Narrative to the Three Year Project List

Recovery Plan Overview and Watershed Priority Summary

The habitat protection and restoration plan submitted by Pierce County and the Co-Mangers shows a good understanding of the actions need to reduce the risk of extinction of Puyallup River Fall Chinook and White River Spring Chinook to low risk status. The White River Spring Chinook is the only remaining early-run population in the South/Central geographic region and should achieve low risk status over time to meet ESU recovery goals. The Puyallup River Fall Chinook population should improve from its current high risk status to meet the ESU recovery criteria.

The habitat component of the recovery plan is based on Ecosystem Diagnosis and Treatment (EDT) modeling. However, EDT is not the sole source of information we used to develop the plan. We relied upon information from the WRIA 10 and WRIA 12 limiting factors reports, the 1996 White River Spring Chinook Recovery Plan, TMDL reports for the White River, Puyallup River, and South Prairie Creek, Pierce County basin Plans for various sub-watersheds, Pierce Conservation District culvert inventories, Puyallup Tribal fisheries reports, and numerous other studies. We incorporated information from these reports, along with the best professional judgment of scientists familiar with the watershed, into the EDT database. By doing so, we believe we have produced a more holistic view of the watersheds, and have produced quantitative estimates of the Viable Salmonid Population (VSP) parameters of productivity, capacity, and life history diversity. A partial list of local watershed references used for developing the EDT analysis is provided at the end of the narrative.

Puyallup River Priorities

EDT modeling was used to provide estimates of VSP parameters for Puyallup River Fall Chinook. The results of our modeling show that productivity for Puyallup River Fall Chinook is 1.3 recruits per spawner and a capacity of about 4100 adults. If South Prairie Creek, the most productive tributary of the Puyallup River, is excluded from the analysis, the productivity of the mainstem is reduced to about 0.8 recruits per spawner and a capacity of about 3100. Clearly, South Prairie Creek maintains the productivity of Chinook in the system above replacement level, so protection of habitat South Prairie Creek is a high priority strategy for the Puyallup watershed.

In addition, increasing productivity in the rest of the Puyallup system is also a high priority strategy. The EDT modeling indicates that the major causes of low productivity and capacity in the Puyallup system are the reduction of channel stability, habitat diversity, and key habitat quantity in the mainstem Puyallup and Carbon Rivers from the City of Orting downstream to the estuary. The Chinook life stages that are most greatly affected are pre-spawning adults, incubating

eggs, and emergent fry. The primary environmental attributes that degrade channel stability, habitat diversity, and key habitat quantity for those life stages include increases in the channel gradient due to channel straightening, loss of off-channel habitat, loss of riparian habitat quality, and loss of large woody debris (LWD). These habitat degradations are all associated with levees and other hydromodifications that have reduced the river's access to its floodplain. Pierce County has adopted a strategy of levee setback projects and oxbow reconnections in the Puyallup and Carbon Rivers to reconnect the floodplain and allow channel sinuosity and reduction of channel gradient, the creation of off-channel habitat, and improved large woody debris recruitment.

EDT scenario modeling corroborates our understanding of the benefits of levee setback projects. The type of actions, taken as a group, that produced the greatest increases in abundance for both chinook and coho was levee setbacks. The same group produced the greatest increase in productivity for chinook.

Puyallup estuary, Commencement Bay, and Nearshore habitat improvements will likely have a high benefit for Chinook. The EDT scenario modeling showed estuarine actions (as a group) produced the second highest increase in abundance for Chinook after levee setback projects (as a group).

Improving the diversion screens associated with the Electron Dam is also a high priority action for Puyallup River Fall Chinook. The mortality of smolts at the diversion screens is as much as 40% or higher. The EDT scenario modeling showed that improvement of the Electron Dam diversion screen was the top ranked action for Chinook population performance and second ranking action for combined Chinook and Coho population performance.

White River Priorities

EDT modeling was used to provide estimates of VSP parameters for White River Spring Chinook. The results of our modeling show that productivity for White River Spring Chinook is 1.4 recruits per spawner and a capacity of about 2500 adults. The tributaries with the highest productivity include Boise Creek, Clearwater Creek, Greenwater River, Huckleberry Creek, and West Fork White River.

The EDT modeling indicates that the major causes of low productivity and capacity in the White River system are the flow modifications, reduction of channel stability, habitat diversity, and key habitat quantity in the mainstem White River from Mud Mountain Dam downstream to the estuary. A high sediment load is also a concern in Clearwater Creek and Greenwater River. The Chinook life stages that are most greatly affected are pre-spawning adults, incubating eggs, and emergent fry. The primary environmental attributes that degrade channel stability, habitat diversity, and key habitat quantity for those life stages include increases in the channel gradient due to channel straightening, loss of off-channel habitat, loss of riparian habitat quality, and loss of large woody debris.

Flow modifications are related to the management of Mud Mountain Dam and the Puget Sound Energy (PSE) diversion of flow to Lake Tapps.

EDT scenario modeling of actions downstream of Mud Mountain Dam indicated that changes in flow management at Mud Mountain Dam and at the PSE diversion to simulate a more natural flow regime would be highly effective in restoring productivity, abundance, and life history diversity. In addition, mainstem levee setback projects, estuary restoration projects, and Boise Creek riparian revegetation and LWD placement projects would provide substantial improvement in all VSP parameters. Modeled actions upstream of Mud Mountain Dam that showed high benefit to Chinook populations include projects on the Greenwater River and Huckleberry Creek that increase LWD, improve riparian conditions, and address sediment supply sources.

In addition to Chinook benefits, these scenarios showed substantial benefits to coho. Bull Trout and Steelhead were not included in our EDT modeling efforts; however, it is likely that these species would also benefit significantly from these actions.

Chambers-Clover Creek Priorities

The EDT analysis suggests that Chambers/Clover was, and still is, a highly productive watershed for coho. Historic production potential exceeded 12,000 with a productivity of about 36 recruits per spawner, the highest productivity of the four watersheds analyzed (Chambers-Clover, Puyallup, White, and Hylebos). Currently, the system supports about 700 adults with a productivity of about 7.8 recruits per spawner. High natural productivity of this system is related to the abundance of groundwater and the number of lakes and ponds able to be used by juvenile coho. However, life history diversity has been reduced substantially from historic level. Top priorities for restoring environmental factors are habitat diversity and flow conditions in Steilacoom Lake, lower Clover Creek, and Chambers mainstem (among other reaches). Loss of habitat quantity has been severe in some areas related to flow changes. Furthermore, barriers to fish migration, either for adults or juveniles, exist in several areas. The most significant barriers include Shera's falls on Clover Creek, Breseman Forest dam on Spanaway Creek, and the dam at Morey Creek pond.

Questions exist about whether the Chambers-Clover Creek system historically supported chinook due to its small size and not being directly associated with a large mainstem river. Based solely on EDT modeling results, VSP parameter values suggest that chinook might have used the lower portions of the stream historically with a population abundance of over 2000 adults. Furthermore, modeling results indicate that under current conditions it may be able to support a small population of about 350 with a productivity of about 6.3 recruits per spawner. Currently, both marked and unmarked Chinook are trapped in Chambers Bay for use at the Garrison Springs Hatchery facility, and there are no plans to begin allowing Chinook passage above the trap. Other salmonid

species are allowed above the Chambers Bay dam, including coho, chum, and steelhead. The top areas with both restoration and protection benefit for Chinook are mainstem Chambers Creek and Chambers Bay. The top ranked factor for restoration is habitat diversity, which relates to low levels of LWD and low riparian quality in some areas.

H-Integration Priorities

In addition to the role of habitat actions in salmon recovery, the EDT modeling results provided us insight into the role of hatcheries in the WRIA 10 system. First, the overall performance of Chinook in the Puyallup-White system appears to be exceptionally poor. It is likely that hatchery production in the system tends to produce an impression that Chinook performance is better than it actually is due to straying and the natural production that comes from those strays. It has become increasingly evident in recent years that significant straying is occurring within the system by hatchery fish. In the upper White River supplementation with hatchery fish could be interpreted to mean that the runs back to that area are relatively healthy. Second, for the foreseeable future hatchery production should continue to be given a role in the Puyallup-White basin. We believe this to be vitally important in the White River system using supplementation fish from the White River hatchery. On the Puyallup River, it appears that hatchery production will also be important to help maintain natural production until more progress is made in habitat restoration. However, hatchery practices will need to be reformed to more directly address how hatchery fish can be used to effectively supplement natural production in this area. And finally, the results demonstrate that use of habitat measures alone, even conducted on a very extensive scale, is unlikely to achieve desired fish production levels in this basin in the near term.

In their critique of the draft Puyallup-White chapter, the TRT identified three primary concerns with the Puyallup-White Chinook Recovery Chapter.

- Failure to identify and adopt recovery goals. (The TRT identified planning targets for the Puyallup but not for the White).
- Failure to integrate habitat, hatchery, and harvest management.
- Failure to develop an adaptive management plan.

To address the concerns of the TRT, the Puyallup tribe, WDFW, and Pierce County have recently initiated H-integration scenario modeling using the All H Analyzer (AHA) Model. The outcome of the integration effort will be to identify goals for habitat, harvest, and hatchery management, and to develop a robust adaptive management plan to assess our efforts at recovery. Preliminary modeling efforts have indicated that improving natural Chinook productivity in the Puyallup mainstem from 0.8 to 2.0 recruits per spawner (or better) is a key goal for habitat restoration. There has not yet been an H-integration effort initiated for White River Spring Chinook; however, we are hopeful that such efforts will begin soon, and are committed to helping develop such efforts.

Narrative for Suites of Actions

The previous summary of watershed strategy and recovery priorities has provided the context for the list of actions included in attached spreadsheet, *Three-Year Watershed Implementation Priorities for Watersheds 12 and 10*. We have grouped the list into suites of actions that address specific recovery priorities.

Floodplain reconnection, levee setback, and riparian habitat improvements:

- Puyallup/White/Carbon Mainstem Acquisition for setback levees
- Puyallup/White/Carbon Setback Levee construction
- County line setback levee project
- TransCanada setback levee
- White River land acquisition - protection
- White River acquisitions - setback levees
- East Hylebos Ravine Streambed Stabilization
- West Hylebos acquisition
- Terille – property
- North Canyon and Stewart Road

Estuary, Commencement Bay, and Nearshore restoration:

- Nearshore Eelgrass
- Nearshore sediment remediation and Buried wood
- Acquisition Nearshore restoration
- Nearshore restoration
- Restoration - Hylebos mouth
- OVRA Triangle - Commencement Bay
- Ruston Way Property - Commencement Bay
- Hauff Property acquisition and restoration – Estuary
- Jordan Property
- Marine nearshore - pocket estuary project
- Nearshore restoration - Expansion of Go-Gle-Hi-Te
- Swan Creek restoration
- CHB – toxic
- CHB - Bay Watcher

Sediment load, LWD, and riparian condition in Upper White River tributaries:

- Greenwater LWD
- Upper White - Greenwater/Huckleberry Creek - road decommission
- White River Watershed Stewardship Program

Electron Dam diversion screen improvements:

- Electron Dam Screening Installation

Protection and restoration of South Prairie Creek:

- South Prairie Creek Acquisition
- South Prairie Creek fish passage

Protection and restoration of Boise Creek:

- Boise Creek Falls fish passage

Chambers-Clover Creek barrier removal:

- Morey Pond
- Shera's Falls

Programmatic habitat restoration and protection actions:

- Shoreline Program updates
- Technical Support to other jurisdictions
- Public Outreach - on specifics projects
- Communication/ Public outreach coordinating regional efforts

H-Integration and Adaptive Management:

- LWD mitigation - Mud Mountain Dam
- Fish production project - augmentation - White River spring – steelhead
- Smolt trapping –Puyallup
- Fish tagging - for tracking of Chinook
- Smolt trapping - White River
- Voights Creek Hatchery - Upgrade ponds
- Voights Creek Hatchery - add a rack
- Mud Mountain Dam mortality study
- Update regional Culvert Study

Partial List of References Specific to Pierce County Watersheds Used in Developing the Habitat Recovery Strategy

Concurrent Technologies Corporation (CTC). 2000. Kitsap Peninsula salmonid refugia study. Concurrent Technologies Corporation.

Collier, T. K., Johnson, L. L., Meyers, M. S., Stehr, C. M., Krahn, M. M., and Stein, J. E. 1998. Fish injury in the Hylebos Waterway in Commencement Bay, Washington. U.S. Department of Commerce. NOAA Technical Memorandum NMFS-NWFSC-36.

Graeber, William. 1999. Draft Puyallup River delta estuary landscape restoration plan: an estuary wide ecological assessment and decision making framework for long-term ecosystem restoration and protection within the context of an emerging salmon recovery regime. Unpublished document. Washington Department of Natural Resources, Olympia, WA.

Kerwin, J. 1999. Salmon habitat limiting factors. Water Resource Inventory Area 10. Washington State Conservation Commission, Olympia, WA.

Ladley, R. and Smith, B. 1998. Migratory behavior of chinook salmon in the lower Puyallup and White rivers. Available from Puyallup Tribal Fisheries, Puyallup, WA.

Mastin, M. C. 1998. Flood potential of South Prairie Creek, Pierce County, Washington. U.S. Geological Survey. Water-Resources Investigations Report 98-4009.

Muckleshoot Indian Tribe, Puyallup Tribe of Indians, and Washington Department of Fish and Wildlife. 1996. Recovery plan for White River spring chinook salmon. Report. Available from Washington Department of Fish and Wildlife, Olympia, WA.

Pacific International Engineering. Salmon life history report. Draft report prepared for Port of Tacoma. Pacific International Engineering,

Pacific International Engineering. 1999. Milwaukee habitat area juvenile salmon utilization study, 1999. Draft report prepared for Port of Tacoma. Sitcum Waterway Remedication Project. Pacific International Engineering, Tacoma, WA.

Pacific International Engineering. 2000. Clear Creek habit monitoring report, 1999. Draft Report prepared for Port of Tacoma. Sitcum Waterway Remediation Project. Pacific International Engineering, Tacoma, WA.

Pierce County. 1999. Pierce County Endangered Species Act response executive summary.

Pierce County Water Programs. 2000. Gig Harbor Basin study characterization report. Draft Report.

Port of Tacoma and Puyallup Tribe of Indians. 1999. Commencement Bay juvenile salmonid sampling: 1980-1995. Data compilation by Pacific International Engineering for Port of Tacoma.

R2 Resource Consultants. 1999. Pierce County Endangered Species Act Response, Appendix A-D, Salmon Habitat Conditions Review. Report.

Salo, E. and Bayliff, W. 1958. Artificial and natural production of silver salmon, *Oncorhynchus kisutch*, at Minter Creek, Washington. Research bulletin 4. Report. Washington Department of Fisheries, Olympia, Washington.

Simenstad, Charles A. 2000. Commencement bay aquatic ecosystem assessment: ecosystem-scale restoration for juvenile salmon recovery. Unpublished report prepared for City of Tacoma, Washington Department of Natural Resources, and U.S. Environmental Protection Agency. Tacoma, Wa.

Tetra Tech/KCM, Inc. 2000. City of Auburn 2000 comprehensive drainage plan. Report.

Tri-County. 2000. Draft Tri-County Watershed Assessment Framework.

Tri-County Executive Committee. 1999. Tri-County Endangered Species Act response work plan. Report.

Washington Department of Fish and Wildlife. 1998. 1998 Washington Salmonid Stock Inventory--Appendix Bull Trout and Dolly Varden. Washington Department of Fish and Wildlife, Olympia, WA.

Washington Department of Fish and Wildlife. 1998. WDF catch-escapement run size calculation summary: Puget Sound escapement estimates. Report. http://www.nwifc.wa.gov/release data.

Washington Department of Fish and Wildlife. 2000. 1998/1999 final hatchery escapement & broodstock report. WDFW, Olympia, WA.

Washington Department of Fish and Wildlife. 2000. Final Bull Trout and Dolly Varden management plan. Report. WDFW, Olympia, WA.

Washington State Conservation Commission (WCC). 2001. Salmon and steelhead habitat limiting factors water resource inventory, area 15, East Kitsap watershed, November 2000.

Williams, Walter R., Laramie, Richard M., and Ames, James J. 1975. A catalog of Washington streams and salmon utilization: volume 1 Puget Sound region. Report. Washington Department of Fisheries, Olympia, WA.

Three-Year Watershed Implementation Priorities for Watersheds 12 and 10
CLOVER/CHAMBER AND PUYALLUP/WHITE WATERSHEDS

								2007		2008		2009	
Priority Tier	**Action**	**Likely sponsor**	**Project/program status**	**Total cost of first three years**	**SRFB (or grant) share**	**Local share or other funding**	**Source of other funds**	**Year 1 Scope**	**Year 1 Cost**	**Year 2 Scope**	**Year 2 Cost**	**Year 3 Scope**	**Year 3 Cost**
Capital projects and programs													
	Nearshore Eelgrass - Working with U of W and UPS scientist to test eel grass restoration methods. This project would take the results of the pilot project and apply them to additional nearshore areas within the two watersheds.	Pierce Conservation or Pierce County		**$400,000**									
	Nearshore sediment remediation and buried wood removal - Removal of debris in Commencement Bay at Puget Creek Estuary. Wood chips Inhibit the growth of eelgrass - This area is one highlighted as a restoration opportunity using the EDT modeling	Pierce County/DNR/ Puget Creek Restoration		**$500,000**		$150,000							
	Acquisition Nearshore restoration - In Commencement Bay in front of Marine View Drive. Create intertidal habitat adjacent to the Trustee's area. Foss Log storage - $50K per acre	Port of Tacoma		**$1,000,000**									
	Rearing Pond - Puget Creek - rearing pond for close to estuary	Puget Creek Restoration		**$100,000**									
	Nearshore restoration - NRDA alernative site. Mitigation - Construction of 2 acre restoration area. Located on the Hylebos Creek - tidal influence	Port/Tacoma		**$1,000,000**			*Trustees*						
	Restoration - Hylebos Mouth - restoration of property owned by State of Washington. Creation of estuary habitat.	Friends of the Hylebos		**$500,000**									
	Hauff Property restoration - Off channel habitat, evaluation of site conditions, clean up site of , revegetation - Priority area in the estuary. Mouth of Hylebos Creek	Friends of the Hylebos		**$350,000**									
	Hauff Property acquisition - Estuary at mouth of Hylebos close to Port/Tacoma restoration site - across the creek - 6.28 acres	Friends of the Hylebos		**$450,000**									
	OVRA Triangle - Commencement Bay - tip of Foss and Middle waterways salt marsh habitat - currently upland - deciding mouth open to Bay or Foss waterway - on DNR property (Olympic View Resorce area) Eel grass on bay side - Tim Goodman	DNR		**$1,500,000**									
	Ruston Way Property - Commencement Bay - off channel habitat - acquistion and Restoration	Tacoma	Under review	**$900,000**									
	Marine nearshore - pocket estuary project - Based on the results of the Nearshore Assessment currently underway. Chambers Bay or Sequalichew area are examples Allow sediment transport	SPSSEG		**$1,500,000**									
	West Hylebos acquisition - Completes the purchase , preservation, and restoration of the remaining properties detailed in the recovery strategy. This project is on that benefits coho and Chinook. It will bring the total of this restoration action to approximately 35 acres of the most productive habitat on this fork of the Hylebos. Benefits Chinook and coho.	Friends of the Hylebos		**$1,500,000**									
	East Hylebos Ravine - Extends the habitat restoration actions just north of the West Hylebos Park (located on the east fork). Stream bank stabilization in the most productive area on the East Fork fork of the Hylebos. Benefits Chinook and coho.	Friends of the Hylebos		**$750,000**									
	Swan Creek restoration channel geom at Pioneer Way -High potential for restoration according to modelling by EDT - Sediment detention pond upstream.	Unknown		**$400,000**									
	Terille property - across from Puyallup hatchery by WSU - Puyallup - acquisition and restoration - 40 acres - Woodland/Clark/Diru	Pierce County		**$300,000**									
	Puyallup/White/Carbon Mainstem Acquisition for setback levees Establish reserve/preserve/refugia for most high value habitat reach (EDT reaches - Downstream White and from Orting): Acquire through outright purchase or easement a functional-width corridor along the river; Basically allow all natural stream/habitat functions to flourish. Provide a target location for restoration activities. Floodplain reconnection and	Pierce County/ Conservation District		**$6,500,000**										
	Puyallup/White/Carbon Setback Levee construction Re-connect the floodplain to the river channel and associated side channel and wetland systems.: Construct approximately 6,000 lin-ft of setback levee, remove existing levee system and acquire land parcels. point to this on a map on th narrative - Talk about the study that is ongoing	Pierce County/ Conservation District		**$8,000,000**										
	South Prairie Creek Acquisition - S-8.0 – Establish reserve/preserve/refugia for most high value habitat reach: Acquire through outright purchase or easement a functional-width corridor along the creek. Basically allow all natural stream/habitat functions to flourish. Provide a target location for restoration activities. Assumes two purchsaes for each year	Conservation District/Pierce County/ Cascade Land Conservancy (CLC)	awaiting funding	**$1,800,000**										
	South Prairie Creek fish passage - at RM 15.4 "natural falls"	SPSSEG		**$500,000**									
	Smolt trapping -Puyallup - $150000 per year - includes mannng site	Puyallup Tribe		**$450,000**									
	Electron Dam Screening Installation of Fish Screens at Diversion: Provide inclined floor screen structure on flume, similar to W.R. facility.	SPSSEG/Puyallup Tribe		**$1,500,000**									
	Morey Pond - on McChord Airforce Base - fish passage project benefits primarily coho - one of three project on the entire reach Clover Creek	Unknown		**$400,000**									
	Shera's Falls - second of three projects on Clover Creek reach - Existing monies expire	Unknown		**$200,000**									
	Boise Creek Falls fish passage - RM 4.0 artificial barrier during construction of 410 - drill and blast	SPSSEG		**$500,000**									
	White River land acquisition - 2500 acres - 10-12 miles of river edge - cite biodiversity study	CLC/Pierce County		########			IAC, Pierce County						
	Nearshore restoration - estuary Monitoring - Expansion of Go-Gle-Hi-Te - doubles the size	Port of Tacoma		########									
	TransCanada setback levee - Levee setback and levee breech - Williams pipeline area mitigation. Removal of levee on King County owned property	King		**$2,000,000**									
	Greenwater LWD - Placement of several LWD structures (mostly jams) throughout Greenwater mainstem and some tributaries: LWD structure placement. $50K/jam * 20 jams.	South Puget Sound Salmon Enhancement Group (SPSSG)	AWAITING FUNDING	**$465,000**	$330,000	15 PERCENT							
	Voights Creek Hatchery - Upgrade ponds for high flow events - sweeps through the hatchery into the creek	WDFW - RAC		**$250,000**									

	Voights Creek Hatchery - add a rack recommended by HSRG - affects Chinook, coho, steelhead	WDFW - RAC		**$50,000**										
	Upper White - Greenwater / Huckleberry Creek - road decommission - Roads in floodplainsDecommission roads that are not found to be necessary for administrative uses by the FS and are a threat to aquatic resources.: Decommissioning roads can include full slope recontouring, outsloping, drainage structure removal, water-barring, road-bed ripping, revegetation, etc. Decommission roads that are not found to be necessary for administrative uses by the FS and are a threat to aquatic resources.: Decommissioning roads can include full slope recontouring, outsloping, drainage structure removal, water-barring, road-bed ripping, revegetation, etc. $15K/mile as much as 100 miles. Access and travel management plan.	USFS/SPSSEG		**$1,500,000**									
	LWD mitigation - Mud Mtn Dam - working with the Corps for retention of LWD. Storage and transport of wood. Collected at the dam and then placed using 410 access. Part of Corps' annual maintenance program	Corps/Puyallup Tribe		**$750,000**									
				*******	***$330,000***	***$150,000***		***Total year 1 need***	***$0***	***Total year 2 need***	***$0***	***Total year 3 need***	***$0***
Non-capital needs													
	Mud Mtn Dam mortality study - assessing the survival of adult and jev through mountain dam	Corps		**$250,000**									
	Shoreline Program updates - will allow early adoption of updated shoreline programs. Currently Pierce County jurisdicitons are not required to update until 2015	Local Governments		**$800,000**									
	Technical Support - Provide access to state and local agency resources for better coordination and integration of plan components	Pierce County		**$70,000**									
	Greenwater LWD - study Placement of several LWD structures (mostly jams) throughout Greenwater mainstem and some tributaries: LWD	SPSSEG		**$80,000**									
	CHB - pollution hotline - Consolidated hotline for reporting potential toxic problems. Follow up and correction of issues results from the calls	Citizens for a Healthy Bay		**$30,000**									
	White River Watershed Stewardship Program - enforcement, education, engineering (according to Forest Plan) dos and don'ts on recreation in habitat	USFS		**$90,000**									
	CHB - Bay Watcher Weekly on the water patrols cover entire Commencement Bay shoreline. Also weekly foot patrol to specific hot spots or outfalls - $20K per year	Citizens for a Healthy Bay		**$60,000**									
	Fish production project - augmentation - White River spring Chinook and steelhead - $60K per year	Various		**$180,000**									
	Smolt trapping - Puyallup River - $150000 per year - includes man on site			**$450,000**									
	Smolt trapping - White River - $150000 per year - includes man on site	Tribes		**$450,000**									
	Fish tagging - for tracking of Chinook - trapping and tagging salmonid smolts for monitoring distribution and habitat usage and timing (POST tag)	Tribes		**$90,000**									
	Update regional Culvert Study - Re-evaluate the system to check on work done since the original study was completed - function of those removed and	Conservation District		**$250,000**									
	Commuications / Public outreach support - technical help to coordinate public education and outreach between the numerous agencies and organizations working in the watersheds. A significant effort would be placed in web-based access to actions, opportunities and goals.	Pierce County		**$80,000**									
	Public Outreach - on specifics restoration actions	Various		**$30,000**									
Priority projec													
				*******	***$0***								