

# SR 3 Crestview Drive Advanced Mitigation Site

## USACE NWP (14) 200201304

Olympic Region

2015 MONITORING REPORT

Wetlands Program

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# SR 3 Crestview Drive Advanced Mitigation Site

## USACE NWP (14) 200201304



General Site Information				
<b>USACE NWP 14 Number</b>	200201304			
<b>Mitigation Location</b>	North of Crestview Drive at MP 1.98 in Mason County			
<b>LLID Number</b>	1230535472148			
<b>Construction Date</b>	2005			
<b>Monitoring Period</b>	2006-2015			
<b>Year of Monitoring</b>	10 of 10			
<b>Area of Project Impact</b>	0 acre			
<b>Type of Mitigation</b>	Wetland Establishment	Wetland Enhancement	Wetland Preservation	Buffer Enhancement
<b>Planned Area of Mitigation<sup>1</sup></b>	0.6 acre	2.1 acres	3.0 acres	0.9 acre

<sup>1</sup>Mitigation acreages from Mason County Public Works (2002)

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## Summary of Monitoring Results and Management Activities (2015)

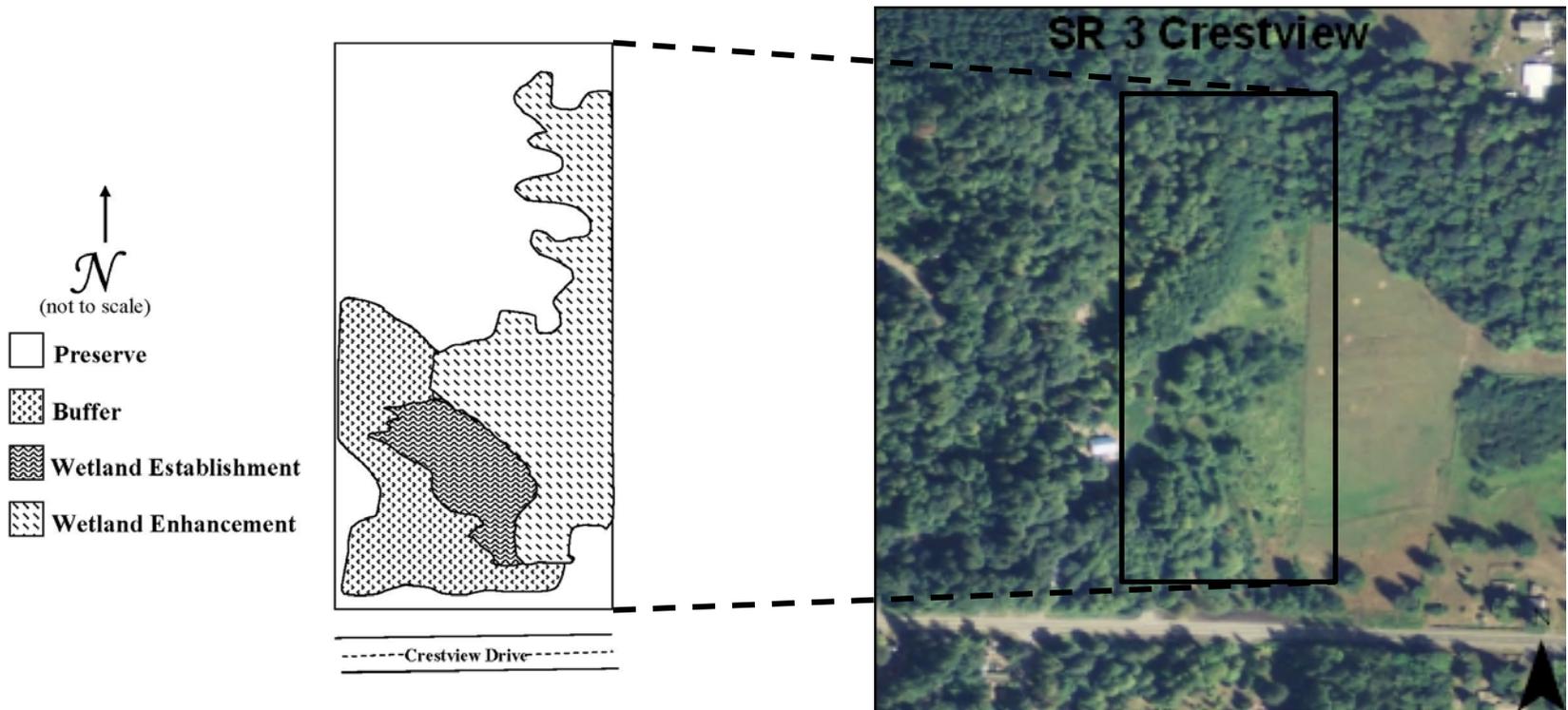
Performance Standards	2015 Results	Management Activities
80% cover herbaceous vegetation within the emergent zones by the fifth year <b>(Year 5 standard)</b>	75% cover	
80% cover woody vegetation in the scrub-shrub wetland	95% cover	
80% cover woody vegetation in the forested wetland	25% cover	
Less than 15% cover by invasive and non-native species within the wetland creation or enhancement areas	10-15% cover in the creation area; 75% cover in the enhancement area	Weed control activity occurred on 6/10/15 & 8/5/2015
Less than 10% cover of invasive and non-native species within the buffer	1% cover	

## Report Introduction

This report summarizes final-year (Year-10) monitoring activities at the State Route (SR) 3 Crestview 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 11, 2015.

## What is the SR 3 Crestview Mitigation Site?

The SR 3 Crestview Mitigation Site is a collaborative effort between Mason County Public Works (MCPW) and Washington State Department of Transportation (WSDOT). This site provides advanced mitigation for future road projects and contains 3.0 acres of wetland preservation, 0.09 acre of buffer enhancement, 2.10 acres of wetland enhancement, and 0.60 acre of wetland establishment (Figure 1). The site was originally intended to provide mitigation for 0.38 acre of transportation related impacts, but the impacts did not occur, and mitigation was not required.



**Figure 1 Site Sketch**

The 9.65-acre SR 3 Crestview Mitigation Site is located north of Crestview Drive at Milepost (MP) 1.98, south of Oakland Bay. It includes a terraced wetland establishment area surrounded by buffer and enhanced wetland areas. The northwest corner of the site is wetland preservation. Appendix 1 includes site directions.

## What are the performance standards for this site?

### Year 10

#### Performance Standard 1

Within emergent wetland zones, emergent vegetation cover will be at least 50 percent by the third year and 80 percent by the fifth year.

#### Performance Standard 2

Within scrub-shrub wetland zones, woody vegetation cover (trees and shrubs) will be at least 25 percent by the third year, 50 percent by the fifth year, 75 percent by the seventh year, and 80 percent by the tenth year.

#### Performance Standard 3

Within the forested wetland zones, tree canopy will be at least 50 percent by Year 7 and 80 percent by Year 10.

#### Performance Standard 4

The percentage of the area covered by invasive and non-native species (e.g. Japanese knotweed (*Reynoutria japonica*), reed canarygrass (*Phalaris arundinacea*), Himalayan blackberry (*Rubus armeniacus*)) will not exceed 15 percent of total cover within the wetland creation or enhancement areas throughout the monitoring.

#### Performance Standard 5

The percentage of the area covered by invasive and non-native species (e.g. Japanese knotweed, reed canarygrass, and Himalayan blackberry) will not exceed 10 percent of total cover within the mitigation area buffers.

Appendix 1 shows the as-built (Mason County 2004).

## **How were the performance standards evaluated?**

All performance standards were assessed qualitatively. For additional details on the methods, see the [WSDOT Wetland Mitigation Site Monitoring Methods Paper](#) (WSDOT 2008).

## **Is this site a success?**

This site is not yet successful. The site has improved significantly over the last few years, but the cover of invasive species and low woody cover in some zones are still issues. Native woody species are growing and increasing forested cover and continue to increase structural complexity in the wetland enhancement area. Weed control appears to have been effective in the upland buffer. Additional plantings in the forested wetland have added diversity.

Results for Performance Standard 1

(80% cover herbaceous vegetation in the emergent zone in Year 5):

Cover of herbaceous vegetation in the emergent zone is qualitatively estimated at 75 percent. This is below the performance standard target. This estimate is similar to the 2014 emergent cover estimate. Cover of reed canarygrass in this area is lower than in the past, but still presents a problem for native herbaceous plant establishment. (Photo 1)



**Photo 1**  
**Cover in the emergent wetland (August 2015)**

Results for Performance Standard 2

(80% cover woody vegetation in the scrub-shrub wetland):

Cover of woody vegetation in the scrub-shrub wetland zones is qualitatively estimated at 95 percent. This value exceeds the performance standard target. (Photo 2)



**Photo 2**  
**Cover in the scrub-shrub wetland (August 2015)**

Results for Performance Standard 3

(80% cover woody vegetation in the forested wetland):

Cover of woody vegetation in the forested wetland zone is qualitatively estimated at 25 percent. This value is below the performance standard target. Dominant species include willows (*Salix* species), red alder (*Alnus rubra*), and Oregon ash (*Fraxinus latifolia*). (Photo 3)

Results for Performance Standard 4

(Less than 15% cover invasive and non-native species in the wetland areas):

Cover of reed canarygrass is qualitatively estimated at 75 percent in the wetland enhancement zone. This value exceeds the performance standard threshold. Cover of reed canarygrass in the wetland establishment zone is qualitatively estimated at 10-15 percent.

Results for Performance Standard 5

(Less than 10% cover invasive and non-native species in the buffer):

Cover of reed canarygrass in the buffer is qualitatively estimated at one percent. This value is below the performance standard threshold. No Japanese knotweed was observed.

**What is planned for this site?**

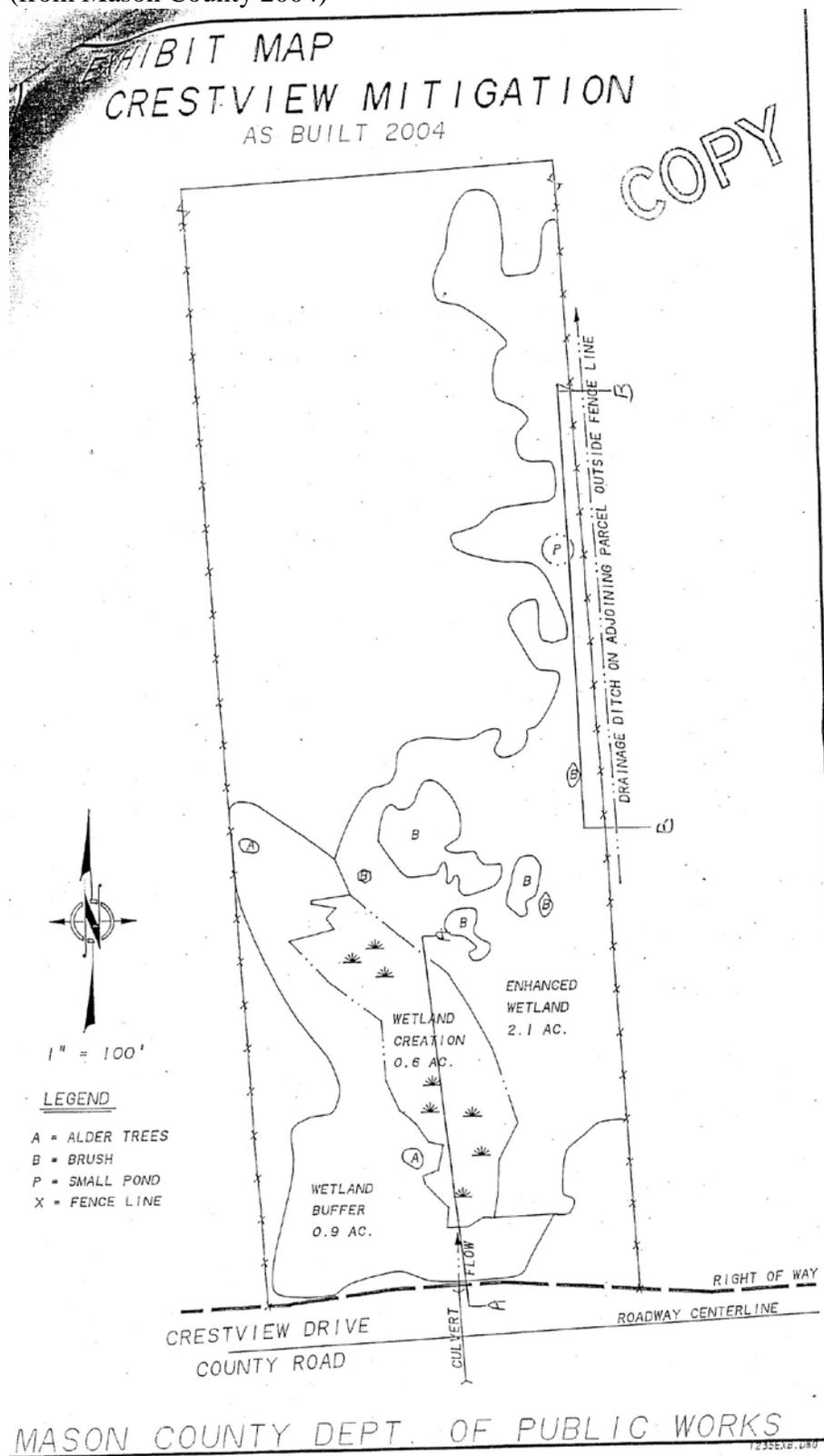
Weed control is planned for 2016.



**Photo 3**  
**Cover in the forested wetland (August 2015)**

# Appendix 1 – As-built

(from Mason County 2004)



**Driving Directions:**

Follow I-5 to SR 101 North, towards Hood Canal and Shelton. Take the SR 3 North exit. Follow SR 3 through Shelton to Agate Road. Travel east on Agate Road. Follow Agate Road to a “T” intersection with Crestview Road and turn right. Follow Crestview Road approximately two miles to the site on the right (north) side of road.

## Literature Cited

1. Mason County Public Works. 2002. Wetland Mitigation Plan for the Crestview Drive, Road Improvement Project & Deer Creek Vicinity Traffic Channelization Project. Shelton (WA): Mason County, Washington.
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5. [WSDOT] Washington State Department of Transportation. 2008. WSDOT Wetland Mitigation Site Monitoring Methods. <http://www.wsdot.wa.gov/NR/rdonlyres/C211AB59-D5A2-4AA2-8A76-3D9A77E01203/0/MethodsWhitePaper052004.pdf>