

Excerpts from Lewis/Washougal/Salmon Workgroup Summary Workgroup conclusions/recommendations

Natural Production - Workgroup Conclusions/Recommendations:

Final Recommendations:

- 1) EF Lewis summers and winters as gene bank
 - a) Best for both wild fish populations.
 - b) Recommend this in addition to the NF Toutle/Green gene bank to maintain geographic spread of gene banks through the cascade strata.
 - c) Should include additional monitoring to identify stray rates from NF Lewis populations.
- 2) Maintain current management regime (Wild Steelhead Sanctuary) on Washougal for summer steelhead with the addition of the velocity barrier on the NF Washougal. Remove hatchery steelhead from NF Washougal at Skamania Hatchery.
- 3) Recommend WDFW pursue management options to ensure NF Lewis wild winter steelhead population meets recovery targets, mitigation obligations and HSRG standards.
 - a) Option a: Successful reintroduction program (fish passage/collection) which results in increased steelhead abundance in Upper Basin would result in meeting recovery targets and HSRG standards for the population while allowing mitigation programs to continue.
 - i) WDFW should continue to work with PacifiCorp and NOAA to require that FERC permit requirements regarding wild winter steelhead reintroduction are met.
 - b) Option b: Pursue alternative population structuring to recognize separate Upper and Lower populations for wild winter steelhead with appropriate recovery designations.

Artificial Production - Workgroup Conclusions/Recommendations:

Short Term:

Lewis River:

1. *NF Lewis* -Maintain or increase the existing hatchery steelhead programs on the lower NF Lewis.
2. *EF Lewis* -Potential Options for re-programming production removed from EF Lewis
40,000 winters and 15,000 summers = 55,000 smolts – contingent on designation of EF Lewis as a gene bank.
 - Washougal Winters – additional 25,000 winters for a total of 85,000 smolts
 - Washougal Summers – additional 10,000 summers for a total of 70,000 smolts.
 - Kalama Winters – no increase
 - Kalama Summers- no increase
 - Salmon Creek Winters – additional 20,000 winter plant for total of 40,000 smolts.
3. *EF Lewis* -Potential management action- removal of hatchery steelhead captured during wild steelhead tagging operations in July-August.
 - a. Surplus (lethal removal) hatchery steelhead during tagging operation on EF Lewis – use for food bank donations or nutrient enhancement.

- b. Continue current practice of tagging and release of hatchery steelhead at tagging location until hatchery returns from direct plants cease (2015).

Washougal River:

4. Potential management action- removal of hatchery steelhead captured during wild steelhead tagging operations in July-August.
 - a. Surplus (lethal removal) hatchery steelhead during tagging operation at Washougal Hatchery and above Dougan Fall –use for food bank donations or nutrient enhancement.

Salmon Creek:

5. Explore the use of new or better acclimation facilities to improve fish survival and fishery contribution.

Hatcheries:

6. Volitional release strategies should be explored to reduce residualism issues with integrated programs.
 - a. Undersized fish vs. oversized fish – removal of these fish from release or release in a location of low impact.
7. Hatchery evaluation should be increased by 2016 with the objective of improving performance of hatchery stocks relative to harvest opportunities, while meeting or exceeding conservation objectives.
 - a. Evaluate programs on the following:
 - i. In-hatchery performance (quality smolts)
 - ii. Fishery contribution
 - iii. Overall survival (smolt to adult returns “SAR”)
 1. Hatchery returns
 2. Harvest
 3. Natural spawn
 4. Stray rates
 - b. Goal: Identify optimal program size and hatchery protocols to produce high quality smolts that meet program objectives and are consistent with WDFW policies.
 - c. Determine capital improvements needed.

Long Term:

1. The Wild Fish Rescue program (capturing of stranded juvenile fish during low flow conditions/areas in summer months and rearing in alternate location until release in following spring) has produced interesting results for coho.
 - a. WDFW should implement a more structured evaluation program for this strategy.
 - b. WDFW should explore the feasibility of this strategy for steelhead as an option for both conservation and harvest augmentation programs.
2. WDFW should work to improve the issues with the current segregated winter steelhead stock (Chamber's creek).
 - a. Compressed return timing
 - b. Survival rate
 - c. Catchability
 - d. Small size

- e. Maturation status
- 3. WDFW should explore the feasibility of developing a wild broodstock program for winter steelhead on the Washougal River and NF Lewis River with a harvest objective.
 - a. Explore potential for non-lethal, innovative fish culture techniques including use of natural spawning channels, which allow for natural mate selection.
- 4. WDFW should explore the feasibility of developing a localized segregated steelhead stock from lower Columbia wild winter natural returning fish.
 - a. Would begin with integrated strategy and then work to accelerate early return and spawn timing for a segregated program.

Fisheries Management - Workgroup Conclusions/Recommendations:

Short Term:

1. *Closed unless open rule*
 - Majority of group does not agree with move from “open unless closed” to “closed unless open” and would recommend not making this change.
 - If rule is implemented, keep regulations as simple as possible and avoid segmenting stream reaches as much as possible.

Lewis River:

2. *EF Lewis- recommended for gene bank designation*
 - Option 1: Keep current regulation structure until returns from direct hatchery plants cease (thru 2015). (3 members in favor)
 - 1st Sat in June thru March 15th (allows bait) – from 400’ below Horseshoe Falls downstream (exclusions around waterfalls).
 - April 16th to 1st Sat in June – Selective Gear from Lewisville downstream (closed above Lewisville)
 - Option 2: Keep current regulation structure until returns from direct hatchery plants cease (thru 2015) with following exceptions (9 members in favor):
 - summertime closure (July 15th to Oct 15th)
 - Selective gear rules
3. WDFW should consider implementing “Mandatory hatchery fish retention” rule in the EF Lewis as soon as possible.

Washougal River:

4. Suggest opening the NF Washougal below the hatchery, once hatchery has made escapement.

Salmon Creek:

5. WDFW should keep current regulation structure, and explore moving fishing boundary further upstream (possibly 182nd Avenue) for steelhead.

Long Term:

Lewis River:

1. *EF Lewis- recommended for gene bank designation*
 1. As part of the EF Lewis steelhead management plan, develop a three tier system for providing fishing opportunity for summer and winter-run steelhead tied to three levels of wild fish abundance:

- First tier (below minimum management goal)
 - no fishing
 - Second tier (above minimum management goal to third tier abundance threshold).
 - Catch and release fishing only.
 - Selective gear rules.
 - Third tier – (above high abundance threshold)
 - “surplus” fish (i.e. Additional wild fish impacts) are available.
 - For third tier – need to determine how best to allocate allowable impacts.
 - Maximizing catch/release opportunity.
 - Limited entry harvest fishery (special tag).
 - Harvest fishery (i.e. one fish per year)
 - Ensure equal and fair opportunity is provided.
 - May require FMEP update.
 - Slot limit fishery to protect larger fish Conduct analysis to further evaluate what the requirements are to move between tiers.
 - Based on percentage of carrying capacity; biological reference points.
 - i.e. 50% above seeding to move from tier two to tier three.
 - Needs to incorporate quality of data, evaluation of risk and ability to forecast run size.
 - Needs to be consistent with Recovery plan objectives (Figure 4.3 above)
2. Consider the following conservation measures:
- Selective fishing rules year round
 - Summertime closure (July 15th to Oct 15th)
 - Closure from July date thru October provides protection during high river temperatures and low river flows.
 - Other time and area closures to offer added protection to wild steelhead stocks.
 - Increase closure time frame during late spring in lower river
 - Consider additional sanctuary areas above Moulton or Lucia Falls
 - Additional gear restrictions and handling protocols to offer added protection to wild stocks.
 - Implementation of mandatory hatchery fish retention.
3. Develop structure in regulation pamphlet to outline Gene Bank rules – identify gene bank areas.

Regulatory Compliance – Workgroup Conclusions/Recommendations:

1. Identify appropriate opportunities for increased enforcement of key resting pools in the summer – EF Lewis and Washougal.

- Identify key times and places for this effort.
 - Work with Enforcement to improve response time.
2. Develop joint enforcement program with WDFW and USFS
 - Forest Protection Officers (FPO) should have ability to make contacts with fisherman and help identify violators.
 3. Improve signage of boundaries, closed areas, and regulations, particularly at campgrounds; utilize caretakers at campgrounds and volunteers.
 - Information should be updated on reservation website to reflect current fishing regulations/closures.
 - Signage tied to outreach/education information.
 - Signage should include information on reporting poaching:
 - 1-877-WDFW-TIP / REPORTPOACHING@DFW.WA.GOV
 4. Develop a list of landowners who are supportive and willing to allow enforcement through their properties to better access the river(s) and anglers.
 - Explore the use of game cameras as a tool for better monitoring/enforcing angler activities.
 5. Work with enforcement to better communicate the importance/value of wild steelhead to judges/prosecutors.
 6. Improve awareness of poaching hotline/e-mail address, and rewards program.
 7. Improve citizen information communication process. Develop neighborhood “stream watch” programs coordinated with enforcement.

Monitoring, Evaluation & Adaptive Management - Workgroup Conclusions/Recommendations:

Short Term:

EF Lewis

1. If fisheries occur, implement creel surveys to evaluate impacts to wild steelhead population.
2. Use creel survey in EF Lewis as an evaluation tool for evaluating fishery impacts and to gather information on hatchery stray rates.

Long Term:

EF Lewis

3. Develop a monitoring plan to evaluate steelhead population response to the gene bank designation that includes regular reporting/review intervals of 2018, 2022 and 2026.
 - May wish to coordinate this with review of recovery plan strategy (6 year intervals).
4. Implement Fish In/Fish Out (FIFO) monitoring in the EF Lewis.

General

5. WDFW shall develop biological reference points (BRP) from the best available regional spawner/recruit data sets for steelhead for high priority (primary and contributing) populations.
6. WDFW should obtain and establish long-term funding for monitoring to insure proper assessment of the status of the wild fish populations and the level of straying by hatchery fish.

7. WDFW should determine the current and future smolt capacity for use in the BRP consideration.
8. WDFW should determine the extent and location of the in-river juvenile rearing areas.

Research - Workgroup Conclusions/Recommendations:

1. Develop biological reference points (BRP) from best available regional spawner/recruit data sets for steelhead.
2. Develop studies to evaluate gene flow/introgression and ecological interactions from segregated steelhead programs.
3. WDFW should explore issues surrounding decreased smolt to adult survival rates being experienced currently. Continue to identify causes and develop strategies to address them with the goal of improving survival rates.
 - Consider utilizing a workgroup process, similar to this one, to discuss research activities and out of basin impacts to steelhead populations.
4. WDFW should work to understand the relationship between steelhead production and temperature and flow (including hyporheic flow), particularly in the lower EF Lewis. Work with Department of Ecology to understand natural and anthropogenic effects, particularly gravel mining, on temperature and flow.

Outreach & Education - Workgroup Conclusions/Recommendations:

1. Expand the use of volunteers to participate in needed monitoring and enforcement programs.
2. Utilize partnerships to update informational signage/kiosks.
3. Form a group of landowners/ public citizens, hatchery staff, and fish management staff in each basin to tackle key issues, projects, or challenges.
4. Explore ways to better connect with landowners in these basins.
5. Expand education of the public regarding gene bank areas (EF Lewis) and the purpose of gene banks.
 - Kiosks
 - Pamphlets/handouts
 - Regulation Pamphlet
 - Website
 - “Gene bank” celebration day - Viewing of steelhead – web cams
 - Include description of gene bank in rules for EF Lewis
6. Engage local schools in outreach programs.
 - Senior projects
 - Scouts
 - Classroom presentations
7. Better communicate economic and recreational value of steelhead and steelhead fisheries to the community.
 - Adds to the ability of business to attract skilled employees.