

## A9. Protect and Recover Salmon

### The Challenge

Puget Sound was once home to a rich abundance of salmon species and populations. Salmon is our iconic species with vital importance to tribal culture and regional identity, and are specially called out in the Action Agenda.

There are currently 22 Chinook populations remaining, with estimated abundance at 10% or less than historic levels. In addition to Chinook, there are other threatened and endangered salmonid species such as summer chum, steelhead and bull trout. In 2005, Recovery Plans were completed for Puget Sound Chinook Salmon and Hood Canal and Eastern Strait of Juan de Fuca Summer Chum. These NOAA-approved plans, along with the 2006 NOAA supplement and the watershed three-year work plans guide implementation of the salmon recovery plan. In addition, there is draft bull trout recovery plan that is being updated and finalized.

The Chinook and Hood Canal Summer Chum Recovery Plans articulate a long-term (50 year) approach with consistent funding, an integration of the different management decisions across harvest, hatchery, habitat protection, and habitat restoration, and a flexible adaptation approach that incorporates new information. The salmon recovery plans call for protection and restoration of habitats (specifically estuaries, floodplains, riparian areas, and the nearshore), improved access to habitat, sufficient water flows, improved water quality, harvest management, hatchery management, as well as integration of habitat, harvest and hatchery actions.

Chinook and Summer Chum recovery work is an ongoing, long-term effort by tribes, state, federal and local government, non-governmental organizations, businesses and private landowners. Much of the work to implement the recovery plans is already underway and needs continued or more support. Challenges in implementing the approved salmon recovery plans include:

- Under-investment in capital projects: When the Chinook Plan was completed in 2005 the estimated annual investment for the first ten years was \$130 million for Chinook and bull trout for capital and some non-capital actions. The investment rate has consistently been less than half of this estimated need. The Summer Chum plan also estimated a need of \$130 million for the first ten years for capital and non-capital actions.
- Under-investment in human infrastructure: Implementation of salmon recovery programs requires a robust human infrastructure within watersheds and regional entities. Current staffing reductions are reducing our ability to implement harvest, hatchery, habitat restoration, and habitat protection actions.
- Regional concerns about the lack of habitat protection: In the spring and summer of 2011, NOAA/National Marine Fisheries Service (NMFS) and the Northwest Indian Fisheries Commission (NWIFC) each published documents that present strong critiques of the existing habitat protection system. These documents highlight the need to improve regional habitat protection efforts so that ecological functions for salmon are sustained.
- Lack of investment in several specific priorities identified in the Recovery Plans: Resolving technical and policy uncertainties about water availability and implementation of protective water quantity measures, resolving uncertainty about whether the regional water quality

actions address the needs of salmon, furthering our understanding of watershed habitat status and trends, as well as project effectiveness to improve adaptive management, and a coordinated approach for making decisions associated with harvest, hatchery, habitat restoration, and habitat protection management.

## Salmon Recovery Plan and Action Agenda Integration

The Puget Sound Partnership is charged to integrate the recovery plans into the overall ecosystem recovery effort, and the Action Agenda update is the opportunity to detail that effort. This integration includes: 1) setting a recovery target based on the existing Chinook recovery goals, 2) adding recovery specific information to the Action Agenda strategies and actions with the strong nexus to salmon recovery, as well as and identifying how those actions address salmon recovery priorities (and where ecosystem and salmon recovery priorities might differ), 3) identifying actions that are particular to salmon recovery that are not covered in other sections of the Action Agenda , 4) representing salmon recovery funding specific needs in the overall funding strategy priorities, and 5) salmon specific criteria prioritization of near-term actions.

### 1. Relationship to Puget Sound Recovery Targets

*Salmon recovery goals:* The Leadership Council adopted a recovery target for Chinook based on the Recovery Plan long-term goal to achieve harvestable, self-sustaining levels of Puget Sound Chinook.

For Chinook, the Recovery Plan states that the Puget Sound Evolutionarily Significant Unit (ESU) of Chinook will have a negligible risk of extinction if: 1) All watersheds improve from current conditions, resulting in improving status for the fish; 2) At least two to four Chinook populations in each of five bio-geographical regions of Puget Sound attain a low risk status over the long-term; and 3) At least one or more populations from major diversity groups historically present in each of the five Puget Sound regions attain a low risk status. Each of the individual watershed chapters includes details on population targets 50 years out from 2003.

### 2. Strategy and Action Integration

Many strategies in the salmon recovery plan have other ecosystem benefits. Likewise, many of the strategies in the Action Agenda are essential for salmon recovery. With this Action Agenda update, the Partnership has taken the following steps to integrate the two:

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**FROM A SALMON RECOVERY PERSPECTIVE, THE HIGHEST PRIORITY ACTIONS ACROSS THE ACTION AGENDA ARE . . . MORE ON HOW THESE ARE IDENTIFIED.**

- Habitat protection for both terrestrial and marine nearshore. (See sections A.1., xxx)
- Stabilize and increase the staffing that supports salmon recovery in local watersheds, local governments, tribes, state and federal governments, and non-governmental organizations.
- Others to be identified.
- Increased funding for these priorities (See Funding Section)

- 1) Identify which Action Agenda strategy categories had the strongest nexus to salmon recovery based on the Chinook and Summer Chum Recovery Plans.
- 2) Ask conveners and participants working on the strategies with the strongest nexus to salmon recovery to use the relevant sections of the Recovery Plans.
- 3) Check the pre-draft Action Agenda strategies and near-term actions to make sure that salmon recovery needs, or differences needing resolution, are identified. In some cases, modifications to the strategies and actions were made before the draft (e.g., some of the land use and floodplain strategies and actions).
- 4) Ask the Local Integrating Organizations working on the profiles and local priorities to be sure to consider the recommendations in their watershed chapters.

A careful review of the strategies and actions will occur during the overall Action Agenda review period.

### **Action Agenda Strategy Categories with a Strong Salmon Recovery Nexus**

The following strategy categories have the strongest connection to salmon recovery based on the priorities in the Recovery Plan.

#### **A. Protect and Restore Terrestrial and Freshwater Ecosystems**

- A1. Focus land development away from ecologically important and sensitive areas
- A2. Permanently protect the intact areas of the Puget Sound ecosystem that still function well.
- A3. Protect and steward ecologically sensitive rural and resource lands
- A4. Encourage compact regional growth patterns and create dense, attractive and mixed use and transit-oriented communities
- A5. Protect and restore floodplains
- A6. Implement and maintain freshwater and upland restoration projects.
- A7. Increase the success rate of mitigation projects to achieve, at a minimum, no-net-loss of ecosystem function on a watershed scale.
- A8. Protect and conserve freshwater resources to increase and sustain water availability for instream flows.

#### **B. Protect and Restore Marine and Marine Nearshore Ecosystems**

- B1. Use anticipated population and economic growth as a catalyst for recovery by building on existing efforts to establish protection and restoration priorities
- B2. Protect and conserve relatively intact ecosystems to maintain the health of Puget Sound
- B3. Implement and maintain priority nearshore and marine ecosystem restoration projects
- B6. Protect and Recover Native Marine Species
- B7. Protect and recover marine and nearshore species

#### **C. Reduce and Control the Sources of Pollution to Puget Sound**

- C2. Use a comprehensive approach to manage urban stormwater runoff at the site and landscape scales
- C3. Agricultural runoff
- C4. Surface runoff from Forest Lands

## D. Strategic Leadership and Collaboration

- D1. Provide the leadership frameworks to guide the Puget Sound recovery effort and set action and funding priorities.
- D2. Strategic, Collaborative Partnerships
- D4. Science and Monitoring

Each of these strategy areas has a call out box that summarizes the related salmon recovery priorities, consistency and differences between the two plans. More work may be needed between the draft and final Action Agenda to better articulate the Soundwide and local salmon recovery needs inside the broader ecosystem recovery strategies and actions.

## 3. Funding Strategy Integration

Funding is a key need for salmon recovery as well as for implementation of the Action Agenda. The following elements of the funding strategy have the strongest connection to the Recovery Plan funding needs.

- FS1. Maintain and enhance federal funding for implementation of Action Agenda priorities
- FS2. Focus federal agency budgets and national programs on Action Agenda priorities
- FS3. Maintain, enhance and focus state funding for implementation of Action Agenda priorities
- FS4. Maintain and enhance local funding for implementation of Action Agenda priorities
- FS5. Develop opportunities for private sector funding for implementation of Action Agenda priorities

## 4. Biennial Science Work Plan integration

Salmon recovery scientific needs are reflected in the Biennial Science Workplan.

## 5. Prioritization of Near-term Actions

Salmon recovery related criteria are reflected in the criteria for prioritization of near-term actions.

### **A9.1 Implement the high priority salmon recovery actions identified in other parts of the Action Agenda and the Biennial Science Work Plan.**

Salmon recovery is critically dependent on implementation of the priority actions in Sections A-D, the Funding Section and the Biennial Science Work Plan. This includes the ongoing programs and near-term actions within all of the strategy areas listed above

### Local Strategies

Implementing salmon recovery is a high priority across the Puget Sound. In those areas that have specific strategies and actions incorporated into the Action Agenda at this time, such as the Hood Canal, Straits, and South Central, they have identified the implementation of salmon recovery and restoration plans,

## Near-Term Actions

No specific near-term actions identified at this time; many of the near-term actions described in other sections are relevant to salmon recovery as described above.

### **A9.2 Implement salmon recovery strategies and actions not listed elsewhere in the Action Agenda.**

Actions in the salmon recovery plans that are not incorporated elsewhere in the Action Agenda are listed below.

- A) Harvest management: Brief description of Harvest Management Plan to be added to final Action Agenda.
- B) Hatchery management: Brief description of Hatchery Action Implementation Plan, Volume II of the Chinook Recovery Plan for local actions related to hatchery management, and Summer Chum Plan to be added to the final Action Agenda.
- C) Habitat, harvest and hatchery action integration: The integration of habitat, harvest and hatchery actions is a priority in the Salmon Recovery Plans. This coordinated approach still needs to be created so that decision-making considers how these factors interact with one another.
- D) Monitoring and adaptive management: Monitoring of salmon populations and habitat is ongoing work that needs to continue. Ongoing work also includes development of the adaptive management plans that document the changes in the limiting factors and salmon populations, as well as incorporates this information into implementation. This work is being conducted by both by the Recovery Implementation Technical Team (RITT) and watershed groups, but needs funding to advance. There is also a significant gap in our understanding of how landscape changes impact our ability to recover salmon. Continued and increased investment in watershed based habitat status and trends monitoring, as well as project effectiveness monitoring is key to improving our adaptation efforts. Work has begun to integrate these and other salmon recovery monitoring needs into the broader Puget Sound Monitoring Program.
- E) Unique priorities for other imperiled salmonid species: Puget Sound steelhead were recently listed as threatened under the Endangered Species Act and planning for the recovery of Puget Sound steelhead is now underway. The ongoing coordination with NMFS, the Governor's Salmon Recovery Office, Puget Sound Partnership and the Puget Sound watersheds to develop a Puget Sound Steelhead Recovery Plan needs to continue.

## Near-Term Actions

**A9.2 NTA 1: The Puget Sound Steelhead Technical Recovery Team will finalize a population identification report and viability criteria for steelhead populations within the Puget Sound Steelhead Distinct Population Segment**

*Performance measure: To be determined*

**A9.2 NTA 2:** Working through an interdisciplinary team, WDFW will establish (*number that will be established by the end of 2013*) Wild Steelhead Reserves where no juvenile hatchery steelhead would be released, no recreational fisheries for steelhead would occur, and habitat protection and restoration actions would be accelerated.

*Performance measure: To be determined*

### **A9.3 Maintain and enhance the community infrastructure that supports salmon recovery.**

Implementation of the salmon recovery plans requires a robust infrastructure within local watersheds and at the Soundwide, federal, tribal and state level to implement the habitat, harvest and hatchery actions. Both the capacity to do the work, as well as the implementing structures do the work in the best way possible are needed. The following is a list of entities that to be kept strong and integrated for salmon recovery:

#### **Ongoing Programs**

- **Lead Entities:** Lead Entities are responsible for local coordination related to managing and advancing watershed-level strategic restoration protection and restoration activities. Their work includes managing the three-year work plans that articulate near-term recovery actions and adapting local strategies (WDFW, local match)
- **Local Jurisdictions:** Entities responsible for many of the decisions around habitat protection and land use management as well as key participants in habitat restoration actions. Local jurisdictions include counties, cities, and special districts such as drainage and public utility districts.
- **Co-managers:** The Tribes and WDFW are responsible for determining appropriate harvest rates and implementing the recommendations of the Hatchery Science Review Group (HSRG)
- **Other state agencies,** notably the Governor’s Salmon Recovery Office ( State-level direction and coordination) and the Recreation and Conservation Office (grant management for protection and restoration projects)
- **Tribes:** Strongly connected to salmon recovery through tribal treaty rights, technical expertise, cultural values, and political work.
- **NOAA:** The federal agency responsible for the Chinook, Summer Chum, and Steelhead plans
- **Other federal agencies:** Notably USFWS (responsible for Bull Trout), Army Corps of Engineers (water resources), FEMA (floodplain management), EPA (water pollution and other water resources).
- **Project sponsors:** A broad array of sponsors implement habitat restoration projects including but not limited to local governments, regional fisheries enhancement groups, land trusts, and tribal governments.
- **Puget Sound Partnership:** The state agency that, by statute, administers the regional salmon recovery program. This includes coordination of the annual updates to the Chinook recovery strategy and related 3-year work plan from each Puget Sound salmon recovery watershed, facilitating regional agreement across Puget Sound on the distribution of available salmon recovery funds, assisting the watersheds in developing and submitting to the state Salmon Recovery Funding Board an annual prioritized list of salmon recovery projects for funding, staffing and facilitating the work of the Puget Sound Salmon Recovery Council and the

Watershed Leads to support regional collaboration and decision making on salmon recovery plan implementation, facilitating the Regional Technical Implementation Team (RITT) to provide scientific guidance on salmon recovery implementation, as well as facilitating regional discussions and strategy development for implementation of priority actions in and funding for the salmon recovery plan.

Current budget constraints have resulted in loss of staffing at all levels mentioned above, impacting our collective ability to implement salmon recovery. Funding for this capacity, including for keeping the entities engaged is increasingly difficult.

### **Near-Term Actions**

None; work in the near-term will focus on implementation of ongoing programs.

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### **FUNDING SOURCES**

Major funding sources for salmon recovery include Pacific Salmon Recovery Funding through NOAA for habitat projects and other activities, Puget Sound Acquisition and Restoration (PSAR) for capital projects, and the Estuary and Salmon Restoration Program (ESRP), and local match through jurisdictions and other local partners. These funds, especially the local match, are becoming increasingly difficult to provide.

# Target View: Wild Chinook Salmon

Salmon remain an important part of the economic and cultural identity of Puget Sound. There is a 95 to 99% probability that Puget Sound Chinook salmon can persist on their own for 100 years. This equates to an abundance of 60,580 to 271,640 wild Puget Sound Chinook salmon, depending on the productivity of the Chinook populations.

Puget Sound Chinook have an approved plan developed by local watershed communities, and are one of the few species in Puget Sound that have numerical targets and benchmarks for recovery. Chinook salmon are generally at less than 10 percent of their historic levels in Puget Sound river systems, with some below one percent. An estimated eight to 15 populations of Chinook have been lost entirely.

The 2020 recovery target for Wild Chinook Salmon is:

- We stop the overall decline and start seeing improvements in wild Chinook abundance in two to four populations in each biogeographic region.

The three Action Agenda strategies most related to the Wild Chinook Salmon target are:

- Implement the high priority salmon recovery actions identified in other parts of the Action Agenda and the Biennial Science Work Plan (A9.1)
- Implement unique salmon recovery strategies and actions (A9.2)
- Maintain the community infrastructure that supports salmon recovery (A9.3)

Miradi target diagrams are still being developed for the Wild Chinook Salmon target.