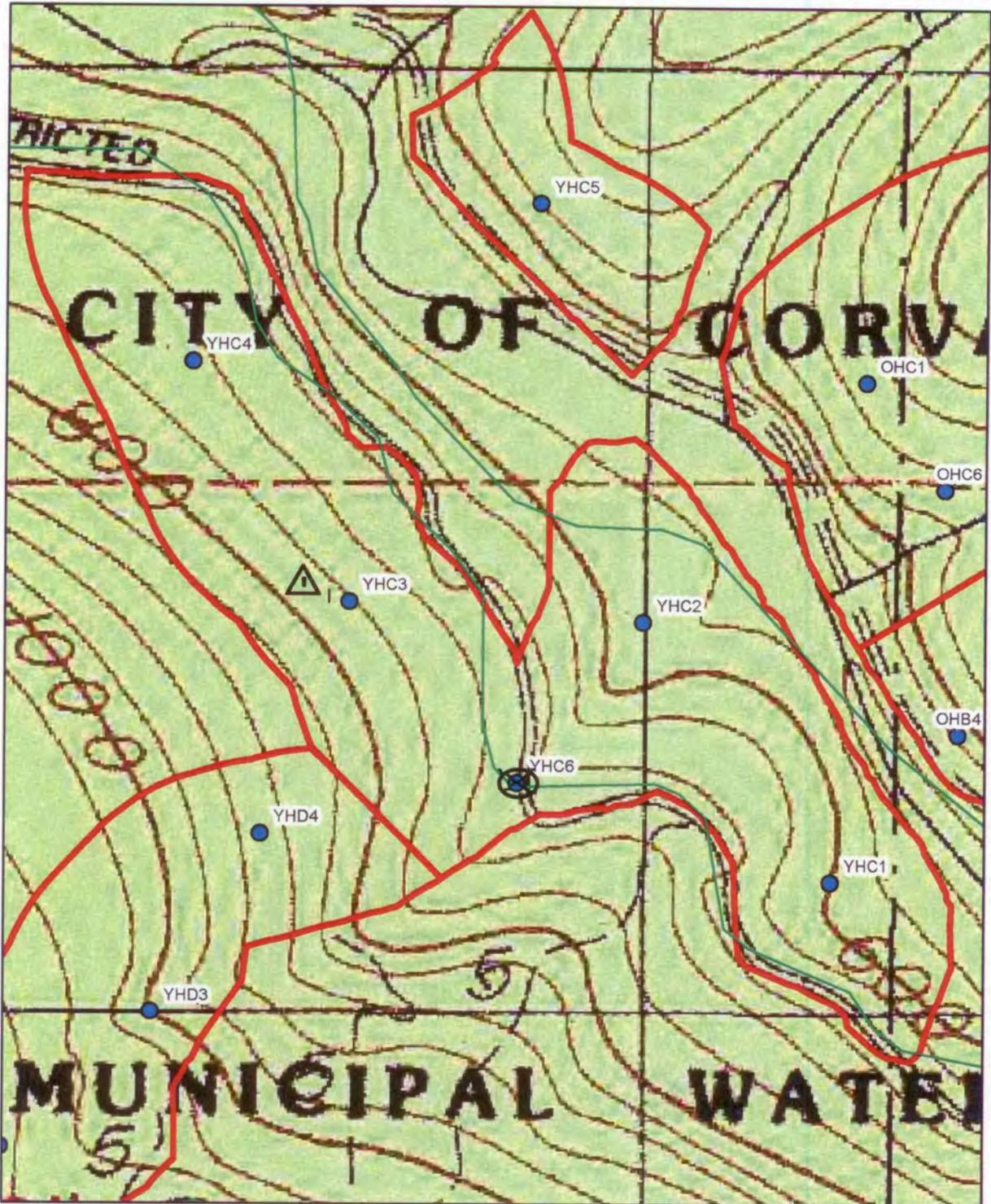
Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____

Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

Corvallis Watershed - YHC

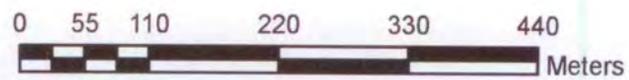
23 JULY 2014
YHC6
S. YARWOOD
P. 3 OF 3



Legend

● 2013 MAMU Stations

▭ Survey Areas



OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): MS

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or **(N)**

Month JULY Day 23 Year 2014

Area Name: YOUNG HARVEST B Site Name / Number: YHB Station Number: YHB2

Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) NW, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 462494 N (y) coordinate: 4928903 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: MILES SMITH Initials: MSS Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 720 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0551 City: PHILOMATH Begin Survey Time: 0506 End Survey Time: 0706

Temperature at Sunrise: 55 ° Source: USNO Temperature at End of Survey: 54 ° C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0506	HI	3	Y	Y	Y	L	N	0	0	N	BEGIN SURVEY
0551	MID	3	Y	Y	Y	L	N	0	0	N	SUNRISE
0706	MID	3	N	Y	Y	L	N	0	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____

Quad. Code _____ Photo Code _____ General Location _____

Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____

Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): YJS

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or **(N)**

Month 07 Day 23 Year 2014

Area Name: Old Harvest B Site Name / Number: OHB Station Number: OHB4

Station Location - **T** 12 N or S, **R** 6 E or W, **S** 19, QQ (1/16) NW, of Q (1/4) NW

UTM zone: 10 E (x) coordinate: 462233 N (y) coordinate: 4929497 Source: GPS Datum: _____ FOM: _____

Observer (s) Name: Jeff Reams Initials: JTR Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 570 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0551 City: Corvallis Begin Survey Time: 0506 End Survey Time: 0706

Temperature at Sunrise: 57 ° Source: USNO Temperature at End of Survey: 58 ° C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0506	HI	3	Y	Y	Y	L	N	0	0	T	Begin Survey
0551	HI	3	Y	Y	Y	L	N	0	0	T	Sunrise
0706	HI	3	Y	Y	Y	L	N	0	0	T	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤ 1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____
 ** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JLG

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 07 Day 24 Year 2014

Area Name: Old Harvest C

Site Name / Number: OHC

Station Number: OHC 2

Station Location - T 12 (circle one) N or S, R 6 (circle one) E or W, S 18, QQ (1/16) SE, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 462821 N (y) coordinate: 4929865 Source: GPS Datum: NA83 FOM: —

Observer (s) Name: Travis Hussey Initials: TJH Affiliation: Turnstone Env. Phone: (503) 283-5338

Station Elevation: 1080 Ft M Position on Slope (circle one): Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement (circle one): Inside, Outside

Distance from Survey Site Boundary: N/A Units of Measure for ALL Horizontal Distances: M

Station Canopy Cover (circle one): 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0551 Source: USNO Begin Survey Time: 0458 End Survey Time: 0706

Temperature at Sunrise: 53 ° Temperature at End of Survey: 54 ° (circle one) C or F revised: 2/2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0458	MID	3	N	Y	Y	N	N	—	1	T*	Surveyed at larger gap 49m downslope of flagging at 320° * Light tree drip ▲ Brief periods of 60% cloudcover and light rain during survey
0504	MID	3	N	Y	Y	N	N	—	1	T, W	Start survey Light wind noise in high canopy
0540	MID	3	N	Y	Y	N	N	—	1	N	Wind noise & tree drip stopped
0551	MID	3	N	Y	Y	N	N	—	1	N	Sunrise
0635	MID	2	N	Y	Y	N	N	—	1	N	Cloudcover decreased
0706	MID	2	N	Y	Y	N	N	—	1	N	End survey
											GRJA 0058 CORA

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____
 ** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y N

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month 07 Day 24 Year 2014

Area Name: OLD HARVEST A Site Name / Number: OHA Station Number: OHA5

Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) SE, of Q (1/4) NE

UTM zone: 10 E (x) coordinate: 463533 N (y) coordinate: 4928983 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: SARAH YARWOOD Initials: SDY Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 560 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0552 City: PHILOMATH Begin Survey Time: 0504 End Survey Time: 0707

Temperature at Sunrise: 57 Source: USNO Temperature at End of Survey: 58 C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0504	HI	3	Y	Y	Y	N	N	N	1	N	BEGIN SURVEY
0513	HI	3	Y	Y	Y	N	N	N	2	N	WIND INC.
0526	HI	3	Y	Y	Y	N	N	N	1	N	WIND DEC.
0552	HI	3	Y	Y	Y	N	N	N	1	N	SUNRISE
0600	HI	2	Y	Y	Y	N	N	N	1	N	CLOUD DEC.
0621	HI	2	Y	Y	Y	N	N	N	0	N	WIND DEC.
0707	HI	2	Y	Y	Y	N	N	N	0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.

Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.

Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.

Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).

Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. Other: H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.

Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).

Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____ Data Point No. _____ Sequence No. _____ Reference No. _____
 Quad. Code _____ Photo Code _____ General Location _____
 Data Entry Initials _____ Data Entry Date _____ Data QC Initials _____ Data QC Date _____
 Protocol Review Initials _____ Review Date _____ Highest Biological Status _____

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): VSY

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or **(N)**

Month JULY Day 29 Year 2014

Area Name: YOUNG HARVEST A Site Name / Number: YHA Station Number: YHA5

Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) NW, of Q (1/4) SE

UTM zone: 10 E (x) coordinate: 463326 N (y) coordinate: 4928644 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: MILES SMITH Initials: MSS Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 640 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0557 City: PHILOMATH Begin Survey Time: 0512 End Survey Time: 0712

Temperature at Sunrise: 58 Source: USNO Temperature at End of Survey: 58 C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0512	UL	3	Y	Y	Y	N	N		0	N	BEGIN SURVEY
0557	UL	3	Y	Y	Y	N	N		0	N	SUNRISE
0712	UL	3	Y	Y	Y	N	N		0	N	END SURVEY
0512											OSPREY WEST OF SITE

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): JKY

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or N

Month JULY Day 30 Year 2014

Area Name: YOUNG HARVEST B Site Name / Number: YHB Station Number: YHB1

Station Location - T 12 N or S, R 6 E or W, S 19, QQ (1/16) NW, of Q (1/4) SW

UTM zone: 10 E (x) coordinate: 4628742 N (y) coordinate: 4928742 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: MILES SMITH Initials: MSS Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 780 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: _____ Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 0558 City: PHILOMATH Begin Survey Time: 0513 End Survey Time: 0713

Temperature at Sunrise: 60 ° Source: USNO Temperature at End of Survey: 60 ° C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0513	UL	0	Y	Y	Y	N	N		0	N	BEGIN SURVEY
0558	UL	0	Y	Y	Y	N	N		0	N	SUNRISE
0713	UL	0	Y	Y	Y	N	N		0	N	END SURVEY

Ceiling: UL = Unlimited (clear), HI =>2.0 canopy height, MID =>1.25 to ≤2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

** ODFW DATABASE USE ONLY **

OREGON MARBLED MURRELET FOREST SURVEY FORM

Survey Visit to Protocol

Page 1 of 1

(Y or N, initials): Y JS

Total Detections: 0

Species of Concern (circle one, details on last pg.): Y or **(N)**

Month 08 Day 01 Year 2014

Area Name: OLD HARVEST B Site Name / Number: OHB Station Number: OHB3

Station Location - T 12 N or S, R 06 E or W, S 19, QQ (1/16) _____, of Q (1/4) _____

UTM zone: 10 E (x) coordinate: 0462746 N (y) coordinate: 4929257 Source: GPS Datum: NAD83 FOM: _____

Observer (s) Name: Josh Stewart Initials: JWS Affiliation: Turnstone Env. Phone: (503) 283 - 5338

Station Elevation: 700 ft Position on Slope: Bottom/plain, Lower 1/3, Mid 1/3, Upper 1/3, Ridgetop

Station Placement: Inside, Outside

Distance from Survey Site Boundary: N/A Units of Measure for ALL Horizontal Distances: m

Station Canopy Cover: 1 = 0 to 25%, 2 = 26 to 50%, 3 = 51 to 75%, 4 = 76 to 100%

ENVIRONMENTAL CONDITIONS:

Official Sunrise Time: 06:00 City: Philomath Begin Survey Time: 05:13 End Survey Time: 07:15

Temperature at Sunrise: 62.6 ° Source: USNO Temperature at End of Survey: 60.8 ° C or F revised: 2 / 2000

TIME	VERTICAL VIEWING			HORIZ. VIS. TO 100 M	AUDIBILITY TO 200 M	PRECIPITATION			WIND	NOISE	NOTES
	CEILING	CLOUD COVER	VISIBILITY TO 2 CANOPY			RAIN	FOG	OTHER			
0513	HI	3	Y	Y	Y	N	N	N	0	N	Begin Survey
0600	HI	3	Y	Y	Y	N	N	N	2	N	Sunrise
0715	HI	0	Y	Y	Y	N	N	N	0	N	End Survey

Ceiling: UL = Unlimited (clear), HI = >2.0 canopy height, MID = >1.25 to ≤ 2.0 canopy height, LO = ≤1.25 canopy height, U = Unknown.
Cloud Cover: 0 = 0%, 1 = 33%, 2 = 66%, 3 = 100%.
Vertical Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Horizontal Visibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection), U = Unknown.
Audibility: N = Impaired (detections may be missed due to conditions), Y = Unimpaired (conditions allow for reliable detection).
Precipitation - Rain & Fog: N = None, L = Light, M = Moderate, H = Heavy. **Other:** H = Hail, S = Snow. Indicate intensity using same codes for rain & fog.
Wind: 0 = <1 mph (calm), 1 = 1-3 mph (leaves barely move), 2 = 4-7 mph (leaves rustle, sm. twigs move), 3 = 8-12 mph (leaves & sm. twigs in constant motion), 4 = 13-18 mph (sm. branches move), 5 = 19-24 mph (lg. branches & sm. trees start to sway), 6 = 25-31 mph (lg. branches in constant motion), 7 = 32-38 mph (whole trees move), 8 = 39-46 mph (twigs & sm. branches break).
Noise: N = None, A = Aircraft, B = Bird song/calls, C = Creek/water drainage, M = Machinery, P = Rain/hail, T = Tree drip, V = Vehicle, W = Wind, O = Other (explain in Notes).

Occurrence No. _____	Data Point No. _____	Sequence No. _____	Reference No. _____
Quad. Code _____	Photo Code _____	General Location _____	
Data Entry Initials _____	Data Entry Date _____	Data QC Initials _____	Data QC Date _____
Protocol Review Initials _____	Review Date _____	Highest Biological Status _____	

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