

## TECHNICAL MEMORANDUM

**TO:** Chris Beale, Senior Planner, City of Puyallup

**FROM:** Lisa Palazzi, CPSS, PWS, SCJ Alliance

**DATE:** March 12, 2018

**PROJECT #:** 727.04 Phase 52

**SUBJECT:** Larson Wetland Rating Review

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### ***1.0 Project Description***

The City of Puyallup requested a review of a wetland rating review for the Larson site wetland, located in the northeast quadrant of a parcel at 3903 17<sup>th</sup> Street SW, Puyallup, WA. The site is directly northeast of the intersection of 39<sup>th</sup> Avenue SW and 17<sup>th</sup> Street SW (also labeled as 86<sup>th</sup> Avenue E); Tax Parcel Number 0419043091 (3.87 acres).

A Critical Areas Assessment report prepared by Habitat Technologies, dated June 7, 2017 was reviewed with special attention to wetland rating results. This Technical Memo describes rating review results.



*Figure 1. Larson Project Site.*



## 2.0 Results and Discussion

The depressional wetland subject to this review covers the NE quadrant of the Larson parcel, a 3.87-acre parcel at 3903 17<sup>th</sup> Street SW in Puyallup. A small portion of the wetland extends offsite to the north, into property owned by Puyallup School District No. 3, which includes the School District bus storage facility and the Technology Support Center. Aerial photos indicate the site has an abandoned home with a few small outbuildings onsite, but is otherwise undeveloped. The Habitat Technologies report says that the house was demolished as of their field visit in March/April of 2017.

The report was well prepared and complete. We have no comments for the general report content other than to note that the Hydric Soil indicators in the Field Data forms were not completely documented in the soil profile description. But this issue did not affect the outcome of the work.

Therefore, the primary purpose of this review is to assess the Wetland Rating score, to ensure that wetland buffer widths related to the 2014 Wetland rating System are correctly applied.

The critical Wetland Rating review points are detailed below. In summation, we disagreed with the HT answers on three questions, but the outcome of the revised scoring did not change the ultimate score of 15 points and Category IV status.

Question and Comments	Points
<b>Water Quality Questions D.1 through D.3</b>	
Question D1.1 ( <b>Agree</b> ) <ul style="list-style-type: none"> <li>• Characteristics of surface water outflows from the wetland:               <ul style="list-style-type: none"> <li>○ The Wetland is a depression with no outlet. (No Comments needed)</li> </ul> </li> </ul>	<b>3 points</b>
Question D1.1 ( <b>Agree</b> ) <ul style="list-style-type: none"> <li>• The soil 2 inches below the surface is <b>NEITHER</b> true clay or true organic.</li> </ul> Comment: Guidance says to use NRCS Soil Mapping to answer this question. The mapped soil condition is an Alderwood gravelly sandy loam to the west and Indianola loamy sand to the east. Neither of these are a hydric soil, and neither has either a clay or organic layer at 2 inches depth.	<b>0 Points</b>
Question D 1.3. ( <b>Agree</b> ) <ul style="list-style-type: none"> <li>• Characteristics and distribution of persistent Plants -- Cowardin classes: Wetland has persistent, ungrazed, plants covering between 50 and 95% of the areas.</li> </ul> Comment: This is true, taking the Open Water areas into account, as indicated in guidance.	<b>3 points</b>
Question D 1.4. ( <b>Agree</b> ) <ul style="list-style-type: none"> <li>• Characteristics of seasonal ponding or inundation: Area seasonally ponded is more than ½ of the total area of wetland.</li> </ul>	<b>4 points</b>
<b>Total for D1 Questions: Falls within the <u>MODERATE</u> score range of 6-11 points</b>	<b>10 points</b>
Question D 2.1. ( <b>Agree</b> ) <ul style="list-style-type: none"> <li>• Does the wetland unit receive stormwater discharges? <b>NO</b></li> </ul> Comment: The wetland has no direct piped or drain outfalls from nearby impervious surfaces.	<b>0 points</b>



<p>Question D 2.2. (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>Is &gt; 10% of the area within 150 ft of the wetland in land uses that generate pollutants? <b>YES</b></li> </ul> <p>Comment: The parking lots to the north are within 150 feet.</p>	<b>1 point</b>
<p>Question D 2.3. (<b>Disagree</b>)</p> <ul style="list-style-type: none"> <li>Are there septic systems within 250 ft of the wetland? <b>YES</b></li> </ul> <p>Comment: According to Pierce County GIS maps and associated records, the abandoned homesite apparently had a septic system. But it has not been in use for at least a year, and will not be used in the future, and therefore, has no impact on water quality.</p>	<b>CORRECTED</b> <b>0 points</b>
<p>Question D 2.4. (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? <b>NO</b></li> </ul> <p>Comment: According to the HT report, a previous Homeless camp adjacent to wetland was removed. Therefore, there are no more current other sources of pollutants</p>	<b>0 points</b>
<p>Total for D2 Questions: Falls within the <b>MODERATE</b> score range of 1-2 points – i.e., the correction has no effect on the rating score for Question D2.</p>	<b>CORRECTED</b> <b>2 1 point</b>
<p>Question D 3.1. (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? <b>NO</b></li> </ul> <p>Comment: Documented in report in required Ecology 303D maps.</p>	<b>0 points</b>
<p>Question D 3.2. (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? <b>NO</b></li> </ul> <p>Comment: Because this wetland has no outlet, the basin is local.</p>	<b>0 points</b>
<p>Question D 3.3. (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>Has the site been identified in a watershed or local plan as important for maintaining water quality?</li> </ul> <p>Comment: As described above, the basin is local, and therefore the TMDL for the greater surrounding area is not relevant.</p>	<b>0 points</b>
<p>Total for D.1 through D.3 Questions: Falls within the <b>LOW</b> score range of 0 points</p>	<b>0 points</b>
<p><b>Water Quality Questions Results: MML = 5 Points</b></p>	
<p><b>Hydrologic Functions Questions D.4 through D.6</b></p>	
<p>Question D 4.1 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>Characteristics of surface water outflows from the wetland: <ul style="list-style-type: none"> <li>The Wetland is a depression with no outlet. (No Comments needed)</li> </ul> </li> </ul>	<b>4 points</b>
<p>Question D 4.2 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>Depth of storage during wet periods:</li> </ul>	<b>5 points</b>



<ul style="list-style-type: none"> <li>○ Marks of ponding between 2 ft to &lt; 3 ft from surface or bottom of outlet</li> </ul> <p>Comment: For wetlands with no outlet, describe deepest ponding. This depth description is supported by photos, topography maps and description.</p>	
<p>Question D 4.3 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>• Contribution of the wetland to storage in the watershed:             <ul style="list-style-type: none"> <li>○ The area of the basin is less than 10 times the area of the unit.</li> </ul> </li> </ul> <p>Comment: As mentioned above, the basin is very small and local.</p>	<b>5 points</b>
<b>Total for D4 Questions: Falls within the <u>HIGH</u> score range of 12-16 points</b>	<b>14 points</b>
<p>Question D 5.1 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>• Does the wetland receive stormwater discharges? <b>NO</b></li> </ul> <p>Comment: same as Question D1</p>	<b>0 points</b>
<p>Question D 5.2 (<b>Disagree</b>)</p> <ul style="list-style-type: none"> <li>• Is &gt;10% of the area within 150 ft of the wetland in land uses that generate excess runoff? <b>NO</b></li> </ul> <p><b>YES</b></p> <p>Comment: similar to Question D2</p>	<b>0 1 point</b>
<p>Question D 5.3 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>• Is more than 25% of the contributing basin of the wetland covered with intensive human land uses? <b>YES</b></li> </ul>	<b>1 point</b>
<b>Total for D5 Questions: Falls within the <u>MODERATE</u> score range of 1-2 points – the correction has no effect on the rating score for Question D5.</b>	<b>± 2 points</b>
<p>Question D 6.1 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>• The unit is in a landscape that has flooding problems.             <ul style="list-style-type: none"> <li>○ The kettle wetland does not overflow and therefore, the water stored by the wetland cannot reach areas that flood.</li> </ul> </li> </ul>	<b>0 points</b>
<p>Question D 6.2 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>• Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? <b>NO</b></li> </ul>	<b>0 points</b>
<b>Total for D.4-D.6 Questions: Falls within the <u>LOW</u> score range of 0 points</b>	<b>0 points</b>
<b>Hydrologic Questions Results: HML = 6 Points</b>	
<b>Habitat Quality Questions H.1</b>	
<p>Question H 1.1 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>• Structure of plant community: Cowardin Classes Present: 3 structures             <ul style="list-style-type: none"> <li>○ Emergent</li> <li>○ Forested</li> <li>○ Multi-tiered (at least 3 out of 5 tiers)</li> </ul> </li> </ul> <p>Comment: Only Emergent and Forested areas are more than 10% of total cover.</p>	<b>2 points</b>
<p>Question H 1.2 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>• Hydroperiod: 2 types present             <ul style="list-style-type: none"> <li>○ Seasonally Flooded</li> <li>○ Saturated Only</li> </ul> </li> </ul> <p>Comment: Only these two regimes cover more than 10% of the area.</p>	<b>1 point</b>
Question H 1.3 ( <b>Agree</b> )	<b>2 points</b>



<ul style="list-style-type: none"> <li>Richness of plant species: 5-19 species</li> </ul> <p>Comment: More than 5 species, but not varied enough to reach 19 species.</p>	
<p>Question H 1.4 (<b>Disagree</b>)</p> <ul style="list-style-type: none"> <li>Interspersion of habitats: <b>Low HIGH</b></li> </ul> <p>Comment: Could be Moderate, but guidance indicates with three vegetation classes plus open water, the rating is always high. It does not say the open water area must cover a certain percentage.</p>	<p><del>1 point</del> <b>3 points</b></p>
<p>Question H 1.5 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>Special habitat features: <ul style="list-style-type: none"> <li>Large, downed, woody debris in the wetland (&gt; 4" dia. 6' length).</li> <li>Standing snags (dbh &gt; 4") in the wetland</li> <li>At least ¼-ac of thin persistent plants or wood in ponded areas (for amphibian eggs)</li> </ul> </li> </ul> <p>Comment: NA</p>	<p><b>3 points</b></p>
<p>Total for H.1 Questions: <b>Falls within the MODERATE score range of 7-14 points</b> - the correction has no effect on the rating score for Question H 1.</p>	<p><del>9</del> <b>11 points</b></p>
<p>Question H 2.1 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>Accessible habitat (include only habitat that directly abuts wetland unit). <ul style="list-style-type: none"> <li>Calculate: % undisturbed habitat <u>0</u> +([% mod. + low int. land uses]/2) <u>1</u> = <b>1 %</b></li> <li><b>&lt;10% of 1 km Polygon</b></li> </ul> </li> </ul> <p>Comment: Direct from map measurements</p>	<p><b>0 points</b></p>
<p>Question H 2.2 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>Undisturbed habitat within the 1-km radius circle. <ul style="list-style-type: none"> <li>Calculate: % undisturbed habitat <u>5</u> +([% mod. + low int. land uses]/2) <u>12</u> = <b>17 %</b></li> <li><b>Undisturbed habitat 10-50% and &gt; 3 patches</b></li> </ul> </li> </ul> <p>Comment: Direct from map measurements</p>	<p><b>1 point</b></p>
<p>Question H 2.3 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>High Intensity land use cover in 1 km Polygon <ul style="list-style-type: none"> <li>&gt; 50% of 1 km Polygon is high intensity land use</li> </ul> </li> </ul> <p>Comment: Direct from map measurements</p>	<p><b>&lt;-2 points&gt;</b></p>
<p>Total for H.2 Questions: <b>Falls within the LOW score range of &lt;1 points</b> - the correction has no effect on the rating score for Question H 1.</p>	<p><b>&lt;-1 point&gt;</b></p>
<p>Question H 3.1 (<b>Agree</b>)</p> <ul style="list-style-type: none"> <li>Does the site provide habitat for species valued in laws, regulations, or policies? <ul style="list-style-type: none"> <li>No WDFW Priority Habitats are mapped within 330' of the wetland.</li> </ul> </li> </ul> <p>Comment: NA</p>	<p><b>0 points</b></p>
<p>Total for H.3 Question: <b>Falls within the LOW score range of &lt;1 points</b> - the correction has no effect on the rating score for Question H 1.</p>	<p><b>0 point</b></p>
<p>Habitat Questions Results: <b>MLL = 4 Points</b></p>	
<p><b>Overall total points – Category IV wetland</b></p>	<p><b>15 Points</b></p>