

## Birch Bay Characterization & Watershed Planning Pilot – Taking Action Appendix A

### Timeline and Milestones

Task	Milestones	Deliverables (on CD unless noted)
Project Phase	Milestones	
Activity	Output	File name
<b>Task 1 – Rural Initiative – Terrell Creek Sub-basin</b>		
<b>Phase R-1 – Develop landowner education/outreach program hire Advisor in the 1<sup>st</sup> quarter – then train</b>		
1. Recruit and hire Landowner Resource Advisor	Hired Rachel Vasak, ED Nooksack Salmon Enhancement, March 2011	Contract, Independent Contractor Announcement
2. Advisor training, establish stakeholder group	Advisor was hired for her connection to watershed and experience with conservation education	Advisor Application 2010
3. Form an Advisory Committee and conduct regular meetings	Advisory committee was formed	Advisory Board Members List
4. Conduct social marketing effort	Social Marketing Consultant Hired, Social Marketing Plan Completed April 2012	Social Marketing Plan, Marketing Consultant Announcement
5. Create, revise, compile and print written materials	Brochures, Flyers and Newsletters created	Clean Terrell Brochure, Fact Sheets, State of Watershed Reports 2013,2015 (SOW), Informational Postcards, Watershed Stewards Signs
6. Create website	update as needed	See <a href="http://www.chumsofterrellcreek.org/">www.chumsofterrellcreek.org/</a>
<b>Phase R-2 – Implement program of education, outreach &amp; project development</b>		
1. Advisory outreach to landowners	<b>Expected:</b> 300 farm/home visits <b>Completed:</b> 416 farm/home visits	Landowner Outreach Tracking Spreadsheet
2. Advisory assist landowners and agencies	various phone calls, meetings, site visits	Landowner Outreach Tracking Spreadsheet
3. Advisor refers landowners to CD for farm plans	referrals to CD for tech assistance	See R-3-2 Below
4. Conduct monthly or quarterly meetings of Advisory Committee	monthly or quarterly meetings	Advisory Board Meeting Summary
5. Advisor attends meetings w/partner agencies	BB Steering Committee, BBWARM Advisory Committee, and BB Shellfish Protection District	BBWARM and BBSPD Agendas
6. CD provides Advisor assistance w/ public education/outreach activities	ongoing throughout project	Landowner Outreach Tracking, Invitations to Events/Tours/Workshops,
7. CD assists with completion of 20 standard farm checklists and development of 10 standard	<b>Expected:</b> 20 checklist and 10 plans <b>Completed:</b>	All in folder named Farm Plans and Checklists. Tally of all action reported in BB EPA Contact Tracking

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farm plans	22 Standard Farm Checklists, 7 Standard Farm Plans	Spreadsheet
8. CD assists advisor w/maps & data bases to support education efforts	Inventory/characterization of all livestock operations in Terrell Creek sub watershed (2 full inventories were completed 2011 and 2014)	LivestockSurvey_2011, LivestockSurvey_2014
9. Advisor educates landowners about BMPs	Farm Visits and outreach materials	Landowner Outreach Tracking Spreadsheet, see Task1-R1.
10.Outreach to landowners in “protection and restoration” sub-watersheds	<p><b>Expected:</b> 30 homeowners take action to eliminate discharges of pathogens or nutrients</p> <p><b>Completed:</b> 87 Homeowners took action!</p> <p>43 planted native plants for habitat improvements</p> <p>44 eliminate discharges of pathogens or nutrients</p>	BB EPA Contact Tracking Spreadsheet
<b>Phase R-3 – Implement riparian BMP projects and WQ monitoring</b>		
1. NSEA and CD will cooperate on stream restoration projects	<p><b>Expected:</b> 6 Restoration Projects, totaling 10 acres</p> <p><b>Completed:</b> 27 Riparian Restoration Projects, 6 instream projects, totalling 73 acres of habitat</p>	Restoration Projects Map and See “Riparian Projects and CREP projects” on BB EPA Contact Tracking Spreadsheet
	<p><b>Expected:</b> re-slope 1,500 ft of streambank</p> <p><b>Completed:</b> : re-slope 2,600 ft of streambank</p>	See “instream project length” on BB EPA Contact Tracking Spreadsheet
	<p><b>Expected:</b> 10 large woody debris arrays</p> <p><b>Completed:</b> 51 large woody debris arrays</p>	See “Instream Habitat” on BB EPA Contact Tracking Spreadsheet
	<p><b>Expected:</b> Re-meander 1,000 ft of stream</p> <p><b>Completed:</b> Re-meander 2,600 ft of stream</p>	See “instream project length” on BB EPA Contact Tracking Spreadsheet
2. CD will work with landowners	<b>Expected:</b> 20 standard	See “Farm Checklist/Farm Plan” on BB

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with livestock to provide farm plans and install Ag BMPs	farm checklists <b>Completed:</b> 23 standard farm checklists	EPA Contact Tracking Spreadsheet
	<b>Expected:</b> 10 board approved farm plans <b>Completed:</b> 7 board approved farm plans	
	<b>Expected:</b> Install 5,000 ft of fencing <b>Completed:</b> Install 5,729 ft of fencing	See “Fence (Feet) and CREP Fencing (Feet)” in BB EPA Contact Tracking Spreadsheet
	<b>Expected:</b> \$61,365 in cost share for BMP installations <b>Completed:</b> \$54,706 in cost share for BMP installations	See BB EPA Cost Share Funding Summary
3. NSEA will develop a QAPP and collect water samples semi-monthly at four sites that bracket the rural initiative project area	QAPP developed	WQ QAPP
	Water quality samples taken	WQ sites
	Summary of WQ data collected	WQ report
<b>Phase R-4 – Post-project evaluation</b>		
1. Obtain Focus Group Recommendations regard program messages, materials and activities	Survey and landowner interviews	Assessment Survey, Assessment Cover Letter, Assessment Project Proposal
2. Compile/analyze landowner education/implementation data.	Summary of survey results and analysis	Cooperator Interview Summary, Assessment Summary
<b>Phase R-5– Presentation of results and final report</b>		
1. Update the project website to show post-project evaluation and conclusions.	Website showing project conclusions	See <a href="http://www.chumsofterrellcreek.org/chums-success-stories">www.chumsofterrellcreek.org/chums-success-stories</a>
2. Presentation of results to public and relevant agencies	Completed and on-going	BBWARM Committee Agenda, Agency Tour Invitation and Attendees 2014 & 2015, See Press Folder
3. Final report	f – final report after project	BB EPA Final Report
<b>Phase R-6- Grant Administration</b>		
1. Administer and manage the project. Includes, but not limited to: maintenance of records, submittal of payment vouchers,	continuous throughout project	

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fiscal forms, progress reports, etc.		
2. Progress reports shall be submitted semi-annually with a final report at the end of the project.	SA - semi-annual reports (due month following qtr)  f – final report after project	See FEATS reports

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Task 2- Urban Stormwater Sub-watershed Masterplan		
Phase U-1 – Public involvement/outreach		
1. Convene working stakeholder group & establish a meeting schedule	Birch Bay Watershed & Aquatic Resources Management (BBWARM) District Citizen Advisory Committee established as the stakeholder group 6/15/11	See <a href="http://www.bbwarm.whatcomcounty.org/about/committee">www.bbwarm.whatcomcounty.org/about/committee</a>
	Quarterly stakeholder meeting 9/21/11, 11/16/11, 3/28/12, 6/20/12, 9/19/12, 11/28/12, 2/2/13, 11/28/12, 2/20/13, 10/16/13	Agendas
2. Conduct public outreach	<p>First general public and stakeholder meeting 6/15/11</p> <p>Northern Light articles 4/21/11, 6/23/11, 9/19/12</p> <p>Meeting notices sent to interested public via the BBWARM email list.</p> <p>Quarterly public stakeholder meetings replaced a mid-point public meeting.</p> <p>Final Birch Bay Central North Subwatershed Master Plan presented to stakeholder group and general public 10/16/13</p>	See <a href="http://www.bbwarm.whatcomcounty.org/programs/swmp">www.bbwarm.whatcomcounty.org/programs/swmp</a>
Phase U-2 – Subwatershed Inventory and Hydrologic Analysis		
1. Field verify public and private stormwater systems during wet season, modify maps as needed	Whatcom County Public Works survey crew completed field inventory of all stormwater systems	

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	in the subwatershed May – November, 2011	
2. Develop a Quality Assurance Project Plan	Completed and approved by EPA 5/18/11	
3. Conduct initial hydrologic and hydraulic modeling including up to 3 possible land use scenarios	Completed	See <a href="http://www.bbwarm.whatcomcounty.org/programs/swmp">http://www.bbwarm.whatcomcounty.org/programs/swmp</a>  Birch Bay Central North Subwatershed Master Plan Appendix B Hydrologic and Hydraulic Analysis
4. Analyze the feasibility of implementing the Birch Bay Action Plan Team proposed development recommendations for Central North Subwatersheds	Completed  The scope of this deliverable changed when Whatcom County Council decided not to move forward with the Birch Bay Watershed Action Plan proposed voluntary LID program and habitat mitigation fund after the Washington State Department of Ecology included the Birch Bay Urban Growth Area in the NPDES Phase II permit area. Ecology made this decision August 2012 and the Birch Bay UGA was included in the NPDES Phase II permit area effective August 2013.	See <a href="http://www.bbwarm.whatcomcounty.org/programs/swmp">http://www.bbwarm.whatcomcounty.org/programs/swmp</a>  Birch Bay Central North Subwatershed Master Plan Chapter 5.
5. Produce 1st draft subwatershed stormwater Masterplan	Final draft Birch Bay Central North Subwatershed Master Plan completed October 2013  Final Birch Bay Central North Subwatershed Master Plan completed December 2013	See <a href="http://www.bbwarm.whatcomcounty.org/programs/swmp">http://www.bbwarm.whatcomcounty.org/programs/swmp</a>
Phase U-3 – Policy Analysis, development and adoption of final subwatershed masterplan		
1. Research literature and develop recommendation for inclusion of	Completed	BBSW Policy Memo

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subwatershed masterplan in local plans and development regulations		
2. Methods will be evaluated to further integrate LID solutions into BBWARM stormwater capital improvement list as preferred stormwater retrofits	Completed	See <a href="http://www.bbwarm.whatcomcounty.org/programs/swmp">http://www.bbwarm.whatcomcounty.org/programs/swmp</a>  Birch Bay Central North Subwatershed Master Plan Appendix C Capital Improvement Project Descriptions.
3. Develop proposed fiscal and funding policies	Completed	BBSW Policy Memo
4. Identify capital project needs and develop cost estimates	Completed	See: <a href="http://www.bbwarm.whatcomcounty.org/programs/swmp">http://www.bbwarm.whatcomcounty.org/programs/swmp</a>  See Birch Bay Central North Subwatershed Master Plan Chapters 6, 7, and Appendix C Capital Improvement Project Descriptions
5. Develop a capital improvement project phasing plan	Completed  The capital project scoring and prioritization method established for the Central North Subwatershed was applied to all proposed capital projects in the BBWARM District in March 2013. The result was a prioritized list of 24 projects. This list was used to develop BBWARM's 6-year capital project plan.	See: <a href="http://www.bbwarm.whatcomcounty.org/programs/swmp">http://www.bbwarm.whatcomcounty.org/programs/swmp</a>  See Birch Bay Central North Subwatershed Master Plan Chapter 7, and Appendix D Capital Improvement Project Priority Evaluation
<b>Phase U-4 – Capital project(s) engineering and construction</b>		
1. Engineering design and construction of a selected capital improvement project(s) within the subwatershed	Design phase Initiate permitting Construction bids Construction phase	See <a href="http://www.bbwarm.whatcomcounty.org/programs/cip/cottonwood">www.bbwarm.whatcomcounty.org/programs/cip/cottonwood</a> . Cottonwood CIP Handout

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		CIP Bid Document Cottonwood CIP Design
Phase U-5 – Final report		
Participate in final report preparation and presentations as needed	Presentations to Whatcom County Council as preparation for adoption on 3/25/15	3-24-15 SWWS agenda Subwatershed Planning Council Presentation