



**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. Caroline Cocoran
Ms. Teri Granger
Department of Ecology
Wetland Mitigation and Permit Compliance
3190 160th Avenue SE
Bellevue, WA 98008-5452

RE: SR 167 North Sumner Interchange Wetland Mitigation Site
Department of Ecology Water Quality Certification #1998-4-00422

Dear Ms. Corcoran and Ms. Granger:

The Washington State Department of Transportation completed qualitative monitoring of the SR 167 North Sumner mitigation site on July 15, 2014, to address Year-10 (2015) performance standards. Monitoring activities included vegetation observations and photo documentation. This Year-9 report is being issued for compliance with the reporting requirements of the Department of Ecology Water Quality Certification #1998-4-00422.

General Site Information			
USACE NWP IP Number	1998-4-00422		
Dept. of Ecology WQC Number	1998-4-00422		
Mitigation Location	West of SR 167 near the West Valley Hwy, 24 th St. E exit, east of Soaton Creek, Pierce County		
LLID Number	1222491472284		
Construction Date	2005-2006		
Monitoring Period	2006-2015		
Year of Monitoring	9 of 10		
Area of Project Wetland Impact¹	1.42 acres		
Type of Mitigation²	Wetland Establishment	Wetland Enhancement	Riparian Enhancement
Area of Mitigation	1.85 acres	2.38 acres	2.71 acres

¹ Impact acreage sourced from USACE 1998-4-00422, 2003.

² Mitigation acreage sourced from SR 167 North Sumner Interchange Revised Wetland Mitigation Plan, WSDOT 2003.

Performance Standards (Year-10)	2014 Results	Management Activities
80% cover of native, FAC or wetter emergent vegetation in the emergent wetland	65% cover	
80% cover of pioneering and planted woody species in the scrub-shrub restoration/creation area and forested enhancement area	100% total forested cover; 90% total scrub-shrub cover	
80% cover of all pioneering and planted trees and shrubs in the buffer	85% cover	
35% cover of all pioneering and planted trees and shrubs in the riparian restoration area, or 50% survival of planted material	40% cover	
(USACE Requirement) Invasive plant species cover shall be no more than 10% cover in the creation/restoration areas and no more than 25% in the enhancement forested areas.	5-7% cover across the site; 80-90% cover in the riparian zone	Weed control activities occurred on 3/18/14, 3/20/14, 4/16/14, 4/17/14, & 9/17/14
The wetland emergent and scrub-shrub creation areas will be periodically saturated to the surface for at least 12.5% of the growing season (March 1 to October 31).	Present	
At least six snags and 15 loafing logs/downed logs will be present	Present	

Site development:

In general the site is doing well. The enhancement area has three layers of canopy structure with dense cover. The creation area is well established, with emergent and scrub-shrub areas looking similar to the previous year and increasing cover in the buffer. The riparian area is beginning to look better with willow plantings along the edges that are providing significant cover. There are still a few areas of open water in the emergent zone. Invasive species cover is relatively low with the exception of the riparian area.

Results for Performance Standard 1
(80% cover in the emergent wetland):

Cover is visually estimated at 65 percent. This value is below the performance standard target. This community appears to have stable cover and has not significantly increased since the last year. Broadleaf cattail (*Typha latifolia*) is the dominant emergent species in this zone (Photo 1).

Results for Performance Standard 2
(80% cover in the scrub-shrub and forested wetlands):

Total cover for the forested wetland and scrub-shrub wetland is visually estimated at 100 percent and 90 percent respectively (Photo 2). This exceeds the performance standard target. Dominant trees that are likely providing at least five percent cover each include: Oregon ash (*Fraxinus latifolia*), black cottonwood (*Populus balsamifera*), western red cedar (*Thuja plicata*), Sitka spruce (*Picea sitchensis*), and red alder (*Alnus rubra*). Dominate shrubs that are likely providing at least 10 percent cover each include: Pacific willow (*Salix lasiandra*), Sitka willow (*Salix sitchensis*), Scouler's willow (*Salix scouleriana*), and redosier dogwood (*Cornus alba*).

Results for Performance Standard 3
(80% cover in the buffer):

Cover in the buffer is visually estimated at 85 percent. This exceeds the performance standard target. Dominate trees that likely provide at least 10 percent cover each include: Oregon ash, Douglas-fir (*Pseudotsuga menziesii*), and black cottonwood. Dominate shrubs that likely provide at least 10 percent cover each include: snowberry (*Symphoricarpos albus*), Nootka rose (*Rosa nutkana*), cluster rose (*Rosa pisocarpa*), red elderberry (*Sambucus racemosa*), redosier dogwood, and oceanspray (*Holodiscus discolor*).



Photo 1 – Cover in the emergent wetland
(July 2014)



Photo 2 – Cover in the forested wetland
(July 2014)

Results for Performance Standard 4
(35% cover in the riparian restoration area or 50% survival):

Woody plantings in the riparian area are visually estimated at providing 40 percent cover. These plants are five to 10 meters tall; however the center of the riparian area is still dominated by reed canarygrass (*Phalaris arundinacea*).

Performance Standard 5

(Less than 10% invasive species cover in the wetland restoration/creation and less than 25% in the enhancement forested areas):

Invasive species cover across the mitigation site is visually estimated to be five to seven percent. Invasive species cover in the riparian zone is visually estimated to be 80 to 90 percent by reed canarygrass alone. There were some areas of reed canarygrass around the edges of the emergent area and some shaded reed canarygrass and non-native blackberries (*Rubus* species) established in the enhancement area observed during monitoring activities.



Photo 3 – Inundation (April 2014)

Performance Standard 6

(Wetland Hydrology):

The site showed hydrology within the top 12 inches of the soil surface or inundation on all three visits on March 12 and 26, and April 17, 2014 (Photo 3).

Performance Standard 7

(Six snags and 15 loafing logs/downed logs will be present):

At least six snags and 15 loafing logs/downed logs were observed during monitoring activities.

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

PLOT1 *****DATE****
 *****DESIGN FILE NAME*****
 PLOT1 *****DATE****

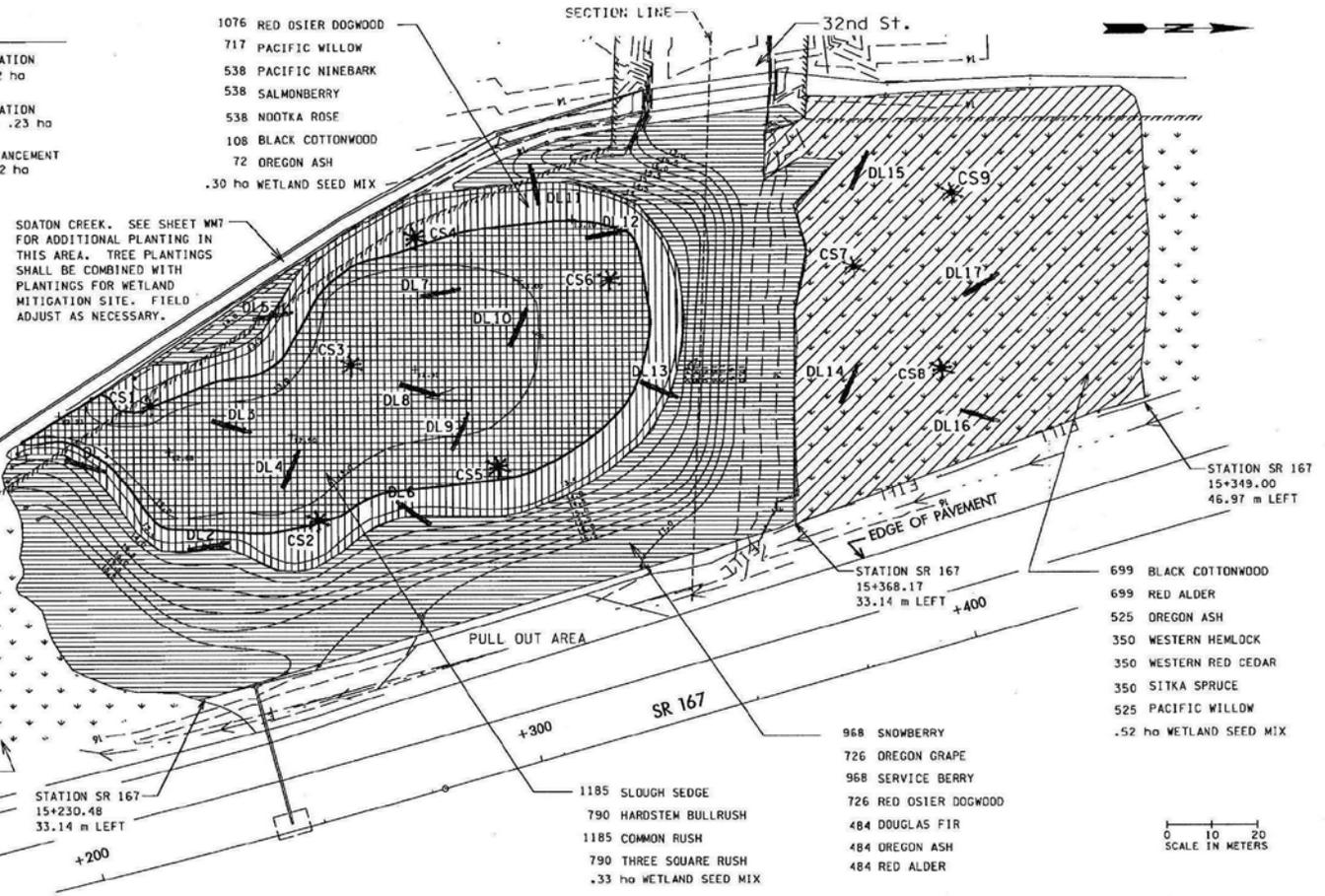
SECTION 14 AND SECTION 12, T 20N R 4E
 Planting Zones Were Field Adjusted Based on Actual Water Regime

LEGEND

- WETLAND CREATION EMERGENT .52 ha
- WETLAND CREATION SCRUB SHRUB .23 ha
- WETLAND ENHANCEMENT FORESTED .52 ha
- EXISTING WETLAND
- WETLAND BUFFER .72 ha
- CONIFER SNAG
- DL1 DOWN LOG

SEE SHEET WM6 FOR LOCATION DATA OF CONIFER SNAGS AND DOWN LOG.

- 1076 RED OSIER DOGWOOD
- 717 PACIFIC WILLOW
- 538 PACIFIC NINEBARK
- 538 SALMONBERRY
- 538 NODTKA ROSE
- 108 BLACK COTTONWOOD
- 72 OREGON ASH
- .30 ha WETLAND SEED MIX



- 699 BLACK COTTONWOOD
- 699 RED ALDER
- 525 OREGON ASH
- 350 WESTERN HEMLOCK
- 350 WESTERN RED CEDAR
- 350 SITKA SPRUCE
- 525 PACIFIC WILLOW
- .52 ha WETLAND SEED MIX

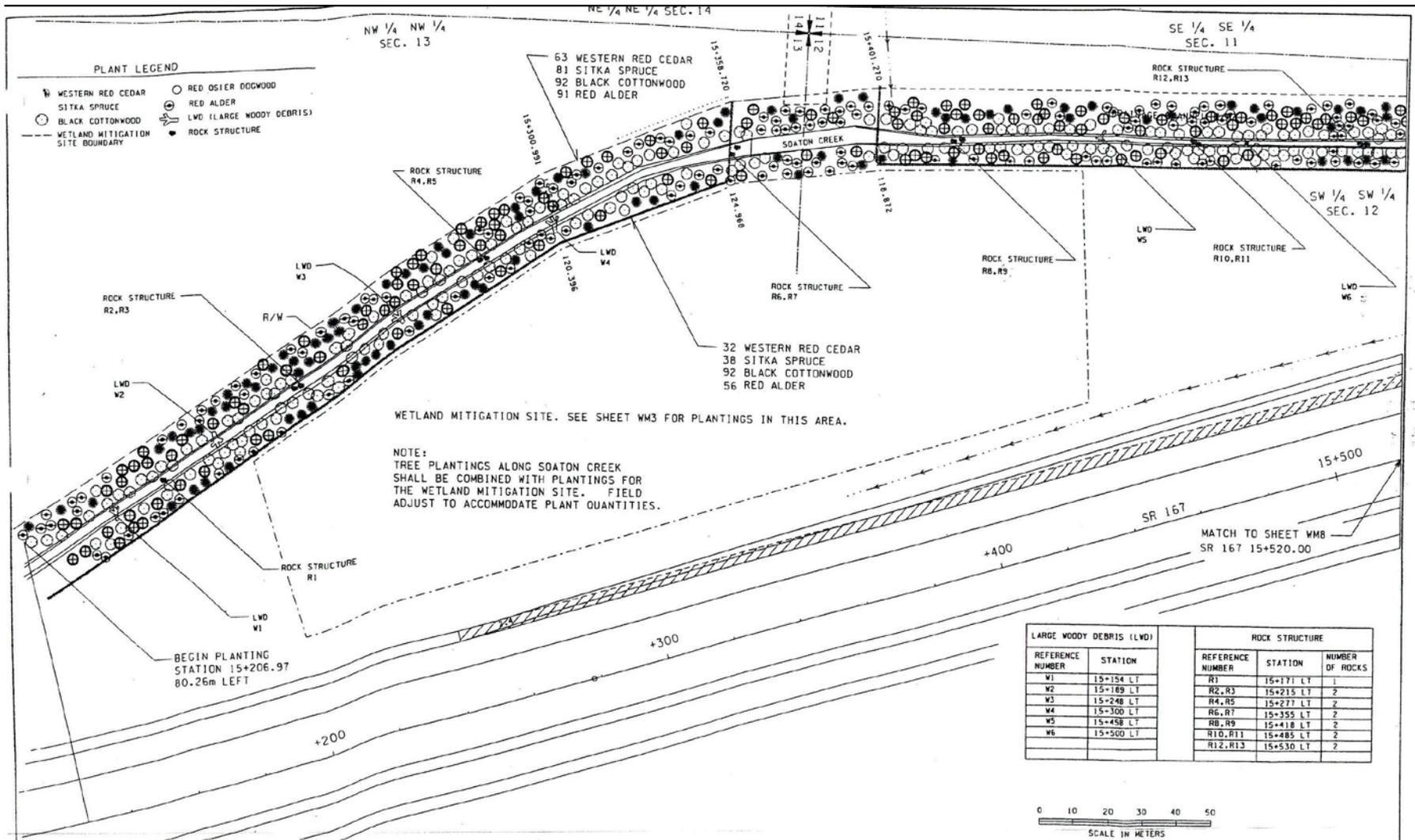
- 968 SNOWBERRY
- 726 OREGON GRAPE
- 968 SERVICE BERRY
- 726 RED OSIER DOGWOOD
- 484 DOUGLAS FIR
- 484 OREGON ASH
- 484 RED ALDER

AS BUILT

PLANTING PLAN

DESIGNED BY D.B. COMMITTEE 3/03 ENTERED BY K. SCHLATTER 3/03 CHECKED BY K. SIELBACH 3/03 PROJ. ENGR. N. CAMPBELL REGIONAL ADM. R. HAIN	REGION NO. STATE 10 WASH JOB NUMBER CONTRACT NO.	FED. AID PROJ. NO.	PROJECT DEVELOPMENT OFFICE STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT ROBERT B. BARNES CERTIFICATE NO. 368	Washington State Department of Transportation	SR 167 NORTH SUMNER I/C MITIGATION SITES	WM3 SHEET OF SHEETS
--	--	--------------------	---	--	--	------------------------------

WETLAND RPT EXHIBITS.DGN 10/12/2006 2:58:12 PM



DESIGNED BY D.S. COMMITTEE	3/03	REGION NO.	10	STATE	WASH	FED. AID PROJ. NO.	
ENTERED BY K. SCHLATTER	3/03	JOB NUMBER					
CHECKED BY K. SIELBACH	3/03	CONTRACT NO.					
PROJ. ENGR. N. CAMPBELL		BY					
REGIONAL ADM. R. HAIN		REVISION					

PROJECT DEVELOPMENT OFFICE

STATE OF WASHINGTON
REGISTERED LANDSCAPE ARCHITECTS

ROBERT B. BARNES
CERTIFICATE NO. 388

Robert B. Barnes

Washington State
Department of Transportation

SR 167
NORTH SUMNER I/C

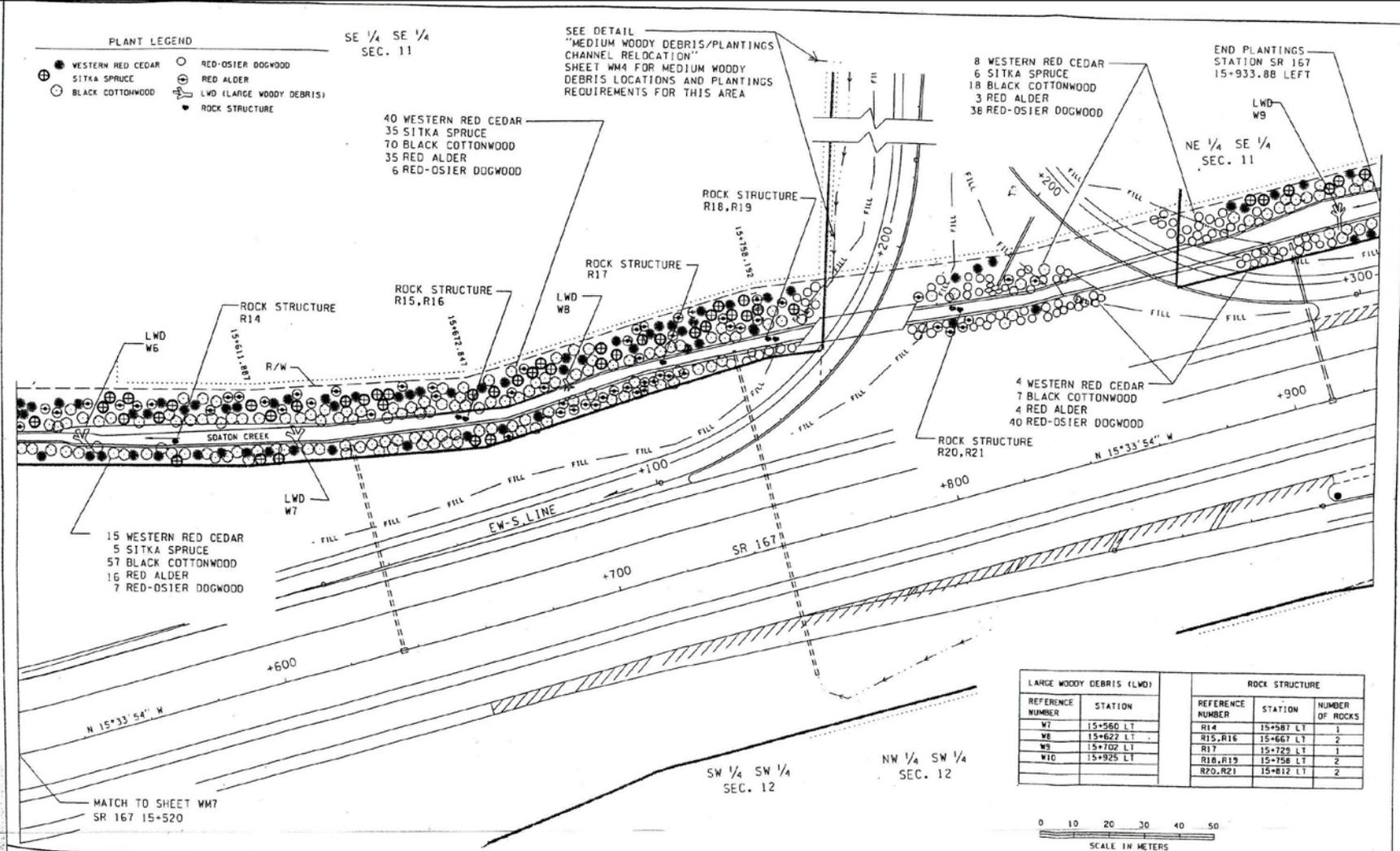
SOATON CREEK PLANTING PLAN

WM7

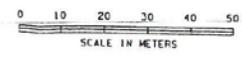
SHEET 122

SHEET 15

PLOT1 P:\08\002\000\SUMMER\Review Revisions 4.10.03\Sooton Borfemk.dwg



LARGE WOODY DEBRIS (LWD)		ROCK STRUCTURE		
REFERENCE NUMBER	STATION	REFERENCE NUMBER	STATION	NUMBER OF ROCKS
W7	15+560 LT	R14	15+587 LT	1
W8	15+622 LT	R15, R16	15+667 LT	2
W9	15+702 LT	R17	15+729 LT	1
W10	15+925 LT	R18, R19	15+758 LT	2
		R20, R21	15+812 LT	2



DESIGNED BY	D.B. COMMITTEE	3/03				REGION NO.	STATE	FED. AID PROJ. NO.
ENTERED BY	K. SCHLATTER	3/03				10	WASH	
CHECKED BY	K. SIELBACH	3/03						
PROJ. ENGR.	N. CAMPBELL							
REGIONAL ADM.	R. HAIN							
	DATE	DATE	REVISION	BY	CONTRACT NO.			

PROJECT DEVELOPMENT OFFICE
 STATE OF WASHINGTON
 REGISTERED LANDSCAPE ARCHITECT
 ROBERT B. BARNES
 CERTIFICATE NO. 388
 4/10/03
Robert B. Barnes

Washington State Department of Transportation

SR 167
 NORTH SUMMER I/C
 SOATON CREEK PLANTING PLAN
 WMB
 SHEET 13