

# Datasheets and Protocols for Willamette Mainstem Vegetative Habitat Survey and Assessment

## 2012 Willamette Mainstem Field Data Sheet

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Site ID-Map Unit \_\_\_\_\_ Owner \_\_\_\_\_ Personnel \_\_\_\_\_ Date \_\_\_\_\_

Landform \_\_\_\_ Habitat Type \_\_\_\_\_ Slope \_\_\_\_ Condition Code \_\_\_\_\_

Vegetation layer dominants \_\_\_\_\_

Description: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Invasive weed mapping (UTMs; datum = WGS84)

Species	Map on Photo?	Centroid Easting	Centroid Northing	Radius (ft)	Comments

Management issues/recommendations:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Other comments/special habitats/rare species:

\_\_\_\_\_

\_\_\_\_\_

**2012 Willamette Mainstem Vegetation Plot Sheet**

Site ID-Map Unit \_\_\_\_\_

Plot# \_\_\_\_\_

Easting: \_\_\_\_\_

Northing \_\_\_\_\_

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Plot# \_\_\_\_\_

Easting: \_\_\_\_\_

Northing \_\_\_\_\_

Layer	Species	Cover (%)
T1		
T2		
T3		
T4		
S1		
S2		
S3		
S4		
H1		
H2		
H3		
H4		
INV1		
INV2		
INV3		
INV4		

Comments:

Layer	Species	Cover (%)
T1		
T2		
T3		
T4		
S1		
S2		
S3		
S4		
H1		
H2		
H3		
H4		
INV1		
INV2		
INV3		
INV4		

Comments:

Plot# \_\_\_\_\_

Easting: \_\_\_\_\_

Northing \_\_\_\_\_

Plot# \_\_\_\_\_

Easting: \_\_\_\_\_

Northing \_\_\_\_\_

Layer	Species	Cover (%)
T1		
T2		
T3		
T4		
S1		
S2		
S3		
S4		
H1		
H2		
H3		
H4		
INV1		
INV2		
INV3		
INV4		

Comments:

Layer	Species	Cover (%)
T1		
T2		
T3		
T4		
S1		
S2		
S3		
S4		
H1		
H2		
H3		
H4		
INV1		
INV2		
INV3		
INV4		

Comments:

**2012 Protocol:**

Sites will be identified by a code indicating ownership. Within each site individual vegetation mapping units will be delineated in the field, assigned a number, and mapped on an transparent aerial photo overlay. Mapping units will be contiguous areas of similar vegetation. Small water features generally will not be delineated as separate mapping units. Larger water features (marshes, lakes, sloughs) will be delineated as mapping units at the discretion of the field personnel.

**I. Field Data Sheet Variables (these apply to the entire mapping unit)**

1. Site ID-Map Unit - use the Site ID code assigned by the SWCD and assign a map unit number. For example XXXX-1, XXXX-2...

2. Personnel - name(s) of field inventory personnel

3. Date - date(s) of field inventory

4. Owner – owner of parcel

5. Landform

TY - 2 year floodplain

SP - Side channel perennial (inundated year-round)

SS - Side channel seasonal (inundated seasonally, not year-round)

GB - Gravel bar

HT - High terrace/bench

RB - Riverbank

AL - Alcove

PB - Point bar

Other (describe)

6. Slope class – in percent (Flat, 1-10, 10-20, 20-30, >30)

7. Habitat type – general habitat type description. Wetland or upland can be added as modifiers, e.g. HF-W = “Hardwood Forest – Wetland”

HF - Hardwood forest

CF - Conifer forest

MF - Mixed forest

SA - Savanna

SH - Shrubland

GR - Grassland

SL - Slough

MA - Marsh

GB - Gravel bar

OW - Open water

Other – describe

8. Dominants by layer. Dominants are species with 15% or more areal cover.

Tree: >15'

Shrub: woody plants 3-15'

Herb: all herbaceous plants and woody plants < 3'.

List dominants for the entire mapping unit in the following format using 6 letter acronyms based on the 1<sup>st</sup> 3 letters of genus and species:

PSEMEN-QUEGAR/ACECIR/POLMUN

(= Pseudotsuga menziesii-Quercus garryana/Acer circinatum/Polystichum munitum)

9. Condition – assessment of health based on level of disturbance, presence of invasive species, native species diversity, structural diversity (as appropriate for the habitat type), connectivity with other habitats, human impacts

1. Very good - high level of ecological function, good native species and structural diversity, few invasives
2. Good – minor impacts from disturbance, invasives
3. Fair – impacts from disturbance, invasives, reduced native and structural diversity
4. Poor – significant impacts from invasive species, disturbance, low native and structural diversity
5. Severely degraded – ecological function severely compromised, invasive species dominate, low native diversity, low structural diversity, severe erosion

10. Invasive Weed Mapping – invasive weeds may be mapped in one of three ways:

1. On transparent aerial photo overlays with colored ink. Use different colors to distinguish different species. If necessary, more than one overlay may be used for a given area.
2. The centroid of the infestation can be GPS'd and a radius of the infestation estimated in feet. This method should be used for small infestations in forested areas where it can be difficult to determine exact location on an aerial photo.
3. By indicating on the datasheet that the species is present throughout the mapping unit

GPS coordinates should be UTM and map datum "NAD\_1983\_UTM\_Zone\_10T"

Enter the following information:

Species - 6 letter acronym

Map on Photo? – Y or N; note if mapped on photo. If yes, GPS'd centroid is optional

Centroid easting – for GPS'd centroids record easting. For species that are mapped throughout the unit enter "throughout unit" in the UTM space

Centroid northing – for GPS'd centroids record northing

Radius – estimate radius (ft) of the infestation. If not +/- circular describe in comments

Comments – describe population size, shape, density

11. Management recommendations. Provide narrative recommendations for management activities to improve ecological health or prevent further degradation with an emphasis on invasive species control.

12. Other comments/special habitats/rare species. Narrative description of special habitats or site conditions not captured by other data. List and GPS rare plants or wildlife observed. GPS special habitats.

## II. Plot Data

Sample plots will be located within map units with good or very good condition to document current vegetation and to serve as future monitoring points to track change over time, effect of management activities, etc. The circular plots will have a radius of 18.5 feet and will be placed in a location typifying the map unit. In large map units 1 plot per 20 – 50 acres will be installed. The plots will not be permanently marked in the field but they will be GPS'd so that they can be relocated in the future. Cover of dominant species will be recorded for three layers: tree, shrub, and herb. Cover will also be recorded for invasive species. Invasives that are dominants should be entered in both the appropriate layer and the invasive category.

1. Site ID-Map Unit - use the Site ID code assigned by the SWCD and assign a map unit number.
2. Plot number – number sequentially from 1 for each mapping unit.
3. UTM - GPS and enter the easting and northing for the plot center.
4. Enter species acronym and cover for up to 4 dominants ( $\geq 15\%$  cover) in each layer and for all invasives (regardless of cover).

**2013 Field Data Sheet**

<b>Owner Code</b>	<b>Species</b>	<b>Aerial Vine?</b>	<b>Map on Photo</b>	<b>Centroid Easting</b>	<b>Centroid Northing</b>	<b>Radius (ft)</b>	<b>Comments/Management Recommendations</b>

2013 Good Quality Habitat Data Sheet

Date \_\_\_\_\_ Personnel \_\_\_\_\_

Owner code-Polygon # \_\_\_\_\_ Habitat Type \_\_\_\_\_ Cond. Code \_\_\_\_  
Map on photo? \_\_\_ Centroid E \_\_\_\_\_ Centroid N \_\_\_\_\_ (WGS84) Radius (ft) \_\_\_\_\_

Dominants

Trees	#1 _____	#2 _____	#3 _____
Shrubs	#1 _____	#2 _____	#3 _____
Herbs	#1 _____	#2 _____	#3 _____

Description \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Mgt Concerns, Recommendations, Threats \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Owner code-Polygon # \_\_\_\_\_ Habitat Type \_\_\_\_\_ Cond. Code \_\_\_\_  
Map on photo? \_\_\_ Centroid E \_\_\_\_\_ Centroid N \_\_\_\_\_ (WGS84) Radius (ft) \_\_\_\_\_

Dominants

Trees	#1 _____	#2 _____	#3 _____
Shrubs	#1 _____	#2 _____	#3 _____
Herbs	#1 _____	#2 _____	#3 _____

Description \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Mgt Concerns, Recommendations, Threats \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Owner code-Polygon # \_\_\_\_\_ Habitat Type \_\_\_\_\_ Cond. Code \_\_\_\_  
Map on photo? \_\_\_ Centroid E \_\_\_\_\_ Centroid N \_\_\_\_\_ (WGS84) Radius (ft) \_\_\_\_\_

Dominants

Trees	#1 _____	#2 _____	#3 _____
Shrubs	#1 _____	#2 _____	#3 _____
Herbs	#1 _____	#2 _____	#3 _____

Description \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Mgt Concerns, Recommendations, Threats \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## I. Weed Data Sheet

1. Date - date(s) of field inventory
2. Personnel - name(s) of field inventory personnel
3. Owner Code - use the 4 or 5 letter code assigned by the SWCD indicating ownership.
4. Species – record invasive species using a six letter acronym (1<sup>st</sup> three letters of genus and species)
5. Aerial Vine? – record whether the invasive species is a vine that is climbing into the forest canopy (record Yes or No)
6. Map on photo – record whether the invasive species is mapped on the photo or the location is indicated by UTM coordinates only. Invasives may be mapped in one of two ways:
  - Large infestations should be mapped on transparent aerial photo overlays with colored ink. Different colors may be used to distinguish different species. If necessary, more than one overlay may be used for a given area.
  - Small infestations should be mapped using a GPS to determine the centroid of the infestation, and a radius of the infestation should be estimated in feet.
7. UTM Centroids – use GPS to determine UTM coordinates of the centroid of small infestations. For species that occur throughout the survey unit enter “throughout unit” in the UTM space.
8. Radius – estimate radius (ft) of the infestation. If not +/- circular describe in comments.
9. Comments/Management Recommendations - describe population size, shape, density; provide management recommendations

## II. Good Quality Habitat Data Sheet

1. Date - date(s) of field inventory
2. Personnel - name(s) of field inventory personnel
3. Owner Code - use the 4 or 5 letter code assigned by the SWCD indicating ownership.
4. Habitat Type - general habitat type description. Wetland or upland can be added as modifiers, e.g. HF-W = “Hardwood Forest – Wetland”
  - HF - Hardwood forest
  - CF - Conifer forest
  - MF - Mixed forest
  - SA - Savanna
  - SH - Shrubland
  - GR - Grassland
  - SL - Slough
  - MA - Marsh
  - GB - Gravel bar
  - OW - Open water
  - Other – describe
5. Condition Code – assessment of health based on level of disturbance, presence of invasive species, native species diversity, structural diversity (as appropriate for the habitat type), connectivity with other habitats, human impacts
  6. Severely degraded – ecological function severely compromised, invasive species dominate, low native diversity, low structural diversity, severe erosion
  7. Poor – significant impacts from invasive species, disturbance, low native and structural diversity
  8. Fair – impacts from disturbance, invasives, reduced native and structural diversity
  9. Good – minor impacts from disturbance, invasives
  10. Very good - high level of ecological function, good native species and structural diversity, few invasives
6. Map on photo? – record whether the area of good habitat is mapped on the photo or the location is indicated by UTM coordinates only. GPS coordinates should be UTM and map datum “NAD\_1983\_UTM\_Zone\_10T”
7. UTM Centroids – use GPS to determine UTM coordinates of the centroid of small infestations.

8. Radius – estimate radius (ft) of the good habitat area. If not +/- circular describe in comments
9. Enter dominant plant species in the Tree, Shrub and Herb layers. Enter six letter acronym (1<sup>st</sup> three letters of genus and species).
10. Description: provide a short narrative on habitat condition, structure, species diversity, etc.
11. Threats: provide a short narrative on threats from invasives, disturbance, etc. and recommendations for preserving/enhancing ecological health.