

March 30, 2016

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

RE: SR 202 Improvement Project: SR 520 to Sahalee Way NE Wetland  
Mitigation Site #1 (Turple)  
USACE IP 200400024

Dear Ms. Terzi:

The Washington State Department of Transportation completed qualitative monitoring of the State Route (SR) 202 Sahalee Way #1 mitigation site (Turple) on August 26, 2015, to address final year (Year-10) (2017) performance standards. Monitoring activities included vegetation observations and photo documentation. This Year-7 report is being issued for compliance with the reporting requirements of the USACE IP number 200400024.

<b>General Site Information</b>			
<b>USACE IP Number</b>	200400024		
<b>Mitigation Location</b>	At the intersection of SR 202 and 196 <sup>th</sup> Avenue Northeast, King County		
<b>LLID Number</b>	1220787476548		
<b>Construction Date</b>	2007-2008		
<b>Monitoring Period</b>	2009-2018		
<b>Year of Monitoring</b>	7 of 10		
<b>Type of Impact</b>	Wetland		Buffer
<b>Area of Project Impact</b>	Permanent	Indirect	Permanent
	1.5 acres	0.15 acre	4.0 acres
<b>Type of Mitigation</b>	Wetland	Wetland	Buffer
	Establishment	Enhancement	Enhancement
<b>Area of Mitigation<sup>1</sup></b>	2.64 acres	0.80 acre	2.31 acres

<sup>1</sup> Additional mitigation for this project is provided by the SR 202 Sahalee Way (Site#2 Happy Valley) Mitigation Site which is reported on separately. See the final page of this letter for a summary of the mitigation areas on both of the sites associated with this project.

Performance Standards (Year-10)	2014 Results	2015 Results	Management Activities
<p>The soils will be saturated to the surface, or standing water will be present in a monitoring well at 12 inches below the surface or less, for a consecutive number of days greater than or equal to 12.5% of the growing season. Wetland hydrology will be determined using indicators of wetland hydrology, as listed in the <i>Washington State Wetlands Identification and Delineation Manual</i> (Ecology publication #96-94).</p>	<p>Monitoring was discontinued in 2014. See 2013 delineation results below.</p>	<p>Monitoring was discontinued in 2014.</p>	<p>A pond leveler was installed in December 2015 to prevent flooding of a neighbor's property. A second leveler will be installed at the east side of the site in 2016.</p>
<p>The wetland areas will be delineated using current methodology to assure that the mitigation sites contain 8.07 acres of new wetlands in total.</p>	<p>A 2013 delineation indicates 3.77 acres of wetland are present at this site. An additional 7.15 acres of wetland are provided by the SR 202 Sahalee Way Happy Valley mitigation site.</p>	<p>Monitoring was discontinued in 2014.</p>	
<p>Native facultative or wetter species will achieve 75 percent cover in each scrub-shrub and forested wetland community.</p>	<p>80-85% cover</p>	<p>Cover of native woody vegetation is qualitatively estimated at <b>95 percent</b> in each scrub-shrub and forested wetland community. (80-85% in 2014)</p>	
<p>Native upland buffer woody species will achieve 50 percent cover in each upland buffer community.</p>	<p>85-90% cover</p>	<p>Cover of native woody species in the upland buffer is qualitatively estimated at <b>95 percent</b>. (85-90% in 2014)</p>	

Performance Standards (Year-10) continued	2014 Results	2015 Results	Management Activities
King County listed Class A weeds and reed canarygrass ( <i>Phalaris arundinacea</i> ), non-native blackberries ( <i>Rubus</i> species), Scotch broom ( <i>Cytisus scoparius</i> ), Japanese knotweed ( <i>Reynoutria japonica</i> ), and purple loosestrife ( <i>Lythrum salicaria</i> ), will not exceed 20 percent coverage in each forested, scrub-shrub, and emergent wetland and upland buffer community.	10-15% cover	Cover of reed canarygrass and non-native blackberries across the site is qualitatively estimated at <b>10 percent</b> . No King County listed Class A weeds, Scot's broom, Japanese knotweed, or purple loosestrife was observed. (10-15% in 2014)	Weed control activity occurred on 11/18, 11/25, 6/11, and 8/6 in 2014, and on 1/22, 3/17, 6/15, 7/14, and 12/3 in 2015.
Three native facultative or wetter vegetation species will achieve eight percent or greater relative cover in each forested and scrub-shrub wetland community.	In 2014, relative cover was estimated qualitatively as follows: <ul style="list-style-type: none"> <li>• Pacific willow at 20%</li> <li>• Sitka willow at 41%</li> <li>• Twinberry honeysuckle at 6%</li> </ul>	Pacific willow ( <i>Salix lasiandra</i> ), Sitka willow ( <i>Salix sitchensis</i> ), and twinberry honeysuckle ( <i>Lonicera involucrata</i> ) each are qualitatively estimated to have achieved <b>greater than eight percent</b> relative cover in the forested and scrub-shrub wetland communities.	
Relative cover of red alder ( <i>Alnus rubra</i> ) and black cottonwood ( <i>Populus balsamifera</i> ) will be less than 30 percent for each species in the wetland creation and enhancement areas.	In 2014, relative cover was estimated qualitatively as follows: <ul style="list-style-type: none"> <li>• Red alder at 6%</li> <li>• Black cottonwood at 14%</li> </ul>	Relative cover of red alder is qualitatively estimated at <b>10 percent</b> . Relative cover of black cottonwood is qualitatively estimated at <b>15 percent</b> .	

Performance Standards (Year-10) continued	2014 Results	2015 Results	Management Activities
Three native upland vegetation species will achieve eight percent cover in each buffer community.	In 2014, relative cover was estimated qualitatively as follows: <ul style="list-style-type: none"> <li>• Beaked hazelnut at 10%</li> <li>• Douglas-fir (<i>Pseudotsuga menziesii</i>) at 10%</li> <li>• Thimbleberry (<i>Rubus parviflorus</i>) at 13%</li> <li>• Snowberry (<i>Symphoricarpos albus</i>) at 9%</li> <li>• Red elderberry (<i>Sambucus racemosa</i>) at 10%</li> </ul>	Black cottonwood, red alder, and beaked hazelnut ( <i>Corylus cornuta</i> ) each are qualitatively estimated to have achieved <b>greater than eight percent</b> relative cover in the buffer.	

**Site development:**

The site has developed more rapidly than anticipated and has been meeting the year-10 final year standard(s) for all performance standards for three years. On February 20, 2014 a request to discontinue quantitative sampling for all vegetation standards was sent to USACE and the Department of Ecology; these requests were accepted on April 28, 2014. The final year standards are still currently being met.

The site was delineated on May 1, 2013 and has met the final-year year ten wetland acreage requirements. On February 20, 2013 a request to discontinue hydrology monitoring was sent to USACE and the Department of Ecology; this request was accepted on February 24, 2014.

Results for Performance Standard 1  
(Wetland hydrology Present):

Hydrology monitoring was discontinued in 2014.

Results for Performance Standard 2  
(Delineation):

Hydrology monitoring was discontinued in 2014.

Results for Performance Standard 3  
(75% cover native facultative or wetter species in each scrub-shrub and forested wetland community):

Cover of native woody vegetation is qualitatively estimated at 95 percent in each scrub-shrub and forested wetland community. This value exceeds the performance standard target. Dominant species include Pacific willow, Sitka willow, and twinberry honeysuckle.

Results for Performance Standard 4  
(50% cover native woody species in the upland buffer):

Cover of native woody species in the upland buffer is qualitatively estimated at 95 percent. This value exceeds the performance standard target. Dominant species include black cottonwood, red alder, and beaked hazelnut. Cover was lower in the northeast corner of the site where beaver dams have flooded Evans creek (Photo 1).

Results for Performance Standard 6  
(Three native facultative or wetter species will achieve 8% or greater relative cover in each forested and scrub-shrub community):

Pacific willow, Sitka willow, and twinberry honeysuckle each are qualitatively estimated to have achieved greater than eight percent relative cover in the forested and scrub-shrub wetland communities.



**Photo 1** – Northeast corner of the site

Results for Performance Standard 5  
(No more than 20% King County listed Class A weeds and reed canarygrass, non-native blackberries, Scot's broom, Japanese knotweed, and purple loosestrife in each forested, scrub-shrub and emergent wetland and upland buffer community):

Cover of reed canarygrass and non-native blackberries across the site is qualitatively estimated at 10 percent. This value is below the performance standard threshold. No King County listed Class A weeds, Scot's broom, Japanese knotweed, or purple loosestrife was observed. Reed canary grass was concentrated along the creek and in a beaver flooded area in the northeast corner of the site. Himalayan blackberry (*Rubus armeniacus*) cover is estimated at one percent and is scattered throughout the site. A couple cutleaf blackberry (*Rubus laciniatus*) plants were observed.

Results for Performance Standard 7

(Relative cover of red alder and black cottonwood will be less than 30% for each species in the wetland creation and enhancement areas):

Relative cover of red alder is qualitatively estimated at 10 percent. Relative cover of black cottonwood is qualitatively estimated at 15 percent. These values are below the performance standard threshold.

Results for Performance Standard 8

(Three native upland vegetation species will achieve 8% relative cover in each buffer community):

Black cottonwood, red alder, and beaked hazelnut each are qualitatively estimated to have achieved greater than eight percent relative cover in the buffer.

We welcome your questions or comments. Please contact me at 360/570-2579 or by e-mail at [littaud@wsdot.wa.gov](mailto:littaud@wsdot.wa.gov) for questions about these mitigation sites.

Sincerely,

Doug Littauer  
Wetlands Program





## Project Impacts and Mitigation Summary<sup>2</sup>

**Table 1 – Project Permanent Impacts**

Wetland Impacts (acres)		Buffer Impacts (acres)
Direct	Indirect	Direct
1.47	0.15	4.00

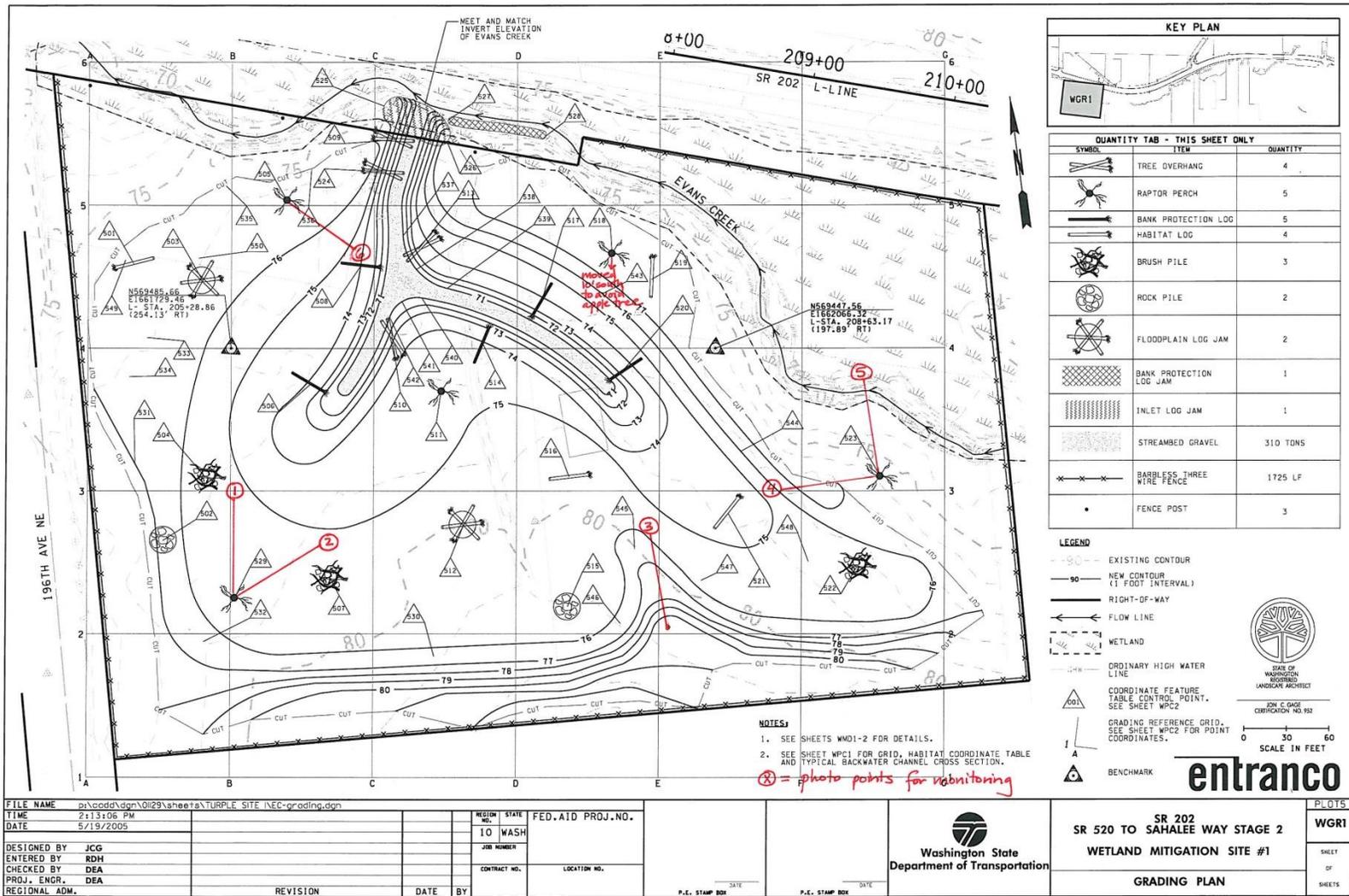
**Table 2 – Project Mitigation by Site**

Mitigation Site	Wetland Establishment (acres)	Wetland Enhancement (acres)	Buffer Enhancement (acres)
Turple (Site #1)	2.64	0.80	2.31
Happy Valley (Site #2)	5.43	1.72	5.76
<b>Project Mitigation Totals</b>	<b>8.07</b>	<b>2.52</b>	<b>8.07</b>

<sup>2</sup> Acreage numbers were taken from WSDOT (2005) Final Wetland and Stream Mitigation Plan SR 202 Improvement Project: SR 202 to Sahalee Way NE and WSDOT Water Quality Certificate #2474. USACE permit #200400024 lists the impacts as 1.5 acre of fill to wetlands and other waters.

# Photo Points

The photographs below were taken from permanent photo-points on August 26, 2015 and document current site development.





**Photo Point 1**



**Photo Point 2**



**Photo Point 3**



**Photo Point 4**



**Photo Point 5**



**Photo Point 6**