SR 305 Vicinity Poulsbo South City Limits to Bond Road (Poulsbo Stream Realignment and Wall 8) Mitigation Site

USACE NWS-2005-00967

Olympic Region

2017 MONITORING REPORT

Wetlands Program

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<table>
<thead>
<tr>
<th>General Site Information</th>
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<tbody>
<tr>
<td>USACE IP Number</td>
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<tr>
<td>Mitigation Location</td>
</tr>
<tr>
<td>LLID Number</td>
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<tr>
<td>Construction Date</td>
</tr>
<tr>
<td>Monitoring Period</td>
</tr>
<tr>
<td>Year of Monitoring</td>
</tr>
<tr>
<td>Area of Stream Realignment Impact</td>
</tr>
<tr>
<td>Type of Mitigation</td>
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<tr>
<td>Planned Area of Mitigation</td>
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</tbody>
</table>

1 Impact and mitigation acreages were referenced from the SR 305 Vicinity Poulsbo South City Limits to Bond Road Final Wetland Mitigation Plan (pp. 8 and 98) (WSDOT 2007). Additional impacts are also detailed in the mitigation plan and additional mitigation is provided at the SR 305 Poulsbo Wetland and Wall 10 mitigation sites.
Summary of Monitoring Results and Management Activities (2017)

<table>
<thead>
<tr>
<th>Performance Standards</th>
<th>2017 Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 20% cover noxious weeds across the site</td>
<td>5% cover (qualitative)</td>
</tr>
<tr>
<td>No Bohemian knotweed (<em>Reynoutria X bohemica</em>), Japanese knotweed (<em>Reynoutria japonica</em>), Himalayan knotweed (<em>Persicaria wallichii</em>), or giant knotweed (<em>Reynoutria sachalinensis</em>) across the site</td>
<td>None observed</td>
</tr>
<tr>
<td>Hydrology and 10 instream woody debris structures present in the relocated stream</td>
<td>Achieved</td>
</tr>
<tr>
<td>80% cover native woody vegetation in the riparian and Wall 8 areas</td>
<td>90% cover (qualitative) both areas combined</td>
</tr>
</tbody>
</table>

Report Introduction

This report summarizes final-year (Year 10) monitoring activities at the 305 Poulsbo Stream Realignment and Wall 8 Mitigation Site. Included are a site description, the performance standards, an explanation of monitoring methods, and an evaluation of site success. Monitoring activities included vegetation surveys and photo-documentation on August 28, 2017.
What is the 305 Poulsbo Stream Realignment and Wall 8 Mitigation Site?

This 2.48-acre WSDOT property contains mitigation (Figure 1) to compensate for impacts from the realignment of South Fork Dogfish Creek away from SR 305 and temporary impacts from the construction of Wall 8. The realignment of South Fork Dogfish Creek is intended to provide additional meandering of the creek, introduction of streambed gravels, placement of habitat features, and improved water quality by reducing the amount of highway runoff that flows directly into the creek.

The 305 Poulsbo Stream Realignment and Wall 8 Mitigation Site follows the realigned Dogfish Creek along SR 305. Appendix 2 includes site directions.
What are the performance standards for this site?

**Year 10**

**Performance Standard 1**
Noxious weeds will not exceed 20 percent aerial cover over the entire mitigation site and the stream realignment areas.

**Performance Standard 2**
Bohemian knotweed, Japanese knotweed, Himalayan knotweed, and giant knotweed shall not be present at the mitigation site or stream realignment areas.

**Performance Standard 3**
The relocated stream areas will have hydrology present on a continuous basis and will have a minimum of 10 instream woody debris structures.

**Performance Standard 4**
Native woody vegetation will achieve a minimum of 80 percent aerial cover in the riparian and the temporarily impacted retaining wall areas.

Appendix 1 shows the planting plan (WSDOT 2005).
How were the performance standards evaluated?

The site has developed more rapidly than anticipated and has been meeting the Year 10, final-year standard for native woody cover for seven years. On April 1, 2013 a request to discontinue quantitative sampling for native woody cover was sent to USACE and the Department of Ecology, this request was accepted on September 10, 2014 and May 7, 2013 respectively. The final year standards are still currently being met in the stream realignment area. All Performance Standards were evaluated qualitatively.

Is this site a success?

The stream realignment area is successful and has been meeting all final-year performance standards for the last seven years. The two-layered, diverse vegetative canopy is shading the realigned stream. All large woody debris structures are in place, there are no signs of bank erosion, and a riffle-pool sequence was observed in the flowing realigned stream. Aquatic invertebrates and raccoon tracks were also observed at the time of monitoring.

A city maintenance crew mistakenly mowed the Wall 8 area. A 10-foot wide section along Wall 8 has been cleared of all woody vegetation; however, the plants are all re-sprouting and will likely fill back in.
Results for Performance Standard 1
(Less than 20% cover noxious weeds across the site):

Cover of noxious weeds is qualitatively estimated at less than five percent. This is below the performance standard threshold. A few scattered Scotch broom (*Cytisus scoparius*), Himalayan blackberry (*Rubus armeniacus*), reed canarygrass (*Phalaris arundinacea*), and bull thistle (*Cirsium vulgare*) plants were observed.

Results for Performance Standard 2
(No Bohemian knotweed, Japanese knotweed, Himalayan knotweed or giant knotweed across the site):

No knotweeds were observed at the time of monitoring.

Results for Performance Standard 3
(Hydrology and at least 10 woody debris structures in the stream):

The stream was flowing and all 10 large woody debris structures were in place at the time of monitoring (Photo 1). A riffle-pool complex was observed and there were no signs of bank erosion.
Results for Performance Standard 4
(80% cover native woody vegetation in the riparian and Wall 8 planting areas):

Cover of native woody vegetation across the riparian and Wall 8 planting areas combined is qualitatively estimated at 90 percent (Photo 2 and 3). This exceeds the performance standard target. Dominant species include red alder (*Alnus rubra*) and Pacific ninebark (*Physocarpus capitatus*) in the upper canopy. Subdominant species are salmonberry (*Rubus spectabilis*), redosier dogwood (*Cornus alba*), and Nootka rose (*Rosa nutkana*) in the lower canopy.

What is planned for this site?
Routine weed control will continue in 2018.
Appendix 1 – Planting Plan
(from WSDOT 2005)
Appendix 2 – Photo Points
The photographs below were taken from permanent photo-points on August 28, 2017 and document current site development.

Photo Point 1

Photo Point 2

Photo Point 3

Photo Point 4
Driving Directions:
Follow I-5 to SR 101 North. Take the SR 3 exit towards Shelton. Follow SR 3 to the SR 305 exit. Follow SR 305 towards Poulsbo. Turn left on Forest Rock Lane Northeast. Take the first right onto 10th Avenue and park. The site is between 10th Avenue and SR 305.
Literature Cited


3. [WSDOT] Washington State Department of Transportation. 2006. SR 305 Vicinity Poulsbo South City Limits to Bond Road Wetland Mitigation Plan. Olympic Region, Olympia, WA.