



Washington State
Department of Transportation
 Paula Hammond
 Secretary of Transportation

Transportation Building

310 Maple Park Ave
 P.O. Box 47300
 Olympia, WA 98504-7300

360-705-7000
 TTY: 1-800-833-6388

www.wsdot.wa.gov

March 25, 2009

Mr. Pat Chapman
 Washington State Department of Fish and Wildlife
 Habitat Program
 600 N. Capitol Way
 Olympia, WA 98501-1091

RE: SR 9 Nooksack Road Vicinity to Cherry Street All Weather Reconstruction (MP 93.00 to MP 97.18) (Bone Creek Realignment) Mitigation Site
 WDFW HPA Permit **100355-4**

Dear Mr. Chapman:

The Washington State Department of Transportation completed monitored of the site on July 8, 2008 to determine survival of planted species for compliance with the above listed HPA. Stream monitoring was conducted separately by region staff. Performance measures associated with stream monitoring are outlined and addressed in the Stream Monitoring Report.

General Site Information			
WDFW HPA Permit Number	100355-4		
Contract Number	C7078		
LLID Number	1222665489875		
Restoration Location	Along Bone Creek, near Sumac, Whatcom County.		
Construction Date	2006-2007		
Monitoring Period	2007-2009		
Year of Monitoring	2 of 3		
Type of Project Impact	Stream	Indirect Stream	Stream Buffer
Area of Project Impact	0.136 acre	0.095 acre	0.5 acre
Type of Mitigation	Riparian Vegetation Enhancement		
Area of Mitigation	2.91 acres		

Site development:

Permit Requirement	2008 Results	Management Activities
80% or greater survival of woody species along stream banks	93% survival overall	Ongoing weed control

Survival of woody plantings along the stream banks is estimated at 93 percent, exceeding the permit requirement target for Year-2. *Salix* species (willows) along the stream banks appear healthy, providing shade for the stream, stabilization of the banks and habitat for wildlife. Most mortality occurs along the edge of the creek.

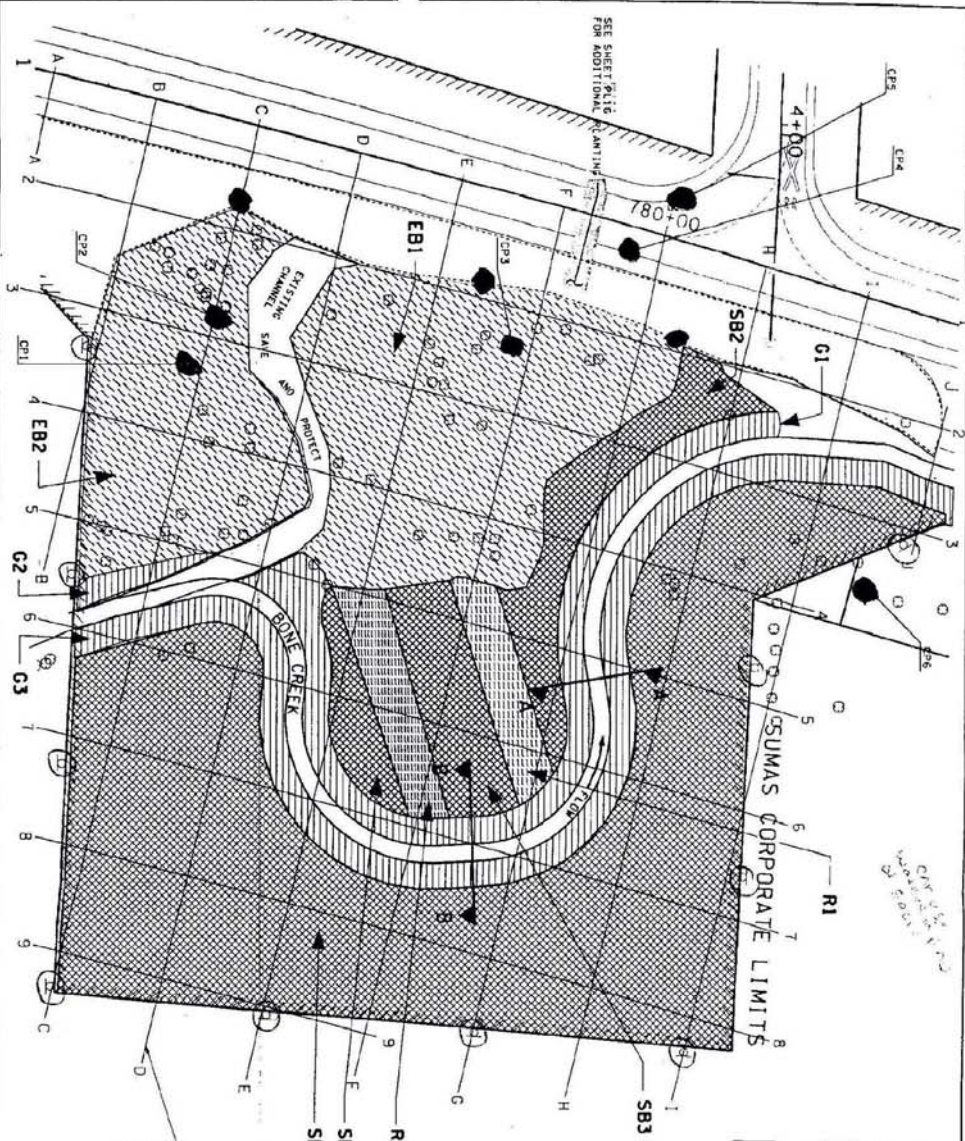
The water level appears higher than when the banks were originally planted, and some compost berms that were staked into the banks have become detached. Dead plantings were found in the detached or inundated compost berms, and in inundated areas. Some mutated plantings were found in areas where weed control had recently occurred.

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
Wetland Assessment and Monitoring Program

FILE NAME: S:\MAGDOOS\174\WOOD_CK\8\174\2113.DWG
 TITLE: 174/2113 PL
 DATE: 1/24/2008
 DESIGNED BY: A. SAMICH
 ENTERED BY: A. STYER
 CHECKED BY: B. MULLAHL
 PROJ. ENGR: C. DAMITTO
 REGIONAL ADM.: L. ENO
 REVISION NOTES: REVISION: 1/24/2008 JS
 DATE: 1/24/2008 BY: JS
 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
 FEDERAL AID PROJ. NO.:
 WASH. STATE DEPT. OF TRANSPORTATION
 PROJECT NO.: 05A025
 CONTRACT NO.:
 SHEET NO.:
 TOTAL SHEETS: 30
 DATE: 1-24-08
 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
 PLANTING PLAN
 NOOKSACK RD VIC TO CHERRY ST
 PI01
 PI19
 TSS 292
 KMS



CONSTRUCTION GRID
 BEGINNING POINT STA. 71+790.00
 LINE 1000 IS MADE UP OF 50' INTERVALS
 LINE 10 IS AT RIGHT ANGLES TO LINE 1
 LETTERED LINES ARE OFFSET AT 50 FT. INTERVALS
 SCALE IN FEET
 0 25 50

NOTES:

- SEE SHEET ST05 FOR SECTIONS A-A AND B-B.
- FINE COMPOST AND BARK OR WOOD CHIP MULCH SHALL BE 4 FT. DIAM RINGS AROUND EACH PLANT.

LEGEND
 SYMBOL ITEM
 ● WETLAND BUFFER
 ● STREAM BUFFER
 ● LIMITED ACCESS R/W
 --- WETLAND SYMBOL AND BOUNDARY
 ○ EXISTING RESTORATION LANE AND PROTECT
 △ CONTROL POINT
 ■ MATING POND
 ■ STONE STRUCTURE
 ■ TYPE 1 Pile
 ■ TYPE 2 Pile

CONTROL POINT TABLE

NUMBER	NORTHING / EASTING
CP1	1624287.3400 / 1055976.5200
CP2	1624285.4132 / 1055991.5855
CP3	1624278.5051 / 1056130.1974
CP4	1624232.8178 / 1056186.4703
CP5	1624208.7409 / 1056211.9119
CP6	1624391.9800 / 1056300.1500

QUANTITY TABLE - THIS SHEET ONLY

SYMBOL	ITEM	QUANTITY
1	LIVE STAKES - 3" D.C.	61 62 63
2	COMPOST - SOCK LFT *	1865 324 1540
3	RED OSIER DOGWOOD	708 30 615
4	PACIFIC WILLOW	156 22 481
5	TREE ROW W/ W/ WILLOW	155 22 481
6	BARK CONTINUOUS **	115 184
7	STRA WILLOW **	110 125
8	BUFFER PLANTING - 5' D.C.	582 593 584 585
9	WOODS AS FIR	11 9
10	WILLOW BRUSH	4 3
11	STICK SPRUCE	11 8
12	WESTERN RED CEDAR	7 5
13	NOOTKA SPRUCE	2 2
14	PACIFIC KINGBARK	44 34 16 430
15	RED FLOUNDER	22 17 8 215
16	SCHUBER'S WILLOW	9 7 3 86
17	STICK WILLOW	65 50 25 644
18	SWAMPER	8 5 2 83
19	FINE COMPOST (LTV)	25 14
20	BARK OR WOOD CHIP MULCH (LTV)	831 829
21	WESTERN RED CEDAR	28 20
22	WESTERN HEMLOCK	2 2
23	BARK OR WOOD CHIP MULCH (LTV)	7 5

Original