

APPENDIX E

Inventory form and rating table templates for VMU and HAU
Variables document explaining inventory form and rating tables

SRHS VEGETATION MAPPING UNIT INVENTORY FORM

HAU: [2] V-MAP UNIT: [2]

HAU#: [2]	Method On-Site: [1] Off-Site, View: [1] Off-Site, No View: [1]	Acreage: [2]	2006 veg cover: [21]
Polygon: [2]		UTM WGS84 Zone 10T: [6] mE	1936 veg cover: [10]
Observer: [2]		Centroid: [7] mN	1850 veg cover: [10]
Date: [8]		Centroid: [7] mN	Ref HAU/VMU#: [4]

LAYER	TOT	Evrg	Dec	Nat	Exot	Species	Species
Tree:	[4]	[6]	[6]	[6]	[6]	[20] [2]" dbh avg	[20] [2]" dbh avg
						[20] [2]" dbh avg	[20] [2]" dbh avg
Shrub:	[4]	[6]	[6]	[6]	[6]	[20]	[20]
						[20]	[20]
Herb:	[4]	[6]	[6]	[6]	[6]	[20]	[20]
						[20]	[20]
Additional herbs:						[20]	[20]
						[20]	[20]
Invasv			[20]			[20]	[20]
Invasv			[20]			[20]	[20]
Invasv			[20]			[20]	[20]
Invasv			[20]			[20]	[20]

RECENT DISTURBANCE (earthwork, logging, herbicides, grazing, etc.): [6]

KNOWN UNCOMMON AND RARE SPECIES OCCURRENCES

[24]	[24]	[24]	[24]	[24]
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SPECIFIC PIWO/RLF DETECTION & HABITAT FEATURES

Pileated Woodpecker:	Red-legged Frog: aquatic (breeding)	Red-legged Frog: terrestrial (foraging/dispersal)
Visual detection [1]	Visual detection [1]	Forested upland [1]
Aural detection [1]	Stillwater wetland [1]	If yes, then:
Foraging excavation [1]	% open water [6]	% sword fern / other low veg [6]
Nesting excavation [1]	% low emergent vegetation [6]	w/alder or biglf maple dom. in o-story [1]
Describe: [F]	winter sun [1]	breeding habitat adjacent [1]
	aquatic inverts present [1]	road between UL & breeding habitat* [1]
	bullfrogs present* [1]	(Office) ≥10 acres (4 ha) [1]
	cultivated crop/lawn adjacent* [1]	(Office) compact shape [1]
* yes = negative factor		

OTHER SPECIAL HABITAT FEATURES

Snags/ac. ≤1.5' dbh [2]	Snags/ac. >1.5' dbh [2]	Logs/ac. 1 - 2' dia. [2]	Logs/ac. > 2' dia. [2]
WATER: [1] Describe: [F]		ROCK/BALDS: [1] Describe: [F]	
SMALL HABITAT PATCHES: [1] Describe: [F]		SCATTERED LARGE TREES: [1] Describe: [F]	

Comments:

Disturbance, Herb layer, Photo points, Polygon Restoration potential, Shrub layer,
Target species in general, Tree layer, View

SRHS VEGETATION MAPPING UNIT RATING TABLE

HAU: [2] V-MAP UNIT: [2]
 ACREAGE: [2] DATE: [8]
 REF VMU: [4]

FEATURE	SOURCE	CONSIDERATIONS	Range	Value	DATA
Rare Species Potential Suitable Habitat	Species Habitat Matrix, Field Data Sheet	Based on matrix score for each habitat, consisting of sum of each rare species status and potential habitat suitability rating. Value 1 = <150; 2 = 151-200; 3 = 201- 250; 4 = 251-300; 5 = >300.	1-5	[1]	[21] = [3]
Habitat Rarity	Oregon Conservation Strategy	Value 10 = Prairie/grasslands, oak savanna & woodland, riparian, wetlands, aquatic	0, 3 or 10	[2]	[21]
	Field Data Sheet	Value 3 = Mature/old growth forest (>80 y.o. conifer; or mixed or hardwood with large trees)			
Habitat Quality	Field Data Sheet (using Ref. VMU if needed)	Native understory in prairie, savanna, woodland and wetland habitats (Value 5 = ≥5%, 0 = <5%). Exotic understory in other habitats: (Value 5 = <5%, 3 = 5-30%, 1 = >31-70%).	0-5	[1]	[40]
Special Habitat Features	Field Data Sheet (using Ref. VMU if needed)	Categories: 1) large snags, 2) large logs, 3) small snags AND logs, 4) water feature, 5) rocks or balds, 6) small habitat patches, 7) scattered large trees. Three or more categories recorded, Value = 3, two or more = 2, one = 1.	0-3	[1]	[16]
Habitat Disturbance	Aerial photo	Adjacent road can affect wildlife use and movement. Value 2 = <5% of VMU boundary borders paved road, 0 = 5% or more of VMU boundary borders paved road.	2-0	[1]	[18]
	Field Data Sheet, aerial photo (some off-site)	Amount of polygon recently disturbed. Value 2 = <20%; 1 = 20 – 50%; 0 = >50%	2-0	[1]	[40]
* Acreage Multiplier: <2 ac = 1.0, 2-4.9 ac = 1.5, 5-9.9 ac = 2.0, 10-25.9 ac = 2.5, 26-49.9 ac = 3.0, 50-74.9 ac = 3.5; 75-99.9 ac = 4.0, ≥100 = 4.5			SUM:	[2] x [3]	TOTAL: [2]

DOCUMENTED UNCOMMON AND RARE SPECIES

Known rare species occurrence	ORNHIC & Field Data Sheet	List species: [25] [25] [25] [25] [25] [25]
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Pileated Woodpecker / Red-legged Frog Supplemental Information

Pileated Woodpecker: breeding/foraging mapped cover type suitability	[1]
Pileated Woodpecker: special habitat features (field inventory)	[1]
Red-legged Frog: aquatic/breeding mapped cover type suitability	[1]
Red-legged Frog: terrestrial/foraging/dispersal mapped habitat suitability	[1]
Red-legged Frog aquatic/breeding suitability (field inventory)	[1]
Red-legged Frog terrestrial/foraging/dispersal suitability (field inventory)	[1]

Note: Reference VMU (RV) is a nearby VMU with similar characteristics. In the VMU rating, data from the RV is used as a substitute for data that was unavailable due to lack of site access permission. All RV data is labeled as such on this Inventory Form.

SRHS HABITAT ASSESSMENT UNIT RATING TABLE

HAU: [2]
HAU NAME: [25]
ACREAGE: [3] **DATE:** [8]

FEATURE	SOURCE	CONSIDERATIONS	Range	Value	Mult.*	Data	Score
Combined Polygon Scores	VMU Rating Tables	Cumulative addition of all Vegetation Mapping Unit scores in an HAU, multiplied to proportionally decrease scores to fit range on this HAU scoring page.	(x)	[3]	.1	[20]	[2]
Habitat Patch Size	Aerial photo estimates and GIS	Overall connected size of HAU and adjacent undeveloped habitats in a landscape context. Includes adjacent HAUs as well as habitat patches outside the study area. Roads dividing habitat patches are a factor for some wildlife (various terrestrial species), but less so for other species (e.g., songbirds, plants). Value 0.5 = 0 – 50 ac; 1 = 51-100 ac., 1.5 = 101 – 150 ac., etc.; 5 = >450 ac. Deduct for poor connectivity.	0.5-5	[1]	2	[40]	[2]
Internal Connectivity	VMU Rating Tables, aerial photos	Connectivity/clustering of VMUs rated 10 and 3 for Habitat Rarity is valuable for native plants, wildlife and invertebrates. Rated habitat types on a four-step scale: Forest, Woodland, Savanna, Prairie, and assigned value to two of same type or if apart by only one step. Value 3 = >5 VMUs rated 10 and/or 3 w/borders no > 100' between; 2 = 4 or 5 VMUs as above; 1 = 2 or 3 VMUs as above; 0 = none.	0-3	[1]	.5	[40]	[1]
	Aerial photo/HAU maps, VMU Rating Tables	Internal connectivity relating to cohesiveness and shape of the HAU can benefit wildlife and possibly plant species. Value 3 = few to no barriers within HAU (busy, paved roads; development; highly managed landscapes; etc.), compact shape; 2 = intermediate; 1 = some to several barriers, irregular shape; 0 = highly fragmented.	0-3	[1]	.5	[40]	[1]
* Multiplier							TOTAL: [2]

1. SRHS VEGETATION MAPPING UNIT INVENTORY FORM

FIELD	# of Characters	Variable definition	Source	Comment
HAU	2	Number from 01 to 21	Form	
Polygon	2	Alpha code from A to AZ	Form	
Observer	2	2 letter initials	Form	
Date	8	mm/dd/yy	Form	Use another date format if simpler to program.
On-site	1	Y or blank	Form	One Y for On-site AND/OR Off-site view AND/OR Off-site no view.
Off-site view	1	Y or blank	Form	Same.
Off-site no view	1	Y or blank	Form	Same.
Acreage	2	Polygon acreage	GIS	
UTM easting	7	UTM easting	GIS	Easting of polygon centroid, WGS 84
UTM northing	8	UTM northing	GIS	Northing of polygon centroid, WGS 84
2006 Vegetation Cover	21	Alpha (Translate ARA # on form to text definition)	Form(#) and Habitat matrix spreadsheet (full name)	Not sure of actual number, so using placeholder of 10.
1936 Vegetation Cover	10	Alpha	1936 veg cover spreadsheet (or GIS?)	Not sure of actual number, so using placeholder of 10.
1850 Vegetation Cover	10	Alpha	GIS?	Not sure of actual number, so using placeholder of 10.
Ref Poly #	4	01-21 for first 2 digits (HAU); -A to AZ for last 2 digits (Polygon)	Office designated.	Most VMUs will not have a RefPoly.
Total tree cover	6	Number range	Form	4 range categories (use one only): <5%, 5-30%, 30-70%, >70%
Evergreen tree cover	6	Number range	Form	4 range categories (use one only): <5%, 5-30%, 30-70%, >70%
Deciduous tree cover	6	Number range	Form	4 range categories (use one only): <5%, 5-30%, 30-70%, >70%
Native tree cover	6	Number range	Form	4 range categories (use one only): <5%, 5-30%, 30-70%, >70%
Exotic tree cover	6	Number range	Form	4 range categories (use one only): <5%, 5-30%, 30-70%, >70%
Tree species/avg. dbh (up to 4)	20/2 ea.	Latin name, up to 20 alpha char., dbh to 2 numeric char.	Form	List Doms first, then Subdoms if spaces left. Example: D-Quercus garryana 12"dbh D-Quercus kelligii 10"dbh S-Pinus ponderosa 14"dbh (use X or ? for unspecified dbh)
Total shrub cover	6	Number range	Form	4 range categories: <5%, 5-30%, 30-70%, >70%
Evergreen shrub cover	6	Number range	Form	4 range categories: <5%, 5-30%, 30-70%, >70%
Deciduous shrub cover	6	Number range	Form	4 range categories: <5%, 5-30%, 30-70%, >70%
Native shrub cover	6	Number range	Form	4 range categories: <5%, 5-30%, 30-70%, >70%

Exotic shrub cover	6	Number range	Form	4 range categories: <5%, 5-30%, 30-70%, >70%
Shrub species (up to 4)	20 ea.	Latin name	Form	List doms first, then subdoms if spaces left.
Total herb cover	6	Number range	Form	4 range categories: <5%, 5-30%, 30-70%, >70%
Evergreen herb cover	6	Number range	Form	4 range categories: <5%, 5-30%, 30-70%, >70%
Deciduous herb cover	6	Number range	Form	4 range categories: <5%, 5-30%, 30-70%, >70%
Native herb cover	6	Number range	Form	4 range categories: <5%, 5-30%, 30-70%, >70%
Exotic herb cover	6	Number range	Form	4 range categories: <5%, 5-30%, 30-70%, >70%
Herb species (up to 8)	20 ea.	Latin name	Form	List doms first, then subdoms if spaces left.
Invasive species (up to 12)	20 ea.	Latin name	Form	List with prefix designating Tree, Shrub, Herb. Example: T-Prunus avium S-Rubus armeniacus S-Ilex aquifolium H-Geranium lucidum H-Brachypodium sylvaticum.
Recent disturbance	6	Number range	Form	3 range categories: <20%, 20-50%, >50%
Known rare species occurrence (up to 5)	20 ea.	Alpha	Form; rare species table	Multiple species possible. Use common names for animals, Latin for plants.
PIWO visual	1	Y or N	Form	Pileated Woodpecker seen. If Y, then list under Known rare species occurrence.
PIWO aural	1	Y or N	Form	Pileated Woodpecker heard. If Y, then list under Known rare species occurrence.
PIWO foraging excavation	1	Y or N	Form	Pileated Woodpecker foraging excavation seen. If Y, then list under Known rare species occurrence.
PIWO nesting excavation	1	Y or N	Form	Pileated Woodpecker nesting excavation seen. If Y, then list under Known rare species occurrence.
PIWO comments	*	Alpha	Form	Use # of characters from form.
RLF visual	1	Y or N	Form	Red-legged frog seen. If Y, then list under Known rare species occurrence.
Stillwater wetland	1	Y or N	Form	
% open water	6	Number range	Form	3 range categories: <25%, 25-50%, >50%
% low emergent	6	Number range	Form	3 range categories: <25%, 25-50%, >50%
Winter sun	1	Y or N	Form	
Aquatic inverts	1	Y or N	Form	Aquatic inverts present
Bullfrogs	1	Y or N	Form	Bullfrogs present
Cultivated crop/lawn adjacent	1	Y or N	Form	
Forested upland	1	Y or N	Form	
% POLMUN/low veg cover	6	Number range	Form	3 range categories: <1/3, 1/3-2/3, >2/3
Dense understory	1	Y or N	Form	
w/alder or biglf maple dom. in o-story	1	Y or N	Form	
Wetland adjacent	1	Y or N	Form	

Road between upland and wetland	1	Y or N	Form	
≥ 10 acres	1	Y or N	Form (office assigned)	
Compact shape	1	Y or N	Form (office assigned)	
Snags/ac ≤ 1.5 ft dbh	2	Number range	Form	3 range categories: 0, <5, ≥5
Snags/ac > 1.5 ft dbh	2	Number range	Form	3 range categories: 0, <5, ≥5
Logs/ac 1-2 ft dia	2	Number range	Form	3 range categories: 0, <5, ≥5
Logs/ac >2 ft dia	2	Number range	Form	3 range categories: 0, <5, ≥5
Water	1	Y or N	Form	
Water description	*	Alpha	Form	Use # of characters from form.
Rock/balds	1	Y or N	Form	
Rock/balds description	*	Alpha	Form	Use # of characters from form.
Small habitat patches	1	Y or N	Form	
Small habitat patches description	*	Alpha	Form	Use # of characters from form.
Scattered large trees	1	Y or N	Form	
Photo points	*	Alpha	Form	Use # of characters from form.
Comments	*	Alpha	Form	Use # of characters from form.

2. VEGETATION MAPPING UNIT RATING TABLE

HAU	2	Number from 01 to 21	Form	
Polygon	2	Alpha code from A to AZ	Form	
Acreage	2	Polygon acreage	GIS	Same as Inventory Form.
Date	8	mm/dd/yy	Form	Same comment as Inventory Form.
Ref. Poly	2	Y or N	Y (yes) if used.	
Ref Poly #	4	01-21 for first 2 digits; -A to AZ for last 2 digits	Repeat from Inventory Form	
Rare species potential suitable habitat: VALUE	1	0-5	Calculated from rare species suitability index, see DATA row below for source (3 digit number), calculation in next column.	Value 1 = RSS <150; 2 = 151-200; 3 = 201- 250; 4 = 251-300; 5 = >300.
Rare species potential suitable habitat: DATA	21 / 3	1-21 alpha characters, 3 numeric	Rare Species Suitability-habitat matrix.	Show Cover Type (full name) and RSS number from RSS table.
Habitat rarity: VALUE	2	0 or 3 or 10	Inventory Form cover type #, translated in next column.	Cover types: 10, 11, 13, 15, 21, 24, 26, 27 AND any # with R suffix AND 12 if QUEGAR listed as a dom or subdom = 10; Cover types 5 & 6 = 3, and cover types 7 & 8 IF one dom conifer ≥ 24" dbh OR dom QUEGAR

				or QUEKEL ≥ 14" dbh = 3; all other cover types = 0.
Habitat rarity: DATA	21	Alpha	Inventory Form cover type #	Show Cover Type (full name).
Habitat quality: VALUE	1	0 or 1 or 3 or 5	Inventory Form: native herb layer cover	Native understory in prairie, savanna, woodland and wetland habitats (≥5%= 5, <5% = 0). Exotic understory in other habitats: (<5% = 5, 5-30% = 3, 31-70% = 1, >70% = 0).
Habitat quality: DATA	0	Alpha	N/A	Blank.
Special habitat features: VALUE	1	0-3	Form	Seven categories on form (Y or N) : 1) large snags (>2' dbh); 2) large logs (>1.5' dia.); 3) small snags AND logs (combined from 2 categories on form to 1 here for rating); 4) water feature; 5) rocks or balds; 6) small habitat patches; and 7) scattered large trees. Value = 3 if three or more categories present value = 2 if two present, value = 1 if one present, and =0 if none.
Special habitat features: DATA	16	1-7	Form	Enter numbers 1 - 7 in any combination, with comma and space between, following category 1-7 listing in VALUE above.
Habitat disturbance, aerial photo: VALUE	1	0-2	Office assigned, aerial photo interp.	Adjacent road can affect wildlife use and movement. 2 = <5% of VMU boundary borders paved road. 0 = 5% or more of VMU boundary borders paved road.
Habitat disturbance, aerial photo: DATA	18	Alpha	Office assigned, aerial photo interp.	Two options, depending on score in last variable. If it = 2, say "Adjacent road boundary <5%." If it = 0, say "Adjacent road boundary 5% or greater."
Habitat disturbance, Field Data Sheet, etc.: VALUE	1	0-2	Form	Amount of polygon recently disturbed 2 = <20%; 1 = 20 – 50%; 0 = >50%;
Habitat disturbance, Field Data Sheet, etc.: DATA	40	Alpha	Office assigned, data sheet comments	Explain, if present
Sum	2	Numeric	Sum of cells above	
Acreage multiplier	3	1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5	GIS acres, transposed in column to right	<2 ac = 1.0, 2-4.9 ac = 1.5, 5-9.9 ac = 2.0, 10-25.9 ac = 2.5, 26-49.9 ac = 3.0, 50-74.9 ac = 3.5; 75-99.9 ac = 4.0, ≥100 = 4.5
TOTAL	2	Numeric	Product of SUM x Acreage Multiplier	
Known uncommon and rare species occurrence	20 ea.	Alpha	Field or Office Assigned	Possible to list up to six species, with -H, -M or -L status from Target Uncommon and Rare Species list.
Pileated Woodpecker: breeding/foraging mapped cover type suitability	1	H, M, L or 0	Habitat matrix	Pull H-M-L or 0 from Habitat matrix for PIWO for this Cover type

Pileated Woodpecker: special habitat features (field inventory)	H	H, M, L or 0	Form	Inventoried features used in the ranking: 1. Large logs (<5 OR ≥5 per acre) 2. Large snags (<5 OR ≥5 per acre) 3. Any dom or subdom tree species > 20" dbh 4. Small logs (<5 OR ≥5) and small snags (<5 OR ≥5) 5. Scattered large trees present H = All 3 of the first 3 features (1+2+3) M = Any 2 of the first 3 features (1+2 OR 1+3 OR 2+3) L = Any 1 of any of the 5 features
Red-legged Frog: aquatic/breeding mapped cover type suitability	1	H, M,L or 0	Habitat matrix	Pull H-M-L or 0 from Habitat matrix for RLF B (breeding) for this Cover type
Red-legged Frog: terrestrial/foraging/dispersal mapped habitat suitability	1	H, M,L or 0	Habitat matrix	Pull H-M-L or 0 from Habitat matrix for RLF F (foraging) for this Cover type
Red-legged Frog aquatic/breeding suitability (field inventory)	1	H, M,L or 0	Form, calculated in next column	If Stillwater wetland present: % open water <25 = 1, 25-50 = 2, >50 = 1; % low emergent <25 = 1, 25-50 = 2, >50 = 1; winter sun Y=1, N = 0; aquatic inverts Y = 1, N = 0; bullfrogs Y=0, N=1; crop/lawn adj Y = 0, N = 1; Total possible points = 8; 1-2 = L, 3-4 = M, 5-8 = H.
Red-legged Frog terrestrial/foraging/dispersal suitability (field inventory)	1	H, M,L or 0	Form, calculated in next column	If upland forested habitat present: POLMUN <1/3 = 1, 1/3 - 2/3 = 2, >2/3 =3; dense understory Y=1, N=0; Alder, maple, ash, cottonwood overstory Y=1, N=0; wetland adjacent Y=1, N=0; Road between upland and wetland Y=0, N=1; >10 acres Y=1, N=0; compact shape Y=1, N=0; Total possible points = 9; 1 - 3 points = L, 4 - 6 points = M, 7-9 points = H