



**Washington State
Department of Transportation**

Lynn Peterson
Secretary of Transportation

Transportation Building
310 Maple Park Avenue S.E.
P.O. Box 47300
Olympia, WA 98504-7300
360-705-7000
TTY: 1-800-833-6388
www.wsdot.wa.gov

March 30, 2015

Ms. Gail Terzi
US Army Corps of Engineers Seattle District
Regulatory Branch CENWS OD RG
PO Box 3755
Seattle, WA 98124-3755

RE: I-5 Blakeslee Junction to Grand Mound Interchange TDA 13 Mitigation Site

USACE NWS-2008-744

Dear Ms. Terzi:

The Washington State Department of Transportation completed qualitative monitoring of the I-5 TDA 13 mitigation site on July 16, 2014, to address Year-3 (2015) performance standards. Monitoring activities included vegetation observations and photo documentation. This Year-2 report is being issued for compliance with the reporting requirements of the United States Army Corps of Engineers permit number NWS-2008-744 and the Department of Ecology Order 6701.

General Site Information	
USACE NWP IP Number	NWS-2008-744
Ecology WQC#	6701
Mitigation Location	Just north of the Thurston Co./Lewis Co. line on the west side of Interstate 5
LLID Number	1230055467808
Construction Date	2011-2012
Monitoring Period	2013-2022
Year of Monitoring	2 of 10
Type of Impacts	Wetland
Area of Project Wetland Impact	5.61 acres
Type of Mitigation	Wetland Enhancement
Area of Mitigation¹	12 acres

¹ The wetland enhancement/restoration occurs at three total discharge areas (TDA 11, 12, 13) with a combined acreage of approximately 12 acres.

Performance Standards (Year-3)	2014 Results	Management Activities
Minimum density 400 living native trees/acre, minimum density 4,000 living native shrubs/acre, and at least 2 species of native trees and 4 species of native shrubs in the forested areas. No single species will provide more than 60% total aerial cover.	Density of 3,000 plants/acre	Nine Douglas fir (<i>Pseudotsuga menziesii</i>) and three western red cedar (<i>Thuja plicata</i>) trees were planted on 3/10/2014.
Minimum density of 4,000 living native shrubs/acre in the scrub-shrub wetland and at least 4 species of native shrubs. No single species will provide more than 60% cover.	Density of 2,000 plants/acre	
At least 50% cover native facultative wet and wetter species within the emergent zone.	90% cover	
Less than 15% cover Blackberry (<i>Rubus</i> species) and Class A noxious weeds in the combined scrub-shrub and forested planting areas of the onsite mitigation areas.	No Class A weeds; < 1% blackberry	Weed control activities performed on 4/17, 7/9, 7/25, and 8/14 in 2013, and on 5/27, 7/7, and 10/6 in 2014.
Less than 10% cover reed canarygrass (<i>Phalaris arundinacea</i>) than existing baseline conditions.	< 1% cover (no baseline data collected)	
Japanese knotweed (<i>Fallopia japonica</i>) shall not be present in any amount within the mitigation sites.	None observed	

Site development:

This site is developing as expected for second year establishment. The woody community is thriving and has a low amount of invasive species. The emergent community has nearly 100 percent cover and is diverse in plant species. Density standards in the forested and scrub-shrub zones has not yet been met, however the standards set are high and the site is doing well. It is strongly recommended that the tall flatsedge (*Cyperus eragrostis*) is removed. This species is on the Washington State noxious weed watch list and the restoration crew has been notified about it.

Results for Performance Standard 1

(Minimum density 400 native trees/acre, 4,000 native shrubs/acre and at least 2 tree species and 4 shrub species present in the forested areas. No single species will exceed 60% cover):

Density is estimated at approximately 3,000 plants per acre (Photo 1). Dominate species include: vine maple (*Acer circinatum*) and snowberry (*Symphoricarpos albus*). Beaked hazelnut (*Corylus cornuta*), Douglas-fir (*Pseudotsuga menziesii*), Indian plum (*Oemleria cerasiformis*), and Oregon white oak (*Quercus garryana*) are also present.



Photo 1 – Density in the forested buffer (July 2014)

Results for Performance Standard 2

(Minimum density 4,000 native shrubs/acre and 4 species of shrubs in the scrub-shrub wetland. No single species will exceed 60% cover):

Density is approximately 2,000 plants per acre (Photo 2). This is below the performance standard target. The area is dominated by willows (*Salix* species) and redosier dogwood (*Cornus alba*).



Photo 2 – Density in the scrub-shrub wetland (July 2014)

Results for Performance Standard 3

(Minimum 50% cover of native facultative wet and wetter species in the emergent wetland):

This area is estimated to have 90 percent cover. This exceeds the performance standard. Dominant species include common spikerush (*Eleocharis palustris*) and slough sedge (*Carex obnupta*) (Photo 3).

Performance Standard 4

(Maximum 15% cover Blackberry species and Class A noxious weeds in the combined scrub-shrub and forested planting areas of the onsite mitigation areas):

No Class A noxious weeds were observed during monitoring activities. The cover of blackberry species is estimated at less than one percent. This is below the performance standard threshold.

Performance Standard 5

(Maximum cover of 10% below baseline conditions for reed canarygrass):

Cover of reed canarygrass is visually estimated to be less than one percent, primarily found in the southeast corner. No baseline data was collected.

We welcome your questions or comments. Please contact me at 360/570-6640 or by e-mail at busht@wsdot.wa.gov for questions about these mitigation sites.

Sincerely,

Tony Bush
Wetlands Program

Performance Standard 6

(Japanese knotweed not present in any amount within the mitigation sites):

No Japanese knotweed was observed on site during monitoring activities.



Photo 3 – Cover in the emergent wetland (July 2014)

