

**OREGON COASTAL COHO RECOVERY PROJECT**  
**Stakeholder Team--Eleventh Meeting**  
**Forest Sciences Lab, Corvallis**  
**Facilitator's Meeting Summary**  
**July 29, 2005**

**Attendees for all or part of the meeting:**

Stakeholder Team Members: Paul Englemeyer (Audubon-Public at Large), Tom Forgatsch (Farm Industry), Wayne Giesy (Alega Valley Alliance), Cindy Heller (STEP), Wayne Hoffman (Mid-coast Watershed Council.), Tom Kartrude (Port of Siuslaw), Kaitlin Lovell (Trout Unlimited), Jason Miner (Oregon Trout), Bill Moshofsky (Save the Salmon Coalition), Lisa Phipps (Mayor Rockaway Beach) Shawn Reiersgaard (Tillamook Creamery), Dennis Richey (Oregon Anglers-NW Steelheaders), Blake Rowe (Longview Fibre Company), Terry Thompson (Assoc. of Oregon Counties), Bill Yocum (Freeman Rock, Inc.)

Resource Advisors:

Ed Bowles (ODFW), Rosemary Furfey (NOAA), Louise Solliday (OR Gov's Office)

Alternates and Technical Resources: Kara Anlauf (ODFW), Bob Buckman (ODFW), Brandon Ford (ODFW), Kevin Goodson (ODFW), Mike Gray (ODFW), Les Helgeson (Native Fish Society, alt. for Bill Bakke), Kim Jones (ODFW), Jeff Lockwood (NOAA), Bridgette Lohrman (NOAA), Dave Loomis (ODFW), Heather Ludeman (NOAA), Tom Nicholson (ODFW), Jay Nicholas (ODFW), Jeff Rodgers (ODFW)

Other Interested Parties: Walt Morgan (public), Thomas Way (public)

Facilitation Team: Donna Silverberg and Robin Harkless

**Action Items**

Action	Who	By When
Technical science meeting to present further information on desired status scenarios	Bakke, Englemeyer, Forgatsch, Giesy, Helgeson, Heller, Hoffman, Lovell, Richey, ODFW staff, others	August 8, 1-5:00 pm at ODFW, Salem
Revise/clarify definitions of threats and limiting factors	NOAA, Oregon	September coho meeting
Offline discussion about actual vs. reported water use	Forgatsch, Solliday	September coho meeting
Check on constraints from DEQ re: fish carcasses	ODFW	September coho meeting
Send CD of presentation, maps to interested	Jeff Rodgers	September

stakeholder team members		coho meeting
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### **Introductions/Housekeeping**

#### Welcome New Stakeholder Team Members

The stakeholder team welcomed Lisa Phipps, Mayor of Rockaway Beach (representing coastal city governments), and Bill Yocum, Freeman Rock, Inc. (representing aggregate interests) to the team. The two said they were pleased to be part of this effort and offered thoughts on their interests relative to coho salmon — good healthy native fish populations; balanced recovery of wild runs; offering perspectives on landowner interests; balancing ecology with economy; and minimizing impacts to Oregon’s economy and social structure. Their presence on the team will help the group in balancing these important points.

#### Comments to June 17, 2005 Summary Notes

- Page 3: Clarify the comment about the TRT product schedule change.
- Page 3: Next comment: ‘They will be asked to help craft...’ is ‘Federal land managers and state agencies’.
- Page 6: Note that Paul Englemeyer did send a set of questions to ODFW related to models used in developing a desired status, which had not yet been received at the time of today’s meeting.
- Page 9: Middle bullet “high quality habitat during low-ocean conditions...”. Clarify that this refers to all high quality habitat, not just high intrinsic potential habitat.
- Page 9: Stakeholder comments: ‘Not good at putting IMST recommendations on the ground’... add that it was also recommended that a presentation from IMST on uplands, lowlands and habitat reports is needed.
- Page 10: Clarify comment that the final assessment includes a continuum to address minimum criteria vs. broad sense recovery viability.
- Page 10: Correction: Ed Bowles highlighted changes to the assessment, not Louise Solliday.
- Last page, last bullet: Not all the stakeholders felt the tone of the assessment was too optimistic. Clarify this.

#### Announcements

Rosemary Furfey, NOAA, provided handouts of a request for proposals (RFP) for a community-based restoration program and marine debris removal program that stakeholder team members might be interested in. She also mentioned that the facilitation team forwarded via email the Federal Register notice on NOAA’s extension on a listing decision for coho, NOAA’s intent to produce draft recovery plans by Dec. ’05 and final plans in ’06, and the hatchery listing policy to Stakeholder Team members. All of these were emailed before today’s meeting. Rosemary offered to send a PDF file of the full hatchery listing policy to interested stakeholders.

#### **Desired Status Scenario**

Ed Bowles and Kevin Goodson, ODFW, provided a first draft of a ‘desired status scenario’ for coastal coho. Ed offered that the intent with the scenario is to 1) provide a greater conservation ‘cushion’ for populations and the ESU, and 2) provide adequate societal benefits as articulated by the stakeholder team.

Ed described the greater conservation “cushion” relative to desired status:

- All populations except the Salmon and Sixes will be at ‘Pass+’ viability levels.
- Pass+’ is defined as double the viability criteria (for 3 of 5 of the populations).
- Abundance = 7 year average of 10 spawners per mile during a ‘90’s type’/poor ocean condition;
- Productivity = 2.1 r/s when density is less than 10 fish per mile;
- Viability = less than 1% chance of extinction in 100 years; and
- Diversity = the 100-year harmonic mean of spawner abundance greater than 1,200.
- ODFW is uncertain how to forecast distribution and is still giving thought to how to approach the issue.

Stakeholder Team Member Questions and Comments:

- Why use 5<sup>th</sup> field HUC instead of 4<sup>th</sup> field, as done with Water Management Plans and Watershed Plans? The 5<sup>th</sup> field was the smallest unit that could be used that had adequate numbers from the samples. The 4<sup>th</sup> field had too much over-lap with other populations and therefore would give unreliable guidance.
- RE: diversity – what is the interim standard? ODFW is working to develop a real-time status based on the other criteria. They are currently gathering information through a retrospective look at diversity. (This raised concerns that an outcome will be dominated by historical or projected information and insensitive to nearer-term, real-time management.)
- Concern was raised about the low abundance status of 10 fish per mile. ODFW responded that they are looking at the gap between where we are now and where we need to go. Abundance can help us do this.
- Is ODFW suggesting that we look at the full stream mileage or just high intrinsic potential (HIP) habitat? ODFW suggests looking specifically at coho spawning habitat (not HIP vs. all habitat).
- Does ODFW define spawning habitat for coho only where redds have been seen? No, they look at where there is enough gravel to allow for spawning – this is continually surveyed. How do you factor in significant changes in water levels?
- RE: viability -- how is this considered a high bar when you are looking at conditions under which the fish were listed? It seems as though the bar has not been raised.

Explanation re: viability modeling results:

ODFW adjusted the relative survival rate for populations in the model based on the criteria to move from pass to pass+. Kevin provided a handout of the modeling results for each population, and noted that Mark Chilcote, ODFW, will be available to answer questions about the model during development of management scenarios. (Also see below re: technical science meeting on August 8.) Ed reminded the Stakeholder Team that the details of the scientific results of the model do not necessarily need to be fully understood by this group. The Stakeholder Team is meant to help the agencies sort through the policy and management issues, not the scientific issues.

- Question re: ocean conditions: Is there a way to quantify fish that get lost on their

way to sea that have been affected by something other than ‘poor ocean conditions’? Is there a way to do site-specific management for these areas to improve survival before they get to the ocean? Yes, this will be included in the limiting factors analysis and management actions discussions. Available data for the estuary and seining surveys in the ocean within 25 miles of the coast can provide some insight on this.

### Providing Societal Benefits

The “Societal benefits” to which ODFW is referring includes those described by the stakeholder team in May:

- Fish for fisheries (ocean/inland, recreation/commercial)
- Carcasses for nutrient enhancement
- Abundant coho for cultural needs
- Hatchery brood stock as a genetic pool for mitigation

From ODFW’s perspective, in order to provide these societal benefits, we will need to keep abundance at a ‘high’ spawner status level (from the Amendment 13 matrix) regardless of ocean survival conditions. Kevin Goodson provided a handout of the harvest management matrix in the Amendment 13 Marine Survival Index to show current allowable fishery impacts; he noted that this was different from the document he distributed at the 6/17 meeting.

The overall message, Ed offered, is that even if Oregon is able to reach the desired status goals as suggested by the draft scenario, the opportunity for added fisheries will be only during good ocean conditions and ‘fleeting’ (if any) during poor ocean conditions.

### Stakeholder Team Member Questions and Comments

- Has Amendment 13 been adopted by the Fish and Wildlife Commission? Though not a requirement, ODFW is working toward getting it adopted.
- Why do the numbers not match up in the viability modeling results vs. Amendment 13 results? It was clarified that the two concepts are not the same; the viability numbers are the initial biological ‘cushion’ while Amendment 13 looks to give direction to when fishing can occur. ODFW hopes to have a clearer answer to ‘what will it take?’ by the next meeting.
- Aren’t we discussing recovery--which means expanding the range? As such, shouldn’t we be looking at recovery instead of focusing on sub-sets in the marine survival index? Each index group incorporates a ‘buffer’ or sliding scale. A comment was made that this may not provide enough of a real-time check-in on whether we are seeing the numbers expected with varying ocean conditions. More discussion is needed.
- If you create additional habitat, the 75% abundance variable becomes a moving target. (It was noted that the Pacific Salmon Commission does not share this view). ODFW will focus on quality of habitat first, then quantity, and says that both are related. This analysis is not a fine-tuned scale, but rather a broad vision of where we want to be.

After the break, Ed provided clarification on what the desired status scenario means to

ODFW. It means reaching an equilibrium point for survival which is 75% or better so that, even under poor ocean conditions, the fish will reach stability. He reminded the group that ODFW developed the quantitative desired status based on qualitative discussions with the Stakeholder Team at previous meetings (see June 17, 2005 ‘Stakeholder Principles for Coastal Coho Conservation’ document). To meet those principles, most populations will need to at least double their survival by this model’s standards. Some will need more, others will need less. Ed informed the group that ODFW does not intend to impose conservation plans via regulatory means, so it is not necessary to fine-tune the model; rather the plan will be the result of a group effort to decide where we collectively want to be—and will serve as the guide to get there.

**ACTION:** For those that want to discuss the technical aspects of the model, there will be a separate meeting at **ODFW in Salem on Monday, August 8, from 1-5:00pm.**

Stakeholder Team Member Comments and Questions:

- What happens to all of this if NOAA lists the coho? This would require the state to meet regulatory obligations under federal law to get to a de-listing. However, ODFW believes the bar will be much higher with the conservation plan than any federal regulatory requirement because society is asking for more than just recovery.
- What is meant by ‘double’ in terms of improvements? How is what we have done and invested in since the 90’s accounted for in the desired status? Improvements to all limiting factors will need to be made to get there: not just harvest or predators, but a combination of changes to hatchery management, habitat improvement over time, etc. Some results will take a lot of time, others will not.
  - Concern was raised that the requirements to get us there (e.g. fisheries) will be too difficult to achieve, and could potentially end fisheries. Ed responded that the group will look at specific areas and collectively decide whether the management scenarios to get us there are feasible and acceptable.
- There needs to be basin-specific triggers and criteria for river fisheries. ODFW agrees. The stakeholder team should discuss what the criteria should be when we discuss management actions.
- There have been big changes in returning numbers since we began our efforts. What is the value we have received for the funds already spent? ODFW believes this information is captured in the assessment.
- Are there any identified problems with the Clean Water Act (CWA) and/or any guidance from EPA? Water temperature standards will need to be considered, but the assessment found that water quality is not a primary limiting factor. There is an underlying concern that if we put too many carcasses in the river, it may become a CWA issue. **ACTION:** An EPA/DEQ representative will be involved in management strategy discussions.
- With the models, can ODFW come up with management actions that individually affect just one of the criteria? All the criteria are connected, but some will experience a change more quickly than others. Productivity will be the driver. There may be a way to target productivity specifically, but there is more work to be done on this.
- We need to begin exploring the economic consequences of this effort. Agreed—and this will happen when we get to the management strategies and actions discussion.

- Public comment: The group is urged to consider the return on investment -- even though it is difficult to evaluate, it is important to be able to answer questions from the outside.

### **Review Limiting Factors and Threats: Application to Planning**

Rosemary Furfey, NOAA, provided a handout of definitions and a bibliography of limiting factors and threats. She noted that a chapter on this is required in both the state conservation and federal recovery plans. She noted that NOAA has been sued for lack of a thorough discussion on this in prior plans and would like to see this group avoid that.

#### Definitions (see handout):

Comment: Limiting factors could be linked to the ability to achieve broader sense recovery goals, not just viability.

Question: How do you make a comparison of 'conditions under which the population evolved' with such a wide range of factors to consider? The definition refers to pre-settlement conditions based on the best available information. Are we going to get a clearer definition of those conditions? During discussions about limiting factors relative to timber/forest areas, it will be important to involve experts (e.g. Tom Spees) who have studied historic conditions.

Comment: A more general definition of limiting factors could be used: 'That which is most important in impeding population growth'.

Rosemary also included a bibliography of limiting factors and threats analyses examples, and provided a handout of the habitat chapter from the Lower Columbia Fish Recovery Board's plan. NOAA hopes to bring a draft chapter of 'limiting factors and threats' for coastal coho to the stakeholder team later in the fall.

NOAA also offered that while a good deal is known about mortality causes at different life stages on Columbia stocks, this information is virtually unknown for coho. As a result, best professional judgment will be relied upon for the coastal coho plan. The 2006 TRT product on limiting factors will influence the final NOAA chapter on this issue.

Public comment: ODFW already identified that the key limiting factor is stream complexity. The production bottleneck, generally, is over-wintering habitat. Why are we going over all the others again? For the state plan this is true, but not for a recovery plan. NOAA is building on the state's effort to put together the limiting factors/threats chapter.

Question: Under the 'threats' definition, what are the 'key' limiting factors? There was no specific intent with the language except to keep the list narrow; it was suggested to strike 'key' from the definition as it is confusing (and provokes concern from stakeholders).

**ACTION:** The state and NOAA will revise and clarify the handouts relating to definitions of threats and limiting factors.

## Review of Limiting Factors

Kevin Goodson presented a power point review of the limiting factors/factors for decline that the state identified through its assessment. He pulled slides from previous meetings, including:

- Harvest was found to no longer be a major factor for decline.
- Predation was found not to be a major factor for decline, but some potential individual problems were identified.
- Disease was found not to be a major factor.
- Introduced fishes was found not to be a major factor for decline.
- Instream habitat - higher channel entrenchment and less large wood than reference sites.
- Riparian conditions – fewer large conifers and lower shade levels than reference sites.
- Water quality – 58% of large river sites have fair to poor water quality, random sites have similar water quality to reference sites.
- Water quantity - consumptive use of water not a widespread issue. A number of comments were made about the discrepancy between actual water use vs. ‘water rights’ permits.
  - **ACTION**: Tom Forgatsch and Louise Solliday will have an offline discussion about which areas are using water beyond their rights and report back.
- Estuaries and wetlands – significant loss historically, but minimal loss recently.
- Fish passage: A small percentage of areas are inaccessible, but status of 1/3 of culverts unknown – the stakeholders can look at this on a finer scale.
- Hatcheries – no longer a major factor for decline. A few places where there may be impacts.

An expert panel was used to determine the key bottlenecks for each population. A clarification was made about ‘bottlenecks’ that were identified for most populations: the state used this language to distinguish from ESA limiting factors and threats language.

Overall, stream complexity was the primary limiting factor for most populations.

## **Management Strategies: Current and Potential Tools**

Jeff Rodgers, ODFW, presented a power point with information including a definition of high quality winter habitat, a description of winter high intrinsic potential (WHIP) habitat, and a description of the maps that were up on the walls around the room.

Jeff described “habitat quality” as habitat with quality sufficient to support a winter rearing density of greater than .3 juveniles per square meter when marine survival is 3%. This was what was estimated for the population to replace itself. This was determined using the “Habitat Limiting Factors Model” (HLFM) and “Habrater” models.

“High intrinsic potential habitat” was described through a handout from the Pacific Northwest Research Station. Intrinsic potential describes the potential to provide high quality winter habitat (Jeff made the distinction that high intrinsic potential refers to winter habitat), with attributes that are static over long time frames. This is calculated as

a geometric mean of attributes such as valley constraint, gradient, and flow. It can be used as a tool for developing restoration plans.

Jeff also provided a number of Frequently Asked Questions about high intrinsic potential (see the handout for more details).

Stakeholder Team member questions: Is determining where WHIP lies in terms of conifers vs. deciduous trees part of the analysis? Jeff responded that trees serve more as a cover, and that complexity is the main objective, not comparing one type over the other. It was noted that more alders fall in to rivers faster than conifers. This issue will be revisited during management strategy discussions.

Comment – The model needs to be fine-tuned to consider substrate to get a better picture of what is going on. ODFW agrees, and noted this is just one tool of many.

The purpose of the maps is to show where there is good information and where additional data is needed. A suggestion was made to add to the maps a measure of uncertainty and to incorporate watershed council data and other information into the GIS work.

Recommendation: Conduct winter habitat surveys to fill in the gaps, using the implementation plan as one tool for prioritizing restoration efforts.

Next steps: ODFW needs to determine who is the GIS resource for this group and what resources are available to move these tools forward.

Comment: Overall the most important factor is winter habitat – improvements there would give us the most return. Agree that for most of the sub-populations this is true, but for the other 25-40%, a different factor is more important. Look at the sub-population scale so we are only developing winter habitat where it is beneficial. Re-visit in 10 years to make sure we are on the right path. Do not stop doing other restoration activities where appropriate. Finally, look to locals for guidance on this.

Comment: This is good data collection. Where commitment is there, habitat improvements are achievable (and happening already in some areas).

**ACTION**: Jeff Rodger's maps and power point will be included on a CD; Jeff will forward them on to those interested. Let the facilitation team know if you would like this information forwarded to you.

### **TRT Status Review: Progress and Products**

Pete Lawson reported that the ocean is experiencing El Niño-like conditions without being in an El Niño year. Researchers do not understand why it is so warm, why adults are returning in such low numbers, and why the normal upwelling of nutrients has yet to occur. Signs are not encouraging for this and next year, with water temperatures at or near record highs from south of San Francisco up to Alaska. While temperatures are starting to cool, there may be sterile ocean conditions for both juveniles and adults.



Researchers are putting together a proposal to study this more closely and try to determine what is happening in the ocean.

#### TRT Coho Work Group Viability Presentation

Pete presented the work group's preliminary work on coho viability. As part of the viability analysis, the work group developed a decision support system model which expresses degrees of certainty, based on a 'truth value' with a degree of membership in a set, ranging from -1 to +1 (i.e., complete membership to complete exclusion). Pete described this as 'an extension of traditional logic' (hence, the name of the model, "Fuzzy Logic").

Issues – This model requires a different approach to designing criteria and is hard to quantify; results are sensitive to network structure; using an iterative development to achieve 'reasonable' results; and weighted to low truth values, with an assumed conservation goal. (See handout for more detail.)

At this point, the model was presented with no results for the Stakeholder Team to review; this will come after the data undergoes review by the TRT. Pete expects that the results will be available for the Stakeholder Team to review in mid-November.

A recommendation was made for the TRT to go through this exercise in the Southern Oregon Northern California (SONC) coho process too. (The TRT plans to do this).

Public comment/request: Since there was not much time to comment on the assessment for viability, ODFW should give time to review the different reports (e.g. DEQ, hatcheries and habitat) based on this new criteria, and provide written comments. ODFW responded that yes, the reports should be revisited in the context of how management strategies could be utilized to improve populations.

Stakeholder Team member comment: Has there been discussion with DEQ on carcasses in the streams? Yes, and DEQ will participate during management scenario discussions.

**ACTION:** ODFW will check on whether there are any carcass constraints with DEQ and, if so, what would be needed to remove the constraint before the next meeting.

**Stakeholder Team Meeting Schedule:** The following dates and locations were set for upcoming meetings:

- September 23 --Newport;
- October 27 -- Bandon Dunes; and
- November 14 -- Tillamook or Rockaway Beach

#### **Next Steps**

The facilitation team will be making calls to team members prior to the upcoming meeting(s). These calls will be to check in on stakeholder team member's priorities as we move forward and to allow the team to help shape future agendas. The group was asked to consider what information they still need to move forward with the development of the conservation plan.

