

# PugetSoundPartnership

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The Puget Sound Partnership

03.20.09

## **National Oceanic and Atmospheric Administration (NOAA) Stimulus Funding for Habitat Restoration**

The Puget Sound Partnership has been reviewing projects that are potentially eligible for funding under NOAA's FFO and that also strongly advance the priorities of the Puget Sound Action Agenda. The Partnership conducted an initial review of habitat restoration projects sponsors plan to submit to NOAA, totaling over \$100 million. This list includes a draft list of projects amounting to approximately \$45 million that are likely to meet the requirements of NOAA's FFO and that advance the Action Agenda, as well as all the projects reviewed for consideration. This list will be circulated to the Partnership's Ecosystem Coordination Board, the Puget Sound Salmon Recovery Council, Puget Sound Watershed Leads, and other interested parties.

# DRAFT: Proposed Puget Sound Restoration Priorities for NOAA Economic Stimulus Funding

Project Name	Project Sponsor	Location (watershed)	Description	Funding Request	Action Agenda
Listed species and shellfish habitat protection and restoration implementation	Washington State Conservation Commission in partnership with all 12 Puget Sound Conservation Districts	Puget Sound (WRIAs 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18)	Work with rural landowners to implement stream corridor fencing and solar pump watering fixtures to eliminate animal access; plant native plant material hedgerows and filter strips adjacent to waterways to protect and improve riparian processes and reduce fecal coliform and toxin inputs to waters throughout Puget Sound Action Area. Provide post-implementation monitoring. Provide landowners with educational packets on additional programs, resources, and ways they can help Puget Sound.	\$2,466,000	B.3(1); C.2(8)
Derelict Gear	Northwest Straits Marine Conservation Initiative	Puget Sound	Restore benthic habitat; eliminate a direct source of mortality to salmon and other marine species by removing derelict fishing nets from marine waters	\$4,646,250	B.1(1); B.1(6)
On-the-ground Recovery of Pinto abalone, Olympia oysters and Bull kelp in Puget Sound	Puget Sound Restoration Fund	Puget Sound (WRIAs 2,11,13,14,15,18)	Produce healthy, genetically diverse animals and plants for outplanting, and increase densities in the wild to stabilize and then build viable populations for the future.	\$1,533,839	C.1(7)
South Fork Landingstrip Creek restoration	Nooksack Salmon Enhancement Association	Nooksack Watershed	Barrier removal / Provide passage to 1.4 miles, Channel modification / LWD placement / Riparian planting 2900 linear feet / 127.5 acres	\$580,000	B.1(1); B.1(3); B.1(4)
Bundled LWD Projects: Middle Fork LWD (\$320,000) / North Fork LWD (\$210,000)	Nooksack Salmon Enhancement Association	Nooksack Watershed	Middle Fork: Install 20 woody debris structures along 1.5 miles of Middle Fork in vicinity of Porter Creek; North Fork: Augment 16 LWD structures on 5 channel islands between Kendall and Welcome	\$530,000	B.1(1); B.1(3)
Bundeled Fish Passage Improvement Projects: Squalicum Creek (\$37,000) / North Fork Damifino Creek (\$160,000) / South Fork Black Slough Hollingworth (\$19,000) / South Fork Black Slough Anderson (\$36,000) / Drayton Harbor Haynie Creek, Fenton (\$6,000) / Terrell (\$4,000)/ South Fork Tinling (\$41,000) / Betrand Trib Zylstra (\$23,000) / Squalicum Trib	Nooksack Salmon Enhancement Association	Nooksack Watershed	Barrier removal: Provide passage to 1.1 miles of upstream habitat / Barrier removal: Provide passage to 1.3 miles of upstream habitat / Barrier removal: Provide passage to 0.6 miles of upstream habitat Daylight channel, LWD placement, riparian planting, 1000 linear feet, 1.5 acres / Barrier removal: Provide passage to 0.3 miles of upstream habitat, riparian planting / Barrier removal: retro fit culvert with baffles, Provide passage to 0.8 miles of upstream habitat / Barrier removal: Provide passage to 0.4 miles of upstream habitat / Barrier removal: Provide passage to 0.8 miles of upstream habitat / Barrier removal: Provide passage to 0.6 miles of upstream habitat / Barrier removal: Provide passage to 1.6 miles of upstream habitat / Barrier removal: Provide passage to 0.4 miles of upstream habitat / Replace dam with bridge: improve passage to 0.4 miles of upstream habitat / Barrier removal: Provide passage to 0.4 miles of upstream habitat / Barrier removal: Provide passage to 0.3 miles of upstream habitat / Barrier removal: Provide passage to 1.9 miles of upstream habitat	\$538,000	B.1(1); B.1(4)
Milltown Island Estuarine Restoration	Skagit River System Cooperative/WDFW	Skagit Watershed	Restoration of 75 acres of estuarine habitat on the Skagit River delta.	\$682,201	B.1(1); B.1(2)
Turner's Bay Design Implementation	Skagit River System Cooperative	Skagit Watershed	Restoration of processes of tidal inundation and fish access to isolated marsh surfaces within a 59-acre pocket estuary near the Skagit River delta.	\$860,000	B.1(1); B.1(2); B.1(4)
Boundary Bridge Extension	Skagit River System Cooperative	Skagit Watershed	Extend existing bridge 265' across channel and floodplain	\$650,000	B.1(1); B.1(3)

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Hansen Creek Floodplain Reconnection	Upper Skagit Tribe	Skagit Watershed	Restore 53 acres of historic alluvial fan and 87 acres of riparian, flow-through forested wetland habitat, restore self-sustaining hydrologic and sediment transport processes through reconnection to the mainstem channel with the historic floodplain site reaches 3 & 4 as the cornerstone of restoration for salmon habitat and productivity in the watershed	\$988,915	B.1(1); B.1(3)
1) Leque Island Estuary and North Meander Floodplain Restoration (896100); 2) Stilly Big Trees (229300); Spartina Control; 13) Spartina Control (175000)	Snohomish County	Stillaguamish Watershed	1) Use excavated soil from North Meander side channel reconnection project to build set back dike at Leque Island estuary restoration project. Partnership between Snohomish County and Ducks Unlimited leveraging state and federal salmon recovery grants.; 2) Plant native riparian vegetation along the Mainstem, North Fork and South Fork Stillaguamish River.; Remove 25 acres invasive spartina from the marine nearshore in Port Susan Bay 3) Remove 25 acres invasive spartina from the marine nearshore in Port Susan Bay	\$896,100	B.1(1); B.1(2); B.1(3); A.5(4)
Snohomish River Estuary; 1) Snohomish Estuary Sitka Spruce Supplementation ; 2) Qwuloot Estuary Restoration Project	Tullalip Tribes	Snohomish Watershed	1) Plant 2000 5g Sitka spruce on remnant dikes on Otter, Spencer, Mid Spencer, Smith, and North Ebey islands (\$50,000); 2) Restore 340 acres of estuarine tidal marsh. Specific project elements to be paid for from this source include ditch fill, tidal channel excavation, and other topographic relief (berms), culvert removal and road demolition, other site preparation activities, erosion controls and riparian planting. (\$5,400,000)	\$6,850,000	B.1(1); B.1(2); B.1(3)
Cedar River Rainbow Bend Restoration	King County	Lake Washington/ Cedar/ Sammamish Watersheds	Restore ~ 40 acres of floodplain habitat and 4000 feet of riparian habitat along the Cedar River in a high priority reach. In 2009 the project would include site preparation, invasive plant species control, riparian planting, habitat design, and demolition of mobile home infrastructure (once resident relocation is completed). In 2010, habitat restoration would include levee setback, side channel development, addition of large wood and rock, and native plantings.	\$1,500,000	B.1(1); B.1(3)
Greenwater LWD Placement	SPSSEG	Puyallup/ White Watershed	Decommission 4500-linear feet of Forest Road, remove 750-linear feet of bank armor and install 16 Engineered Log Jams on the Greenwater River	\$650,000	B.1(1); B.1(3)
Puyallup River Silt bench Restoration	Pierce County Surface Water Management	Puyallup River near RM 5.2 (WRIA 10)	The project involves placement of logs and concrete dolos along the right bank of the Puyallup River to provide stream bank roughness, prevent erosion and enhance fish habitat. Existing trees will be protected and native vegetation will be planted to provide additional bank protection.	\$500,000	B.1(1); B.1(3)
Nisqually Estuary Restoration	Duck's Unlimited	Nisqually Watershed	Restore 762 acres of salt marsh habitat. This is the highest priority restoration action in the Nisqually Basin, the largest marsh restoration project in Puget Sound, and will increase South Puget Sound salt marsh area by 50%.	\$6,400,000	B.1(1); B.1(2); B.1(3)
Ellis Creek Fish Passage Project	City of Olympia	Deschutes Watershed	Total replacement of a fish-barrier culvert at the mouth of a productive salmon stream with intact and protected upstream riparian areas. The project has been prioritized by State WRIA 13 with partial funding from the Salmon Recovery Funding Board and City of Olympia.	\$1,500,000	B.1(1); B.1(3); B.1(4)
Carpenter Creek Estuary Restoration	Kitsap County	West Sound Watershed	Remove blocking culvert, restore tidal function	\$2,163,000	B.1(1); B.1(3); B.1(4)
Chico Creek Instream Restoration and Estuary	Kitsap County	West Sound Watershed	1) Chico Estuary Road Removal and Final Driveway: Construct driveway in prep for removal of culvert 2) Chico Creek In-stream Restoration Phase II Construction: Second phase of creek restoration critical for overall project (\$1,135,000)	\$1,615,000	B.1(1); B.1(3); B.1(4)
Skokomish Estuary Levee Removal	Skokomish Tribe	Hood Canal	Restore estuary: obliterate levees, borrow ditches, and tidegates on Skokomish Estuary Island; Restore vegetation	\$1,750,000	B.1(1); B.1(2); B.1(3); B.1(4)
Little Quilcene Delta Cone Removal	Hood Canal Salmon Enhancement Group	Hood Canal	Remove accumulated sediment deposits at mouth of Little Quilcene River to restore functional linkages between freshwater and saltwater physical processes + place wood enhancements in lower stream	\$1,000,000	B.1(1); B.1(2); B.1(3)

Restore Critical Areas in South&West Puget Sound, Hood Canal, Straits	Mason County Conservation District	Hood Canal	Within Clallam, Jefferson, Mason, and Kitsap Counties, utilize WCC Crews for 18 months to work in priority reaches to conduct plantings, maintenance, and inventory and control invasive knotweed	\$1,200,000	A.5(4); B.1(1)
Floodplain Restoration: LWD in Olympics	Hood Canal Salmon Enhancement Group	Hood Canal	Place LWD in 4 streams in Olympic and Kitsap Rivers (Skokomish, Hama Hama, Big Quilcene, Little Anderson)	\$950,000	B.1(1); B.1(3)
Lower Hoko River Riparian Revegetation	Makah & NOSC	North Olympic Peninsula Watersheds	Restoring the riparian zone along Hoko Mainstem, RM 0 to 7.	\$500,000	B.1(1); B.1(3)
Elwha Floodplain Bundled Package Submittal	Elwha	North Olympic Peninsula Watersheds	Lower Elwha hatchery outfall & berm removal, Griff Creek culvert replacement, revegetation, exotic species removal, Elwha ELJ's	\$2,250,000	B.1(1); B.1(3); B.1(4); A.5(4)
<b>TOTAL FUNDING REQUEST</b>				<b>\$43,199,305</b>	

### Additional Projects Being Submitted to NOAA - Not Included in Draft Priorities List

Project Name	Project Sponsor	Location (watershed)	Description	Funding Request
South Fork Project Bundle	Lummi Nation	Nooksack Watershed	Suite of South Fork projects, including Skookum Creek and Weir construction	
Smuggler's Slough	Lummi Nation	Nooksack Watershed	Reconnect Lummi and Nooksack River through the historic floodway of Smuggler's Slough. Project will initiate in-water work to enhance wetlands in preparation for levee and dike breaches	\$1,789,200
Acme Confluence Reach: Active Channel Logjams	Nooksack Tribe	Noosack Watershed (Lower South Fork Nooksack, RM 0-8)	Construction of stable log jams in the South Fork Nooksack to form deep pools with complex cover to improve holding and rearing habitat [Todd Creek reach phase 2, River Farm Reach phase 1, Kalsbeek reach phase 2]	\$758,525
			1) Nooksack/Thompson: Barrier removal, Provide passage to 1.1 miles of upstream habitat 2) Terrell/Butler: LWD placement, Riparian Planting, 900 linear feet / 0.8 acres 3) Haynie/Fenton/WLT: Barrier removal, Provide passage to 0.3 miles of upstream habitat, riparian planting 4) Terrell/County: Barrier removal / retro fit culvert with baffles, Provide passage to 0.8 miles of upstream habitat 5) Squlicum Trib/Sanders: Barrier removal, Provide passage to 0.6 miles of upstream habitat 6) Dakota/Ruhl: Barrier removal, Provide passage to 0.4 miles of upstream habitat 7) Dakota Trib/Goodsir: Barrier removal, Provide passage to 0.4 miles of upstream habitat 8) Dakota Trib/Guss: Barrier removal, Provide passage to 0.3 miles of upstream habitat 9) Terrell/WDFW: LWD placement / gravel supplementation / riparian Planting, 1000 linear feet / 1.8 acres 10) Terrell/Kostanoski: LWD placement / gravel supplementation / riparian Planting, 800 linear feet / 1.6 acres 11) Terrell/WDFW: Riparian Planting, 700 linear feet / 0.7 acres 12) Bellingham Bay debris removal: Beach debris removal, 12 linear miles of shoreline habitat 13) Whatcom Creek debris removal: Stream debris removal, 4 linear miles of stream	

Bellingham Technical College Restoration Bundle	Nooksack Salmon Enhancement Association; Bellingham Technical College; City of Bellingham	Nooksack Watershed	14) Environmental workforce training and public information center: In BTC's Fisheries program, faculty and students work closely with a variety of state, community and tribal organizations, including the Department of Fish and Wildlife, Lummi, Nooksack and Upper Skagit tribes, Nooksack and Skagit Fisheries Enhancement Groups and the Stilly-Snohomish Fisheries Task Force. Graduates of BTC's program often fill key positions at state, federal, tribal and private fisheries and aquaculture entities. The program, as an official state salmon hatchery, has been critical in bringing dead creeks back to life, reestablishing wild salmon runs, helping the local fishing industry survive, and educating youth regarding fish species and habitat. However, our current facility can no longer operate as a location for our public education and training efforts. Constructing the Environmental Workforce Training & Public Information Center will assist the college in building a state-of- 15) Padden 24- 30th st: Project involves moving approximately 1,300 ft of stream into a newly created channel. Project will: increase buffer area and function; increase instream habitat function and value; reduce bank erosion and water turbidity; and create new habitat for fish and wildlife speices.	\$4,740,000
Thatcher Bay Nearshore Restoration	Skagit Fisheries Enhancement Group	San Juan Watershed	Beach and nearshore restoration projects in Thatcher Bay, Blakely Island	\$536,650
Fisher Slough Freshwater Tidal Marsh Restoration	TNC	Skagit Watershed	Install self-regulating floodgate, re-route a drainage canal, build setback levee, remove existing levee and restore marsh habitat features to restore stream and tidal processes and fish access to 60 acre site on the S. Fork Skagit River.	
Red Creek LWD Enhancement	Upper Skagit Tribe	Skagit Watershed	Protect a newly re-opened 1 mile reach of Coho habitat from future flood scour and headcutting resulting from barrier removal in 2007 and high precipitation and snow run-off events experienced in 2009 and projected likely similar event in future years through channel stabilization and pool habitat development. Downstream restoration areas along Red Creek will also benefit from upper reach stabilization and sediment storage.	\$93,000
Snoqualmie River Mainstem; Lower Tolt Levee Setback	City of Seattle	Snohomish Watershed	Restore 40 acres of floodplain at the mouth of the Tolt River. Plant native riparian plants on other Tolt River Seattle-owned properties.	\$1,000,000
Snohomish Basin Riparian Enhancement Smaller scale projects	King County or Snohomish Conservation District	Snohomish Watershed	Replace fish passage barriers, plant trees	\$600,000
Skykomish River Mainstem 1) Lower Skykomish River flood fencing and LWD placement.; 2) Skykomish River Braided Reach, Phase I and II	Snohomish County	Snohomish Watershed	1) Add flood fencing and LWD to over 1 mile of the 11.5 mile reach of Lower Skykomish River (400000); 2) River restoration on 12 miles of river. (325000)	\$725,000
Issaquah Integrated Fish Passage	City of Issaquah	Lake Washington/ Cedar/ Sammamish Watersheds	Dam removal to restore unhindered adult fish passage of Chinook, coho, and other salmon to 10 miles of high quality upstream habitat and provide channel connectivity for other aquatic species. Remove Issaquah Fish Hatchery Intake Dam and replace with series of boulder weir structures and a new screened water intake structure located in a fish-passable channel constriction. The current 1930's-era, 11-foot high dam was constructed to provide water supply to the Issaquah Salmon Hatchery but blocks passage to a majority of adult salmon due to a poorly designed and functioning fish ladder. Concrete slab at base of dam also contributes to salmon mortality.	\$2,425,000
Sammamish Tributary Enhancement Project	Snohomish County	Lake Washington/ Cedar/ Sammamish Watersheds	Instream and riparian restoration including rip-rap removal, LWD placement, bank bio-engineering, invasive plant removal, and native planting at multiple Sammamish tributary locations (includes 3-year list projects; North Creek School and Paradise Valley Conservation Area)	\$500,000
Fenster Levee Setback Phase 1b	City of Auburn	Green/ Duwamish Watershed	Second phase of a levee setback on the Green River in Auburn.	\$750,000

Clover Creek Floodplain Restoration	Pierce County Surface Water Management	Clover Creek (WRIA 12)	Restoration of Clover Creek from 136th St. E. to 138th St. E. Includes invasive vegetation removal and restoration/enhancement of Clover Creek.	\$500,000
Canyon Creek Enhancement and Flood Mitigation	Pierce County Surface Water Management	Canyon Creek (WRIA 10)	This project will enhance Canyon Creek, increase detention and reduce flood heights, and replace culverts along the Canyon Creek stream corridor between 90 <sup>th</sup> Street East and 84 <sup>th</sup> Street East.	\$1,000,000
Chamber Beach Restoration	SPSSEG	Chambers/ Clover	Restore approximately 1-mile of beach and riparian habitat through: removal of derelict structures, active reconstruction of the beach by re-grading/nourishing sections of beach to restore a more natural beach profile and restoration of a riparian corridor through removal of invasive species and planting of native vegetation.	\$2,295,000
Mashel Eatonville Restoration Project Phase 2	Nisqually Indian Tribe	Nisqually Watershed	Continue Mashel River restoration by adding 33 log jam and wood structures to the 13 already built in 2007. The project consists of three phases: a wood procurement, construction phase 2A and the construction 2B phase. The wood procurements which will involve obtaining over 600 large logs some with rootwads, over 2000 cyds. of slash material as well as some steelpiles and very limited amount of rock. The project construction is split into 2A and 2B because of Phase 2 A is an emergency project that will protect banks that are in imminent danger of collapsing and threaten natural resources, infrastructure and human safety along the Mashel River. Phase 2A is being matched by emergency funds through NRCS and will have to be spend by Fall 2009 and therefore 2A has to be completed this season.	\$2,868,841
Beaver Creek phase 4	Mid Sound Fisheries Enhancement Group	West Sound Watershed	Last phase of Beaver Ck. Restoration	\$650,000
Harper Estuary Restoration	Mid Sound Fisheries Enhancement Group	West Sound Watershed	Opens up the tidal area at historic pocket estuary. Installs 2 bottomless large culverts.	\$1,000,000
Dungeness River Streamflow Improvement	Clallam Conservidation District	North Olympic Peninsula Watersheds	Approximately 13 miles of open irrigation canals will be replaced with buried pipelines to save an estimated 6 cubic feet per second (1,850 ac-ft/yr) of Dungeness River flows.	\$2,940,000
Valley Creek Restoration	City of Port Angeles	North Olympic Peninsula Watersheds	This project on Valley Creek Restoration involves 2 projects: (1) remeandering the current channel away from Valley Street including the creation and enhancement of a wider riparian zone; and (2) installing four "fishways" that will fully address gradient concerns within this only remaining steeply portion of the creek that has 700 feet of culvert.	\$810,000
East March's Point Shoreline Drift Cell Restoration Project	Skagit Marine Resources Committee	Skagit Watershed	Remove the majority of two large rock groins and plant about 0.15 acres of upper beach in native shoreline plants.	\$40,000
Fidalgo Bay Beach Nourishment and Shoreline Stabilization Project	Skagit Conservation District	Skagit Watershed	This project will stabilize about 550 feet of eroding shoreline along Fidalgo Bay in Anacortes by reconstructing a sloping gravel beach, installing four drift sills using large wood debris and planting about 0.3 acres of shoreline in native plants.	\$140,000
Milwaukee Dock Eelgrass Restoration Project	NOAA-probably not eligible...	West Sound Watershed	Fill dredged boat basin, replant or allow natural recolonization of eelgrass. NOAA will manage this project (John Kern, lead).	\$825,440
Morse Creek Remeander (WDFW Property)	NOSC	North Olympic Peninsula Watersheds	Restoration of the 1939 stream channel	\$500,000

Invasive Tunicate Eradication & Control	Washington Department of Fish & Wildlife; Invasive Species Council; Tunicate Response Advisory Committee	All Puget Sound Marine Waters	Removal of all known infestations of three priority invasive tunicate species in Puget Sound including <i>Styela clava</i> , <i>Ciona savignyi</i> , and <i>Didemnum vexillum</i> . Use of cutting-edge aquatic invasive species methods and technology on an unprecedented scale with national significance for addressing these and other aquatic invasive species issues such as zebra and quagga mussels. Builds on department management efforts since 2006 and addresses Puget Sound Partnership Action Agenda Priority A.5.4 (ranked 17th out of 32 in near-term action priorities), the Washington Invasive Species Council's 2008 Strategic Plan Recommendation 5, and the state's Tunicate Response Advisory Committee's 2007 Interagency Rapid Response Action Plan element C to manage, control and eradicate invasive tunicates.	\$5,000,000
Puget Sound Spartina Eradication	WDFW/TNC	Puget Sound [Nooksack (1), San Juan (2), Lower Skagit-Samish (3), Stilliguamish (5), Island (6), Snohomish (7), Cedar-Sammamish (8), Kitsap (15)]	Spartina is an invasive marine grass that has been reduced dramatically in recent years. This project funds five, three-person crews to thoroughly survey and eradicate widely scattered and cryptic infestations. The project will protect investments already made (~\$3 million) by eliminating the threat of reinfestation.	\$532,472
King 09 IFLO Fish Passage	DNR	King 09	Industrial RMAP	\$1,114,000
King 10 IFLO Fish Passage	DNR	King 10	Industrial RMAP	\$1,030,369
Kitsap IFLO Fish Passage	DNR	Kitsap	Industrial RMAP	\$6,330
Mason IFLO Fish Passage	DNR	Mason	Industrial RMAP	\$348,000
Skagit IFLO Fish Passage	DNR	Skagit	Industrial RMAP	\$35,000
Skamania IFLO Fish Passage	DNR	Skamania	Industrial RMAP	\$342,360
Snohomish IFLO Fish Passage	DNR	Snohomish	Industrial RMAP	\$260,000
Thurston IFLO Fish Passage	DNR	Thurston	Industrial RMAP	\$45,000
Whatcom IFLO Fish Passage	DNR	Whatcom	Industrial RMAP	\$112,000
Mason SFLO Fish Passage	DNR	Mason Co.	Small Landowner RMAP	\$117,000
Snohomish SFLO Fish Passage	DNR	Snohomish Co.	Small Landowner RMAP	\$130,000
Whatcom SFLO Fish Passage	DNR	Whatcom Co.	Small Landowner RMAP	\$100,000
Thurston SFLO Fish Passage	DNR	Thurston Co.	Small Landowner RMAP	\$130,000
King SFLO Fish Passage	DNR	King Co.	Small Landowner RMAP	\$130,000
South Puget Sound Region DNR RMAP 09	DNR	Lewis, King,, Mason, Pierce, Snohomish	DNR RMAP	\$1,370,000
Northwest Region DNR RMAP	DNR	Whatcom, Skagit, Snohomish	DNR RMAP	\$309,000
South Puget Sound Region DNR RMAP 10	DNR	Lewis, King,, Mason, Pierce, Snohomish	DNR RMAP	\$1,550,000

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3/20/09

Instream Large Woody Debris Restoration	Olympic Experimental State Forest	Historical logging practices and stream cleaning have left most fish-bearing streams crossing the OESF deficient in large woody debris (LWD). This project will actively restore instream LWD loading by:	<ul style="list-style-type: none"> <li>- Improve stream bank stability</li> <li>- Increase pool formation</li> <li>- Increase sediment storage</li> <li>- Increase gravel storage</li> <li>- Increase water storage</li> <li>- Increase velocity shelters</li> <li>- Increase food productivity</li> </ul>	\$2,000,000
Instream Large Woody Debris Restoration	North Puget Sound and Central sound	Historical logging practices and stream cleaning have left most fish-bearing streams crossing the OESF deficient in large woody debris	<ul style="list-style-type: none"> <li>- Increase pool formation</li> <li>- Increase sediment storage</li> <li>- Increase gravel storage</li> <li>- Increase water storage</li> <li>- Increase velocity shelters</li> <li>- Increase food productivity</li> <li>- increase the rate of stream temperature recovery (Pollock et al 2009)</li> </ul>	\$2,000,000
Instream Large Woody Debris Restoration	Southern Puget Sound and Southern Coast	Historical logging practices and stream cleaning have left most fish-bearing streams crossing the OESF deficient in large woody debris	<ul style="list-style-type: none"> <li>Improve stream bank stability</li> <li>- Increase pool formation</li> <li>- Increase sediment storage</li> <li>- Increase gravel storage</li> <li>- Increase water storage</li> <li>- Increase velocity shelters</li> <li>- Increase food productivity</li> <li>- increase the rate of stream temperature recovery (Pollock et al 2009)</li> </ul>	\$2,000,000
Skagit County Piling Removal: Turners Bay/Similk Bay	WADNR	Whidbey Island Action Area	Remove pilings located in an area of documented herring spawn as well as a key salmon migration corridor from the Skagit River.	\$151,200
Fidalgo Bay Causeway Removal	WADNR	Whidbey Island Action Area	The Samish Indian Tribe has recently completed a feasibility study for the removal of an old railroad causeway the bisects Fidalgo Bay. The feasibility study found that substantial habitat improvement will result from complete removal of the causeway. Extensive outreach has been conducted on this project, including to the City of Anacortes, the Skagit County Marine Resources Committee, and local citizens. The project is ready for design, permitting and construction.	\$5,000,000
March's Point Shoreline Restoration Project	WADNR	Whidbey Island Action Area	DNR and the Skagit River Systems Cooperative (SRSC) recently received funding to design and permit the West March's Point Restoration Project. This project will result in the nourishment of sediment starved beaches and studying the feasibility of the removal of an existing boat launch that impedes sediment transport, and the restoration of the hydrology of Crandall Spit lagoon. DNR and are currently seeking funding to complete construction and monitoring for Phase 2 and 3 of the restoration project. The current funding for this project will ensure that project designs, and permitting are in place and additional funding will go directly towards construction and follow up monitoring.	\$4,000,000

Rogue Creosote Debris Removal from Beaches (various counties)	WADNR	Whidbey Basin Action Area	Remove creosote-treated debris from at least 10 nearshore sites. Several sites include pocket estuaries and coves located on Camano Island at Livingston Bay, Elger Bay, and Triangle Cove; also Turners Bay in Skagit County. These areas all are in the vicinity of herring spawn and provide refugia for juvenile salmon. The relative low tidal flow in these areas results in accumulations of creosote compounds in the sediments and water column. Additional removal locations include Dungeness Spit National Wildlife Refuge where over 260 tons were removed in 2006; 2/3 of this area still need to be completed. Work will also continue in cooperation with WA State Parks at sites on Whidbey Island including Fort Casey, Fort Ebey, Joseph Whidbey, and Ebey's Landing State Parks. Several hundred tons have been removed at these sites and accumulations continue. Each beach clean-up project costs an average of \$600 per ton removed and employs crews of five to ten people, plus a project manager. DNR would utilize a Washington Conservation Corps crew or two to perform this work. Additional contractor services are also required including helicopter crews, heavy equipment operators and sawyers. Projects of this size generally require one to two weeks of prep work and one week of removal operations. The projects will be spaced out over the funding period to account for tidal sequences, forage fish spawning and juvenile salmonid migration timing, and public use at the sites. The project manager will be required for up to 18 months to coordinate crews, contracting, and timing.	\$534,518
Derelict Vessel Removal - Everett Vessels	WADNR	Whidbey Basin Action Area	The derelict vessels Servant, Elusive Dream, and another unnamed vessel, (138' and two 75' vessels) and potentially others, are beached, polluting and taking up valuable habitat in Snohomish county in sloughs north of Everett. These vessels in the slough have created debris and pollution issues, habitat degradation and also have potential to impact navigation long-term.	\$1,000,000
Neah Bay Piling Removal (Clallam County)	WADNR	Strait of Juan de Fuca Action Area	Approximately 175 creosote-treated pilings plus a 200+ piling dock.	\$400,680
Thurston County Piling and Dock Removal	WADNR	South Puget Sound Action Area	Remove over water structure at DNR's Marine Station along with several hundred pilings located throughout Henderson, Toten, and Eld inlets. Consideration will be taken for required habitat features such as seal haul-outs that will be left in place. Many of these pilings are in areas of documented herring spawn.	\$590,760
Woodard Bay NRCA Invasive Species Control	WADNR	South Puget Sound Action Area	Restore shoreline habitat along Chapman and Woodard Bays and Henderson Inlet by treating non-native, invasive weed species that are preventing the development of riparian habitat. Includes site prep followed by replanting. Restoration efforts will follow site Management Plans.	\$70,000
Woodard Bay Nearshore Restoration	WADNR	South Puget Sound Action Area	This project will restore nearshore ecosystem habitat on 500 acres of state owned aquatic lands by removing portions of remnant structures from the South Bay Log Dump located at Woodard Bay NRCA. Structures include pier (3000') and fill (8500 cu yd), pilings (+500), and trestle (350') and trestle embankment (47000 cu yd). The project includes enhancement of low impact recreation and environmental education facilities and trails along the shoreline. The site protects 5 miles of undeveloped shoreline within the Henderson Inlet Watershed and as development in the area continues, Woodard Bay is becoming increasingly significant to the southern Puget Sound landscape. Status - The feasibility study is in process and will be completed by June 2009. This project will be ready for design and construction beginning in August 2009.	\$3,200,000
Asarco Pier and Piling Removal (Pierce County)	WADNR	South Central Puget Sound Action Area	Remove three large derelict piers, improving habitat, sediment and water quality in Central Puget Sound; facilitate completion of a large superfund cleanup. Required studies are complete and a cost estimate has been developed. Permitting is anticipated to be completed in time for work in fall 2009. Pierce County. This project will enhance 1.5 to 2 acres of intertidal and sub-tidal habitat.	\$2,900,000
Olympic View Triangle Restoration	WADNR	South Central Puget Sound Action Area	The Olympic View Triangle Restoration project is a cleanup and restoration site in its second year of monitoring and maintenance. Work includes monitoring performance and maintenance. The site is located in Commencement Bay near Tacoma. Project is located in Pierce County. This project added one acre of high intertidal marsh habitat. It is designed to act as a food source for out migrating juvenile salmon.	\$40,000

Derelict Vessel Removal - Murph	WADNR	South Central Puget Sound Action Area	Murph - a 190' sunken (former Naval) tug in Quartermaster harbor. Located on state-owned land in a marine reserve, this vessel is a marine debris hazard and sitting on otherwise-good geoduck habitat. This is a navigation hazard to recreational boaters that requires federal navigation buoy maintenance. DNR has gone through the custody process on this vessel, has a programmatic HPA and nationwide permit that would cover the removal. Project currently stopped due to lack of funding.	\$1,000,000
Derelict Vessel Removal - Cactus	WADNR	South Central Puget Sound Action Area	Cactus - 180' steel former US Coast Guard ship that was poorly tied to weak pilings in the Maury Island Marine Reserve until King County temporarily moved it to more secure moorage. Vessel is not operational and is stacked high with all manner of debris that would become a large source of marine debris if/when it sinks. Plan is to dispose of vessel. Project is started but currently lacks funds to complete. US Coast Guard conducted hazardous materials removal in 1999.	\$600,000
Derelict Vessel Removal - small vessels, various	WADNR	Most P.S. Action Areas	Additional small vessels could be removed with additional funds in any amount. Many Puget Sound jurisdictions would benefit; could start within two months and could be completed within 3-4 months.	\$100,000
Quicene Bay / Ludlow Bay Piling Removal (Jefferson County)	WADNR	Hood Canal action Area	Removal of remnant rail trestle consisting of approximately 300 pilings in Quilcene Bay and remnant log booming piles in Port Ludlow. Also in the area of salmon migration from the Quilcene River.	\$312,336
Stavis Natural Resources Conservation Area Seawall Removal Project	WADNR	Hood Canal Action Area	Complete shoreline and stream restoration on 4 acres located along Hood Canal on Kitsap Peninsula in Kitsap County Washington by removing 550' of seawall, associated fill and restoring fish passage and 800' of stream channel.	\$150,000
<b>TOTAL FUNDING REQUEST</b>				<b>\$66,197,681</b>