

**DRAFT**  
**2010 Three Year Work Program Update**  
**Narrative to South Sound Watersheds**  
**Three-Year Project List**

Introduction

For the purposes of recovery and sustainability planning “South Sound” is defined as that area of Puget Sound south of the Tacoma Narrows that includes the marine, near-shore, estuaries, and freshwater environments. This area includes: all of WRIA’s 11, 13, and 14, and portions of WRIA’s 10/12 and 15; portions of Kitsap, Mason, Pierce and Thurston Counties as well as numerous cities and municipalities. The South Sound also includes portions of the usual and accustomed areas for the Nisqually, Puyallup, and Squaxin Island Tribes.

The South Sound Salmon Recovery Group (SSSRG) is a local planning group consisting of members from Kitsap, Mason, Pierce and Thurston Counties, the Nisqually, Puyallup and Squaxin Island Tribes, WRIA’s 10/12, 11, 13, 14, and 15, the South Puget Sound Salmon Enhancement Group, and the Washington Department of Fish and Wildlife. The goal of this group is to coordinate protection and restoration efforts in South Sound concerning salmon populations.

The South Sound Salmon Technical Team consists of representatives from Pierce and Thurston Counties, the Nisqually and Squaxin Island tribes, the Washington Department of Fish and Wildlife, and the South Sound Salmon Enhancement Group. This group provides input at a technical level for South Sound salmonid issues and coordinates with the technical teams of the various WRIA’s and State and Federal agencies.

The SSSRG plans to coordinate with the proposed South Sound Local Integrating Organization, which is currently being developed by South Sound counties, tribes and other local entities. The proposed organization will be responsible for prioritizing and implementing local Action Agenda strategies for the South Sound Action Area, including salmon recovery actions. The SSSRG will work with the Local Integrating Organization on the implementation of the South Sound Salmon Recovery Chapter.

The goal of the SSSRG is to use an ecosystem-based, multi-species approach to restore all salmonid species in the South Sound to a sustainable, harvestable level by ensuring that there are properly functioning near-shore and freshwater habitats that serve their spawning, rearing, refuge, feeding, physiological transition, and migratory needs.

The South Sound Chinook and Bull Trout Recovery plan addresses near-shore habitat south of the Tacoma Narrows. The SSSRG continues to refine the document by adding additional levels of detail and producing new tools to select and prioritize nearshore projects. The South Sound Recovery Plan identified and addressed the following human- induced stressors that are contributing to the status of the salmon in the nearshore and the hypothesized effect on the Viable Salmonid Population:

- Shoreline Armoring
- Overwater Structures and Ramps
- Stormwater and wastewater
- Riparian Loss
- Wetland and Estuarine Modification
- Boat Traffic
- Invasive Species
- Shellfish Aquaculture

### Three-Year Work Program Questions

#### ***Consistency***

- 1. What are the actions and/or suites of actions needed for the next three years to implement your salmon recovery chapter as part of the regional recovery effort?**

The SSSRG considers that the recovery and sustainability of all salmonid species is a high priority. In an effort to prioritize projects, the SSSRG has hypothesized that actions in the WRIA 11 freshwater as well as the marine nearshore of all of the WRIA's will have the greatest benefit to recover and sustain Chinook populations while benefiting other salmonid species as well.

The submitted 3 year list for South Sound represents the highest priority projects for the respective WRIA's as identified by modeling, strategies, and limiting factors assessments.

### **Watershed Specific Actions/Suites of Actions Needed**

#### ***WRIA 13 and 14:***

Within the Lead Entities in WRIA's 13 and 14, the technical advisory group (TAG) have utilized the 2007-09 5% capacity funds over the last year to develop a GIS-based project selection tool to begin the work of prioritizing the nearshore areas contained within each. Both Lead Entities have historically rated the entire nearshore as a high priority for listed and unlisted stocks due to a lack of information available for discussion. Now, with the completion of several assessments and scientific data gathering, the necessary information could be compiled into an interactive tool developed collaboratively and housed within the GIS capabilities of the Squaxin Island Tribe. From that work, we now utilize the Juvenile Salmonid Nearshore Project Selection Tool. Initially we found the top 20%

of the nearshore areas ideal for restoration and the top 20% for conservation. While this helps to set parameters, it does not get us entirely to the point of prioritizing areas and project types, down to specific projects.

The next step we undertook was to spend several days going through the entire nearshore of both WRIA's using the tool and the expertise of the TAG to further narrow down nearshore areas for focused effort. This second step represents a vast amount of knowledge and information, truly an extensive update directly to the WRIA 13 and 14 portions of the Chinook Recovery Chapter for South Sound. But still contained within this information were areas that, for example, may be a high priority for conservation but are highly parcelized, presenting a formidable challenge towards the goal of conservation. We have captured that important information, and then taken a third step in deciding to focus on areas that, for example, are high priorities for conservation or restoration *and* are large multi-acre parcels in single or dual ownership. In this way, we can focus the efforts of project sponsors to develop highly beneficial, strategic projects. These projects are the new additions or slight modifications presented within the WRIA 13 and 14 3-year-work-program.

The TAG continues this nearshore discussion, and in the next year, will have an even more focused strategy for restoring and conserving the nearshore of WRIA's 13 and 14, focused on what specific actions are necessary for recovery. Currently, the discussion focuses on restoring and protecting pocket estuaries; and conserving high priority sediment sources. This is still very preliminary, needing more discussion and consensus from the entire Lead Entity committees.

Protecting the nearshore areas of WRIA's 13 and 14 remains economically viable, particularly in WRIA 14, where much of the nearshore is intact or requires little restoration for full function. Incorporating the new information contained within the tool and the TAG, and then investing in the capacity of existing project sponsors to develop relationships on the ground that lead directly to projects have been and will continue to be a worthy use of capacity funds. This tremendous advancement in the prioritizing efforts within the two Lead Entities could not have happened without outside investment, in this case, the PSAR funds.

Some of the projects included within the matrix are freshwater activities. Each Lead Entity has chosen several watersheds to concentrate efforts within, in an approach that begins at the headwaters and continues down to the estuaries. We understand the health of the entire watershed affects the health of the estuary, the inlet and the Sound. It is this reason why we have chosen to include these larger areas that support both listed and unlisted species.

Even with the extensive work, protection and restoration occurring in WRIA's 13 and 14, our efforts are not enough to counteract the effects of development. We have been extremely successful leveraging our modest allocation to perform estuary restorations and conservations, for example. In the absence of additional funding streams, we have begun working with the local jurisdictions as they develop

updates to the existing Shoreline Master Program, in an effort to provide a regulatory backstop for habitat degradation. The Lead Entity in WRIA 13 is working with Thurston County to provide landowners incentives against conventional shoreline armoring and will partner with the County and the South Puget Sound Salmon Enhancement Group in an EPA grant that will provide cost-share for landowners willing to remove existing structures and replace them with bioengineered alternatives. The Lead Entity is working to impel landowners make the right biological choice that also benefits their property, their lifestyle and the health of Puget Sound.

There are efforts that are addressing water quality, stormwater, and other stressors identified in the chapter, but are not included in the 3-year action list. For example, the City of Shelton is building a denitrification plant to reduce nitrogen pollution from their sewage treatment facility. The reduction in nitrogen will help address the low dissolved oxygen problem described in the recovery chapter. In addition, the Squaxin Island Tribe has completed a 100% water reuse facility to address water quality and conservation concerns. When we develop a strategy we will be able to identify which of these efforts are addressing salmon recovery needs, and then identify gaps in implementation.

**WRIA 11:**

Protection and restoration of the estuary is still the highest priority for Nisqually Salmon recovery. Even with the *Nisqually Refuge Estuary Restoration* of over 760 acres and the Nisqually Tribe's *Red Salmon Slough (RSS)* restoration work, restoration of the rest of the historical estuary is still ranked above any restoration areas by the model. Both those projects are still in progress and the *Estuary Restoration Monitoring* of the projects is critical to our ability to evaluate the effectiveness of this work. One monitoring result, so far, has shown the low connectivity of the entire Red Salmon Slough area to the Nisqually Reach and river due to some remnant dikes. The *RSS Phase 3 Project* will remove those remnant dikes and increase the water, sediment and biota exchange between those areas. The areas that are left that included historical estuary but now are converted are mostly in the historical forested salt/freshwater transitional areas on the upstream side of Interstate 5. Restoring those historical areas would be a major undertaking that could involve reclaiming developed areas and removing or opening up the Interstate 5 fill which acts as a large cross valley dike. The impacts, benefits and feasibility of such a project would be investigated through the *I-5 Fill removal feasibility analysis* which is proposed within the next 3 years.

Protection of the estuary is now more important than ever, since several hundred acres are now accessible to juvenile salmonids. Fortunately most of the areas are in protected ownership, i.e. Nisqually Wildlife Refuge and Nisqually Indian Tribe's Braget Marsh. Some smaller areas are not, and the *Lower Nisqually Mainstem/McAllister ck. Acquisition project* is focused on securing those last remaining intact areas in the estuary and lower Nisqually mainstem, but also securing degraded areas to make them available for restoration.

2010 Estuary Protection and Restoration Projects:

Nisqually Refuge Estuary Restoration 760 acre completion	-in progress, near completion
Red Salmon Slough Restoration Phase 3	-planned for 2010
I-5 Fill removal feasibility analysis	-conceptual
Estuary Restoration Monitoring	-in progress
Lower Nisqually Mainstem/McAllister Ck. Acquisition	-conceptual

**Restoration of Puget Sound Shorelines**

Projects that are located within South Puget Sound i.e. downstream of Tacoma Narrows and east of Johnson Point, are identified in the Nisqually 3-year workplan, even though the location of the projects falls in adjacent watersheds' 3-year workplan, because the projects are significant to migrating Nisqually salmon. The EDT analysis identified South Sound, Central Sound, and the Nisqually and Commencement Bays as high priority areas for restoration. Due to extensive development activities over the last century on many of the Puget Sound shorelines, many key nearshore processes have been significantly degraded or lost. Impairments to habitat forming processes on the shoreline include: reduced sediment input and transport, loss of riparian fringe habitat, reduced estuarine area and connectivity, filling over of upper intertidal beaches and degradation of water quality due to introduction of contaminants. There are several discrete areas along these shorelines where such habitat and process impairments might be addressed through restoration or enhancement. Conversely, there are a few discrete areas, where habitat features still exist to support salmonids; these areas should be protected.

The ***Nisqually to Pt. Defiance Nearshore Assessment Project*** identifies those restoration and protection projects such as the ***Ketron Island Protection Project*** which would protect some of the last intact shoreline between the Nisqually and Point Defiance. Most projects in the plan address one or more of the lost nearshore processes. The ***Beachcrest Pocket Estuary Restoration, Titlow Estuary Restoration***, and the ***Sequalitchew Estuarine Restoration Design*** address lost small estuaries along the shorelines. The ***Chambers Bay Estuarine and Riparian Enhancement*** project addresses both, the estuarine and riparian processes within Chambers Bay. Sediment transport and beach habitat are addressed in the: ***Chambers Beach Reconstruction and Riparian Enhancement, East Nisqually Reach Beach Nourishment Pilot, Filucy Bay Bulkhead Removal, VonGeldern Cove Bulkhead Removal, and Penrose Point Bulkhead Removal*** Projects. The ***Nisqually to Pt. Defiance Nearshore Restoration Project*** is a placeholder for a substantial project to address the effects of the railroad on the shoreline.

2010 Nisqually priority nearshore restoration projects:

WRIA 13:	
Beachcrest Pocket Estuary Restoration	-in progress
WRIA 12:	

Nisqually to Pt. Defiance Nearshore Assessment Project	- completed
Nisqually to Pt. Defiance Nearshore Restoration Project	-feasibility completed
Sequalitchew Estuarine Restoration Design	-feasibility completed
Chambers Bay Estuarine and Riparian Enhancement	-feasibility completed
Chambers Beach Reconstruction and Riparian Enh.	-feasibility completed
East Nisqually Reach Beach Nourishment Pilot	-feasibility completed
Titlow Estuary Restoration	-design in progress
<b>WRIA 15:</b>	
Ketron Island Protection Project	-conceptual
Filucy Bay Bulkhead Removal	-feasibility in progress
VonGeldern Cove Bulkhead Removal	-feasibility in progress
Penrose Point Bulkhead Removal	-feasibility in progress

**WRIA 10/12:**

The WRIA 10/12 Lead Entity has identified high priority actions to recovery Chinook in the Puyallup-White and Chambers-Clover Creek watersheds. Although most of the priority actions are located in the Puyallup and White Rivers and their tributaries outside of the South Sound area, restoration of marine shoreline habitats in WRIA 10 and 12 will be of great benefit for multiple stocks of Chinook salmon, including White River Spring Chinook, Puyallup Fall Chinook, and Nisqually Fall Chinook.

**WRIA 15:**

The primary hypothesis that forms the basis for the suites of actions proposed in this update for the West Sound Watersheds Lead Entity is that the **nearshore habitat is the highest priority for investment**. Most of the projects and programs proposed in the next three years are targeted at protecting or restoring quality nearshore habitat. Additionally we intend to extend our documentation of existing freshwater ecosystems through the water typing in selected South Sound streams.

The lead entity also plans to engage the Washington Dept. of Fish and Wildlife’s Minter Creek Hatchery program staff in the planning and execution of habitat protection and restoration activities.

**South Sound-Wide Actions/Suites of Actions Needed**

**H-Integration:** There has been no new progress toward H-Integration for Chinook in the South Puget Sound marine waters. There has been progress in freshwater areas such as the Nisqually River. H-Integration typically addresses genetic impacts of harvest and hatcheries, e.g., changes to the ratio of hatchery-origin and natural-origin salmon on the spawning grounds. In marine waters H-Integration needs to focus on ecological interactions such as competition, predation, and life history characteristics. Unfortunately, the planning and modeling tools for H-Integration in marine waters are not available or are not well developed. There has been progress in H-Integration in marine waters for coho salmon. The Squaxin Island Tribe has altered its harvest management to focus tribal harvest on hatchery coho by not

allowing fishing in fresh water and closing the inlets to harvest during the coho management season. This has resulted in a Tribal harvest for coho that averages 3.1% for non-marked (presumably natural) fish.

**Adaptive Management:** We have not developed an Adaptive Management Plan for the marine waters of South Sound. However, the writing of the adaptive management plan for the Nisqually River system is underway. Preliminary discussions on the development of a South Sound Adaptive Management Plan have been had by members of the technical group and it was decided to begin this process once the Nisqually River plan has been produced. We plan to coordinate with the RITT-led AMM process when it is scheduled.

**Sequencing:**

We have not developed an accepted strategy for sequencing projects among the WRIA's. We have five different Lead Entity strategies that identify goals, actions, and suites of actions to implement the salmon recovery chapter. However, there is no overarching, integrated strategy for addressing the stressors identified in the recovery chapter. In WRIA 13 and 14 a first attempt at this is the newly developed nearshore project selection tool, which is designed to provide information on areas where projects are hypothesized to have the greatest benefit as well as provide a geographic context for project selection that should aid in sequencing. It is our intention in the future as we develop our organizational structure to create a comprehensive strategic approach to South Sound nearshore habitat protection and restoration.

Regulatory updates are underway in the South Sound, including Critical Areas Ordinance updates in Thurston County, and Shoreline Master Program updates in Thurston, Pierce, Kitsap, and Mason Counties, and the Cities of Lacey, Olympia, Tacoma, and others. Each of the South Sound Lead Entities has participants who track the SMP updates and advocate for salmon recovery consideration.

Outreach regarding salmon and ecosystem recovery is an important and ongoing need. Currently, there are multiple outreach efforts South Sound-wide, such as the South Sound Science Symposium, EcoNet, Lead Entities, and other outreach efforts.

***Pace/Status***

**2. What is the status of actions underway per your recovery plan chapter?  
Is this on pace with the goals of your recovery plan?**

Actions as identified in the recovery plan and the three year list are being implemented. Due to funding constraints we are not on goal to meeting the sequencing implied by the three year list nor are we on goal to meet the pace identified in the recovery plan. We have not developed South Sound-wide goals for recovery, but each watershed has set goals for their portion of the South Sound.

## **Watershed Specific Actions/Suites of Actions Accomplished**

### ***WRIA 13 and 14:***

- WRIA 13 and 14 have worked towards prioritizing the nearshore areas.
- Working intensely in all of Eld Inlet to develop landowner relationships that lead to projects;

### ***WRIA 13:***

- Completed the removal a fish passage barrier at the mouth of Snyder creek on Eld Inlet, with tidal inundation and fish access to 1.5 miles of habitat;
- Completed work with St. Martins on Woodland Creek in Henderson Inlet to remove debris from the stream channel, revegetate the site and restore passage;
- Funded and have near complete designs on the McLane Estuary Shoreline Restoration and also the adjacent Allison Springs Estuary and Saltmarsh Restoration (a regionally significant project);
- DNR has completed the alternative analysis of Woodard Bay NAP;
- Restored a pocket estuary at Beachcrest, reconnecting fish passage and tidal influence to a spring-fed creek;
- Full designs for the East Bay Salt Marsh Restoration;
- Bringing to funding consideration LWD placement on the Deschutes, at rm ~21, after working with a landowner for three years;
- Funding towards a piece of the Budd to Henderson Connectivity project;
- The Port of Olympia is at the table discussing the removal and estuary restoration of the blockage at the mouth of Mission Creek;
- Deschutes River Wetland Enhancement Project has been proposed for consideration for the pre-capitalization dollars with the fee-in-lieu of mitigation program;
- Consultation with landowners at Little Fish Trap for a combination of fee simple and conservation easement on the site;
- Working with Thurston County of their SMP update. Providing examples of bioengineered alternatives and helping provide TC Commissioners the necessary information to support technical recommendations;

### ***WRIA 14:***

- Working intensely in the Goldsborough watershed and with the BNSF railroad to develop projects and landowner relations in that area;
- Landowner discussions on the Fudge Point Conservation and Restoration;
- Conservation nearly complete on the 133 acres at Twin Rivers – restoration of native vegetation begins in May;
- Extensive landowner negotiations that could lead to purchase by the fall of the Oakland Bay Habitat Protection project;
- Acquired 80 acres at the Totten Inlet Pocket Estuary project (project of regional significance);
- Continue to look for matching funds on Eagle Point Shoreline Acquisition;

- Acquire several parcels (70 acres total) within the Goldsborough creek watershed;
- Acquired 112 acres through the Harstene Island Acquisition (project of regional significance);
- Continue to work with willing landowner on the East Hammersley Inlet Project;
- Continue to work with willing landowners on the Johns creek headwaters conservation initiative;
- Continued progress with the water type assessment.

**WRIA 11:**

Restoration of 762 acres in the Nisqually Estuary by the Nisqually Wildlife Refuge is a significant accomplishment that was substantially completed in 2009.

**WRIA 10/12:**

In the WRIA 10/12 Lead Entity, the Nisqually to Pt. Defiance Nearshore Habitat Assessment is nearly complete. The assessment has identified numerous potential restoration and protection projects along the WRIA 12 shoreline. Seven nearshore habitat restoration projects are currently included on the WRIA 10/12 three-year list. The projects include:

- Titlow Estuary Restoration,
- Chambers Bay Estuarine and Riparian Enhancement,
- Chambers Beach Reconstruction and Riparian Enhancement,
- Sequalitchew Estuary Reconnection,
- Sequalitchew Creek Beach and Riparian Restoration
- Narrows and Sequalitchew-Steilacoom Feeder Bluff Reconnection
- Pocket Beach Enhancement/ Nourishment Pilot: Sequalitchew to Solo Point

**WRIA 15:**

The West Sound Watersheds Lead Entity was able to fully fund the SRFB request for acquisition of Devils Head at the southern point of the Key Peninsula, thanks to additional funding allocated from 3 of the 4 other South Sound lead entities. This pristine nearshore has been on the priority list for protection for many years, and will be acquired by Pierce County Parks and Recreation Services (original grant was proposed by the Cascade Land Conservancy). The cooperation and good will fostered by this sharing of financial resources for the greater South Sound is exemplary.

**South Sound-wide Actions/Suites of Actions Accomplished**

**Project Prioritization and Sequencing:** The RITT has identified the need for better refinement of the South Sound project prioritization and sequencing efforts. The South Sound Salmon Recovery Group has continued to use and refine two draft tools to assist in this regard.

1. Projects of Regional Significance – In 2009 we funded three Projects of Regional Significance: two in WRIA 14 and one in WRIA 15. The WRIA 14 projects were funded entirely by the WRIA 14 Lead Entity, and the WRIA 15 project (Devils Head Acquisition) received pooled funding from the other four Lead Entities. We use the project evaluation tool we developed in 2008 to distinguish Projects of Regional Significance and Projects of Local Significance. Projects are evaluated based on the degree of habitat stressor removed, the number of different habitat types that will be restored, and project readiness. Projects of Regional Significance are those that completely remove stressors impacting multiple habitat types, and are well developed and nearly ready for construction. Information is displayed in a matrix format that places projects in bins that can be used for prioritization.
2. WRIA 13 and 14 nearshore project selection tool – We continued to refine this GIS based model that illustrates high priority areas for restoration and conservation. In essence this is a refinement of the mapping exercise that was conducted for the Chinook and bull trout recovery document. A suite of beneficial habitat types are identified, mapped, and rated. These habitat types include: salt marsh, sub-tidal vegetation, eelgrass, forage fish spawning, pocket estuaries, and proximity to salmon bearing systems. Additionally, stressors have been mapped and rated including: armoring, docks, piers, and riparian loss. The product is a useful tool for prioritizing areas for restoration and conservation actions.

**Habitat Work Schedule:** The South Sound partners have committed to using the Habitat Work Schedule on-line database. Currently, all proposed and ongoing projects are being entered into the database. We are also committed to working with the Recreation and Conservation Office to modify the HWS so it will produce the three-year project list for the entire South Sound more easily.

**Improved Coordination:** There are overall programmatic or organizational needs to advance the coordinated South Sound salmon recovery effort. We are working together to identify a new organizational structure for South Sound salmon recovery implementation. We have well developed organizational structures for each of our Lead Entities, but we need to develop a structure for agreeing on a South Sound-wide strategy, and for coordinating salmon recovery efforts throughout the South Sound. In 2009, the SSSRG conducted two facilitated meetings to develop an organizational structure for the SSSRG and for coordination of our salmon recovery work. Progress was made in identifying potential options for a formal SSSRG structure, but more discussion is needed. Over the next year, the SSSRG will continue to discuss these options and will develop a formal organizational structure for South Sound salmon recovery efforts.

It is possible that the SSSRG will provide salmon recovery support for a Local Implementation Organization that will be focused on a broad array of issues important to the South Sound. The SSSRG plans to coordinate salmon recovery

actions with the proposed organization, which is currently being formed by the South Sound counties, tribes, and other local entities.

**Shoreline Master Program (SMP) Updates:** All counties and cities in the South Sound are in the process of updating their SMPs. The Shoreline Management Act specifically requires SMPs to include protection for salmonids and salmon habitat. This provides an important opportunity for strengthening shoreline protection regulations by working with the local jurisdictions.

**South Sound Science Symposium:** This year's South Sound Science Symposium is scheduled for October 2010. The purpose of the Symposium is to connect the region's scientists on ecosystem issues and questions; to explore the threats and indicators unique to South Puget Sound; and to help educate the public and policy makers on important ecosystem issues.

- 3. What is the general status of implementation towards your habitat restoration, habitat protection, harvest management, and hatchery management goals? Progress can be tracked in terms of 'not started, little progress, some progress, or complete' or in more detail if you choose.**

**Habitat Restoration:**

Some progress – A major restoration project, the Nisqually Estuary Restoration was completed in 2009. This project when matured will increase the amount of salt marsh habitat in the South Sound by 50%. In addition, other nearshore restoration projects have been funded or completed (see above for details). We are continuing to use prioritization tools and assessments to identify high priority projects.

**Habitat Protection:**

Some progress – We have funded three Projects of Regional Significance, which were all acquisitions for protection of high habitat. Individual Lead Entities are continuing to make progress in funding nearshore projects that are of local significance. Several identification and prioritization tools and assessments have been completed that will allow for the selection of high priority projects. We are losing habitat functions through shoreline development. Until stronger shoreline regulations are in place, we will continue to lose ecosystem function.

**Harvest and Hatchery Management:**

Some progress – In the Nisqually watershed significant progress has been made in developing a specific stock management strategy and actions. These activities are described in detail in the Nisqually three-year list update.

Coho hatchery releases from the co-managed South Sound netpen complex are timed with the intention of minimizing co-occurrence with naturally produced coho from local streams. Over a four year period a subset of netpen and wild coho were implanted with sonic transmitters allowing researchers to establish an average

residency time in South Sound before out-migration. Smolt trap and hatchery personnel stay in daily contact with the goal of releasing netpen coho after the peak out-migration and presumed residency of the natural stocks.

### ***Sequence/Timing***

- 4. What are the top implementation priorities in your recovery plan in terms of specific actions or theme/suites of actions? How are these top priorities being sequenced in the next three years? What do you need to be successful in implementing these priorities?**

We have identified numerous restoration and protection projects, including several large projects that we identified as Projects of Regional Significance. We are continuing to use nearshore assessments, freshwater VSP based models, lead entity strategies, and limiting factor assessments to assist us in identifying and developing capital projects. There is only a fraction of the funding needed to implement the projects indentified in the three-year project list.

In addition, we have identified non-capital or programmatic actions that will move the South Sound region toward recovery. These programmatic actions include:

- Developing a Formalized Structure – Currently the South Sound Salmon Recovery Group is an informal participatory group. Formalizing a structure that allows us to pool resources easier and prioritize regional goals would facilitate implementation of a South Sound-wide Recovery Strategy.
- South Sound-wide Recovery Strategy – each Lead Entity has developed a strategy for recovery in their individual watersheds. However, there is no coordinated South Sound-wide Recovery Strategy. To develop such a strategy requires a more formalized organizational structure than we have been working under in the past.

### ***Next Big Challenge***

- 5. Do these top priorities reflect a change in any way from the previous three-year work program? Have there been any significant changes in the strategy or approach for salmon recovery in your watershed? If so, how and why?**

### **Watershed Specific Priorities**

#### ***WRIA 13 and 14:***

The 3-year-work-program in WRIA's 13 and 14 has undergone extensive updating based upon the work of the TAG done in conjunction with the development and use of the Juvenile Salmonid Nearshore Project Selection Tool. The details have been discussed at length in question 1.

**WRIA 11:**

The top priorities continue to be the protection and maintenance of the restoration of the Nisqually Estuary. In addition supporting the adjacent WRIA's in protection and restoration of key nearshore habitat is a high priority.

**WRIA 10/12:**

The WRIA 10/12 Lead Entity has not changed its top priority actions from the previous three-year work program. Nearshore habitat restoration along the WRIA 12 shoreline continues to be a high priority.

**WRIA 15:**

There have been no changes in the top priorities for the West Sound Watersheds Lead Entity. We are concerned over the lack of actions to protect wild Puget Sound steelhead in our streams and look forward to inclusion of the freshwater resources that support them in our future 3 Year Updates.

South Sound-Wide Priorities

One of our priorities is to work cooperatively at a regional level to recovery salmon. That priority has not changed. We remain committed to a collaborative salmon resource regional management approach. In addition, we remain committed to pooling resources to fund large projects that will provide direct benefit to multiple salmon stocks from multiple watersheds.

**6. What is the status or trends of habitat and salmon populations in your watershed?**

Chinook, coho, steelhead, pink, chum, cutthroat, and bull trout occur within the South Puget Sound. Chinook, steelhead, and bull trout are ESA listed as Threatened. Coho are proposed for ESA listing. Chinook and coho stocks in the South Sound are heavily influenced by past and ongoing hatchery management. Chum, pink, cutthroat, and bull trout populations display primarily wild genetics.

The increase of 900 total acres of Nisqually estuary habitat in the last six years is a significant improvement in available habitat in the South Sound. The EDT model predicts that there will be a doubling of the number of naturally produced Chinook salmon in the Nisqually watershed as a result of that work alone.

In general, we do not have a well developed monitoring program to assess habitat status and trends on South Sound marine shorelines. We know that restoration and protection projects occur, and that shoreline armoring and overwater structures continue to be constructed. Our most significantly impacted shoreline is from Nisqually to Pt. Defiance which is armored for protection of the BNSF rail line. There is no systematic approach to documenting net change in habitat status across the South Sound. There are several habitat assessments ongoing (e.g. Nisqually to Pt. Defiance assessment) that are evaluating habitat status along specific reaches.

Several long term trapping efforts occur throughout South Sound. Adult traps are maintained on Chambers, Cranberry and Minter Creeks as well as the Deschutes River. Downstream migrant rotary screw trapping is conducted on the Deschutes and Nisqually Rivers and Goldsborough Creek. Panel weir traps targeting out-migrant coho are employed on Skookum, Mill, Johns, Cranberry and Sherwood Creeks. In the case of the Deschutes these traps have been in place for over thirty years and in most other systems for ten years. Results show variation in year to year production that is relatively constant except for Goldsborough Creek which is experiencing a steady climb in average in numbers after the removal of a dam in 2001.

Population trends are also monitored by the co-managers utilizing foot surveys to document spawning Chinook, coho, steelhead and cutthroat. Representative reaches within documented spawning areas are designated and then either walked or rafter over to note spawning fish and recently constructed redds. These surveys generally occur on a weekly or bi-weekly interval. In the case of coho in the Deep South Sound tributaries all reaches of all streams are walked.

In the Nisqually there is a comprehensive effort to evaluate the status and trends of Chinook salmon in the watershed and in the South Sound. This is being done with a combination of adult spawner surveys, in-river fishery monitoring, an in-river smolt trap, juvenile seining and fyke trapping in the Nisqually estuary and nearby South Sound nearshore environments. As part of this effort otoliths from the juvenile and adult Chinook salmon are being collected which can tell the story of how the salmon are using and responding to the available habitat and which salmon life histories are surviving to return as adults.

**7. Are there new challenges associated with implementing salmon recovery actions that need additional support? If so, what are they?**

We need a reliable, predictable, clear funding process for better planning and prioritization of high quality projects. For example, PSNERP and NEP grants had a very short timeline, which makes it difficult to prepare and coordinate priority projects.

More limited state and local government funding has made it difficult to support capacity needs in the watersheds. For example, maintaining and updating the Habitat Work Schedule represents a capacity need in all of the South Sound watersheds. In addition, funding limitations reduce the ability for identifying local matching funds for grant projects.

**2010 - 2013 Three-Year Watershed Implementation Priorities for WRIA's 13 and 14, Deep So**

15-May-10

Project Type	WRIA	Plan Category	Project Name	Project Description	Priority tier of project
<b>Capital Projects</b>					
<b>Habitat</b>					
				<p>This site is on Spurgeon Creek a tributary to the Deschutes River. The pair of culverts are judged to be a partial barrier but require a level B analysis to determine barrier status. A wetland downstream prevents an accurate level B analysis. This is a minor barrier if at all.</p> <p>WRIA: 13</p> <p>River System: Deschutes, Puget Sound</p> <p>US Barriers: 1 minor and 3 culverts with unknown barrier status (minor barriers if at all).</p> <p>DS Barriers: 1 with unknown barrier status, minor barrier if at all.</p>	
Restoration	13 - Budd Restoration	Inlet Projects	Bentley-Spurgeon Creek R4		1
	13- Budd Restoration	Inlet Projects	Burfoot Park Bulkhead Removal	Remove X feet of bulkhead. This site was identified as a high priority sediment source for the reach, with forage fish spawning (primarily smelt) throughout.	1
	13 - Budd Restoration	Inlet Projects	Budd Inlet Pocket Estuary Restoration	DNR storage / marine research area south of Gull Harbor is a pocket estuary that is completely modified with fill, a large dock and bulkhead, all in public ownership. Entire reach is a priority area for restoration, with forage fish spawning throughout. Priority sediment source reach.	1
	13 - Budd Restoration	Inlet Projects	Priest Point Park Bulkhead Removal	Remove ~150 feet of concrete bulkhead, four-five feet tall and restore natural beach process and vegetation. Reach has been prioritized as a crucial sediment source, with forage fish spawning throughout.	1
	13 - Budd Restoration	Inlet Projects	Tamashan Bulkhead Removal	Remove X feet of bulkhead and restore natural beach process and vegetation. Reach is a high priority for restoration, with forage fish spawning throughout.	1
	13 - Eld Inlet	Restoration Projects	Eld Inlet Marine Riparian Revegetation	Focus intensely in landowner outreach within Eld Inlet to implement various shoreline projects, inclusive of revegetation, bulkhead removals, estuary restoration, etc.	

WRIAs 13 & 14

13 - Eld Inlet	Restoration Projects	Squaw Point Bulkhead Removal	Shoreline restoration at the mouth of Snyder Creek - remove the barrier to passage on TESC Evergreen beach property and remove existing bulkhead, Squaw Point ( <b>note bulkheads above</b> )	1
13 - Eld Inlet	Restoration Projects	TESC Shoreline Restoration	Shoreline restoration at the mouth of Snyder Creek - remove the barrier to passage on TESC Evergreen beach property and remove existing bulkhead, Squaw Point (note bulkheads above), inclusive of revegetation and passage barrier	1
13 - Henderson Inlet	Restoration Projects	Woodland Creek LWD placement	USFWS site at the Lacey Community Center - riparian revegetation and LWD placement and stream work	2
13 - Henderson Inlet	Restoration Projects	Woodland Creek Debris removal	St. Martins university property - remove debris from stream channel	2
13 - McNeil Island Group	Restoration Projects	Luhr Beach Estuary Restoration	East of Luhr Beach near the boat launch is a filled-in estuary with an impounded outlet culvert that needs restoration. Ties in with Beachcrest restoration and in close proximity of the Nisqually. New development at Panorama with possible set-aside for open space?	1
13 - Eld Inlet	Restoration Projects	Sediment Control and road maintenance on McLane	Work to stop practices at the upper watershed on DNR property that create massive sedimentation below	2
13 - Eld Inlet	Restoration Projects	McLane Estuary Shoreline Restoration	CLT property - McLane Estuary, removing buildings, shoreline armoring, revegetation	1
13 - Budd Inlet	Restoration Projects	Capitol Lake Estuary Restoration	Restore approximately 80 acres of estuary to the mouth of the Deschutes	1
13 - Budd Inlet	Restoration Projects	LWD on Deschutes, rm 10-17, tribs rm 2-41	Place LWD strategically within the Deschutes drainage Budd Inlet, Woodard Bay, Port of Shelton and Green Diamond.	1
13-14 - All	Restoration Projects	Creosote removal Burns Cove	Move log rafts and pilings towards the north of Green Diamond site protecting Goldsborough fish	1
13 - ??	Restoration Projects	Estuary Restoration		
13-14 - All	Restoration Projects	Alternate Water Sources for Livestock	Ongoing work and support for Conservations Districts to fence and create alternate sources of water for farms with livestock.	2
13 - Eld Inlet	Restoration Projects	McLane Creek Fish Passage barrier	Passage barrier on the East Fork of McLane Creek.	1

13 - Eld Inlet	Restoration Projects	LWD Placement on McLane Creek Beachcrest	Complete three LWD placements on McLane creek, inclusive of one at the DNR nature trail. Others as identified by a proposed landowner outreach study. Also possible Williams mitigation site? Reconnect tidal influence to a pond and spring-fed creek. Designs complete to 100%, funding needed for implementation.	1
13 - McNeil Island Group	Restoration Projects	Ecosystem Improvement Project		1
13 - Eld Inlet	Restoration Projects	Allison Springs Estuary and Saltmarsh Restoration	Remove existing hatchery facilities and impoundments to allow tidal fluxuations to seven freshwater pools. Property owned by the City of Olympia and used as a drinking water source. Ties in with acquisitions and restoration occuring adjacent to this site by Capitol Land Trust.	1
13 - Budd Inlet	Restoration Projects	Garfield Creek mouth restoration	Replace undersized perched culver, re-build delta and creek mouth	1
13 - Budd Inlet	Restoration Projects	Schnieder Creek mouth restoration	Daylight 100 feet, re-build delta and creek mouth	1
13 - Budd Inlet	Restoration Projects	East Bay Salt Marsh Restoration	Phase I, plant 2000' Phase II - restore shallow intertidal structure fringe saltmarsh	1
13 - Budd Inlet	Restoration Projects	LWD on Deschutes	LWD placement on the Deschutes - Stewart property LWD projects, 93rd and Deschutes River Rd. Viik property at river mile 21.5	1
13 - Eld Inlet	Restoration Projects	Green Cove Creek Fish Passage Project LWD	Restore fish passage by removing the blocking culvert on Green Cove Creek at Country Club Rd. Sequencing is the issue with the landowner (Thurston County) - they would like the blockage at Ellis Creek removed first, then they will consider match funding on this project. This barrier is a total blockage, removing it would open up two miles of spawning and rearing habitat.	1
13 - Budd Inlet	Restoration Projects	Placement on the Upper Deschutes, rm	Deschutes River needs LWD from river miles 31-41, as identified by the Thurston County Riparian Assessment (Kuttel, Jr. 2007).	1

13 - Budd Inlet	Restoration Projects	Ellis Cove Fish Passage Project	This project occurs at the mouth of Ellis creek, within Priest Point Park. A partially blocking culvert was funded for removal by SRFB in 2005 and attempted to be removed in 2008. Contractor difficulties have delayed the process. Applied for NOAA stimulus funds.	1
13 - Budd Inlet	Restoration Projects	Ellis Creek Fish Passage Project, Phase II	This project proposes to remove the total barrier culvert on Gull Harbor Rd on Ellis Creek. This would all access to 2 miles of spawning and rearing habitat and build upon the partial barrier removal at the mouth of Ellis Creek taking place in summer of 2008 by the City of Olympia under East Bay Dr. 30% designs have been completed by the landowner, Thurston County.	2
13 - Budd Inlet	Restoration Projects	Off-Channel Habitat Creation on the Deschutes and its Tributaries	Specific sites have been identified by the Thurston County Riparian assessment (Kuttel, Jr. 2007) along the Deschutes River and Spurgeon creek. The ongoing goal with this project is to create 0.25 acres each year along these waterbodies. Develop and implement off-channel habitat creation and re-establishment. Sites identified, funding needed	1
13 - All	Restoration Projects	WRIA 13 Bulkhead Removal(s)	The goal of this project is to remove five bulkheads in WRIA 13, one per year over the span of five years. Targeted sites are: Evergreen bulkhead - funded and undergoing feasibility and design; Mud Bay bulkhead at Buzz's tavern; other sites as determined by landowner willingness. This piece will be assessed with the 5% PSAR dollars by participating sponsors.	
13 - Budd Inlet	Restoration Projects	Butler Cove Estuary Restoration	The blocking culvert failed during the 2008 storms, leaving the need to clean up the concrete debris remaining from the washout, in addition to an intensive ivy eradication throughout the estuary. Butler Cove is has been identified as high priority for restoration, with forage fish spawning throughout.	1

13 - Budd Inlet	Restoration Projects	Mission Creek Estuary Connectivity Project	Mission creek is a project that has been waiting to be completed for years now. It is a mitigation site for the Port of Olympia, which planned on removing the barrier in 2008 but the funds were spent on other things. Numerous partners, particularly SPSSEG have worked diligently with the Port to encourage an expedient remedy for the situation.	1
13 - Budd Inlet	Restoration Projects	Gull Harbor Estuary Connectivity Project	Project takes place approximately 1/4 mile upstream from the estuary of Gull Harbor. Currently the tributary is dammed to serve as a trout pond for the landowner, who would like to remove the fish passage barrier but wants to keep the trout pond. This use is incompatible with the desires of the sponsor and the LE, therefore the project has been on hold for several years now.	1
13 - Budd Inlet	Restoration Projects	East Bay Drive Nearshore Restoration	<p>Project proposes several phases:</p> <p>Phase 1 - plant 2000' along the shoreline</p> <p>Phase 2 - restore shallow intertidal structure and fringe saltmarsh</p>	
13 - Budd Inlet	Restoration Projects	West Bay Restoration Project	Restore shoreline at previous Reliable site inclusive of bulkhead removal in tandem with public access, reshape beach profile, acquisition at railroad site.	
13 - Budd Inlet	Restoration Projects		Status- permit underway for removing RxR contaminated soils, create public access, resloping beach, revegetation.	1

14 - Case Inlet	Restoration Projects	Case Inlet Pocket Estuary Connectivity Project	The pocket estuary south of Sherwood creek has a tidal barrier at the mouth that is currently unarmored. The area is a priority sediment source for the reach. There is extensive surf smelt spawning throughout the estuary.	1
14 - Eld Inlet	Restoration Projects	Eld Inlet / Istvan Nearshore process restoration	Remove crumbling bulkhead and debris on landowners property and adjacent freshwater stream to the north.	2
14 - Hammersley Inlet and Oakland Bay	Restoration Projects	Chapman Cove Fish Passage Restoration	Uncle John's and other tributaries to Chapman Cove have full and partial barrier culverts. Install fully passable culverts for all salmonids at all lifestages.	2
14 - Hammersley Inlet and Oakland Bay Restoration	Restoration Projects	Goldsborough Creek Mouth Reconstruction	Re-build delta and creek mouth	1
14 - Harstine Island Group	Restoration Projects	Brisco Point Pocket Estuary Passage Restoration	Pocket estuary on the Southern tip of Brisco point has a tidal barrier. Project would remove tidal barrier and restore estuary function.	1
14 - Hammersley Inlet and Oakland Bay	Restoration Projects	Goldsborough creek fish passage projects	Target outcomes from project development grant (NFWF) to remove blocking culverts, habitat protection, wood placement, etc	1
14 - Harstine Island Group	Restoration Projects	Salmon Point Shoreline Restoration	Priority restoration site at the tip of the Salmon Point. Currently there is armoring that would be removed to expand the existing intertidal vegetation. A freshwater stream feeds the site and there is forage fish spawning.	1

14 - Harstine Island Group	Restoration Projects	Dougall Point Lagoon to North Point Spit Restoration	Dougall Point is a north facing barrier beach with adjacent barrier lagoon. A creosote bulkhead constrains the barrier beach, limits riparian vegetation, blocks sediment transport, truncates the natural beach profile and fragments contiguous, functional nearshore habitat along the northern tip of Hartstene Island. The lagoon is impaired by an armored, rip-rap outlet channel that limits fish passage and tidal exchange. The lagoon has little to no habitat structure or vegetative cover limiting productivity and habitat function for rearing and foraging salmonids. Creating a suite of projects, this project would also restore the North Point neighborhood spit and target the bulkhead north of the pocket estuary, with one small bulkhead within the pocket estuary. Collectively, these actions will restore natural sediment processes, encourage establishment of riparian and salt marsh fringe habitat for input of nutrients, support a continuous shallow water migration and foraging corridor for salmonids and spawning surf smelt and sand lance, diversify aquatic species communities, increase productivity, improve fish passage and boost overall rearing and foraging capacity of the reach.	1
14 - Totten and Little Skookum Inlets	Restoration Projects	Hurley Cove to County Line Estuary Restoration	Restore the estuary at Big Cove and Kennedy / Schneider estuaries	1
14 - Totten and Little Skookum Inlets	Restoration Projects	Skookum Creek Riparian Restoration	Plant 3500' riparian corridor along both sides of Skookum Creek LWD projects	1
14 - Totten and Little Skookum Inlets	Restoration Projects	Squaxin Island Pier and Bulkhead Removal	This project involves the removal of a derelict over-water pier structure and its associated creosote pilings and decking, as well as the removal of a rock bulkhead along the shoreline. After removal of the structures, the shoreline would be enhanced with large woody debris and native vegetation.	1
14 - Totten and Little Skookum Inlets	Restoration Projects	Skookum Creek Gravel Project		
14 - ???	Restoration Projects	Youngs Cove Estuary Restoration	Youngs Cove - remove pond and derelict boat ramp on Gravelly Beach Loop	1

WRIs 13 & 14

			<p>1)Remove 5 bulkheads in WRIA 14: 1)Arcadia Point, 100 feet of nearshore total - Demonstration project adjacent to boat ramp.</p> <p>2)Case Inlet bulkhead, WDFW property (beyond Flapjack Pt.)</p> <p>3)Sanderson Cove bulkhead - remove bulkhead on shoreline in Sanderson Cove on Steamboat Island</p>	
14 - All	Restoration Projects	WRIA 14 Bulkhead Removal		1
14 - Hammersley Inlet and Oakland Bay	Restoration Projects	Mill Creek LWD Placement	Mill creek LWD three sites	1
14 - Eld Inlet	Restoration Projects	Eld Inlet Restoration	Estuary connectivity project on Eld Inlet - remove blockages on tributaries to Eld inlet at two sites	1
14 - Case Inlet	Restoration Projects	Sherwood Creek LWD Placement	Sherwood LWD four sites	1
13-14 - All	Restoration Projects	Planting native shoreline buffers	Plant 2 miles shoreline with native vegetation buffers	1
14 - Hammersley Inlet and Oakland Bay	Restoration Projects	Johns Creek Culvert Replacement	Replace Navy barrier culvert on Johns Creek	1

14 - Hammersley Inlet and Oakland Bay Restoration Projects LWD on Goldsborough Creek Goldsborough LWD on 3 mainstem reaches, north fork, Little Egypt and Coffee Creek 1

14 - Hammersley Inlet and Oakland Bay Restoration Projects Cranberry Creek LWD Placement Cranberry LWD four sites 1

14 - Hammersley Inlet and Oakland Bay Restoration Projects Goldsborough Creek Restoration Initiative This project builds upon a NFWF project development grant and EPA funds received by the SIT to develop and implement restoration projects in the Goldsborough creek watershed. A variety of projects have been identified, including LWD placement, fish passage, off-channel habitat creation and reconnection, with more to come. Goldsborough creek is the most productive coho producer in South Sound and this project works to restore habitat now accessible due to the dam removal in 2001. 1

14 - Hammersley Inlet and Oakland Bay Restoration Projects Johns Creek LWD Placement Johns Creek LWD placement four reaches 1

14 - Totten and Little Skookum Inlets Restoration Projects Longhouse rehabilitation Remove bulkhead and dock and plant riparian at Squaxin longhouse site. 1

14 - Totten and Little Skookum Inlets Restoration Projects LWD on Skookum Creek LWD placement on Skookum creek - treat 5500' of stream with woody debris - new bridge site to HW 101

Acquisition for Restoration

13 - Budd Restoration Inlet projects	Acquisition / Restoration projects	Deschutes River Wetland Enhancement Project	The Deschutes River Wetland Enhancement Project site is located on 160 acres bisected by the Deschutes River at river mile four. The Project site includes 9,000 feet of riparian shoreline (4,400 feet on the east bank and 4,600 feet on the west bank) and 70 acres of existing wetland habitat. The Project will restore and enhance existing wetlands by removing invasive vegetation and re-establish a diverse off-channel wetland complex that contains forested, scrub/shrub, and emergent wetlands. The Project will include creation of additional side channel wetlands, for habitat enhancement and flood storage, as well as riparian buffer establishment, large woody debris placement, and bank stabilization efforts adding complexity to a degraded and altered system.	1
13 - Budd Restoration Inlet projects	Acquisition / Restoration projects	Deschutes River / Capitol Lake Shoreline Conservation	Purchase and restore property near old brewery site	1
14 - Harstine Island Group	Acquisition / Restoration projects	Dog Fish Bight to Sandy Point Restoration	Model and TAG review shows the possibility of a dam at the mouth of the pocket estuary. Additionally, the large agricultural parcel is surrounded by extensive development pressure.	2
14 - Harstine Island Group	Acquisition / Restoration projects	Fudge Point Conservation and Restoration	This property is an priority for conservation with numerous freshwater streams and a pocket estuary. The bluff is a priority sediment source. There are two small bulkheads along the entire reach that would be removed to continue sediment input, feeding the drift cell.	1
14 - Hammersley Inlet and Oakland Bay (Combination)	Acquisition/Restoration (Combination)	Johns Creek Estuary Acquisition		
14 - Hammersley Inlet and Oakland Bay (Combination)	Acquisition/Restoration (Combination)	Skookum Inlet Dike Removal	Skookum (Skookum Valley) creek habitat acquisition - easement on McDonald property, 300 acres with restoration to follow.	1++

14 - Hammersley Inlet and Oakland Bay (Combination) Acquisition/Restoration Skookum Valley Habitat Acquisition Skookum (Skookum Valley) creek habitat acquisition - easement on McDonald property, 300 acres with restoration to follow. 1

14 - Hammersley Inlet and Oakland Bay (Combination) Acquisition/Restoration Coffee Creek Acquisition Protect 250 acres of Coffee creek through donated easement, fee simple acquisition and purchased easement. Additionally, the project would remove multiple blocking culverts 1

14 - Hammersley Inlet and Oakland Bay Acquisition / Restoration projects Oakland Bay Habitat Protection\_Twin Rivers In an effort to conserve four of the remaining five large marine shoreline properties on Oakland Bay, Twin Rivers has been targeted as critical habitat, incorporating 133 acres abutting upper Oakland Bay. Property is near closed for conservation. Currently there is the need for invasive species removal and revegetation. 1

14 - Hammersley Inlet and Oakland Bay Acquisition / Restoration projects Bayshore Conservation and Restoration Project Work with CLC to purchase and restore the property where the current Bayshore Golf Course exists 1

14 - Hammersley Inlet and Oakland Bay Acquisition / Restoration projects Oakland Bay Habitat Protection\_36-acre shoreline Conserve a 36 acre marine shoreline property on Oakland Bay. Then remove invasive vegetation and shoreline access structure, and revegetate the site. 1

14 - Harstine Island Group Acquisition / Restoration projects Sund Point Estuary Conservation and Restoration Second pocket estuary south of Sund Point is a high priority for conservation and needs restoration of small riparian buffer. 2

14 - Harstine Island Group Acquisition / Restoration projects Sund Point Conservation and Restoration Conserve large parcels at the head of the estuary with stream bisecting; restoration needed at the mouth. 2

13 - Harstine Island Group	Acquisition / Restoration projects	Little Fish Trap Conservation and Restoration Project	Project will restore a historic spit to full function while purchasing a conservation easement on northern parcel and fee simple on southern parcel - priority area.	1
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*Acquisition for Protection*

13 - Henderson Inlet	Acquisition Projects	Henderson Inlet Shellfish Farm Shoreline Acquisition	Protect 80 acres on the WSU property	1
13 - Budd Inlet	Acquisition Projects	Acquisition, Phase III	protect through easements 2 unprotected parcels, 25 acres within Gull Harbor	1
13 - Eld Inlet	Acquisition Projects	Lower Eld Inlet Shoreline Acquisition	Mouth of McLane creek, acquire 35 acre estuary	1
13 - Henderson Inlet	Acquisition Projects	Henderson Inlet Tree Farm Shoreline Acquisition	Acquire 60 acres south of Harmony Farms on Henderson inlet, creating a corridor	1
13 - McNeil Island Group	Acquisition Projects	Harstine Island to Luhr Beach Pocket Estuary Conservation	There are four pocket estuaries in this reach, all in high priority areas with steep feeder bluffs.	1
13 - Budd Inlet	Acquisition Projects	Deschutes Headwaters Conservation	Acquire and protect 6000 acres of forest land on the upper Deschutes - currently being converted by Weyerhaeuser	1
13 - Budd & Henderson Inlets	Acquisition Projects	Budd Inlet / Henderson Inlet Connectivity Conservation	Acquire a habitat corridor that connects Henderson and Budd Inlets, salt and fresh water habitats.	1
13 - Budd	Acquisition Projects	Tumwater UGA Conservation	Acquire 130 acres of floodplain on Deschutes upstream of Pioneer Park	1

13 - Henderson Inlet	Acquisition Projects	Henderson Inlet Acquisition - Simpson Green Cove Riparian Corridor Acquisition	Conserve 80 acres	1
13 - Eld Inlet	Acquisition Projects	Corridor Acquisition	Acquire 50 acres on Green Cove	1
14 - Totten and Little Skookum Inlets	Acquisition Projects	Totten Inlet Pocket Estuary Acquisition	17-57 acres of nearshore acquired, freshwater input, (Gull Harbor-esque) sand spit, feeder bluffs, wetlands	1
14 - Hammersley Inlet and Oakland Bay	Acquisition Projects	Eagle Point Shoreline Acquisition	Hammersley Inlet and Oakland Bay. The Shoreline Acquisition is to conserve the habitat function and value of this priority area for use of adult migrating salmonids and juvenile salmonids as they exit the Goldsborough Creek and Johns Creek watersheds. Oakland Bay and Hammersley Inlet provide highly productive estuarine habitat for salmonids and shellfish. Chum, coho, Chinook, steelhead and cutthroat trout spawn in one or more of the nine major tributaries and numerous small tributaries in Oakland Bay and Hammersley Inlet. The decline in the productivity of these Puget Sound salmon stocks are likely attributed to the cumulative effect of a variety of natural and anthropogenic changes to the estuary and its adjacent lands. Efforts to conserve and restore salmon will rely upon and	1
14 - Hammersley Inlet and Oakland Bay	Acquisition Projects	Goldsborough Creek Acquisition	Acquire 500 acres in Goldsborough Creek watershed	1
14 - Hammersley Inlet and Oakland Bay	Acquisition Projects	Harstene Island Acquisition	Washington State Parks and Recreation Commission's Harstene Island acquisition project protects the fee simple interest of approximately 112 acres of tidelands, wetlands and associated uplands.	1
14 - Harstene Island Group	Acquisition Projects	Wilson Point Pocket Estuaries Acquisition	Wilson Point and the spit to the south are high priorities for conservation with a pocket estuary and priority sediment sources. Large parcels and sand land and surf smelt spawning throughout. The spit has no armoring or tidal barriers, with intertidal vegetation and a freshwater stream.	1
14 - Harstene Island Group	Acquisition Projects	Salmon Point Pocket Estuary Conservation	There are two pocket estuaries south of Salmon Point that are priorities for conservation with freshwater streams feeding them and intertidal vegetation. A large parcel seems to own both estuaries.	1

14 - Harstine Island Group	Acquisition Projects	Northwest Harstine Island Acquisitions	This unit (Salmon Point to the northwest point of Harstine) has four pocket estuaries within it, all high priorities for conservation. From north to south: estuary has a large parce and is a priority sediment source. It has a freshwater stream, no armoring and surf smelt spawning. Next estuary: two larger parcels, a freshwater stream, is a priority sediment source and is unarmored until bottom of estuary. Next estuary: two large parcels with no armoring. Next estuary: one large parcel with forage fish spawning. This parcel is likely a timber parcel.	1
14 - Harstine Island Group	Acquisition Projects	Harstine Island Pocket Estuary Conservation	This reach (NW point of Harstine to Dougall Point) has one pocket estuary that is a priority for conservation with surf smelt spawning and is a priority sediment source. It is one large parcel with no armoring.	1
14 - Totten and Little Skookum Inlets	Acquisition Projects	Hudson to Gallagher Cove Acquisition	Two large parcels on the western side of the unit are a high priority for conservation for sediment.	1
14 - Totten and Little Skookum Inlets	Acquisition Projects	Totten Inlet Habitat Acquisition	Totten Inlet habitat acquisition - acquire 80 acres of intact habitat on Totten Inlet	1
14 - Hammersley Inlet and Oakland Bay	Acquisition Projects	East Hammersley Inlet	At the mouth of the Inlet, acquire conservation easement on 30 acres - several sites, 18 acres with restoration to follow; other properties across the water	1
14 - Hammersley Inlet and Oakland Bay	Acquisition Projects	Oakland Bay Conservation, Phased approach	Conserve four of the five remaining large marine shoreline properties -	1
14 - Hammersley Inlet and Oakland Bay	Acquisition	Johns Creek Headwaters Conservation Initiative	This project will conserve over 200 acres of key habitat surrounding Johns Lake (the headwaters of Johns Creek) and parts of upper Johns Creek.	1

<b>Non-Capital Programs</b>	14 - Hammersley Inlet and Oakland Bay	Acquisition Projects	Coffee Creek Acquisition	This project is anticipated to be the first of an initiative by Capitol L	1
	13-14	Non-capital Projects	Spawner surveys	Spawning surveys / escapement est. assistance for WDFW	
		Non-Capital 14 Projects	WRIA 14 Watertype Assessment - Phase III	Effective salmon recovery requires the restoration and protection of fish habitats. Mason County stream buffer width requirements are set by watertype. Existing watertype maps demonstrably under-represent the extent of fish and fish habitat, and many streams are mapped incorrectly or not at all. Consequently, many stream channels that warrant protection are not receiving appropriate buffers. Through visual and electrofishing surveys, Wild Fish Conservancy (WFC) will determine and correct water type classifications in ~30 miles of streams in prioritized portions of WRIA 14 using established protocols. Using GPS, WFC will accurately map previously unmapped and incorrectly mapped water courses. In addition to providing data to ensure informed and responsible management of these watersheds, this assessment will generate species-specific distribution data to assist with restoration project identification and prioritization efforts. WFC will incorporate assessment results in a web-based interactive GIS (see <a href="http://www.wildfishconservancy.org">www.wildfishconservancy.org</a> ) available to resource managers and the general public. Data formats will be compatible with State, County, City, and Tribal datasets. This project will complement the RND 07 SRFB-funded watertype assessment of Arcadia and Kimilche Points in WRIA 14.	
	13-14	Non-Capital Projects	Nearshore Shoreline Prioritization	Develop nearshore projects specificity, shoreline outreach to landowners, designs, GIS layer per shorezone unit, rating the nearshore from highest to high priority.	1

<b>Habitat Protection</b>	13 - All	Non-Capital Projects	Nearshore Acquisition Project Development	This project will build upon the work done to date prioritizing the nearshore using the LE TAG and the Juvenile Salmonid Nearshore Project Selection Tool to locate and prioritize parcels for acquisition. Project will work with landowners in those parcels towards fee simple or conservation easements on their property.	1
		13 Non-Capital Projects	McLane Creek landowner outreach	Landowner outreach on McLane Creek, future project development	1
	13-14	Non-Capital Projects	Upland Prioritization by Catchment Basin	SSHIAIP has mapped LIDAR on catchment basins and uplands, used to prioritize projects based on salmon usage	1
	13-14	Non-Capital Projects		Habitat modeling for South Sound - Employ modeling tools Ecopath and Ecosim for nearshore modeling	2
	14 - Hammersley Inlet and Oakland Bay	Non-Capital Projects	Habitat Assessment of Campbell and Deer Creeks	Habitat assessment on Campbell and Deer creeks	1
		13 Non-Capital Projects	Woodard Bay Ecosystem Assessment	Woodard Bay Ecosystem Assessment - feasibility to assess the effects of the log dump, inclusive of the seal pullout, bat habitat, etc. Chemical stressors, biological components, creosote pilings - pilot for application elsewhere to inform fixes at other sites, revegetation	2

			Thurston County creek surveys	Weekly surveys during spawning of Ellis, Schneider, Green Cove and Indian / Moxlie creeks for: pre-spawn mortality, escapement and redd mapping. No WDFW monitoring of these streams currently	1
	13-14	Non-Capital Projects	Regulatory Participation	Participate in SMP updates in cities and counties. Aid in the rewrite of the Public Benefit Rating System (PBRs)	1
<b>Watershed Plan Implementation &amp; Coordination</b>					
	13-14	Non-Capital Projects	TMDL Implementation	Deschutes River, Henderson, Totten, Eld nutrient reduction and TMDL implementation	1
	13 & 14	Non-Capital Projects	Stormwater and LID Landowner Project Development	Using the nearshore project selection tool as a guide, work with communities to implement site-specific LID and stormwater practices that reduce run-off, fine sediment input and keep water in the streams at low-flows	1
<b>Outreach &amp; Education</b>					
		14 Non-Capital Projects	Coho Marking on Sherwood, Schumocher Creeks	Begin mass marking on Coho in Sherwood / Schumocher creeks	1
		14 Non-Capital Projects	Schumocher Creek carcass augmentation	Schumocher creek carcass augmentation - place carcasses to meet state guidelines	1

<b>Instream Flow Protection</b>	13-14	Non-Capital Projects	Media Strategy	Refine outreach / media strategy for targeted outreach. Brainstorm new name for LE's	1
	13-14	Non-Capital Projects	Nutrient Reduction, TMDL Implementation	Deschutes River, Henderson, Totten, Eld nutrient reduction and TMDL implementation	
<b>Habitat Project Monitoring</b>	13-14	Non-Capital Projects	Fish Passage Project Monitoring	Fish Passage project monitoring, post and pre-project continuation	1
<b>Stock Monitoring Support</b>	13-14	Non-Capital Projects	Nearshore Project Monitoring	Nearshore project monitoring - monitoring partnership to monitor South Sound nearshore project sites for adaptive management and future project development. Possible publication or website for comparison	1
	14	Non-Capital Projects		Salmonid species usage and distribution - expand current beach seining work to Totten and Eld Inlets	1
	13-14	Non-Capital Projects	Mason County Coho Study South Sound Forage Fish Assessment Project	Outmigrant study of Coho in Mill, Goldsborough and Sherwood creeks - acoustic tagging of Coho for tracking in the Sound	1

<b>Salmon Recovery coordination / implementat ion</b>	13-14	Non-Capital Projects	South Sound Beach Nourishment Pilot / Assessment	Determine what areas are being robbed of sediment due to development and bulkheads and assess a fee - or simply place sediment at sites where the drift cell will distribute to starved beaches	1
	13-14			Continued support of South Sound coordination of a sub-regional organization	1