

Arid West and Western Mountains SDAMs

General site information

Project name or number:		Region <input type="checkbox"/> Arid West <input type="checkbox"/> Western Mountains	
Site code or identifier:		Assessor(s):	
Waterway name:		Visit date:	
Current weather conditions (check one): <input type="checkbox"/> Storm/heavy rain <input type="checkbox"/> Steady rain <input type="checkbox"/> Intermittent rain <input type="checkbox"/> Snowing <input type="checkbox"/> Cloudy (___ % cover) <input type="checkbox"/> Clear/sunny		Notes on current or recent weather conditions (e.g., precipitation in prior week): Coordinates at downstream end (decimal degrees): Lat (N): Long (E): Datum:	
Surrounding land-use within 100 m (check one or two): <input type="checkbox"/> Urban/industrial/residential <input type="checkbox"/> Agricultural (farmland, crops, vineyards, pasture) <input type="checkbox"/> Developed open-space (e.g., golf course) <input type="checkbox"/> Forested <input type="checkbox"/> Other natural <input type="checkbox"/> Other:		Describe reach boundaries:	
Mean bankfull channel width (m): _____ (Indicator 1) _____	Reach length (m): 40x width min 40 m max 200 m	Site photographs: Enter photo ID or check if completed. Top down: _____ Mid down: _____ Mid up: _____ Bottom up: _____	
Disturbed or difficult conditions (check all that apply): <input type="checkbox"/> Recent flood or debris flow <input type="checkbox"/> Stream modifications (e.g., channelization) <input type="checkbox"/> Diversions <input type="checkbox"/> Discharges <input type="checkbox"/> Drought <input type="checkbox"/> Vegetation removal/limitations <input type="checkbox"/> Other (explain in notes) <input type="checkbox"/> None Notes on disturbances or difficult site conditions:			
Observed hydrology: _____ % of reach with surface flow _____ % of reach with sub-surface or surface flow _____ # of isolated pools		Comments on observed hydrology:	

Site sketch:

1. Mean bankfull channel width (m) (AW and WM) (nearest 0.1 m, copy from first page of field form)

Notes about mean bankfull channel width:

Aquatic macroinvertebrate indicators

Collect aquatic macroinvertebrates from at least 6 locations in the assessment reach, searching all suitable habitats on the streambed (including dry habitats, if present).

Aquatic macroinvertebrate indicators are used in both the AW and WM SDAMs.

2. Aquatic macroinvertebrates: Abundance of Ephemeroptera, Plecoptera, and Trichoptera (WM only)

Determine total abundance of individuals in the orders of Ephemeroptera, Plecoptera, and Trichoptera (EPT), such that no one family counts for more than 11 individuals in the total:

Mark the appropriate box for the number of EPT individuals observed.

- No EPT detected
- 1 to 4 EPT individuals
- 5 to 9 EPT individuals
- 10 to 19 EPT individuals
- 20 or more EPT individuals

Check if applicable: No aquatic macroinvertebrates in assessment area

Notes on abundance of EPT indicator:

3. Aquatic macroinvertebrates: Abundance of perennial indicator taxa (AW and WM)

Determine total abundance of individuals in perennial indicator families listed below, such that no one family counts for more than 11 individuals in the total.

<u>Ephemeroptera</u>	<u>Plecoptera</u>	<u>Trichoptera</u>	<u>Coleoptera</u>
Ephemerellidae (spiny crawler mayflies)	Chloroperlidae (green stoneflies)	Brachycentridae (humpless casemakers)	Elmidae (riffle beetles)
Heptageniidae (flathead mayflies)	Perlidae (common stoneflies)	Glossosomatidae (saddle casemakers)	
Leptohyphidae (little stout crawler mayflies)		Hydropsychidae (common net-spinners)	
Leptophlebiidae (prong-gilled mayflies)		Rhyacophilidae (free-living caddisflies)	

Mark the appropriate box for the number of perennial indicator individuals observed.

- No perennial indicator taxa detected
- 1 to 4 perennial indicator individuals
- 5 to 9 perennial indicator individuals
- 10 to 19 perennial indicator individuals
- 20 or more perennial indicator individuals

Check if applicable: No aquatic macroinvertebrates in assessment area

Notes on perennial indicator taxa:

4. Slope (AW and WM)

Using a clinometer or other device, record the slope as a percent, up to the nearest half-percent.

Notes about slope:

5. Shading (WM only)

At the center of three transects, use a convex spherical densiometer to record the number of points covered by trees, canyon walls, buildings, or other structures that provide shade (up to 17 points per location). Calculate percent shading as the percentage of points covered by such structures (total points covered divided by 204).

Percent shading: _____

	<i>Downstream transect</i>	<i>Middle transect</i>	<i>Upstream transect</i>	
<i>Facing upstream</i>	/17	/17	/17	Total number of points covered: ____ / 204 * 100%
<i>Facing right bank</i>	/17	/17	/17	
<i>Facing downstream</i>	/17	/17	/17	
<i>Facing left bank</i>	/17	/17	/17	

Notes on shading:

6. Number of hydrophytic plant species (AW and WM)

Record up to 6 hydrophytic plant species (FACW or OBL in the appropriate regional wetland plant list, depending on location) within the assessment area: **within the channel or up to one half-channel width outside the channel**. Explain in notes if species has an odd distribution (e.g., one individual or small patch, long-lived species solely represented by seedlings, or long-lived species solely represented by specimens in decline), or if there is uncertainty about the identification. Enter photo ID or check if photos are taken.

_____ Number of hydrophytic plant species identified from the assessment reach without odd distribution. Enter zero if none were found.

Check if applicable: No vegetation in assessment area

Species	Odd distribution?	Notes	Photo ID

Notes on hydrophytic vegetation:

7. Prevalence of rooted upland plants in the streambed (AW and WM)

<p>____ (0-3)</p> <p><i>Half-scores (0.5, 1.5, and 2.5) are allowed.</i></p>	<p>Evaluate the prevalence of rooted upland plants (i.e., plants rated as FAC, FACU, UPL, or not listed in the regionally appropriate National Wetland Plant List) in the streambed.</p> <p>0 (Poor) Rooted upland plants are <i>prevalent</i> within the streambed/thalweg. 1 (Weak) Rooted upland plants are <i>consistently dispersed</i> throughout the streambed/thalweg. 2 (Moderate) There are <i>a few</i> rooted upland plants present within the streambed/thalweg. 3 (Strong) Rooted upland plants are <i>absent</i> from the streambed/thalweg.</p>									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 45%; padding: 5px;">Upland Species</th> <th style="width: 30%; padding: 5px;">Notes</th> <th style="width: 25%; padding: 5px;">Photo ID</th> </tr> </thead> <tbody> <tr> <td style="height: 20px;"></td> <td></td> <td></td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td></td> </tr> </tbody> </table>	Upland Species	Notes	Photo ID							
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<p>Notes on rooted upland plants:</p>										

8. Algal cover (AW only)

Mark the appropriate percent of the streambed covered by live or dead algae on the streambed.

- | | |
|---|--|
| <input type="checkbox"/> Not detected | <input type="checkbox"/> 10 to 40% cover |
| <input type="checkbox"/> ≤2% cover | <input type="checkbox"/> >40% cover |
| <input type="checkbox"/> 2 to 10% cover | <input type="checkbox"/> Check here if algae <i>exclusively</i> appears to have been deposited from an upstream source, and <i>no</i> local growth is evident. |

Notes on algal cover on the streambed:

9. Differences in vegetation (AW and WM)

<p>____ (0-3)</p> <p><i>Half-scores (0.5, 1.5, 2.5) are allowed.</i></p>	<p>Compare the composition and density of plants growing on the banks and riparian areas to plants in the adjacent uplands. For this indicator, an upland species is not defined by its wetland indicator status, but rather by its location relative to the channel.</p> <p>0. (Poor) No compositional or density differences in vegetation are present between the banks and the adjacent uplands. 1. (Weak) Vegetation growing along the reach may occur in greater densities or grow more vigorously than vegetation in the adjacent uplands, but there are no dramatic compositional differences between the two. 2. (Moderate) A distinct riparian corridor exists along part of the reach. Riparian vegetation is interspersed with upland vegetation along the length of the reach. 3. (Strong) Dramatic compositional differences in vegetation are present between the banks and the adjacent uplands. A distinct riparian vegetation corridor exists along the entire reach. Riparian, aquatic, or wetland species dominate the length of the reach.</p>
<p>Notes on differences in vegetation:</p>	

10. Riffle-pool sequence (AW and WM)

<p>____ (0-3)</p> <p><i>Half-scores (0.5, 1.5, 2.5) are allowed.</i></p>	<p>Evaluate the prevalence of riffles, pools, and other microhabitats in the streambed.</p> <p>0 (Poor) No riffle-pool sequences observed.</p> <p>1 (Weak) Mostly has areas of pools <u>or</u> riffles.</p> <p>2 (Moderate) Represented by a less frequent number of riffles and pools. Distinguishing the transition between riffles and pools is difficult to observe.</p> <p>3 (Strong) Demonstrated by a frequent number of structural transitions (e.g., riffles followed by pools) along the entire reach. There is an obvious transition between riffles and pools.</p>
<p>Notes about riffle-pool sequence:</p>	

11. Particle size or stream substrate sorting (WM only)

<p>____ (0-3)</p> <p><i>Half scores (0.75, 2.25) are allowed.</i></p>	<p>Evaluate the extent of substrate sorting. Compare substrate on the channel bed to the banks and adjacent floodplain. Look for sorting within the channel bed (e.g., along bars and islands).</p> <p>0 (Poor) Particle sizes in the channel are similar or comparable to particle sizes in areas close to but not in the channel. Substrate sorting is not readily observed in the channel.</p> <p>1.5 (Moderate) Particle sizes in the channel are moderately similar to particle sizes in areas close to but not in the channel. Various sized substrates are present in the channel and are represented by a higher ratio of larger particles (gravel/cobble; coarse sand in low-gradient streams).</p> <p>3 (Strong) Particle sizes in the channel are noticeably different from particle sizes in areas close to but not in the channel. There is a clear distribution of various sized substrates in the channel with finer particles accumulating in the pools, and larger particles accumulating in the riffles/runs</p>
<p>Notes about substrate sorting:</p>	

Photo log

Indicate if any other photographs taken during the assessment:

Photo ID	Description

Additional notes about the assessment:

Model classification:

- Ephemeral
- At least intermittent
- Intermittent
- Less than perennial
- Perennial
- Needs more information