

Puget Sound Steelhead Recovery Team
June 23, 2016 Meeting Summary

Decisions and Actions from Meeting

Decision
1. Accepted the May 24, 2016 draft meeting summary with minor edits.
2. Approved the Recovery Team workplan with revisions.
3. Preliminarily agreed to at least develop strategies and actions for at least each of the listing factors. Also in developing strategies and actions, the Team preliminarily agreed to refer to the new regional approach for Chinook while also directly addressing steelhead.
4. Preliminarily agreed to ensure that hatchery and harvest are better integrated into the Recovery Plan.
5. Approved the letter to the Puget Sound Partnership with edits.
6. Finalized the Membership Criteria as a recommendation to the National Marine Fisheries Service.

Action	Assignment
1. Run the multi-variate analysis of the pressure assessment.	Susan O’Neil, Tristan Peter-Contesse, & Ed Connor
2. Start developing strategies and actions for listing factors.	Small groups (see assignment)
3. Develop a template for the small groups to develop strategies and actions.	Bob Wheeler & Claire Chase
4. Continue refining the linkage library.	Susan O’Neil, Tristan Peter-Contesse, & Ed Connor
5. Read the latest draft Recovery Plan and send comments to Claire Chase before the next Recovery Team meeting.	All Recovery Team members
6. Send the Recovery Team’s letter to Sheida Sahandy, PSP.	Elizabeth Babcock

Welcome, Announcements, & Old Business – Bob Wheeler, facilitator for the Puget Sound Steelhead Recovery Team (“Recovery Team” or “Team”), welcomed participants and led introductions (*please see end for a list of participants*). The objectives for this meeting included reviewing pressures and developing strategies and actions. There were no changes to the draft agenda.

Announcements

- The National Marine Fisheries Service (NMFS) discussing the litigation with the plaintiffs. NMFS hopes to get to a settlement, but Elizabeth Babcock will keep the Recovery Team updated regardless.
- Elizabeth was asked by Trout Unlimited (TU) about the development of recovery strategies and actions, and they intend to closely watch the Team’s work on these. TU also indicated interest in the Team’s discussions on the roles of populations, and TU staff can be available to help the Team in this work.
- One Team member noted that while the Hood Canal group completed a pilot project, it was technical work only and did not include strategies and actions. The Team noted the importance for having a policy-level discussion to set the tone for what the life cycle model and other work will do to complete a list of strategies and actions.

- NMFS decided to allocate \$18.5 million to the Washington portion of the Pacific Coast Salmon Restoration Fund (PCSRF) instead of the \$20 million requested. NMFS has heard numerous requests to revisit that decision and/or make up that \$1.5 million gap from another funding source.

May 24, 2016 Meeting Summary – The Team provided three edits to the draft meeting summary, which was then accepted as final.

Recovery Goals

Co-Manager Meetings – Joe Anderson and the life cycle modeling team have so far met with two co-manager groups which represented 3 DIPs in the south Sound; they intend to talk with every set of co-managers over the next six or so months. Nisqually has a fully developed recovery plan so those meetings went very differently than the ones in Puyallup. Nisqually's perspective is that 2500 steelhead adults for harvest will fulfill the community's goals. Additionally, they have set a general recreational fishery goal of 1500 steelhead adults. They understand that these goals might be ambitious given the current state of the population. The Puyallups are using the mid-1980's harvest level as a guiding framework, and are using lessons learned from Nisqually. The life cycle modeling team writes up an outline of what they heard after the meeting, and their plan is to always confirm that with the co-managers. They are also working on an approach for the MPG-level diversity and population goals.

The NMFS representative noted the importance to discuss how to structure the policy guidance for setting the recovery goals. The Team discussed how to do this – for example, they could use the same approach that was used for setting Chinook recovery goals for all co-managers (properly functioning conditions). However, that could present challenges that the policy guidance can address, such as if the properly functioning conditions are some percentage of historical numbers, the mid-1980's, or something else. At the time it was unknown how close the viability criteria are to the mid-1980's numbers, but the Team considered using the mid-1980's numbers as an interim target for goal-setting, and then the viability criteria as a longer-term goal. The Team will discuss more on this at a later meeting, and also agreed to talk about approaches to identify numbers from the life cycle model that can inform the recovery goals.

Defining the Roles of Populations – Joe Anderson explained that the primary/contributing/stabilizing language used by the Lower Columbia Salmon & Steelhead Recovery Plan may not be the best language for Puget Sound. One Team member noted that defining the roles of populations for Puget Sound needs to consider if that could negate Tribal Treaty rights. Despite that, using different categories or definitions may still be important to define the roles of populations for Puget Sound. The Team may need to consider the sequence of setting recovery goals with defining the roles of populations, and who are the right groups for both of those efforts (may be different). One Team member suggested that once the recovery goals have been discussed by the co-managers and watershed groups, then the Team could set one “follow-up” meeting for all the Demographically Independent Populations (DIPs) in the Major Population Group (MPG) to discuss defining the populations. One Team member wondered how to deal with the populations that do or do not include harvest as a goal; it was noted that the co-managers will likely know where harvest makes sense and that the spatial structure and diversity viability criteria will help to define populations that include this consideration.

Pressures – Susan O’Neil, Tristan Peter-Contesse, Ed Connor, and Ken Currens developed a set of priority pressures for the Recovery Plan. The presentation on the pressures developed to date led into a working session on developing strategies and actions based on those pressures.

The Pressures Workgroup first developed the linkage library, which maps the logic between the pressures (stresses or stressors) and steelhead health. While the Workgroup is doing that work at the MPG/DPS level, the intent is that the linkages can be a resource for watersheds to use at the DIP level as desired. After the Workgroup initially developed the linkages, they also reviewed the Puget Sound Pressures Assessment (PSPA) and developed a pressures assessment specific to steelhead. The Workgroup then developed a cross-walk of the listing factors from the Endangered Species Act, the priority pressures that came out of the PSPA, and the issues identified in the 2015 status review. Together, the Workgroup felt that these three “lines of evidence” led to a more comprehensive picture of the pressures affecting steelhead, partly because the PSPA did not include steelhead directly as an endpoint but included all its habitats to proximately include steelhead or steelhead-specific issues in the assessment (including dams, culverts, peak flows, low flows, increased predation, hatcheries, and bypass).

Discussion

- The workgroup could also develop a multi-variate analysis of the pressure assessment to see if there are overlaps in the currently identified pressures, and that could reduce some repetition.
- The Team could also develop a related ArcGIS file that could better inform the stressors identified in the pressure assessment.
- The PSPA did not include enough specificity – especially for hatchery and harvest – that the Team would likely need for assessing steelhead.
- There is a range of results in the pressures assessment – some stressors show up across the MPGs, and some are different depending on the MPG.
- There are a number of factors to consider when looking at the pressures, strategies, and actions, which include: broad/policy/science goals, DPS/MPG/DIP scale, Puget Sound Lowlands/Cascade Mountains, listing criteria, and near-term/long-term actions.
- The Team noted that hatcheries can be captured in Listing Factor E as well as the status review. The same is true for climate change.
- The Team noted that the agriculture and urban development part of Listing Factor A is a much broader category than some of the other listing factors.
- The Team noted that the three general types of strategies are to protect, restore, or mitigate.
- The limiting factors could be weighted based on the PSPA results.
- The life cycle model broadly segregates the marine and freshwater environments, so the model does not go into the specificity that the linkage library does. This might mean that watersheds feel the need to have a more site-specific or reach-level evaluation of actions in order to properly use the linkage library.
- NMFS noted that the Recovery Plan must have site-specific actions, though those could be broader for a first draft of the Plan and then be more precise in a later phase.
- The Team noted that a monitoring and adaptive management part of the Plan will catch when strategies are no longer working.

Workplan – Bob Wheeler and Claire Chase reviewed the revised workplan that they have developed with Elizabeth Babcock, detailing the actions necessary to get to a draft Recovery Plan as soon as possible. The Team updated parts of the workplan to reflect individual phases’ timelines. The workplan showed that a draft “phase 1” recovery plan would be available for public comment and adoption in the summer or fall of 2017, with a final recovery plan available for adoption in spring 2019. The Team noted that due to some unknowns, primarily the availability of resources and capacity support, it can be hard to commit to a workplan. However, the Team agreed to this revised workplan as a timeline to keep.

Exercise: Mapping the Logic of Pressures, Strategies, and Action – The Team split into two groups and identified draft strategies and actions for the culverts and dams pressures. This was meant to be a preliminary exercise and any strategies or actions developed at this meeting would likely need further vetting (see Attachment 1).

Through the exercise to identify strategies and actions, the Team made the following notes:

- Coordinating with the BNSF railroad company is a gap, and NMFS is in the process of negotiating a programmatic plan with BNSF so if the Team has suggestions for that plan, NMFS will consider it.
- Several questions came up for this exercise, not only for when the Team develops strategies and actions for all priority pressures but also for when the watersheds do a similar exercise at their level:
 - How much detail to include?
 - How to prioritize?
 - Who would implement the actions?
 - Is the organizing principle the pressure or something more specific?
- The Team preliminarily agreed to at least address the listing factors.
- The Team preliminarily agreed to refer to the new regional approach for Chinook but that it is also important to directly address steelhead. The Chinook regional plan update could be useful.
- If the Team decides to re-organize the listing factors, NMFS can still use the Plan as long as the Team summarizes how the new organization addresses the five listing factors.
- The Team preliminarily agreed to ensure that hatchery and harvest are better integrated into the Plan.
- The Team identified who could be a part of identifying strategies and actions for each of the pressures/listing factors.
- The Team outlined a template that could be useful to those creating strategies and actions for the pressures.

Draft Recovery Plan – Claire Chase reviewed the changes made to newest version of the Recovery Plan; Team members were asked to review and provide comments on this version before the next meeting.

Workgroup Progress Reports – The workgroups are continuing their progress, and particularly the Habitat Protection Workgroup will also now be the group to work on strategies and actions for Listing Factor A (destruction, modification, or curtailment of habitat or range). The Team asked what level of support the workgroups can have, which NMFS hopes the Triangle contract can be used from as well as potentially more time from Barbara Taylor. A Team member suggested that as workgroups develop

sections of the Plan, they get reviewed by the Team as a section and then incorporated into the full Recovery Plan draft so that the Team does not need to review the full Plan at every stage.

Letter to Puget Sound Partnership – Prior to this meeting, WDFW had communicated with Elizabeth Babcock their support if the Recovery Team requests that the Puget Sound Partnership (PSP) include steelhead planning capacity for watersheds in their legislative funding request. Therefore, the Recovery Team reviewed a draft letter to PSP with this request. With some edits, the Team finalized the letter and agreed that Elizabeth Babcock would send it on behalf of the Team (see Attachment 2).

Membership – The Team reviewed an updated draft of Membership Criteria, in order to clarify who sits at the table, who is part of the discussions, and who makes decisions. The Team accepted that version as a recommendation to NMFS (see Attachment 3).

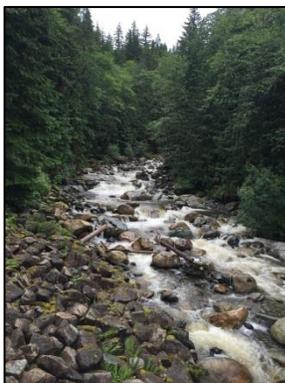
Public Comment – There was no public comment at this meeting.

Administrative Updates

- The next two meetings will be August 23 and September 20.
- At the August 23 meeting, the Team will discuss among other topics:
 - Approaches for how to run the life cycle model (use current, historical, or mid-1980's abundance data?).
 - How to define the role of populations.
 - Follow up on pressures, strategies, and actions.

The meeting was adjourned at 5:00 pm.

The next day, the Recovery Team took a field tour of the Nooksack River basin to see some steelhead sites. They saw sections of the big river and also higher-watershed areas, some surprising and some typical for steelhead habitat. They also looked at the diversion dam to discuss a potentially huge project that would open up a lot of steelhead habitat. Some photos are included here:



Participants:

Name	Affiliation
Joe Anderson	Washington Department of Fish & Wildlife
Elizabeth Babcock	National Marine Fisheries Service
Alan Chapman	Lummi Natural Resources
Ed Connor	Seattle City Light
Ned Currence	Nooksack Indian Tribe
Ken Currens	Northwest Indian Fisheries Commission
Jeff Hard	Northwest Fisheries Science Center
Susan O'Neil	Long Live the Kings
Tristan Peter-Contesse	Puget Sound Partnership
Scott Powell	Seattle City Light
Phil Sandstrom	Washington Department of Fish & Wildlife
Bob Wheeler	Triangle Associates
Claire Chase	Triangle Associates

Attachment 1 – Strategies and Actions Template and Brainstorm

Puget Sound Steelhead Recovery Planning
Recovery Strategies and Actions

Please see directions on the second page

Pressure/Stressor/Stress: _____

Linkage (from linkage library):

(paste linkage here)

Recovery Strategies	Recovery Actions <i>(Discrete, action-oriented, concise, site-specific, and at a fundable level)</i>	Who to Implement	Considerations

Directions for this template:

1. Different groups are responsible for identifying strategies and actions (see below).
2. The steelhead workgroup of the Salish Sea Marine Survival Project and the Team’s Habitat Protection Workgroup are the two groups to begin the work (and to test-drive the concepts brainstormed by the Recovery Team). Groups are encouraged to use this template for each individual pressure.
3. Use as many linkages from the “linkage library” that are relevant to the pressure. (Linkage library will be available on the Google Drive, and/or may need assistance from the group to refine.)
4. Fill in strategies, actions, considerations¹, and who would implement those strategies. Also consider how to rank the strategies and actions.
5. Send your completed table to Claire Chase (cchase@triangleassociates.com).

Pressure	Responsible Group
Habitat (listing factor A)	2-step process, including: 1. Pressures workgroup (Susan O’Neil, Tristan Peter-Contesse, Ed Connor, Ken Currens) to run a multi-variate analysis of the pressures from PSPA. 2. Convene subgroups to develop strategies and actions for: a. Fish passage (dams, culverts) – Dave Price, Ed Connor b. Agriculture – King County FFF, NMFS restoration center or regional office, Ned Currence c. Stormwater – NMFS with TBD d. Timber – include USFS and CWA assurances for climate change; TBD
Disease and predation (listing factor C)	Steelhead Workgroup of the Salish Sea Marine Survival Project (liaisons: Susan O’Neil, Joe Anderson, Neala Kendall)
Inadequate regulations (listing factor D)	Habitat Protection Workgroup (Scott Powell, Dave Price, Tristan Peter-Contesse, Ned Currence, Ed Connor, SRC Regulatory Committee)
Climate change (listing factor E)	Phil Sandstrom and Jeff Hard (incorporating climate change into the life cycle model)
Hatcheries (listing factor E)	Amilee Wilson, Tim Tynan/Steve Leider , others to be invited (including co-managers)

 = these groups will begin summer 2016

¹ Considerations – Add thoughts related to the following considerations in the far-right column:

- Is the Strategy/Action broadly or specifically focused as a **policy** strategy/action, or specifically focused as a **scientific** strategy/action?
- Does the Strategy/Action focus on the **DPS, MPG, or DIP** level?
- Does the Strategy/Action focus on **Puget Sound Lowlands, Cascade Mountain, or Both** areas?
- Can the Strategy/Action be started/completed in the **Near-Term** or **Long-Term**?
- How does the **role of populations** affect this Strategy/Action?
- How does the Strategy/Action address the **Viability Criteria** – Abundance, Productivity, Spatial Structure, and Diversity?

Sample content from June 23rd Puget Sound Steelhead Recovery Team retreat

The following is provided for groups identifying strategies and actions as an example from the Puget Sound Steelhead Recovery Team work on 6/23/16. While this work is not complete, it may help groups to see the very preliminary content generated by the Team.

Pressure/Stressor/Stress: Fish Passage: Dams

Recovery Strategies	Recovery Actions <i>(Discrete, action-oriented, concise, site-specific, and at a fundable level)</i>	Who to Implement	Considerations
Assess lost habitat potential	Calculate PI		
Remove blockages that are feasible and cost effective	<ul style="list-style-type: none"> • Rate/rank potential dam removals • Explore co-benefits of dam removal projects (re-licensing) 		
Assess alternatives for adults upstream and juveniles downstream	<ul style="list-style-type: none"> • Cost-benefit analysis • Inventory existing dams 		Climate change will need to be a consideration for this
Minimize upstream and downstream delay and mortality	<ul style="list-style-type: none"> • Reference dam-related actions in Chinook recovery chapter • Engage in FERC relicensing processes • For non-FERC dams, provide authority to get regulatory mechanisms 		Address tribal rights and water rights
Consider climate change effects on dams	<ul style="list-style-type: none"> • Hold back flows for summer 		

Pressure/Stressor/Stress: Fish Passage: Culverts

Recovery Strategies	Recovery Actions <i>(Discrete, action-oriented, concise, site-specific, and at a fundable level)</i>	Who to Implement	Considerations
Understand where blocking culverts exist	Inventory		
Prioritize which culverts to remove first to open up more steelhead habitat	<ul style="list-style-type: none"> • Continue culvert removals through existing processes • Use existing barriers GIS information • Work with counties • Sequence within watersheds • Develop criteria to prioritize outside of watersheds • Elevate highest-impact culverts • Convene annual meetings at 	WDFW with Counties	

Recovery Strategies	Recovery Actions <i>(Discrete, action-oriented, concise, site-specific, and at a fundable level)</i>	Who to Implement	Considerations
	the DIP level to refine the needs for culvert removal/repair.		
Fix culverts to allow for steelhead passage	<ul style="list-style-type: none"> • Ensure that design criteria for culverts addresses sediment/woody debris and climate change (implement WDFW guidance) • Evaluate effectiveness of re-designed culverts 		
Support existing methods/processes for removing or fixing culverts	Continue implementation of the: <ul style="list-style-type: none"> • Road Maintenance & Abandonment Program • Fish Passage Barrier Removal Board • Forests & Fish program 		
Address transportation corridors that maintain culverts	Coordinate with BNSF	NMFS	

Attachment 2 – Letter to Puget Sound Partnership

Puget Sound Steelhead Recovery Team

June 24, 2016

Ms. Sheida Sahandy, Executive Director
Puget Sound Partnership
326 East D Street
Tacoma, WA 98421

Dear Ms. Sahandy:

We are writing to urge you to include capacity funding for watersheds to develop their local Steelhead Recovery Chapters.

Background. The Distinct Population Segment (DPS) of Puget Sound Steelhead was listed as threatened in May 2007 and since then NOAA has been working to develop a recovery plan. The Puget Sound Steelhead Technical Recovery Team (PSSTRT) worked from 2008 through 2013 to identify the historically independent populations of steelhead and to establish the biological viability criteria needed to be met to guide de-listing of the species. Since 2014, the Puget Sound Steelhead Recovery Team (Recovery Team) has been developing the recovery plan based on the listing factors, viability criteria, and other important work.

The draft Recovery Plan outlines the pressures addressing the full DPS, and will include biological information as well as strategies and actions specific to each of the three Major Population Groups (MPGs), identified by the TRT. To include information, strategies, and actions for each of the 32 steelhead populations, the Plan will also include guidance to watersheds and a template for how to develop their local chapters that will act as appendices to the DPS-level Recovery Plan. While the Recovery Team is working to accomplish as much work as possible for the DPS and MPG levels, we also recognize the importance of allowing time and space for the co-managers and local watershed groups to articulate the history and importance of their local steelhead population(s) and to identify local strategies and actions that would contribute to achieving the viability criteria needed for de-listing the species.

Capacity Need. With funding support from NOAA, the Washington Department of Fish & Wildlife has developed a life cycle model that will help identify recovery goals for the species based on spatial structure, diversity, abundance, and productivity. While this model will also be helpful to the watersheds, it will not identify site-specific strategies and actions, nor will it compare the relative successes from each strategy and action for prioritization. In order to complete a local chapter, each watershed will likely need more modeling, in addition to local work to write the chapter based on the outputs from the life cycle and additional model. This will ensure that each watershed has defensible science to identify site-specific strategies and actions.

In your agency 2017/19 biennial budget, we ask that the Partnership include capacity funding for watersheds to develop their local steelhead recovery chapters. Ideally, funds would be made available for each watershed, but we would be enthused to work with a smaller subset if funding is limited.

This request complements the WDFW steelhead early marine survival funding request, and is consistent with the Puget Sound Salmon Recovery Council's "2017-2019 recovery planning priorities" decision in January 2016 to "support the creation of a recovery plan for steelhead...[including] develop watershed-scale chapters of a steelhead recovery plan that follow a watershed-scale chapter template." This request is also linked to the ongoing work in Puget Sound by the National Estuary Program, the Puget Sound Action Agenda, the activities of each LIO, and the expected and ongoing work of lead entities to update Chinook recovery chapters.

Next Steps. The Recovery Team will continue to develop the draft Puget Sound Steelhead Recovery Plan, and we appreciate your consideration of this high-priority request. We have appreciated the Partnership's support through the Team's work thus far and look forward to further partnership through the completion of this Recovery Plan. We understand the Partnership's role as the responsible agency for Puget Sound steelhead as well as Puget Sound Chinook, and for coordinating with the Hood Canal Coordinating Council on the Hood Canal Summer Chum Recovery Plan, and appreciate your commitment to de-listing all species. In light of newly-proposed capacity cuts to regions, we request that PSP continue your current staffing level of support for, and participation in the steelhead recovery planning process.

We thank you for your understanding of the importance of this capacity need for some or all of the watershed groups to develop their own steelhead recovery chapter for the federal Recovery Plan. If desired, we are happy to work with the Partnership to further develop this funding request.

Sincerely,

Elizabeth Babcock, Team Lead
On behalf of the Puget Sound Steelhead Recovery Team
Elizabeth.babcock@noaa.gov
206-526-4505

Cc:
Puget Sound Salmon Recovery Council
Puget Sound Partnership Leadership Council

Attachment 3 – Membership Criteria

Background

The Puget Sound Steelhead Recovery Team (“Team”) was formed by NOAA’s National Marine Fisheries Service (NMFS) as the lead group for developing a Recovery Plan for the listed Puget Sound steelhead. Appointed by and as an advisory group to NMFS, the Team is composed of scientists and policy representatives from local, state and federal agencies; tribes; and non-governmental organizations. Each member has specific expertise, knowledge, and/or experience with Puget Sound steelhead that allows them to contribute to the effective development of a Recovery Plan. Per NMFS’ *Terms of Reference for Recovery Team Members*, this Team is tasked with: advising NMFS, drafting elements of the recovery plan, and developing recommendations ultimately leading to NMFS publication of a draft recovery plan.

At this point, the Team is developing specific criteria for official Team membership in order to provide an effective process that communicates who actively participates and makes decisions versus those who can participate by providing input through emails, letters, and through public comment periods available at each meeting.

Proposed Criteria

The Team works to limit membership to 15 or fewer total members to maximize discussion time. The following criteria help determine membership of the Team:

- Be a scientist and/or policy representative who has experience, knowledge, education, or other resources that can contribute to the development of a Puget Sound Steelhead Recovery Plan;
- Provide unbiased information, data, and analysis that contributes to the development of this recovery plan;
- Provide a balanced set of interests and perspectives among the Recovery Team membership;
- Represent a tribal, state, local, or federal agency or a non-governmental organization focused on salmon and/or steelhead issues;
- Understand and is willing to work within a consensus-based process to reach agreements on the best ways to move forward with steelhead protection and restoration; and
- Can include ad-hoc workgroup members and subject matter experts as the recovery planning requires.

Existing Members

Joe Anderson, Washington Department of Fish & Wildlife
Ed Connor, Seattle City Light
Ned Currence, Nooksack Tribe
Ken Currens, Northwest Indian Fisheries Commission
Jeanette Dorner, Puget Sound Partnership
Jeff Hard, Northwest Fisheries Science Center
Neala Kendall, Washington Department of Fish & Wildlife
Susan O’Neil, Long Live the Kings
Tristan Peter-Contesse, Puget Sound Partnership
Scott Powell, Seattle City Light
David Price, Washington Department of Fish & Wildlife

David Troutt, Nisqually Indian Tribe

Elizabeth Babcock, NMFS (Team Leader)

Amilee Wilson, NMFS (NMFS Internal Coordination Group representative)