

**Note:** Assessing all fields and metrics is strongly encouraged. Fields and metrics with \* are the minimum required to propose a new EO. If doing the minimum, skip 'Calculate EIA Scores' on page 11. Contact [tynan.ramm-granberg@dnr.wa.gov](mailto:tynan.ramm-granberg@dnr.wa.gov) with questions.

**\*Site Name:** \_\_\_\_\_ **\*AA Name (if >1 AAs):** \_\_\_\_\_

**Classification** (EIA Manual pg. 28) \*Manual Version #: \_\_\_\_\_

Ecological System (S Rank): \_\_\_\_\_

\*NVC Plant Association (G/S Rank): \_\_\_\_\_

\*NVC Group (G/S Rank): \_\_\_\_\_

\*Observer(s): \_\_\_\_\_ \*Date: \_\_\_\_\_ County: \_\_\_\_\_

VegPlot(s): \_\_\_\_\_ TRS: \_\_\_\_\_ Photos: \_\_\_\_\_

EO ID: \_\_\_\_\_ SF ID: \_\_\_\_\_ Owner(s): \_\_\_\_\_

Assessment Pt. / Sub-AA	1	2	3	4	5	6	7	8	9	10
*Spatial Coordinates										
System: _____										

<b>*Sampling Strategy:</b>	<input type="checkbox"/> Polygon AA (< 50 ha / 125 ac; site walkthrough)	<input type="checkbox"/> Polygon AA (< 50 ha / 125 ac; systematic relevés)	Other:
	<input type="checkbox"/> Point-Based AA	<input type="checkbox"/> Combined Point/Polygon AA (> 50 ha / 125 ac)	

<b>*Plot Type:</b>	<input type="checkbox"/> Relevé	<input type="checkbox"/> Site-Walkthrough	Plot Size / Dimensions:
	<input type="checkbox"/> Transect	<input type="checkbox"/> Other:	

\*AA size (ac/ha): \_\_\_\_\_ **\*AA Description** (see field form pg. 11 for additional space):









**LAN2 Land Use Index** (pg. 39; use table below to calculate score, then check rank)

Worksheet : Land Use Categories		Weight	% Area (0 to 1.0)	Score
Paved roads / parking lots		0		
Domestic, commercial, or publicly developed buildings and facilities (non-vegetated)		0		
Gravel pit / quarry / open pit / strip mining		0		
Unpaved roads (e.g., driveway, tractor trail, 4-wheel drive, logging roads)		1		
Agriculture: tilled crop production		2		
Intensively developed vegetation (golf courses, lawns, etc.)		2		
Vegetation conversion (chaining, cabling, roto-chopping, clearcut)		3		
Agriculture: permanent crop (vineyard, orchard, nursery, hayed pasture, etc.)		4		
Intense recreation (ATV use / camping / popular fishing spot, etc.)		4		
Military training areas (armor, mechanized)		4		
Heavy grazing by livestock on pastures or native rangeland		4		
Heavy logging or tree removal (50-75% of trees >30 cm DBH removed)		5		
Commercial tree plantations / holiday tree farms		5		
Recent old fields and other disturbed fallow lands dominated by ruderal and exotic species		5		
Dam sites and flood disturbed shorelines around water storage reservoirs and boating		5		
Moderate grazing of native grassland		6		
Moderate recreation (high-use trail)		7		
Mature old fields and other fallow lands with natural composition		7		
Selective logging or tree removal (<50% of trees >30 cm DBH removed)		8		
Light grazing or haying of native rangeland		9		
Light recreation (low-use trail)		9		
Natural area / land managed for native vegetation		10		
			<b>Land Use Index</b>	
<input type="checkbox"/> EXCELLENT (A) Avg. LU score = 9.5 – 10	<input type="checkbox"/> GOOD (B) Avg. LU score = 8.0 – 9.4	<input type="checkbox"/> FAIR (C) Avg. LU score = 4.0 – 7.9	<input type="checkbox"/> POOR (D) Avg. LU score = < 4.0	

**EDGE**

**EDG1 Perimeter with Natural Edge** (pg. 43)

<input type="checkbox"/> EXCELLENT (A) 100% 4 pts	<input type="checkbox"/> GOOD (B) 75-99% 3 pts	<input type="checkbox"/> FAIR (C) 25-75% 2 pts	<input type="checkbox"/> POOR (D) <25% 1 pt							
<b>Assessment Pt. / Sub-AA</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>Metric Rating</b>										
Comments:										

**EDG2 Width of Natural Edge** (pg. 45)

<input type="checkbox"/> EXCELLENT (A) 4 pts; ≥ 100m	<input type="checkbox"/> GOOD (B) 3 pts; 75-99m	<input type="checkbox"/> FAIR (C) 2 pts; 25-75m	<input type="checkbox"/> POOR (D) 1 pt; <25m							
<b>Assessment Pt. / Sub-AA</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
<b>Metric Rating</b>										
<i>Average Width</i>										
Comments:										

**\*EDG3 Condition of Natural Edge** (pg. 48; Small AAs ONLY; if surveying lines used for EDG2, score each line and then average)

<input type="checkbox"/> EXCELLENT (A) 4 pts	<input type="checkbox"/> GOOD (B) 3 pts	<input type="checkbox"/> FAIR (C) 2 pts	<input type="checkbox"/> POOR (D) 1 pt							
Assessment Pt. / Sub-AA	1	2	3	4	5	6	7	8	9	10
Metric Rating										

Comments:

**Vegetation**

(score at each sample point/sub-AA and enter numeric value (e.g. A = 4 pts), then average scores across sample points; roll-up of sub-AA scores should weight relative area of sub-AA to total AA area; check appropriate boxes for overall score)

**\*VEG1 Native Plant Species Cover (Relative)** (pg. 50; calculate relative cover of each stratum at each sample point/sub-AA; Use stratum with lowest relative cover for metric rating).  $Relative\ cover = (native\ cover / native+nonnative\ cover) * 100$

<input type="checkbox"/> EXCELLENT (A) 4 pts; >99%	<input type="checkbox"/> VERY GOOD (A-) 3.5 pts; 95-99%	<input type="checkbox"/> GOOD (B) 3 pts; 85-94%	<input type="checkbox"/> FAIR (C) 2 pts; 60-84%	<input type="checkbox"/> POOR (D) 1 pt; <60%							
Assessment Pt. / Sub-AA	1	2	3	4	5	6	7	8	9	10	Avg
<b>Trees</b>											
<i>Native</i>											
<i>Nonnative</i>											
Total Cover											
<i>VEG1a. Native Tree Relative Cover</i>											
<b>Shrub/Herb</b>											
<i>Native</i>											
<i>Nonnative</i>											
Total Cover											
<i>VEG1b. Native Shrub/Herb Relative Cover</i>											
<b>Metric Rating</b>											

Comments:



**\*VEG4 Vegetation Structure** (pg. 55; varies by EIA module; For Forest types, indicate the Stand Development Stage)

**Stand development stage codes:** cohort establishment (1); canopy closure (2); biomass accumulation/stem exclusion (3); maturation-eastside (4); maturation 1-westside (5); maturation 2-westside (6); vertical diversification-old growth (7); horizontal diversification-old growth (8); pioneer cohort loss-old growth (9).

Assessment Pt. / Sub-AA	1	2	3	4	5	6	7	8	9	10
Stand Development Stage (Van Pelt)										

EXCELLENT (A) 4 pts       GOOD (B) 3 pts       FAIR (C) 2 pts       POOR (D) 1 pt

Assessment Pt. / Sub-AA	1	2	3	4	5	6	7	8	9	10	Avg
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**v7 Dry Forests & Woodlands; v8 Mesic / Hypermaritime Forests**

<i>Submetrics:</i>											
7/8a Canopy Structure (age class diversity)											
7/8b Old/Large Live Trees											
<b>Metric Rating</b>											

**v9 Shrublands**

<i>Submetrics:</i>											
9a Shrub Cover											
9b Tree Encroachment											
<b>Metric Rating</b>											

**v10 Shrub-Steppe; v11 Grasslands / Meadows**

<i>Submetrics:</i>											
10/11a Woody Vegetation Cover											
10/11b Bunchgrass Cover											
10/11c Biological Soil Crust											
<b>Metric Rating</b>											

**v12 Bedrock / Cliffs (no submetrics)**

<b>Metric Rating</b>											
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Comments:

**VEG5 Woody Regeneration** (v2 Dry Forests & Woodlands; v3 Mesic / Hypermaritime Forests) (pg. 64)

<input type="checkbox"/> EXCELLENT (A) 4 pts		<input type="checkbox"/> GOOD (B) 3 pts				<input type="checkbox"/> FAIR (C) 2 pts			<input type="checkbox"/> POOR (D) 1 pt		
Assessment Pt. / Sub-AA	1	2	3	4	5	6	7	8	9	10	Avg
<b>Metric Rating</b>											
Comments:											

**VEG6 Coarse Woody Debris and Snags** (pg.66)

<input type="checkbox"/> EXCELLENT (A) 4 pts		<input type="checkbox"/> GOOD (B) 3 pts				<input type="checkbox"/> FAIR (C) 2 pts			<input type="checkbox"/> POOR (D) 1 pt		
Assessment Pt. / Sub-AA	1	2	3	4	5	6	7	8	9	10	Avg
<b>V3 Dry Forests &amp; Woodlands; V4 Mesic/Hypermaritime Forests &amp; Woodlands</b>											
<i>Submetrics:</i> V6v3/4a CWD Size Diversity											
<i>V6v3/4b. CWD Decay Class Diversity</i>											
<i>V6v3/4c. Snag Size Diversity</i>											
<i>V6v3/4d. Snag Decay Diversity</i>											
<b>Metric Rating</b>											
<b>V5 Shrublands; Grassland / Meadows</b>											
<i>Submetrics:</i> V6v5a. Litter Accumulation											
<i>V6v5b. Litter Source</i>											
<b>Metric Rating</b>											
Comments:											

## Soil / Substrate

**\*SOI1 Soil Condition v3** (pg. 78)

<input type="checkbox"/> EXCELLENT (A) 4 pts			<input type="checkbox"/> GOOD (B) 3 pts			<input type="checkbox"/> FAIR (C) 2 pts			<input type="checkbox"/> POOR (D) 1 pt		
Assessment Pt. / Sub-AA	1	2	3	4	5	6	7	8	9	10	Avg
Metric Rating											

Comments:

## Size

**SIZ1 Comparative Size (Spatial Pattern)** (pg. 81)

<input type="checkbox"/> EXCELLENT (A) 4 pts			<input type="checkbox"/> GOOD (B) 3 pts			<input type="checkbox"/> FAIR (C) 2 pts			<input type="checkbox"/> POOR (D) 1 pt		
Spatial Pattern Type: _____						Estimated Size (ac/ha): _____					
Comments:											

**SIZ2 Change in Size (optional)** (pg. 82)

<input type="checkbox"/> EXCELLENT (A) 4 pts			<input type="checkbox"/> GOOD (B) 3 pts			<input type="checkbox"/> FAIR (C) 2 pts			<input type="checkbox"/> POOR (D) 1 pt		
Comments:											

AA Description (Continued):

Roll-up Calculations	Rating	Score (TABLE 1)
LAN1. Contiguous Natural Land Cover		
LAN2. Land Use Index		
<b>LAN MEF Score = (LAN1+LAN2)/2 (TABLE 2)</b>		
EDG1. Perimeter with Natural Edge		
EDG2. Width of Natural Edge		
EDG3. Condition of Natural Edge (do not include in calculation if not scored)		
<b>EDG MEF Score = (((EDGF1*EDG2)<sup>1/2</sup>)*EDG3)<sup>1/2</sup> [Note: ½ exponent = square root] (TABLE 2)</b>		
<b>LANDSCAPE CONTEXT PRIMARY FACTOR SCORE = (EDG Score*0.67)+(LAN Score*0.33) (TABLE 2)</b>		
<b>Matrix = (EDG Score*0.33)+(LAN Score*0.67)</b> <b>Large-Patch = (EDG Score*0.50)+(LAN Score*0.50)</b> <b>Small-Patch = (EDG Score*0.67)+(LAN Score*0.33)</b>		
VEG1. Native Plant Species Cover		
VEG2. Invasive Nonnative Plant Species Cover		
VEG3. Native Plant Species Composition		
VEG4. Vegetation Structure		
VEG5. Woody Regeneration		
VEG6. Coarse Woody Debris		
<b>(FORESTED) VEG MEF Score=((0.4*((VEG1+VEG2+VEG3)/3))+(0.6*((VEG4+VEG5+VEG6)/3)))(Table 2)</b>		
<b>(NONFORESTED) VEG MEF Score = (VEG1+VEG2+VEG3+VEG4+VEG5+VEG6)/6 (Table 2)</b>		
[Note: Divide by number of metrics scored (i.e. divide by four if VEG1-VEG4 scored)]		
SOI1. Soil Condition		
<b>SOI MEF Score = SOI1</b>		
<b>CONDITION PRIMARY FACTOR SCORE = (VEG Score*0.85)+(SOI Score*0.15) (TABLE 2)</b>		
<b>ECOLOGICAL INTEGRITY (EIA) SCORE (TABLE 2)</b>		
<b>Matrix/Large-Patch = (CONDITION SCORE*0.55)+(LANDSCAPE CONTEXT SCORE*0.45)</b> <b>Small-Patch = (CONDITION SCORE*0.7)+(LANDSCAPE CONTEXT SCORE*0.3)</b>		
SIZ1. Comparative Size		
SIZ2. Change in Size (optional)		
<b>SIZ MEF Score = SIZ1 OR (SIZ1+SIZ2)/2 (TABLE 2)</b>		
<b>SIZE Points (TABLE 3)</b>		
<b>ELEMENT OCCURRENCE RANK (EORANK) = EIA Score + SIZE Points (TABLE 2)</b>		

Table 1. Metric Rank / Score Conversions							
Rank	A	A-	B	BC	C	C-	D
Score	4	3.5	3	2.5	2	1.5	1

Table 2. Score / Rank Conversions for MEF, EIA and EORANK calculations							
Rank	A+	A-	B+	B-	C+	C-	D
Score	3.8 - 4.00	3.5 - 3.79	3.0 - 3.49	2.5 - 2.99	2.0 - 2.49	1.5 - 1.99	1 - 1.49

Table 3. Point Contribution of Size Primary Factor Score (Average the two values for range ranks)			
Size Primary Factor Rating	Very Small/Small Patch	Large Patch	Matrix
A = Size meets A ranked rating	+ 0.75	+ 1.0	+1.5
B = Size meets B ranked rating	+ 0.25	+ 0.33	+0.5
C = Size meets C ranked rating	- 0.25	- 0.33	-0.5
D = Size meets D ranked rating	- 0.75	-1.0	-1.5

**Determine Whether AA Meets EO Criteria**

EO RANK	Global Rank State Rank	G1S1, G2S1, GNRS1, GUS1	G2S2, GNRS2, G3S1, G3S2, GUS2	GUS3, GNRS3, G3S3, G4S1, G4S2, G5S1, G5S2, any SNR	G4S3, G4S4, G5S3, G5S4, G5S5, GNRS4, GNRS5, GUS4, GUS5
A+ (3.8 to 4.0)		EO	EO	EO	EO
A- (3.5 to 3.79)		EO	EO	EO	EO
B+ (3.0 to 3.49)		EO	EO	EO	Not Element Occurrence
B- (2.5 to 2.99)		EO	EO	EO	
C+ (2.0 to 2.49)		EO	EO		
C- (1.5 to 1.99)		EO		Not Element Occurrence	
D (1.0 to 1.49)		EO	Not Element Occurrence		

**GENERAL NOTES:**