

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 9 212th St. SE to 176th St. SE; Widening – Stage 3 (MP 1.62 to 4.22) (Charles E Plummer Stream Mitigation Sites 1, 2, and 3)  
USACE Permit Number NWS-2010-1228

Dear Ms. Terzi,

The Washington State Department of Transportation completed qualitative monitoring of the SR 9 Charles E Plummer stream mitigation sites on August 19, 2015, to address Year-3 (2015) performance standards. Monitoring activities included vegetation observations and photo documentation. This Year-3 report is being issued for compliance with the reporting requirements of the USACE Permit Number NWS-2010-1228.

<b>General Site Information</b>		
<b>USACE NWP IP Number</b>	NWS-2010-1228	
<b>HPA Number</b>	122008-7	
<b>Mitigation Location</b>	All streams are between MP 5 and 6 on SR 9	
<b>LLID Numbers</b>	Stream 1: 1221412478115 Stream 2: 1221382478216 Stream 3: 1221366478223	
<b>Construction Date</b>	2012-2013	
<b>Monitoring Period</b>	2013-2017	
<b>Year of Monitoring</b>	3 of 5	
<b>Type of Impacts</b>	Stream	Stream Buffer
<b>Area of Project Wetland Impact<sup>1</sup></b>	0.09 acre	0.93 acre
<b>Type of Mitigation</b>	Stream Realignment	Riparian Plantings
<b>Area of Mitigation<sup>2</sup></b>	913 linear feet	3.23 acres

<sup>1</sup> Area of project impact numbers were taken from USACE NWS-2010-1228

Performance Standards (Year-3)	2015 Results	Management Activities
All native woody vegetation (planted and volunteer) should have 80% survival after three years installation in the riparian enhancement areas.	Area 1- 85% survival Area 2- 90% survival Area 3- 95% survival	None
Washington State-listed or Snohomish County-listed Class A weeds must be eradicated. All occurrences shall be immediately reported to the Northwest Region Landscape Architect and an eradication program will be initiated within 30 days of the report.	None observed	None
If Washington State Class B weeds designated for control or Snohomish County Class B, Class B Undesignated, and Class C noxious weeds designated for control are found on the site during the monitoring period, the Northwest Region Landscape Architect will initiate immediate removal and control. This list includes, but is not limited to purple loosestrife ( <i>Lythrum salicaria</i> ), paleyellow iris ( <i>Iris pseudacorus</i> ), non-native knotweeds ( <i>Reynoutria cuspidatum</i> , <i>R. polystachyum</i> , <i>R. sachalinense</i> , and <i>R. bohemicum</i> ), and similar related species and hybrids.	Japanese knotweed ( <i>Reynoutria japonica</i> ) observed in Area 1. No applicable noxious weeds observed in Areas 2 and 3.	None
Reed canarygrass ( <i>Phalaris arundinacea</i> ), non-native blackberries ( <i>Rubus armeniacus</i> and <i>Rubus laciniatus</i> ), Scotch broom ( <i>Cytisus scoparius</i> ), thistles ( <i>Cirsium arvense</i> , <i>Cirsium vulgare</i> , <i>Carduus nutans</i> , and <i>Onopordum acanthium</i> ), and species listed in Table 32 will not exceed 25% cover, collectively, in the stream buffer areas.	Less than 5% cover in all three areas	None

**Site development:**

In general, the sites are developing well and are already surpassing the final-year performance standards, except for one sprout of Japanese knotweed found in stream mitigation area 1.

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<sup>2</sup> Area of mitigation numbers were taken from Final Wetland and Stream Mitigation Report SR 9 212th St. SE to 176th St. SE; Widening – Stage 3 (MP 1.62 to 4.22) Mitigation for wetland impacts is located at the SR 9 Charles E Plummer wetland mitigation site.

Stream mitigation locations are referred to as Area 1, 2, and 3, with 1 being the farthest south (planted strip on east side of SR 9), and 3 being the northernmost planting area.

Results for Performance Standard 1  
(80% survival native woody vegetation in the riparian enhancement areas):

Survival of native, woody vegetation is qualitatively estimated at 85 percent in Area 1, 90 percent in Area 2, and 95 percent in Area 3. These values exceed the performance standard target. All of the riparian enhancement areas have an estimated 80 percent cover of native woody species.

Results for Performance Standard 2  
(Washington State-listed or Snohomish County-listed Class A weeds eradicated):

No Class A weeds were observed in any of the stream mitigation areas at the time of monitoring.

Results for Performance Standard 3  
(The presence of Washington State Class B weeds designated for control or Snohomish County Class B, Class B Undesignated, and Class C noxious designated for control will initiate immediate removal and control):

No applicable noxious weeds were observed in Areas 2 or 3. A large stand of Japanese knotweed was observed just off-site at the north end of Area 1, with one sprout observed on-site. Northwest region has been notified of this occurrence.

Results for Performance Standard 4  
(Less than 25% reed canarygrass, non-native blackberries, Scotch broom, thistles, and species listed in Table 32 collectively, in the stream buffer areas):

Cover of listed species is qualitatively estimated at less than five percent in all three stream mitigation areas. This value is below the performance standard threshold.



**Photo 1 – Stream Mitigation Area 1**



**Photo 2 – Stream Mitigation Area 2**



**Photo 3 – Stream Mitigation Area 3**

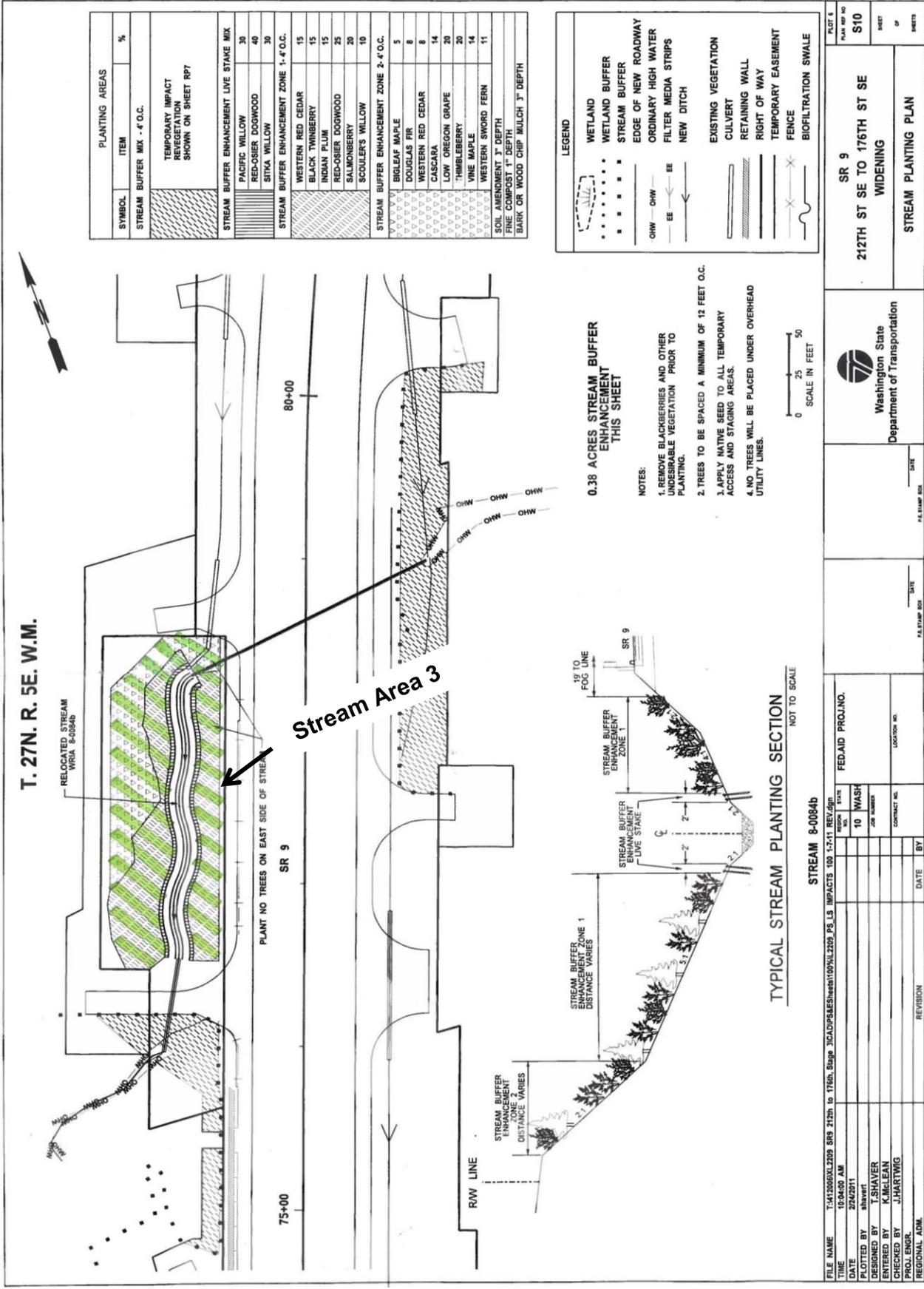
We welcome your questions or comments. Please contact me at 360/570-2579 or by e-mail at [littaud@wsdot.wa.gov](mailto:littaud@wsdot.wa.gov) for questions about these mitigation sites.

Sincerely,

Doug Littauer  
Wetlands Program







T. 27N. R. 5E. W.M.

RELOCATED STREAM WITH 5000' R/W

PLANT NO TREES ON EAST SIDE OF STREAM

Stream Area 3

SR 9

75+00

80+00

ROW LINE

STREAM BUFFER ENHANCEMENT ZONE 1 DISTANCE VARIES

STREAM BUFFER ENHANCEMENT ZONE 2 DISTANCE VARIES

STREAM BUFFER ENHANCEMENT ZONE 3 DISTANCE VARIES

19' TO FOG LINE

STREAM BUFFER ENHANCEMENT ZONE 1

STREAM BUFFER ENHANCEMENT LIVE STAKE

STREAM BUFFER ENHANCEMENT ZONE 2

STREAM BUFFER ENHANCEMENT ZONE 3

SR 9

NOT TO SCALE

TYPICAL STREAM PLANTING SECTION

STREAM 8-0084b

PLANTING AREAS	
SYMBOL	ITEM
[Symbol]	STREAM BUFFER MIX - 4' O.C.
[Symbol]	TEMPORARY IMPACT REVEGETATION SHOWN ON SHEET RP7
[Symbol]	STREAM BUFFER ENHANCEMENT LIVE STAKE MIX
[Symbol]	PACIFIC WILLOW 30
[Symbol]	RED-OSIER DOGWOOD 40
[Symbol]	SITKA WILLOW 30
[Symbol]	STREAM BUFFER ENHANCEMENT ZONE 1-4' O.C.
[Symbol]	WESTERN RED CEDAR 15
[Symbol]	BLACK TWIMBERRY 15
[Symbol]	INDIAN PLUM 15
[Symbol]	RED-OSIER DOGWOOD 25
[Symbol]	SALMONBERRY 20
[Symbol]	SCOLLER'S WILLOW 10
[Symbol]	STREAM BUFFER ENHANCEMENT ZONE 2-4' O.C.
[Symbol]	BIGLEAF MAPLE 5
[Symbol]	DOUGLAS FIR 8
[Symbol]	WESTERN RED CEDAR 8
[Symbol]	CASCARA 14
[Symbol]	LOW OREGON GRAPE 20
[Symbol]	HIMBLEBERRY 20
[Symbol]	VINE MAPLE 14
[Symbol]	WESTERN SWORD FERN 11
[Symbol]	SOIL AMENDMENT 3" DEPTH
[Symbol]	PILE COMPOST 1" DEPTH
[Symbol]	BARK OR WOOD CHIP MULCH 3" DEPTH

LEGEND	
[Symbol]	WETLAND
[Symbol]	WETLAND BUFFER
[Symbol]	STREAM BUFFER
[Symbol]	EDGE OF NEW ROADWAY
[Symbol]	ORDINARY HIGH WATER
[Symbol]	FILTER MEDIA STRIPS
[Symbol]	NEW DITCH
[Symbol]	EXISTING VEGETATION
[Symbol]	CULVERT
[Symbol]	RETAINING WALL
[Symbol]	RIGHT OF WAY
[Symbol]	TEMPORARY EASEMENT
[Symbol]	FENCE
[Symbol]	BIOFILTRATION SWALE

0.38 ACRES STREAM BUFFER ENHANCEMENT THIS SHEET

NOTES:

1. REMOVE BLACKBERRIES AND OTHER UNDESIRABLE VEGETATION PRIOR TO PLANTING.
2. TREES TO BE SPACED A MINIMUM OF 12 FEET O.C.
3. APPLY NATIVE SEED TO ALL TEMPORARY ACCESS AND STAGING AREAS.
4. NO TREES WILL BE PLACED UNDER OVERHEAD UTILITY LINES.

SCALE IN FEET

FILE NAME	T:\412000\2209 SR9 2129 15 176N_Sage_3CADP\585\Sheet109\K2209 PS LS IMPACTS 100 1-7-11 REV.dwg	DATE	10/26/09 AM
DATE	10/26/09 AM	DATE	10/26/09 AM
DESIGNED BY	T. SHAWER	DESIGNED BY	T. SHAWER
CHECKED BY	J. HARTING	CHECKED BY	J. HARTING
PROJ ENGR		PROJ ENGR	
REGIONAL ADM.		REGIONAL ADM.	
DATE		DATE	
BY		BY	
REVISION		REVISION	
FED.AID PROJ.NO.	10 WASH	FED.AID PROJ.NO.	10 WASH
CONTRACT NO.		CONTRACT NO.	
LOCATION NO.		LOCATION NO.	
DATE		DATE	
SCALE	NOT TO SCALE	SCALE	NOT TO SCALE
PLANT NO.	10 WASH	PLANT NO.	10 WASH
DATE		DATE	
SR 9		SR 9	
212TH ST SE TO 176TH ST SE		212TH ST SE TO 176TH ST SE	
WIDENING		WIDENING	
STREAM PLANTING PLAN		STREAM PLANTING PLAN	
PLANT NO.	10 WASH	PLANT NO.	10 WASH
DATE		DATE	
SR 9		SR 9	
212TH ST SE TO 176TH ST SE		212TH ST SE TO 176TH ST SE	
WIDENING		WIDENING	
STREAM PLANTING PLAN		STREAM PLANTING PLAN	
PLANT NO.	10 WASH	PLANT NO.	10 WASH
DATE		DATE	
SR 9		SR 9	
212TH ST SE TO 176TH ST SE		212TH ST SE TO 176TH ST SE	
WIDENING		WIDENING	
STREAM PLANTING PLAN		STREAM PLANTING PLAN	
PLANT NO.	10 WASH	PLANT NO.	10 WASH
DATE		DATE	
SR 9		SR 9	
212TH ST SE TO 176TH ST SE		212TH ST SE TO 176TH ST SE	
WIDENING		WIDENING	
STREAM PLANTING PLAN		STREAM PLANTING PLAN	