The Preliminary FEIS is subject to change pending final FWC approval of the SSMP.

State of Washington
Department of Fish and Wildlife

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December 5, 2007

Dear Interested Parties:

The Washington Department of Fish and Wildlife (WDFW) has submitted a Preliminary Final Environmental Impact Statement (Preliminary FEIS) titled, Statewide Steelhead Management Plan (SSMP). The Preliminary FEIS is subject to change, pending final Fish and Wildlife Commission approval of the Statewide Steelhead Management Plan in early 2008. This Preliminary FEIS is presented to the public and other agencies and incorporates changes made from comments received on the Draft Environmental Impact Statement released on August 1, 2007.

This is a phased non-project review proposal. Phased review allows agencies and the public to focus on issues that are ready for decision and excludes from consideration of issues already decided or not yet ready.

The Department will use this statewide management plan to develop and implement regional management plans that identify the long-term goal, benchmarks for modifications to management actions, escapement objectives, and the expected trajectory for the diversity, spatial structure, productivity, and abundance of each wild steelhead stock. Future phased review will be conducted for the following seven regional management plans: Puget Sound, Olympic Peninsula, Southwest Washington, Lower Columbia River, Mid-Columbia River, Upper Columbia River and Snake River. The Statewide Steelhead Management Plan and the collection of completed Regional Management Plans will be the state's management plan for steelhead.

This plan is necessary because in spite of seventy years of conservation efforts, many steelhead stocks are at a fraction of their historic numbers and five of the seven distinct population segments that exist in Washington are federally listed under the Endangered Species Act. To ensure long-term conservation of such stocks and production of fish for human use and ecological integrity, the Department of Fish and Wildlife started with a scientific foundation that summarized the distribution, status and previous management strategies in the draft report ***"Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs"****(Draft July 21, 2006).*

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Findings and recommendations identified within the report represent the underpinnings of the proposed Statewide Steelhead Management Plan. The plan also takes into account how current science fits in with actions mandated by the Salmon Recovery Act of 1998 as well as protections provided by the Forest and Fish Act so that wild steelhead stocks can be effectively and efficiently restored and protected.

AREAS OF CONTROVERSY AND UNCERTAINTY

Stakeholders have clearly articulated that the foundation of a plan to restore and maintain wild steelhead must capture an increased level of commitment towards protecting wild stocks. The foundation and goal of the proposed *Statewide Steelhead Management Plan* is to "place the highest priority on the protection of wild steelhead and restoration of these stocks to healthy levels." The placement of the "highest priority on the protection of wild steelhead and restoration of those stocks to healthy levels" creates a strong interconnection between natural production, artificial production and fisheries management. In addition, it also articulates a commitment towards habitat protection and restoration since it is key to achieving the long-term conservation goals. Actions that reduce the risks associated with artificial production and fisheries management are identified within the "preferred alternative". The performance of steelhead program operations strategies must be carefully monitored to insure that the actions are restoring and maintaining abundance, distribution, diversity and long-term productivity to steelhead and their habitats.

MAJOR CONCLUSIONS

The Preliminary FEIS finds that there would be no likely adverse environmental impact if the preferred alternatives of the Preliminary FEIS are implemented.

This Preliminary FEIS presents 4 alternatives containing 32 proposed policies grouped in 2 major policy categories: Steelhead Program Operations and Steelhead Program Administration. The Preliminary FEIS considers the possible environmental effects of each. Selection of these policies will ultimately determine the contents of the *Statewide Steelhead Management Plan.*

WDFW believes this Preliminary FEIS will assist decision makers to identify the key environmental issues, and options associated with this action. Comments received from agencies and interested parties during public review of the draft document, have been considered and incorporated into this Preliminary Final EIS. WDFW thanks every citizen and agency for his or her thoughtful comments and input into this process.

Sincerely,

Teresa A. Eturaspe

Teresa A. Eturaspe
SEPA/NEPA Coordinator
Agency Responsible Official
Regulatory Services Division

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1. Executive Summary

1.1 State Environmental Policy Act Process Overview

1.1.1 Introduction

The Washington Department of Fish and Wildlife (the Department, WDFW) recognizes the importance of the State Environmental Policy Act (SEPA) in the process of adopting the *SSMP*. The environmental impact statement (EIS) process provides opportunities for other agencies, stakeholders, the Tribes and the public to participate in developing and analyzing information. This process, as detailed in chapter 197-11 WAC, ensures that the Department and the Fish and Wildlife Commission (FWC) understand the environmental consequences of decisions and considers mitigation of probable significant adverse environmental impacts when making decisions. The EIS process includes:

- Scoping
- Preparing a DEIS, which analyzes the probable impacts of a proposal and reasonable alternatives;
- Issuing a DEIS for review and public comment;
- Preparing a Preliminary FEIS, which includes analyzing and responding to comments received
  on the DEIS;
- Issuing a FEIS; and
- Using the FEIS in decision-making.

The Department made a concerted effort to involve the public from the earliest stages of the plan. It developed an Ad Hoc Steelhead Stakeholder Group comprised of representatives from the Steelhead and Cutthroat Policy Advisory Group (SCPAG), and conducted monthly stakeholder meetings starting in July of 2006. Throughout the public meetings from July 2006 through April 2007 additional interested stakeholders were included in the steelhead stakeholder group. The Ad Hoc Steelhead Stakeholder Group was developed to receive regular input as the draft *SSMP* was developed. During the monthly steelhead meetings with departmental staff, stakeholders were authorized and encouraged to give presentations, suggest pertinent agenda topics, provide materials for departmental review, and set future meeting dates. All public comments received during the scoping process were reviewed by a departmental steelhead team and incorporated, where appropriate, in the *SSMP*. Their input is reflected in the Draft of the Statewide Steelhead Plan, Statewide Policies, Strategies and Actions dated July 23, 2007 (see Appendix A). All policy issues and most frequent concerns were grouped by themes and included in a memo "Statewide Steelhead Management Plan Response to Comments" (see Appendix B) released April 3, 2007 by the Department.

The Department also developed a steelhead website for stakeholders and interested public. The website includes information on the statewide steelhead planning process, public releases, the SEPA process, and stakeholder meetings. All documents and presentations during the monthly stakeholder meetings are included on the website. The *SSMP,* DEIS, and Preliminary FEIS can be accessed at: http://wdfw.wa.gov/fish/steelhead/index.htm.

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The State Environmental Policy Act processes have been used to ensure public input into policy development. Key steps in the policy development process have been:

1. A scoping notice was sent to more than 110 individuals and interested groups in August and December 2006.

2. A Draft Scoping Paper for the Statewide Steelhead Management Plan *(SSMP)* was distributed to citizens and groups.

3. Public meetings to hear citizen comments were held in August and September 2006 in the following locations: Port Angeles, Olympia, Vancouver, Tukwila, Mount Vernon and Ellensburg, Washington. Written comments were also received. Information from the public meetings and comments were available to guide state policy leaders. In May 2007, a draft alternatives table presented five possible options for public review. These alternatives were crafted from comments received during the initial scoping and monthly stakeholder meetings.

1.1.2 Alternatives

Considering the current and anticipated factors affecting the steelhead resource, the *SSMP* will consist of a set of strategies for balancing policy to address the Agency mandate to conserve wild steelhead populations and provide utilization opportunity. The focus of this Preliminary FEIS is to analyze a range of reasonable alternatives, to assess their risk of possible significant impacts to elements of the environment while identifying mitigation measures to avoid or minimize related adverse environmental impacts. While this document addresses these impacts at the over-arching statewide level, it is recognized that further consideration, and possibly additional impact specifics, will emerge as strategy implementation details are proposed in individual watershed plans.

Alternative strategies are one of the required components of an EIS. They present meaningful options for the Department to address management of steelhead in Washington State. Policy proposals to be considered by WDFW are presented in the set of reasonable alternatives described section 1.4 of this Preliminary FEIS, and categorized in Table 1. These alternatives present different policy choices that are consistent with the purpose and need of the *SSMP* as described in section 1.2, and relate each to the environmental impacts identified in this Preliminary FEIS in Chapter 3. **A summary of the potential environmental impact identification process is provided in Appendix C.** This process utilized the environmental checklist called for in WAC 197-11- 444 and provided in WAC 197-11-960 as the basis for determining any potential environmental impacts resulting from the approval and implementation of the *SSMP* non-project action.

The alternatives incorporate information gathered and issues raised through the SEPA scoping process. The specific alternatives discussed under the eight *SSMP* policy subject areas in section 1.4 can be grouped, across a spectrum from most conservative for wild steelhead to least conservative, into four generalized alternatives (Table 1):

1) The **most conservative** alternative to maximize wild steelhead protection
2) The **preferred** alternative to provide increased wild steelhead protection

3) The **status quo** (no action) alternative to maintain our current approach and program emphasis
4) The **least conservative** alternative to provide increased fishing opportunity to the public

A summary of each generalized alternative, across all eight of the policy categories is provided in the following paragraphs. The status quo alternative (Alternative 3) is described first to allow comparison of the other alternatives to the current management policy emphasis. Additional details on the alternatives and related environmental impacts are provided for each subject area in Chapter 3.

The **status quo** alternative (Alternative 3) represents the current approach to steelhead management, which attempts to find the balance between wild fish conservation and recreation opportunity by using a wild fish management strategy based on maximum sustainable harvest (MSH). Hatchery fish are produced to meet current harvest objectives within wild fish management restrictions. Fisheries are managed for minimum MSH escapement and to limit impacts on wild steelhead to a maximum of 10% incidental mortality on under-escaped wild fish runs. Currently, WDFW habitat protection efforts revolve around the Hydraulic Project Approval (HPA) process and a support focus on maintaining involvement in State and Federal protection and restoration processes. With the existing limited ability of WDFW to control adverse habitat impacts, the MSH based approach is vulnerable to the cumulative effects of habitat degradation. Fisheries management, regulatory compliance, research, monitoring and outreach efforts are affected by current Department resource constraints, as is the ability to proactively implement adaptive management strategies.

The **preferred** alternative (Alternative 2) is designed to address the current and anticipated challenges related to management of wild and hatchery steelhead. The major emphasis shift of **Alternative 2** is to establish steelhead stock conservation goals in terms of all four viable salmonid population (VSP) parameters (abundance, productivity, diversity and spatial structure) instead of MSH-related abundance. Natural production strategies include establishment of wild stock gene banks. Acknowledging the existing constraints on the ability of WDFW to control habitat impacts, this alternative instructs the Department to emphasize a higher level of involvement within existing authority and increase participation in effective external conservation processes. Fisheries are to be managed to meet VSP objectives and to further reduce incidental mortality on wild stocks to levels significantly below the current 10% guideline for MSH management. This could result in some additional restrictions on fishery opportunity. Artificial production program changes will focus on identifying and reducing the adverse impacts on wild salmonids. In some watersheds, potential recreation impacts on fishery opportunity may result from implementation of these strategies to support the statewide plan. Regulatory compliance, monitoring, research and outreach initiatives will need to be adopted and supported with an increased resource commitment to adaptively manage steelhead stock conservation and recovery in this VSP context.

The **most conservative** alternative (Alternative 1) seeks to manage natural production for maximum returning abundance levels with the goal of reaching the carrying capacity of the system. Intrinsic to this strategy would be the need to establish the existing limits to productive habitat for each steelhead life stage in each system in order to achieve the overall productive

habitat increases that would gradually raise carrying capacity levels to the natural limit of the system. This would require a significant increase in WDFW participation, jurisdiction and authority over habitat actions with the goal to achieve a no net loss of existing habitat and an increase in productive habitat. This also would, with possibly a few emergency conservation program exceptions, essentially eliminate most steelhead hatchery programs and in the short term, have an extremely significant impact on steelhead annual harvest, which at this scale, would probably translate into an adverse impact on recreation. Considerable resource commitment to increased regulatory compliance and monitoring would be essential to achieve success. Effective adaptive management would be predicated on greatly enhanced research, particularly in the areas of increasing human population pressures and climate change. Finally, outreach and education efforts explaining these initiatives would be needed to garner broader public program support and to foster sustainable lifestyle changes needed to protect wild fish and their habitats to this degree.

The **least conservative** alternative (Alternative 4) presents the feasibility of attempting to increase recreational utilization opportunity while preserving or possibly enhancing wild stocks, or at least minimizing adverse impacts on wild fish to some unavoidable but acceptable levels. The increased utilization concept in Alternative 4 is based on strategies to increase hatchery production and manage for wild conservation at MSH abundance levels. Initially, the first would likely be accomplished by an increase in the scale of properly segregated programs, while integrated programs would carefully be developed to offset increased impacts to wild stocks. The Departmental role in habitat protection and restoration would essentially be unchanged from the status quo. Regulatory compliance and outreach efforts would focus on harvest and hatchery issues. Additional monitoring and research should be prioritized on determining and evaluating critical thresholds for perpetuation of wild stocks.

1.1.3 Non-Project Proposal

The *SSMP* is a “non-project action” under SEPA. Non-project (also called programmatic) actions include the adoption of plans, policies, programs or regulations that contain standards controlling the use of the environment or standards that will guide future actions. Future site-specific steelhead management decisions will be guided by the policies developed during this process. The probable significant adverse environmental impacts analyzed in a non-project EIS are those impacts foreseeable at this stage, before specific project actions are planned.

Some regions and watersheds in the state have already been evaluated during the development of currently functioning plans. An analysis of this will be included in the roll-up of the watershed plans into the respective RMP supplements to the *SSMP* and will be addressed during the next SEPA phase.

1.1.4 Scoping

Scoping initiates public involvement in the SEPA process. It has three purposes: 1) to narrow the focus of the EIS to significant environmental issues; 2) to eliminate issues that would have insignificant impacts or that are not directly related to the proposal; and 3) to help identify reasonable alternatives, consistent with the purpose and need of the proposed action, to be analyzed in the EIS. The scoping process alerts the public, the project proponent and the lead agency to areas of concern and potential controversy early in the process. Here, the Department

is both the project proponent and the lead agency. The SEPA process for the *SSMP* update was formally initiated with the scoping notice published on August 22, 2006 and then again on December 22, 2006. The formal SEPA scoping period ended on January 22, 2007. Many interested individuals and stakeholders attended the public meetings and provided oral testimony. In addition to comments received at these public meetings that were held at eight key sites throughout the state, the Department received written scoping comment letters and met with several key stakeholders. Testimony was augmented by a series of monthly meetings the Department held between July 2006 and April 2007 with an Ad Hoc Stakeholder Group.

1.1.5 Next Steps

After this Preliminary FEIS has been issued, the Department will brief the FWC about the *SSMP* on December 7th in Port Angeles. The Preliminary FEIS will provide necessary information that the FWC will use in deciding which policies will be adopted in the *SSMP*. The FWC will take public testimony about the *SSMP* in February and take action on the plan in March. Upon the FWC's approval of the *SSMP*, the Department will have an updated set of working policies to guide management of steelhead statewide. Development of RMPs will begin as soon as the FWC approves the plan.

1.2 Purpose and Need for the Non-Project Action

1.2.1 Purpose

Consistent with the Scoping Document of December 22, 2006, the purpose of the *SSMP* will be to develop policies and strategies to improve abundance, productivity, diversity and spatial structure of Washington's steelhead through the examination of WDFW hatchery, harvest, enforcement, habitat, research/monitoring, and outreach and education programs.

1.2.2 Need

The statewide steelhead plan proposal is needed in order to restore and protect the diversity and long-term productivity of Washington's steelhead stocks and their habitats. WDFW will accomplish this goal within the guidance of the agency's mission statement, strategic goals and objectives. Goals may include supporting hatchery programs that provide maximum recreational opportunities compatible with healthy diverse fish and wildlife populations. WDFW will work with tribal governments to ensure fish and wildlife management objectives are met including sustaining ceremonial, subsistence, commercial and recreational fisheries; non-consumptive fish benefits; and other related cultural and ecological values.

There are increasing expectations for fish managers to balance varied public needs to maintain and restore natural stocks, provide tribal and recreational fishing opportunities, and support additional important social-cultural and environmental values. WDFW will develop a *SSMP* to guide the evaluation and development of WDFWs hatchery, harvest, enforcement, habitat and outreach & education programs to aid in the conservation and restoration of natural steelhead stocks and provide harvest opportunity consistent with natural stock restoration objectives. The Department must also identify information gaps pertaining to natural steelhead stocks and develop research and monitoring programs to improve resource management decisions.

1.2.3 Plan Objectives

The Goal of the SSMP is to Provide a framework of policies, strategies, and actions that will be used to assure healthy stocks of Washington's wild steelhead by restoring and maintaining their abundance, distribution, diversity and long-term productivity in their natural habitats. In a manner consistent with this goal, the Department will seek to protect and restore steelhead to achieve cultural, economic, and ecosystem benefits for current and future residents of Washington State.

The plan objectives for the *SSMP* are as follows:

1. Meet all federal and state laws, including the treaty obligations.
2. Ensure policies are succinct, relevant and easily understood by the public and department employees.
3. Seek productive partnerships that help the Department achieve policy objectives.
4. Use professional judgment, best available science and sound fisheries management to achieve excellence in public stewardship.
5. Pursue outcome-based management within a flexible framework.
6. Promote active, innovative and sustainable stewardship on as much steelhead habitat as possible.
7. Monitor and periodically report to the FWC on the implementation and outcomes of Commission-approved policies.

1.3 Issues Identified Through Scoping

The Department has identified two probable key environmental impacts for the *SSMP: animals and recreation* (see Appendix C). Future phased agency actions are anticipated as the RMPs are developed for the Puget Sound, Olympic Peninsula, Southwest Washington, Lower Columbia River, Mid-Columbia River, Upper Columbia River and Snake River Basin DPSs and concurrent watershed planning with respective Tribes. Environmental impacts of these RMPs will be reviewed under SEPA as the plans are completed and they will become supplemental actions to this EIS. Future actions related to this management plan may affect other environmental factors in addition to *animals and recreation* and require rule making or other environmental processes at a later date.

The comments received during scoping from the many interested individuals and stakeholders captured diverse issues, ideas and opinions. These comments and the Department's responses were prepared in a summary (see Appendix B). These comments led to the development of the *SSMP* policy alternatives, which are addressed in the following two major policy categories and subsequent eight policy subject areas (see Table 1):

Steelhead Program Operations
Natural Production
Habitat Protection & Restoration
Fisheries Management
Artificial Production

Steelhead Program Administration
Regulatory Compliance
Monitoring, Evaluation & Adaptive Management
Research
Outreach and Education

The eight-policy subject areas in the *SSMP* are analyzed individually in this Preliminary FEIS, due to the importance of each of these topics, but they are not all independent of each other. As such, it is imperative to understand the relationships between key policy areas and the connections between the plan alternatives.

1.3.1 Steelhead Program Operations

The first four policy subject areas in the Alternatives Summary Table make up the Steelhead Program Operations major policy category. This category deals with policy decisions that can directly affect steelhead and their habitats and are strongly interrelated (see section 1.4.1 for a discussion on some of these key relationships). These policy subject areas will inform the Department on decisions that directly affect natural production, habitat protection and restoration, artificial production, and fisheries management. The alternatives span levels of risk for the operational strategies that the FWC will be considering in the *SSMP*.

1.3.2 Steelhead Program Administration

The remaining four policy subject areas make up the Steelhead Program Administration major policy category. This category deals with policy decisions affecting the administration of Operations programs that directly relate to steelhead and their habitats. These policy subject areas will provide guidance to the Department for decisions affecting regulatory compliance, monitoring, evaluation and adaptive management, research and outreach & education programs. The alternatives span levels of risk and resource commitment for the administrative strategies the FWC is to consider in its *SSMP*, however, these policies, being administrative in nature at this statewide plan level, pose no risk of significant adverse environmental impact. Their implementation will increase the probability of success for the endorsed *SSMP* operations policies. It is also recognized that at the watershed level, the specifics of implementing some strategies, monitoring, enforcement and possibly research for example, could reveal the need for additional for potential adverse environmental impact analysis as part of the watershed plan development.

1.4 Summary Table of Alternatives and Strategies by Policy Subject Area

The four generalized alternatives introduced in section 1.1.2 have been expanded to address the specifics for each of eight policy subject areas or categories detailed in the SSMP (see section 1.3 above). This Preliminary FEIS includes a detailed alternative strategy for each policy subject area, making a total of 32 alternative strategies in all. Recommended alternatives have been developed based on meeting the multiple Plan Objectives (see Section 1.2.3), while avoiding or minimizing significant adverse environmental impacts. While most subject areas help achieve several plan objectives, none of the subject areas alone address all of these objectives. However, all of the alternatives were determined to meet the purpose and need of the *SSMP*, but to different degrees and with variable specific emphases. The plan objectives addressed by policy subject area are identified within each chapter of the *SSMP* and relevant potential impacts are addressed in the alternatives discussions in this Preliminary FEIS. Comments received from interested individuals and stakeholders during scoping were considered as the policy subject areas, strategies and alternatives were developed.

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The thirty-two alternative strategies are presented on the Alternatives Summary Table. The eight policy subject areas, which correspond to the chapter breakout in the *SSMP*, have been grouped into two major policy categories: Steelhead Program Operations and Steelhead Program Administration. The approved policies will ultimately provide the framework of strategies and actions to achieve the goals of the *SSMP*.

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Table 1 Statewide Steelhead Management Plan (SSMP) EIS Alternatives – Table of Category-Specific Strategies

Description of approach	**Most Conservative**	**Preferred Alternative**	**Status Quo No Change in Program**	**Least Conservative**
Operational Categories:	Alternative 1 Maximize wild protection	Alternative 2 Increase wild protection	Alternative 3 Current Approach	Alternative 4 Increase fishing opportunity
Natural Production	Manage for carrying capacity	Manage for viable salmonid population (VSP) parameters. Establish a network of wild stock gene banks	Manage for at least maximum sustainable harvest (MSH) abundance or mitigation goal	Manage abundance at MSH
Habitat Protection and Restoration	Seek legislation to gain jurisdiction over habitat actions and implement those actions to achieve a no-net loss of existing habitat and an increase in productive habitat	Fully implement and enforce current authorities, and increase participation in effective external conservation processes. Encourage other agencies/entities to follow suit	Protect habitat through the current HPA process, and maintain involvement in State and Federal protection and restoration processes	Protect habitat through the current HPA process, and maintain involvement in State and Federal protection and restoration processes
Fisheries Management	Manage fisheries for average steelhead carrying capacity	Manage fisheries to ensure: abundance, productivity, spatial structure and life history diversity objectives are achieved	Manage fisheries for minimum MSH escapement goal to ensure objectives are achieved	Manage fisheries for MSH escapement goal
Artificial Production	Eliminate hatchery competition with wild populations within Washington. Initiate conservation programs where required to maintain or increase wild populations and their habitats	Improve and modify current hatchery programs to reduce impacts on wild fish, including habitat related actions. Reduce outplants in places where programs are inconsistent with strategies.	Produce fish to meet current harvest objectives	Increase (segregated) hatchery production; add integrated to offset increased impact on wild

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Description of approach	Most Conservative	Preferred Alternative	No Change in Program Emphasis Status Quo	Least Conservative
Administrative Categories:	Alternative 1 Maximize wild protection	Alternative 2 Increased wild protection	Alternative 3 Current Approach	Alternative 4 Increased fishing opportunity
Regulatory Compliance	Implement compliance regulations. Increase departmental hatchery, harvest, and hydro regulatory compliance monitoring through actively seeking new legislation.	Implement compliance regulations. Prioritize departmental hatchery, harvest, and hydro compliance monitoring.	Use current voluntary and regulatory compliance programs. As funds are available in the Capitol Budget, bring hatchery programs into compliance	Hatchery and harvest compliance emphasis
Monitoring, Evaluation and Adaptive Management	Develop and implement monitoring plans for all wild stocks so effects of the SSMP can be evaluated and actions adapted to support its goals	Develop and implement monitoring plans for as many stocks as resources permit with emphasis on key indicator wild stocks so effects of the SSMP can be evaluated and actions adapted to support its goals	Maintain current monitoring and evaluation activities to inform decision makers regarding SSMP impact on wild stocks. Support existing habitat monitoring and evaluation programs	Monitor and evaluate wild stocks to ensure they remain above critical thresholds
Research	Seek funding to implement conservation research to achieve an increase in productive steelhead populations and their habitats, especially in light of increasing human population pressures and climate change.	Prioritize, fund, and implement critical research to support VSP based escapement goals especially in light of increasing human population pressures and climate change.	Prioritize and conduct research on integrated hatchery programs	Focus research on determining critical thresholds for perpetuation of wild stocks
Outreach and Education	Develop and implement a plan to provide opportunities for the public to maintain and restore wild steelhead populations. Provide opportunities to form partnerships with the public on steelhead efforts	Develop and implement a plan to provide opportunities for the public to maintain and restore wild steelhead populations. Provide opportunities to form partnerships with the public on steelhead efforts	Maintain current limited outreach and education on steelhead	Develop materials to display fishing opportunities, techniques, and proper catch and release (C&R)

1.4.1 Key Relationships

Natural Production, Habitat and Artificial Production

The foundation and goal of the *SSMP* is to restore and maintain the abundance, distribution, diversity and long-term productivity of Washington's wild steelhead and their habitats to assure healthy stocks and do so in a manner that will seek to protect and restore steelhead to achieve cultural, economic, and ecosystem benefits for current and future residents of Washington State. The focus is on wild fish and their sustaining habitat. It is possible to temporarily have more returning wild fish than the existing freshwater habitat can sustain. In this case, it would be desirable to improve and restore habitat so the stock can expand its spatial structure. This situation illustrates some of the key inter-relationships between the four-steelhead program operations categories. Similarly, if the habitat cannot sustain the stock, there are artificial production alternatives that may permit the run to be perpetuated while the habitat recovers. The Hatchery Scientific Review Group (HSRG) has found that some hatchery practices can adversely impact the health of wild stocks. The analysis of impacts aims to give the Department the widest latitude for proposing strategies to minimize or avoid significant adverse impacts to the environment. As a result of the extreme life history variability exhibited by *O. mykiss*, the impact analysis will be most significant at the regional or watershed levels, and will be thoroughly treated and summarized in the RMPs for each DPS.

Natural Production, Artificial Production and Fisheries Management

The placement of the highest priority on the protection of wild steelhead and restoration of those stocks to healthy levels creates a strong interconnection between natural production, artificial production and fisheries management. Fisheries management is essential to set harvest levels so steelhead can return to utilize the spawning habitat. This directly influences the time, place and manner in which steelhead fishing will be conducted in Washington. Fisheries management must also work with hatchery management to insure broodstock management and hatchery releases do not negatively interfere with natural production objectives. A combination of policy direction provided to the Department in this Preliminary FEIS and the use of adaptive fishery management and hatchery management strategies is expected to mitigate the risk of significant adverse impacts to wild salmonids and recreation opportunity. Alternatives explore changing artificial production practices such as those that caused some populations to exist only near the threshold level. Changes in artificial production will change how harvest strategy is implemented and may result in closure of some areas in the future.

Steelhead Program Operations and Program Administration

The performance of steelhead program operations strategies must be carefully monitored to insure that the actions are measurably restoring and maintaining abundance, distribution, diversity and long-term productivity to steelhead and their habitats. This requires close coordination between staff in the field that monitors steelhead stocks, interacts with the public and conducts in-stream research, and those in the office that evaluates data, and provides managers with timely, science-based results and recommendations. The managers use this technical information to make adaptive management decisions or planning requests for additional monitoring or research if needed. This iterative process of monitoring, evaluation, adaptive management and coordinated research, being similarly used in habitat conservation

plans, salmon recovery and implementation of the Forest and Fish Agreement, is intended to mitigate the risk of significant adverse environmental impacts.

The administration category items have been distinguished as being supportive of the program operations category functions that collectively may have direct favorable or adverse impacts to steelhead and other species or recreational impacts to the public. As such, these support recommendations are not expected to address these potential impacts by themselves. In the cases where actions proposed in the *SSMP* under the Administrative categories call for a physical presence in the environment, such as a new research project, smolt monitoring and abundance data or increased enforcement, those actions would have their own impact analysis. In some cases the activity would be added to the list of current projects with established protocols before being implemented.

1.5 Significant Issues and Environmental Choices Among the Alternatives

1.5.1 Major Conclusions

During the preparation of this Preliminary FEIS for the statewide plan, an environmental checklist was used as an aid in determining the potential significant adverse impacts identified at the beginning of Chapter 3. Having established a three-tiered document structure to develop the *SSMP* at the 1) statewide over-arching guideline; 2) DPS based RMP; and 3) watershed co-manager plan levels, potential impact categories were assessed accordingly. Consistent with the goal of the *SSMP* to conserve wild steelhead populations and balance that with the mandate to provide utilization opportunity to the public, the Department has determined this statewide Preliminary FEIS should address the potential impacts to animals and to recreation (see Appendix C for the analysis summary).

As the level of scrutiny progresses from statewide to the DPS and finally the individual watershed level, it is conceivable that additional impact categories may come under consideration. An adopted *SSMP* recommendation for additional or improved monitoring could ultimately result in a proposed physical action that may have potential impacts in a particular watershed. For example, a stream survey may be required to obtain needed abundance data, but the impact-related issues would be different if it were by weir, over flight, snorkel or stream wading. These issues would be dealt with much more effectively at the smaller, detailed plan level.

It should be noted that recreational impacts as treated in this Preliminary FEIS relate to recreational opportunity (fishing, observation, photography, etc) and not things like noise, transportation, energy use, etc., that would be related to correlative changes in boat or other vehicle activity. Impacts of that nature should have been considered previously, for example, when evaluating existing road, infrastructure, and boat access ramp construction projects.

In a similar vein, proposed actions that would be implemented under approved policies and protocols would not routinely undergo another SEPA analysis.

1.5.2. Unavoidable Measures

No unavoidable significant adverse environmental impacts have been identified during this Preliminary FEIS preparation. However, it is possible that minor but potential cumulative impacts may be uncovered during the co-manager development of the Phase 2 RMPs and Phase 3 individual watershed plans.

1.6 Phased Review

SEPA review is required on proposals for project and non-project actions, such as the *SSMP*. The Department will be proposing future project and non-project actions related to this *SSMP*. Those actions will range from planning to site-specific proposals for management activities, such as the changes to hatchery operations and harvest regulations. RMPSs will be developed for the Puget Sound, Olympic Peninsula, Southwest Washington, Lower Columbia River, Mid-Columbia River, Upper Columbia River and Snake River Basin DPSs and concurrent watershed planning with respective Tribes. Additionally, the Department recognizes that other departmental policies and procedures will need to be reviewed as a result of the FWCs adoption of the *SSMP*. Once the FWC has adopted these policies, other implementation guidance will be reviewed and amended, created or cancelled where necessary. Procedures and policies that simply expand activities covered under project lists with approved protocols and don't establish new direction or standards resulting in impacts outside the scope of those evaluated in this Preliminary FEIS, will not require a separate SEPA review. The RMP and the co-manager developed individual watershed plans will include details beyond what is set forth in this Preliminary FEIS. These plans, as completed, will go through their own SEPA review. Appendix C will serve to provide initial guidance for identifying and assessing the potential environmental impacts of these anticipated actions.

1.7 Alternatives Considered, But Not Analyzed

Under SEPA, a "reasonable alternative" is defined as "an action that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation. Reasonable alternatives may be those over which an agency with jurisdiction has authority to control impacts, either directly or indirectly through requirement of mitigation measures" (WAC 197-11-786). For some policy subject areas, alternatives were considered, but not included in the detailed analysis, because they did not fully address the stated purpose and need of the *SSMP* and, therefore, were determined not to be "reasonable."

The development of the SSMP alternatives originated from the goal statement of the SSMP. The nature of the Fish and Wildlife Agency's legislative mandate requires the Department to seek and achieve a balance between restoring and maintaining Washington's wild steelhead stocks and the same legislative directive which requires department to do so in a manner that achieves cultural, economic, and ecosystem benefits for current and future residents of Washington State." The four generalized alternatives were selected from a spectrum of alternatives that could accomplish that mandate. A fifth alternative was considered while developing the range of

feasible or reasonable alternatives, however, it was eliminated from further consideration because it did not meet the *SSMP* goal.

At one end, a maximization of harvest opportunity on both hatchery and wild steelhead was seen to have significant adverse impacts on wild steelhead populations statewide, although it would favorably impact recreation, at least in the short term. At the other end, closing all hatcheries to avoid adverse interactions with wild steelhead may maximize wild protection and restoration (for non-critical populations at least), but it would obviously significantly impact recreation opportunity for anglers in that about 95% of the current steelhead harvest is on hatchery fish. As indicated in section 3.1.4, this would result in the loss of nearly $100 million annually to the communities and organizations in the state that support steelhead fishing activities.

2. Background

2.1 Historical Background

Steelhead are an icon of the Pacific Northwest. The species has been a source of important cultural and economic benefits throughout the region's history. It is so valued that commercial harvest of the species was banned in 1936 and the Legislature named it the State Fish in 1969. In 1985 WDFW (then the Department of Game), in response to diminishing numbers of wild steelhead began mass marking (removal of the adipose-fin) of hatchery steelhead. The fin-clipping, to identify hatchery and wild steelhead, allowed the Department to structure recreational fisheries allowing the harvest of marked/hatchery steelhead only, thus reducing impacts to wild fish. By 1996 the FWC had mandated the release of wild steelhead in most Washington rivers. The Legislature included provisions for wild steelhead recovery in the Salmon Recovery Act of 1998 and has approved agency proposals that have limited harvest to only healthy runs and approved fishing closures that protect wild steelhead from incidental mortality impacts.

There are a number of factors contributing to the decline of Washington's wild steelhead stocks. These include the loss of freshwater habitat, poor ocean survival, hatchery practices, hydroelectric operations and harvest management. A comparable state of decline exists between Puget Sound steelhead stocks and those in the adjoining waters of the Strait of Georgia in Canada. This geography, referred to as the Salish Sea, has only two migration corridors to the open Pacific, one on either side of Vancouver Island. The surrounding land is host to the major populations of Vancouver, Victoria, and the Greater Seattle-Tacoma metroplex, which collectively have doubled in size since 1960. Although the Canadian steelhead stocks exhibit some biological variance from U.S. steelhead, they historically have also been subject to composite management strategies that were significantly different in many respects.

The varied status of wild steelhead stocks statewide, in conjunction with the public's expectations for the Department managers to balance conservation, tribal and non-tribal fisheries, economic stability as well as other social, cultural and environmental values, motivated the development of this *Statewide Steelhead Management Plan*.

The Department, with the help of the Ad Hoc Steelhead Stakeholder group, initiated a multi-step process to develop the plan. A prior step in this process was to establish the scientific foundation on which to build improved steelhead management. Drawing on decades of research and new analyses, a comprehensive review of steelhead stocks and their status in Washington was published in the draft report *"Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs"*. Review of this report is crucial to understanding how current *O. mykiss* science drives future plans for management of steelhead in the state. Each chapter in the science paper concludes with numerous findings and recommendations to guide future management.

The second step, development of the *SSMP*, builds on the scientific foundation to provide a framework of steelhead management policies, strategies, and actions throughout the state. The

The Preliminary FEIS is subject to change pending final FWC approval of the SSMP.

Washington Department of Fish and Wildlife recognizes the important role our stakeholders play in the success of long-term management. In July 2006, WDFW established a small Ad Hoc Steelhead Stakeholder group consisting of members from the Steelhead and Cutthroat Policy Advisory Group (SCPAG) as well as other conservation interest groups. This ad hoc stakeholder group further expanded to include other interested parties such as representatives from the Wild Fish Conservancy (formerly Washington Trout), the Hatchery Scientific Review Group (HSRG), and the Northwest Indian Fisheries Commission (NWIFC). Stakeholders typically met monthly to review and provide input on the developing policy framework and strategies.

Substantial variation exists across the state between the status of stocks, habitat conditions, and the role of tribal, local, and federal authorities. One approach will not fit all cases, so the *SSMP* will provide the Department with overarching guidance for development of the third step, RMPs tailored to meet recovery and sustainability goals for the DPS, ecosystem conditions and governing authorities in each region.

Seven RMPs will be developed, from watershed plans created by local entities with input from the respective Tribes, simultaneously during the next 24 to 36 months. These RMPs include the Puget Sound, Olympic Peninsula, Southwest Washington, Lower Columbia River, Mid-Columbia River, Upper Columbia River and Snake River Basin Distinct Population Segments. Upon completion of the phased SEPA reviews, the final *SSMP* will provide the collection of individual watershed plans and RMPs.

The 1998 Salmon Recovery Act, codified as RCW 77.85 created lead entities in each watershed in the state to address salmon recovery. The law included steelhead because they often share habitat with other salmonids. As required by statute, these lead entities listed factors limiting production of salmon and steelhead and created prioritized lists of habitat recovery projects that would benefit their watersheds. Some of these entities have already moved toward regionalizing their salmon recovery efforts. The Department will use the SSMP to build on the habitat work already done by the watershed and regional groups by incorporating hatchery, harvest and hydro actions into watershed plans. These watershed plans will then be combined into Regional Management Plans for each DPS.

For many of these regions, ESA recovery plans have been developed and will serve as primary guidance for detailed strategies and actions in the RMPs. An ESA recovery plan is intended to sufficiently recover a species so it can be delisted while the SSMP is intended to restore and maintain healthy steelhead stocks. By definition, a healthy stock has sufficient abundance, productivity, diversity and spatial structure to be resilient through environmental fluctuations, to perform natural ecological functions in freshwater and marine systems, provide related cultural values to society, and sustain tribal and recreational fisheries. The SSMP recognizes that more conservative actions may already be in place in ESA recovery plans than those recommended by the SSMP. It also recognizes that not all steelhead stocks are listed and seeks to provide flexible management strategies that will allow each region to pick actions that best fit its situation.

Many of the RMPs will be developed with appropriate Indian tribes. The U.S. Government recognizes twenty-five tribes as parties of the Stevens-Palmer Treaties. Twenty-four tribes have usual and accustomed fishing places within the boundaries of the State of Washington. In

addition, there are nine federally recognized tribes that are not party to the Stevens-Palmer Treaties. The tribes' and state's fishery jurisdictions and authorities significantly overlap. To promote effective and efficient management of fisheries resources and to minimize potential conflict, the Department and tribes have developed a cooperative management approach to exercise their respective authorities and to achieve shared conservation objectives. This co-management arrangement will be reflected in each RMP as the various tribes contribute their knowledge and expertise to support rebuilding of wild populations.

The Department is issuing this Preliminary FEIS to inform the public of a range of strategies that may be included in the *SSMP*. Beginning with the status quo, this draft presents the strategies with a discussion of the comparative risks and benefits for each. These are provided so the public can engage in a meaningful debate over the best way for the Department to proceed. When the debate is concluded, the record of comments will be included in a Preliminary FEIS. The FWC will examine the Preliminary FEIS and consider the public's comments and recommendations. It will then adopt the policy it deems will best restore and protect our esteemed state fish for future generations.

2.2 Environmental Setting – Distinct Population Segments, Evolutionarily Significant Units and Water Resource Inventory Areas.

National Marine Fisheries Service announced in the Federal Register on November 4, 2005 it would consider Washington steelhead Distinct Population Segments (DPS) to be contained within the same geographic boundaries as the previously established steelhead Evolutionarily Significant Units (ESUs). *O mykiss* has a detailed discussion on the interchangeability of the ESU and DPS terminology. The DPSs are genetically similar steelhead stocks, which live in groups of adjacent watersheds. Although the steelhead in a given DPS do not physically occupy the entire watershed, it is convenient to geographically equate the DPS with the appropriate watershed ecosystem boundaries. The Water Resources Act of 1971, Revised Code of Washington (RCW) 90.54, named watersheds Water Resource Inventory Areas (WRIA). The Act authorized the Department of Ecology to develop and manage these administrative and planning boundaries. The boundaries are codified under Administrative Code (WAC) 173-500-040. The original WRIA boundary agreements and judgments were reached jointly by Washington's natural resource agencies Ecology, Natural Resources, and Fish and Wildlife in 1970. These boundaries represent the administrative under pinning of the state's Fisheries Management and Salmon Recovery efforts in Washington. The attached maps and explanatory text, modified from the *O mykiss*, describe the current distribution of naturally spawning summer and winter steelhead in the Washington State portions of the seven DPSs.

Habitat Degradation and Alteration

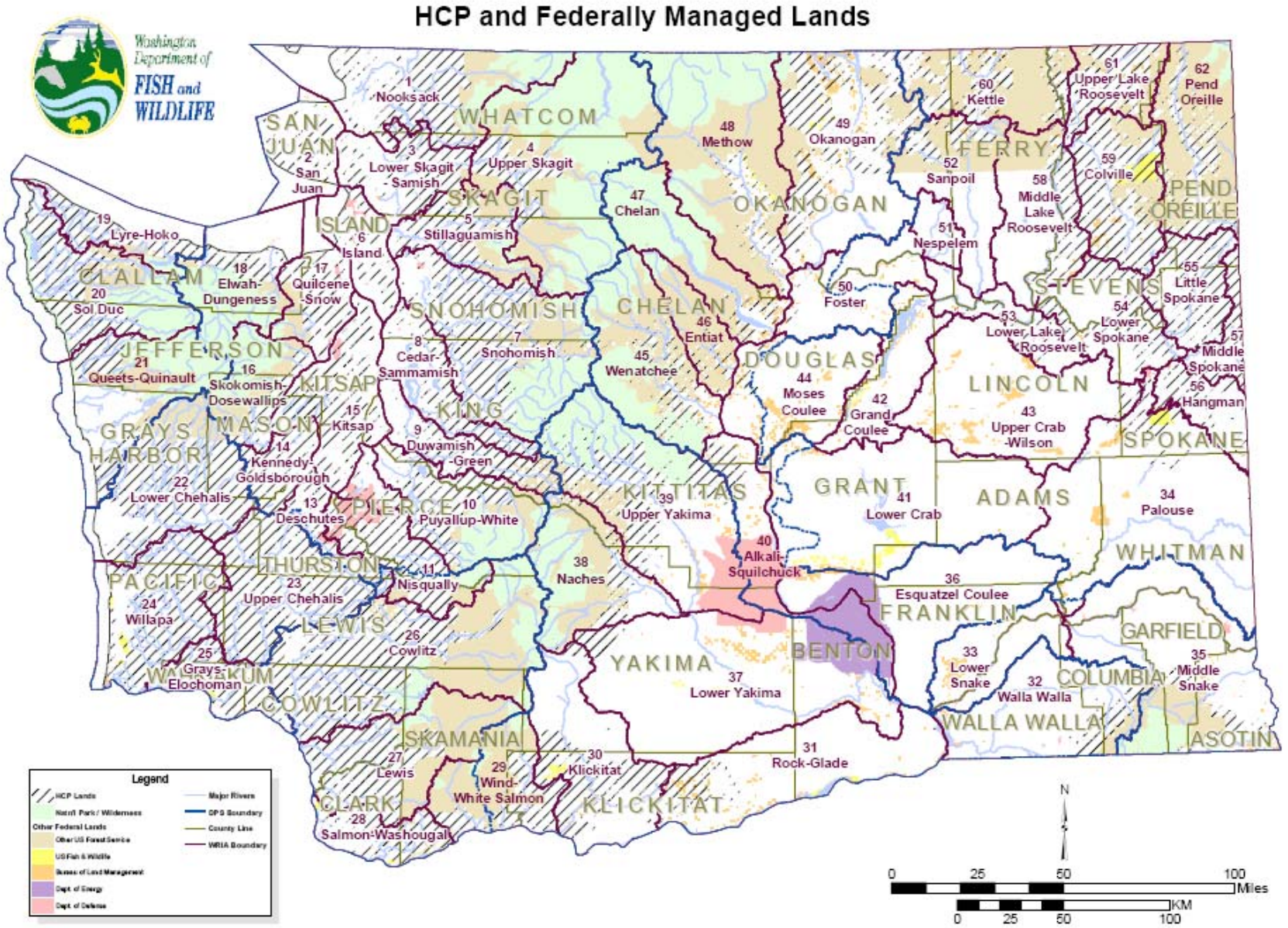
Major disturbance events, both natural and human-caused, have defined the current condition of Washington ecosystems. Natural disasters such as floods, landslides and volcanic eruptions can alter local landscapes. The cumulative effects of individual habitat alterations can have significant impact on flow regimes at both the local and watershed scales. Waterfront development has armored many shorelines in Puget Sound and along streams statewide. Urban

and rural development has paved or roofed the surface area of many lowland localities resulting in enhanced storm runoff into streams. Most of the lowlands and mid elevation old growth forests have been logged and reforested over the years. Road and culvert installations have impacted fish access to habitat. The Clean Water Act and numerous local anti-pollution initiatives have helped stem degradation but have not eliminated it. Farming practices in streamside environments may impact shoreline areas and introduce sediment and fertilizer residuals into the water. Nutrient concentrations in some systems have deteriorated from the natural levels that have been most healthy for steelhead and other species. Numerous rivers have dams that create fish passage barriers and impoundments over spawning and rearing habitat. The Forest and Fish Act, the Northwest Forest Plan and the DNR Habitat Conservation Plan provide buffer protection that will eventually provide shade, woody debris and other stream ecological benefits that were not present prior to 1999.

Federally Managed Lands

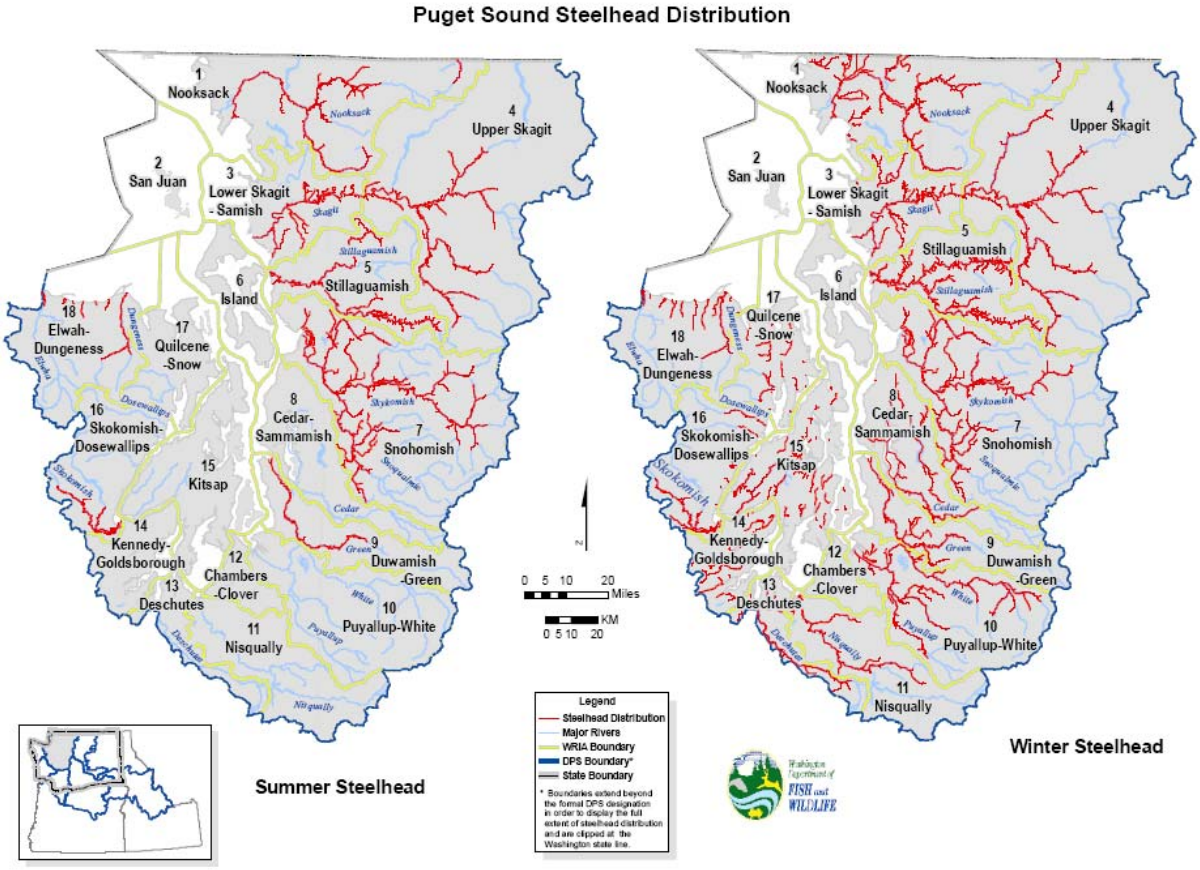
With the existing limited ability of WDFW to directly control habitat degradation, the Department is currently working with other agencies to support initiatives that would be beneficial to steelhead and other salmonids. As indicated in the attached map, nearly all steelhead freshwater habitats fall under the jurisdiction of various Federal programs and agreements.

The Preliminary FEIS is subject to change pending final FWC approval of the SSMP.



Puget Sound DPS

The land within the boundaries of WRIAs 1 through 18 is the area included in the Puget Sound Distinct Population Segment.



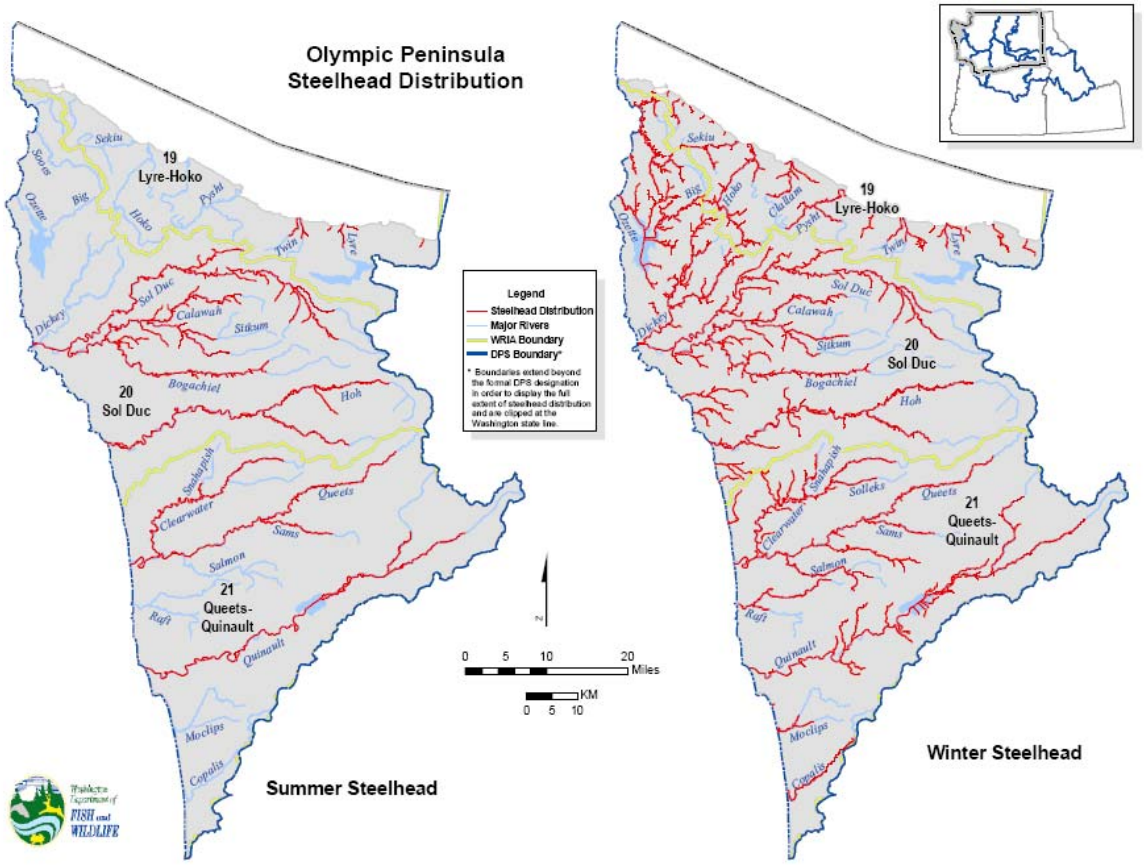
The following description of the Puget Sound DPS is primarily a summary of information from Busby et al. (1996). The Puget Sound DPS includes streams ranging from the Canadian border (Nooksack River basin), south through Puget Sound and Hood Canal, north and west to the Elwha River, which empties into the eastern Strait of Juan de Fuca. The region lies in the rain shadow of the Olympic Mountains and is significantly drier than the Olympic Peninsula to the west. The relatively protected marine environment of Puget Sound provides an opportunity for both juvenile and adult residence time that is not available to high seas migrating steelhead in the other DPSs. The elongate geometry of the marine basins and embayments also provides for broad variations in tidal currents, sub-basin flushing capacity, and relative stagnation. This can subsequently be expressed as a vulnerability to pollutant concentration that generally increases toward the South Sound region and into the Hood Canal fjord. Populations in British Columbia were excluded on a biological basis because they tend to migrate to marine waters at age three, whereas those in Washington tend to migrate at age two.

Genetic samples have been taken from steelhead collected at 40 locations within the geographic extent of the Puget Sound DPS and allozyme analysis conducted for 56 polymorphic loci (Phelps et al. 1997). Many of the samples were from juveniles and in some cases may have included a mixture of summer steelhead, winter steelhead, and resident *O. mykiss*. In the absence of informative genetic analysis, we generally relied on the populations identified in WDF et al. (1993). Identification of these populations was based on the geographic isolation of spawning areas and/or the apparent non-overlap of spawn timing (WDF et al. 1993).

Fifty-one historical populations have been identified in the Puget Sound DPS (O mykiss). Forty-nine of those populations are extant. Two populations, Baker Summer and Chambers Winter may have been extirpated. Four new populations, South Fork Stillaguamish Summer, South Fork Skykomish Summer, Green Summer and Deschutes Winter may have been established.

Olympic Peninsula DPS

The land within the boundaries of WRIAs 19 through 21 is the area included in the Olympic Peninsula Distinct Population Segment.



The following description of the Olympic Peninsula DPS is primarily a summary of information from Busby et al. (1996). The Olympic Peninsula DPS includes the western Strait of Juan de Fuca and the Olympic Peninsula from west of the Elwha River, around Cape Flattery, and south to include all streams that drain into the Pacific Ocean North of Grays Harbor. A rare, temperate rain forest ecosystem dominates the western slopes of the thrust-cored Olympic Mountains. Very high annual precipitation rates, restricted land use and access, along with favorable gradient and bedload combinations have produced the most robust wild steelhead stocks in the state. These physical and climatic differences were considered to contribute to the biological distinctiveness of steelhead in the DPS. Genetic analyses by WDFW indicates that populations in the western Strait of Juan de Fuca and the North Coast of Washington are similar to one another, yet distinct from those in other regions of western Washington. Also, the coast region north of Grays Harbor and the Chehalis basin contains fish and amphibians not found on the south coast (presumably

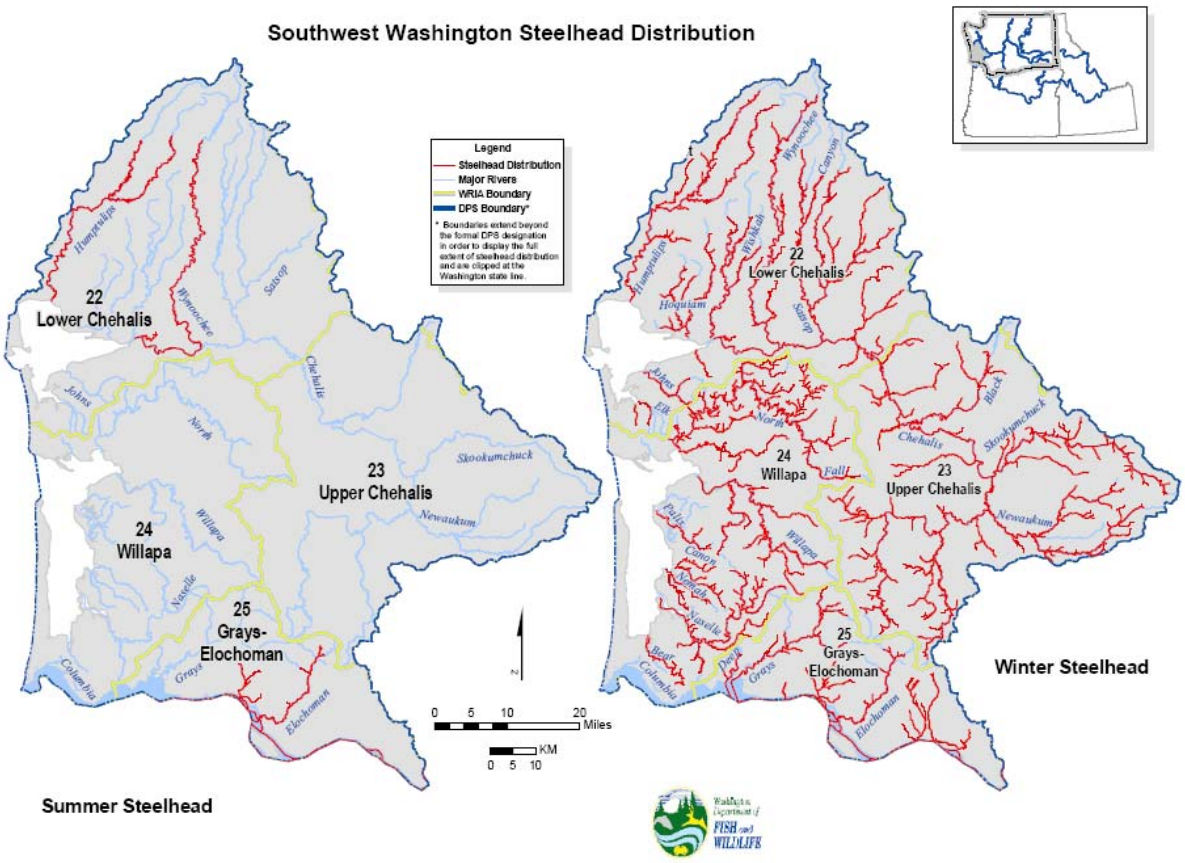
reflecting the glacial history of the north coast). This observation provided the Biological Review Team (BRT) with additional evidence that the western Olympic Peninsula should be considered ecologically distinct from other coastal areas.

Genetic samples have been taken from steelhead collected at 15 locations within the geographic extent of the Olympic Peninsula DPS and allozyme analysis conducted for 56 polymorphic loci (Phelps et al. 1997). Many of the samples were from juveniles and in some cases may have included a mixture of summer steelhead, winter steelhead, and resident *O. mykiss*. In the absence of informative genetic analysis, we generally relied on the populations identified in WDF et al. (1993). Identification of these populations was based on the geographic isolation of spawning areas and spawn timing (WDF et al. 1993).

Thirty-one historical populations have been identified in the Olympic Peninsula DPS (O mykiss). No populations are known to have been extirpated and no new populations are known to have been established.

Southwest Washington DPS

The land within the boundaries of WRIAs 22 through 25 is the area included in the Southwest Washington Distinct Population Segment.



The following description of the Southwest Washington DPS is primarily a summary of information from Busby et al. (1996). The range of this DPS includes all rivers draining into the major embayments of Grays Harbor, Willapa Bay, and the Columbia River up to (but not including) the Cowlitz River. The geomorphology is characterized by the large estuarine environments developed by littoral sediment transport from the Columbia northward along the Pacific Coast. Some streams drain the temperate rain forest terrains of the Olympic Peninsula, but the apparently overriding feature is the large embayment environment common to all stocks in this DPS. Stream hydrology factors, such as gradient, presence of gravels, pools and riffles, and flow conditions are highly variable. The DPS is based on genetic data indicating that steelhead from the South Coast of Washington are distinct from those of the Olympic Peninsula. Relationships with other lower Columbia steelhead stocks were not clear at the time that the DPS was designated. Fish species in the Chehalis basin and the lowest portion of the Columbia River

are similar, and sediments from the Columbia are known to be transported to Willapa Bay and Grays Harbor. This information provided the BRT with evidence of an ecological link between the South Coast of Washington and the lowest portion of the Columbia River basin.

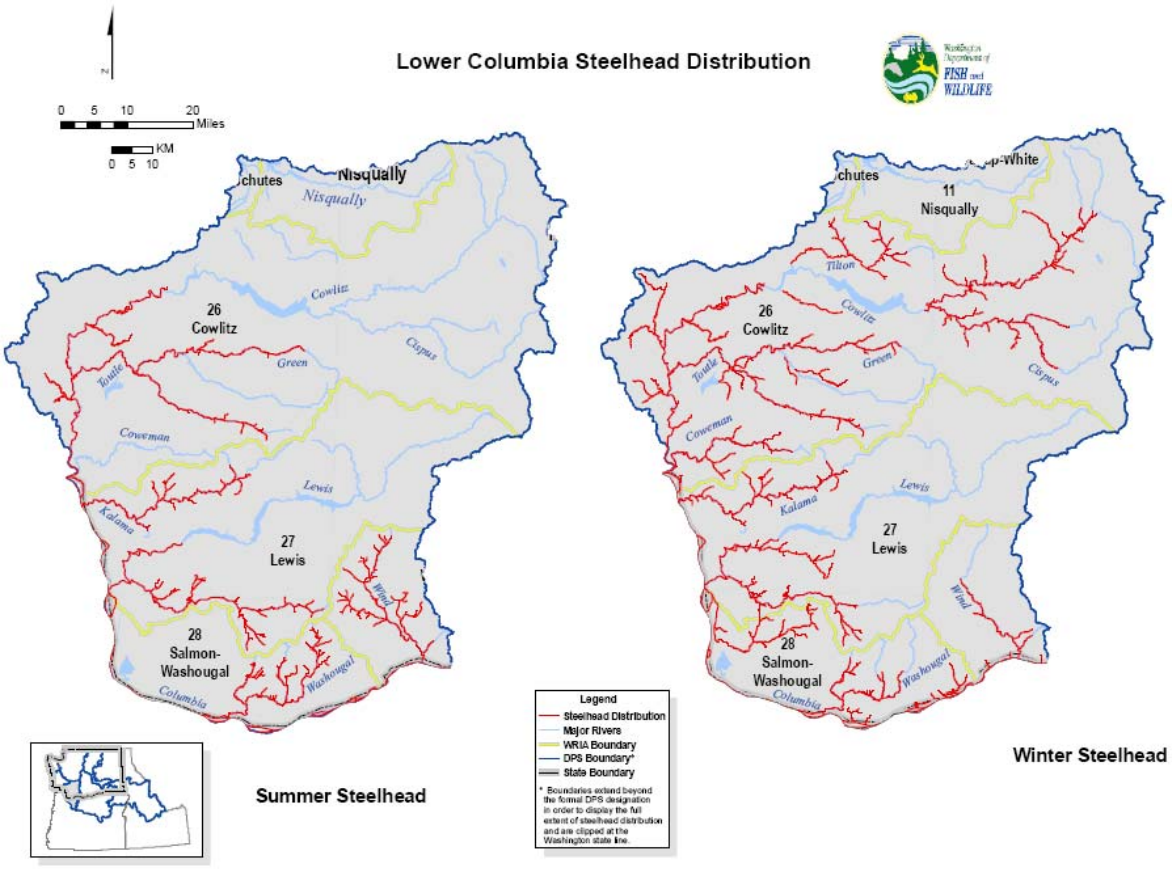
We have further subdivided the Southwest Washington DPS into three components, Grays Harbor, Willapa, and Columbia Mouth, in recognition of the significant biological variation within the DPS and the size of the Chehalis Basin. The Chehalis River has the largest drainage area of any river in western Washington and includes the only summer steelhead populations in the DPS.

Genetic samples have been taken from steelhead collected at 15 locations within the geographic extent of the Southwest Washington DPS and allozyme analysis conducted for 56 polymorphic loci (Phelps et al. 1997). Many of the samples were from juveniles and in some cases may have included a mixture of summer steelhead, winter steelhead, and resident *O. mykiss*.

Ten historical populations have been identified in the Grays Harbor, six populations in Willapa Bay and three populations in the Columbia Mouth subregion. No populations are known to have been extirpated and no new populations are known to have been established.

Lower Columbia DPS

The land within the boundaries of WRIAs 26 through 28 and part of 29 is the area included in the Lower Columbia Distinct Population Segment.



The following description of the Lower Columbia River DPS is primarily a summary of information from Busby et al. (1996). The Lower Columbia DPS includes the Columbia River and its tributaries from the Cowlitz River up to and including the Wind River on the Washington side of the Columbia River, and from the lower Willamette River (below Willamette Falls) through the Hood River (inclusive) in Oregon. The Washington portion is currently dominated by the major habitat disruption and recovery following the 1980 Mt. St. Helens eruption, and the influences of habitat alterations associated with urbanization and construction of Bonneville Dam. Genetic analyses available to the BRT indicated that lower Columbia steelhead were different from those in coastal streams of Oregon and Washington and from those in the upper Willamette River (above Willamette Falls). Steelhead from the Washougal, Wind, and Big White Salmon rivers were genetically distinct from those originating from the south coast of

Washington. Streams in this DPS drain the western Cascades from the southwestern flanks of Mt. Rainier to Mt. Hood.

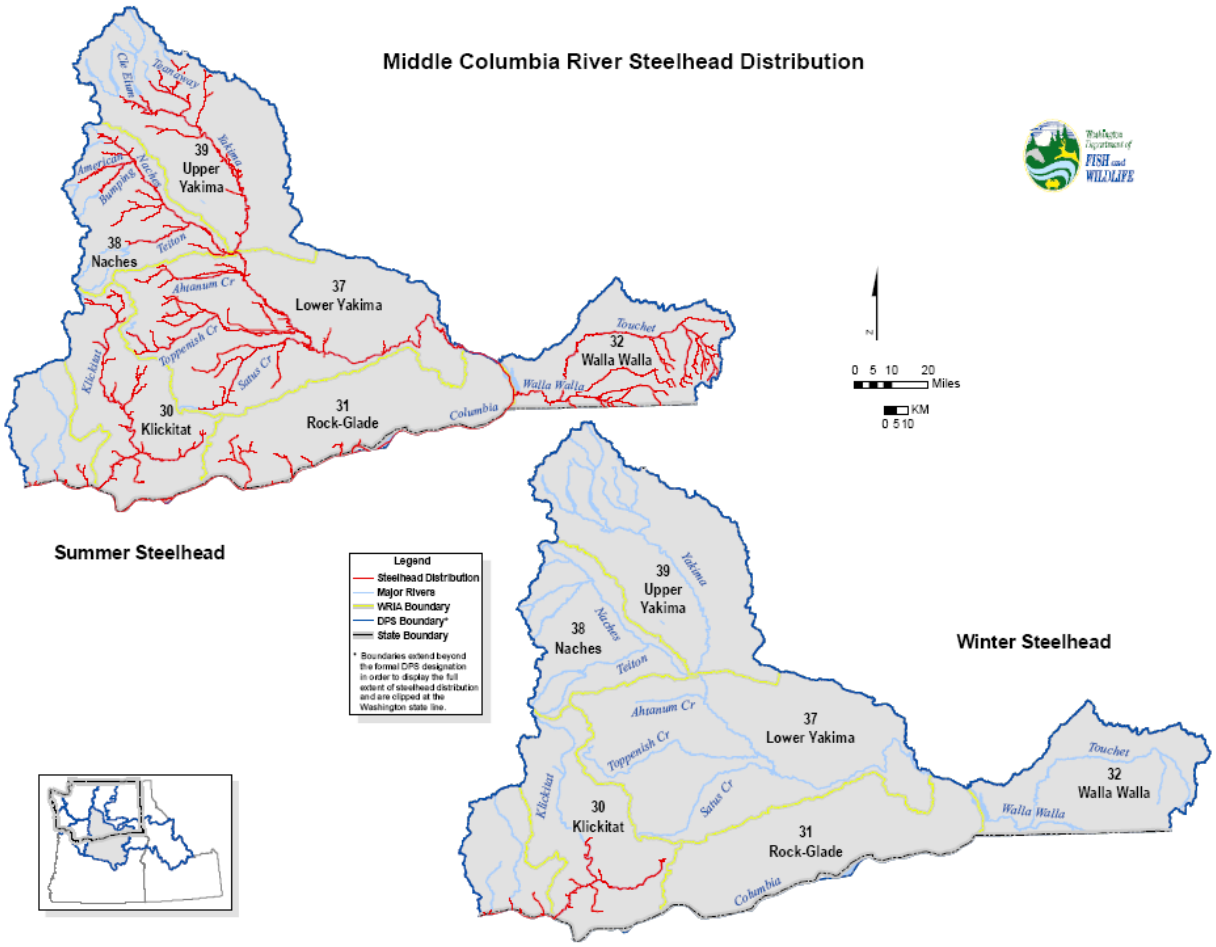
The WLCTRT (Myers et al. 2004) identified 19 historical populations of steelhead in the Washington component of the Lower Columbia DPS. Of these, 14 populations are believed to be currently extant. Four populations of winter steelhead on the Cowlitz River (Cispus, Tilton, Upper Cowlitz, Lower Cowlitz) are believed to have existed historically. However, construction of the Mayfield Dam in 1968 eliminated access to spawning habitat for these populations. Returning adults were taken to the Cowlitz Trout Hatchery to maintain the populations and initiate a late-winter steelhead artificial production program. The resultant late-winter population spawning in the lower Cowlitz River likely includes genetic representation from each of the four historical populations. The North Fork Lewis summer population was likely extirpated after construction of 3 dams on the North Fork Lewis River eliminated access to 80% of historical spawning and rearing habitat (Myers et al. 2004).

Introgression with hatchery fish of Chambers Creek hatchery origin may have occurred in several of the populations.

The Preliminary FEIS is subject to change pending final FWC approval of the SSMP.

Middle Columbia DPS

The land within the boundaries of part of WRIA 29 and WRIAs 30, 31, 32, 37,38 and 39 is the area included in the Middle Columbia Distinct Population Segment.



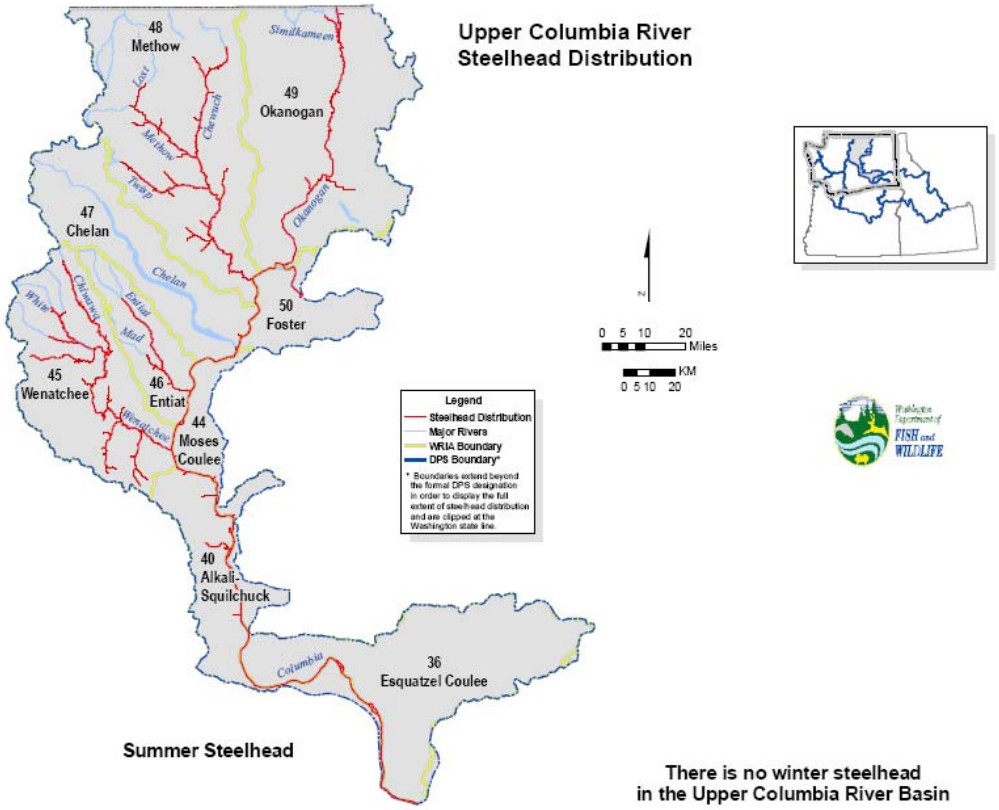
The following description of the Middle Columbia River DPS is primarily a summary of information from Busby et al. (1996). The Middle Columbia River DPS extends upstream from the Wind River through the Yakima River in Washington (excluding the Snake River System) and includes tributaries to the Columbia River originating in Oregon up through the Walla Walla River. This intermontane area of Columbia plateau basalts is characterized by much drier weather and harsh seasonal temperature extremes, with little moderation from the shrub-dominated vegetation cover. Steelhead in the DPS are considered part of an inland genetic lineage. Genetic analyses available to the ICRT showed that steelhead from middle Columbia streams are distinct from Snake River populations. Analyses of naturally spawning steelhead from the upper Columbia were not available to the BRT for comparison with middle Columbia stocks; however Wells Hatchery steelhead (upper Columbia basin) are known to be distinct from middle Columbia steelhead. Inclusion of Klickitat and Yakima steelhead in this DPS was

debated. The Klickitat has native summer and winter steelhead like the larger systems in the Lower Columbia DPS. No winter steelhead are seen upstream from the Klickitat. Klickitat steelhead were ultimately included in the Middle Columbia DPS based on their genetic similarity to other Middle Columbia stocks. Similarly, although Yakima steelhead were considered for inclusion in the Upper Columbia DPS, they were ultimately placed in the Middle Columbia DPS due to their genetic similarity to Klickitat steelhead and because of similarities to Middle Columbia life history and habitat features.

Nine historical populations have been identified in the Washington component of the Middle Columbia River DPS (ICTRT 2003). Eight of the nine populations are extant. The White Salmon Summer population was extirpated after construction of the Condit Dam blocked access to spawning habitat in 1913.

Upper Columbia DPS

The land within the boundaries of WRIAs 40, 41, 44, 45, 46, 48, 49 and 50 is the area included in the Upper Columbia Distinct Population Segment.



The following description of the Upper Columbia River DPS is primarily a summary of information from Busby et al. (1996). The Upper Columbia River DPS encompasses the Columbia River System upstream of the Yakima River to the U.S.-Canada border. Passage up the Columbia River itself is blocked at Chief Joseph Dam. The rivers in this DPS drain the Northern Cascades and the Okanogan Highlands physiographic provinces, which feature a complex geology that includes glacial, volcanic and marine terrains. These have been deeply incised to produce generally low gradient streams beyond the headwaters. Extremes in temperature, precipitation and snowpack accumulation produce erratic cold water temperatures and stream flows which tend to extend growth and maturation periods beyond those typical of the coastal rivers of the Pacific Northwest. Life histories of Upper Columbia steelhead are similar to those of other inland populations in that after returning from saltwater, most hold in freshwater for nearly a year before spawning. Although most steelhead smolt at age two (Wenatchee 66%; Methow and Okanogan 78%) in the Upper Columbia region, smolting can take

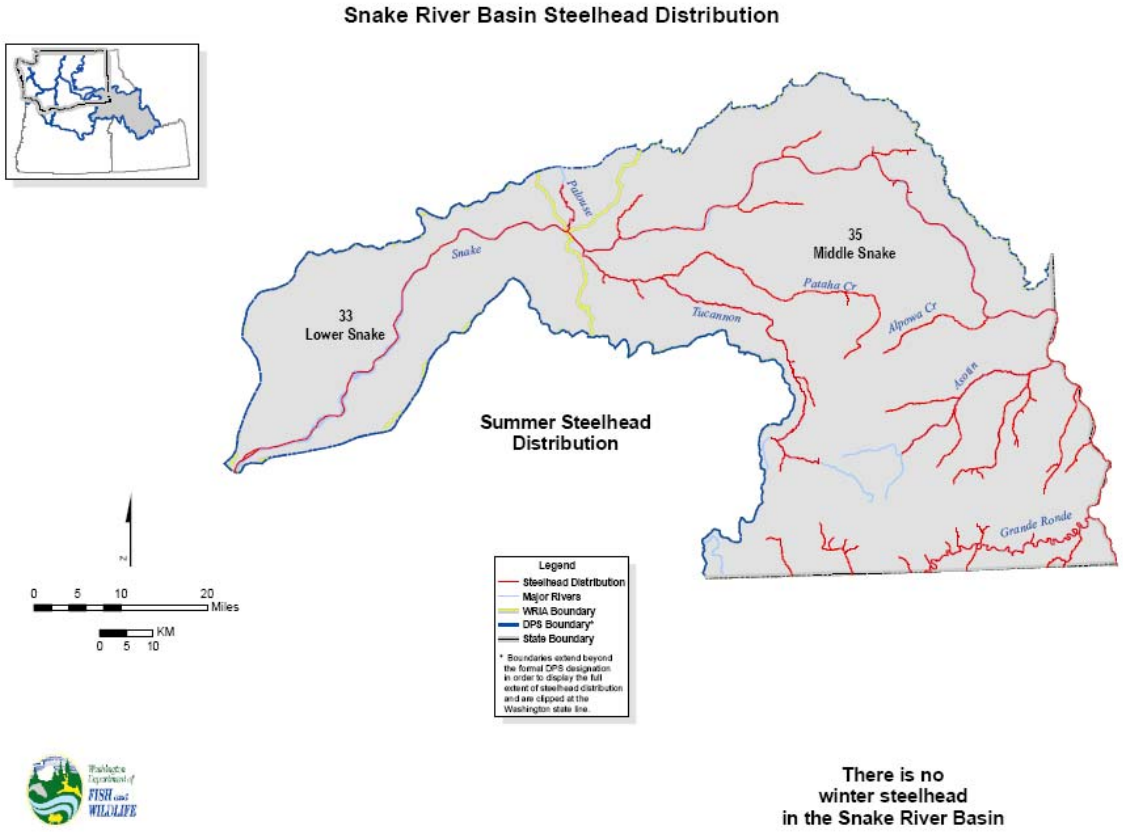
place as late as age seven (Mullan et al. 1992). This prolonged juvenile freshwater residence is probably the result of very cold stream temperatures. Wenatchee steelhead appear to return to freshwater after 1-2 years in saltwater, while those in the Methow return predominately after one year (64%) in salt water. Due to a lack of trapping facilities, little is known about steelhead destined for the Entiat River.

Eleven populations are believed to have existed in this DPS historically (ICTRT 2003). Six of the populations (Sanpoil, Kettle/Colville, Pend Oreille, Kootenay, Spokane, and Hangman) were extirpated after construction of the Grand Coulee Dam in 1939 blocked access to more than 50% of the river miles previously accessible to steelhead originating from this DPS (NRC 1996). The status of the Okanogan and Crab Creek populations is uncertain. Although analysis suggests that sufficient habitat was present historically to support independent populations, limited surveys have revealed small numbers of natural-origin fish using Omak Creek in recent years (ICTRT 2003).

Genetic analysis on three of the extant populations (Wenatchee, Entiat, and Methow) has been difficult for three reasons: 1) the Grand Coulee Fish Maintenance Project (Fish and Hanavan 1948) probably resulted in the mixing of steelhead from all areas upstream of Rock Island Dam; 2) artificial production programs released juvenile steelhead that originated from broodstock of unknown origin collected at Wells Dam or Priest Rapids Dam; and 3) genetic samples were limited and collected from juvenile fish (Chapman et al. 1994; Ford et al. 2001). However, the general conclusion was that introgression of steelhead of Skamania-origin has not occurred (Chapman et al.)

Snake River Basin DPS

The land within the boundaries of WRIAs 33 and 35 is the area included in the Snake River basin Distinct Population Segment.



The following description of the Snake River Basin DPS is primarily a summary of information from Busby et al. (1996). The Snake River DPS extends from the Snake River mouth in SE Washington into Oregon and much of Idaho. Streams originate in the area of mature, eroded landscape dominated by the exposed granitic terrains of the large Idaho Batholith. This results in rivers draining extensive, open, low relief areas in a warmer and more alkaline setting than the other geographic regions. Subbasins in the Washington component of the DPS differs in that the streams arise from the relatively low elevation, basalt dominated Blue Mountains. This DPS also has migration distances and spawning elevations that are generally greater than the other populations in the state. Most of these populations are thought to be fairly well isolated from populations outside the Snake basin. Genetic and meristic data available to the BRT both indicated that Snake basin steelhead are distinct from those outside the basin. Inland steelhead have been divided into A-run and B-run fish. A-run steelhead are smaller, on average have a

shorter freshwater and ocean residence, and apparently their upriver migration occurs earlier in the year (ICTRT 2003).

The ICTRT identified 40 populations of steelhead that historically existed in the Snake River Basin DPS (McClure and Cooney, pers. comm.). Only four of those populations have spawning areas located at least partially in Washington: 1) Tucannon; 2) Asotin Creek; 3) Lower Grande Ronde; and 4) Joseph Creek. Additional small aggregations of spawning steelhead utilize small streams that enter the Snake between the Tucannon River and the Oregon state boundary. These groups do not meet the criteria for a population as defined by the ICTRT, and are therefore assigned to the next downstream tributary population (e.g. Alpowa Creek and Tenmile Creek steelhead were both assigned to Asotin steelhead population) in the Snake River Salmon Recovery Plan for SE WA.

3. Alternatives and Analysis

Overview

WAC 197-11-444 provides a comprehensive list of subjects that must be considered in this analysis with the caveat that the EIS must only study the elements that apply to this proposal. This proposal will provide guidance for the creation of watershed plans and RMPs. Those plans will include projects that will affect some of the elements on the environmental checklist and those plans will be subject to supplemental SEPA review as they are proposed. The alternatives introduced in section 1.1.2 of this Programmatic FEIS for the Statewide Steelhead Management Plan have been examined and found not to have a likely significant adverse impact to the environment on the following elements:

(1) Natural environment
- (a) Earth
  - (i) Geology
  - (ii) Soils
  - (iii) Topography
  - (iv) Unique physical features
  - (v) Erosion/enlargement of land area (accretion)
- (b) Air
  - (i) Air quality
  - (ii) Odor
  - (iii) Climate
- (c) Water
  - (i) Surface water movement/quantity/quality
  - (ii) Runoff/absorption
  - (iii) Floods
  - (iv) Ground water movement/quantity/quality
  - (v) Public water supplies
- (d) Plants and animals
  - (i) Habitat for and numbers or diversity of species of plants, fish, or other wildlife
  - (ii) Unique species
  - (iii) Fish or wildlife migration routes
- (e) Energy and natural resources
  - (i) Amount required/rate of use/efficiency
  - (ii) Source/availability
  - (iii) Nonrenewable resources
  - (iv) Conservation and renewable resources
  - (v) Scenic resources

(2) Built environment
- (a) Environmental health
  - (i) Noise
  - (ii) Risk of explosion
  - (iii) Releases or potential releases to the environment affecting public health, such as toxic or hazardous materials
- (b) Land and shoreline use
  - (i) Land and shoreline use

(ii) Housing
(iii) Light and glare
(iv) Aesthetics
(v) Recreation
(vi) Historic and cultural preservation
(vii) Agricultural crops

(c) Transportation
(i) Transportation systems
(ii) Vehicular traffic
(iii) Waterborne, rail, and air traffic
(iv) Parking
(v) Movement/circulation of people or goods
(vi) Traffic hazards

(d) Public services and utilities
(i) Fire
(ii) Police
(iii) Schools
(iv) Parks and other recreational facilities
(v) Maintenance
(vi) Communications
(vii) Water/storm water
(viii) Sewer/solid waste
(ix) Other governmental services or utilities

Appendix C provides additional information from the Environmental Checklist called for by WAC 197-11-444 on these and other possible environmental elements that might come under further consideration as the more detailed RMPs and watershed plans are prepared. In section 1.4 a summary discussion of alternatives and strategies by policy subject area was supported by the introduction of Table 1. This chapter provides further detail by analyzing how the alternatives address potential impacts for each of the eight policy areas found in the *SSMP*. Similar to the presentation in section 1.1.2, the discussion of the status quo (Alternative 3) will be first in order to facilitate comparison of the other alternatives with the current management approach. These sections will also identify region or watershed specific issues that might justify an alternative that is more, or possibly in some cases less, conservative that Alternative 2 when those plans are developed.

The *SSMP* is intended to set statewide policy guidelines for wild steelhead management. It will affect decisions about animals and recreation. The following SEPA elements will be analyzed for all of the alternatives:

1) Plants and Animals - Habitat for and numbers or diversity of species of plants, fish, or other wildlife, unique species and fish or wildlife migration routes
2) Land and Shorelines Use – Recreation

3.1 Operational Policies Category

Four policy subject areas make up the Steelhead Program Operations major policy category. This category deals with policy decisions that directly affect steelhead and their habitats and are significantly interrelated (see section 1.4.1). These policy subject areas will provide direction to the Department for decisions that affect natural and artificial production, habitat protection and restoration and fisheries management. The alternatives span levels of risk for strategies that the FWC is considering using in its *SSMP*.

3.1.1 Natural Production

Introduction

The goal of the *SSMP* to restore and maintain the abundance, distribution, diversity and long-term productivity of Washington's wild steelhead and their habitats to assure healthy stocks speaks specifically of restoration and maintenance of wild steelhead stocks. Wild steelhead are defined as naturally produced fish from a locally adapted stock regardless of parentage. Healthy stocks are defined as having sufficient abundance, productivity, diversity and spatial structure to be resilient through environmental fluctuations, to be part of the natural ecological functions that drive freshwater and marine ecosystems, provide related cultural values to society, and sustain tribal and recreational fisheries.

The natural production operations policies for the *SSMP* set the foundation for the rest of the plan. Selection of an effective policy is proportionally dependent on the certainty of our understanding of stock population dynamics, the condition of the habitat, and the status of the stock. It must fit in with an ecosystem approach that protects and restores salmonid stocks and other indigenous aquatic species to levels that sustain healthy ecosystem processes. The policy must identify factors that limit the health of each stock so modifications to fishery, hatchery, and habitat management can be tailored to the situation. It must also establish a network of wild stock gene banks across the state where wild stocks are largely protected from the effects of hatchery programs. At least one wild stock gene bank will be established for each major population group in each steelhead DPS. Finally, it must provide a long-term goal with measurable benchmarks that provides sufficient diversity and abundance of wild spawning steelhead to achieve VSP characteristics consistent with a healthy wild stock.

Four alternative approaches for managing wild steelhead natural production are presented in this section. Each presents a different level of commitment to natural production. Detailed technical information about the key elements of the science behind the alternatives is presented in draft report "*Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs"(Draft July 21, 2006).*

Affected Environment

The affected environment for the Natural Production section is the mainstem and tributaries habitat where steelhead spawn and rear. It may include locations where natural spawning and rearing takes place or it may include areas where integrated hatchery program actions occur. This affected environment includes marine outmigration and juvenile to adult growth.

Natural Production Alternatives

- **Alternative 3 – Current approach (Status Quo Alternative) - Manage for at least maximum sustainable harvest (MSH) abundance or mitigation goal.**

All wild steelhead populations would be managed to consistently achieve MSH abundance levels. The affect on fishing opportunity is discussed in section 3.1.3 in this Preliminary FEIS and summarized in Table 1 of the *SSMP* document. For the Columbia River basin DPSs in the eastern side of the state, many populations are managed for compliance with current mitigation agreements and goals. In many of these situations, the status quo approach will continue to be preferred. However, research will be recommended to support or alter mitigation goals as necessary. Current levels of impact to salmonids could be reduced slightly via the adaptive management decision process. Habitat impacts to wild fish caused by continued population growth increases the likelihood of cumulative effects resulting from cyclical productivity variations. Recreational harvest, which is dependent on hatchery fish, would remain unchanged.

- **Alternative 2 – Increased wild protection (Preferred Alternative) - Manage for viable salmonid population (VSP) parameters. Establish a network of wild stock gene banks.**

Escapement would be managed to ensure wild steelhead abundance, productivity, spatial structure, and life history diversity are achieved. The shift in emphasis from an abundance to a broader population viability focus will improve wild steelhead management by expanding the utilization of agency databases to better inform management decisions. According to the current SaSI data, there is insufficient abundance information to determine the status of nearly half of the steelhead stocks. This alternative places less emphasis on full carrying capacity utilization than Alternative 1 and would accept some impacts on wild steelhead as long as they do not significantly impact other salmonid stocks or ecosystem health. In general, this alternative favors escapement above MSH goals in order to provide a buffer for cyclical downturns, and as such may impact recreational harvest opportunity in order to protect wild populations although to a lesser degree than Alternative 1. The implementation of the wild stock gene bank program would be designed to meet the gene bank needs presented in the ESA recovery plan or RMP for each DPS. The plan would initially be flexible enough to adapt to the specific management conditions of the individual watershed plans.

- **Alternative 1 – Maximize wild protection (Most Conservative alternative) - Manage for carrying capacity.**

This alternative places the greatest emphasis on protection of wild steelhead stock health. It emphasizes wild steelhead stock protection and production over a primary consideration of potential negative impacts on other salmonid stocks or ecosystem health. In some eastern Washington watersheds, existing mitigation agreements along with the assessment that this steelhead management strategy will have little significant adverse environmental impact to other salmonids have made this the preferred management approach. In extreme cases, for some other watersheds in the state, this alternative may greatly limit recreational harvest opportunity by restricting hatchery programs to eliminate related ecosystem impacts in future analysis.

- **Alternative 4 – Increased Fishing Opportunity (Least Conservative Alternative) - Manage abundance at MSH.**

All wild steelhead populations would be managed to achieve MSH as often as possible while still enhancing or encouraging harvest of hatchery steelhead or other fish. The cumulative effects on wild steelhead and salmon stocks would intensify as recreational harvest opportunity is enhanced. This alternative poses a significant adverse impact to wild fish particularly in the case of at-risk populations.

Significant Impacts and Mitigation Measures

Alternatives 1 and 2 (Preferred Alternative) provide policy guidance aimed at protecting and restoring wild steelhead to healthy populations in the Washington DPSs. The expected outcome of this would be additional steelhead occupying their niches in the ecosystems. A significant adverse environmental impact to habitat for other species of plants, fish or wildlife, unique species and fish and wildlife migration routes is unlikely if either of these alternatives is adopted. A decrease in fishing opportunity could cause a decrease in some recreation activity along with a corresponding decrease in vehicular and boating traffic if either of these alternatives is adopted but this is unlikely to cause a significant adverse environmental impact. A possible, though probably insignificant, impact might be a slight shift in recreational fishing pressure on healthy populations.

Policy actions for Alternatives 3 (Status Quo) and 4 are feasible and meet the purpose and need of this impact statement but they do not fulfill the policy objectives because steelhead populations could continue to be at a cumulative impact risk if they were adopted.

Cumulative Impacts

Adoption of alternatives 3 and 4 could seriously hinder the successful achievement of the proposed *SSMP.* All considered alternatives must support the plan. Failure to select the appropriate natural production alternative means the alternatives for other aspects of the plan may not be adequate to achieve the goals of the plan and adoption of those alternatives would not meet the policy objectives. It is likely that any short-term benefits realized from Alternatives 3 or 4 would be offset by the long-term cumulative degeneration of the wild steelhead resource.

3.1.2 Habitat Protection and Restoration

Introduction

The *SSMP* states that a healthy wild stock is defined as having sufficient abundance, productivity, diversity and spatial structure to be resilient through environmental fluctuations, to be part of natural ecological functions that drive freshwater and marine ecosystems, provide related cultural values to society, and sustain tribal and recreational fisheries. Successful achievement of that standard is heavily dependent on healthy habitat.

Existing properly functioning habitat needs to be protected and the habitat lost, if possible needs to be restored. This means protecting and restoring habitat important for all life stages of not just steelhead but all anadromous fish, including, but not limited to, spawning and incubation, juvenile rearing and adult residence, juvenile and kelt outmigration, and adult migration upstream to spawning areas. Habitat protection and restoration measures in this plan are based on the best available science relevant to stream flows, water quality and temperature, spawning substrates, in stream structural diversity, migratory access, estuary and near shore marine habitat quality and riparian habitat quality.

For the purposes of this plan, habitat protection analysis can be divided into preservation, water quality and quantity, and restoration. Responsibility for habitat protection and restoration in Washington is shared among many agencies. The Department of Fish and Wildlife is responsible for protecting fish life from construction projects that may affect the bed or flow of the state's waters through the Hydraulic Permit Approval (HPA) process. Likewise, the Department has direct responsibility for managing it's own lands for conservation.

Other agencies play important roles in protection of steelhead habitat. The Departments of Ecology and Health regulate activities that impact water quality and quantity. The Forest and Fish Act and subsequent Habitat Conservation Plan regulated by the Department of Natural Resources address forest practice activities that may affect steelhead and their habitats on state and private timberlands. The Northwest Forest Plan addresses aquatic habitat protections in federal forests. Additionally, the Shorelines Management Act, Growth Management Act, and State Environmental Policy Act govern habitat protections on state and private lands. Local governments and the Department of Ecology administer these important habitat protection laws. The legislature intended these laws to be tools to be used by agencies and the public to protect and restore wildlife and fisheries habitat including water quality, riparian and near shore environments. The Department assists in habitat protection through these programs by providing technical assistance and expertise

> **The Shorelines Management Act** (SMA) says "It is the policy of the state to provide for the management of the shorelines of the state by planning for and fostering all reasonable and appropriate uses. This policy is designed to insure the development of these shorelines in a manner that, while allowing for limited reduction of rights of the public in the navigable waters, will promote and enhance the public interest. This policy contemplates protecting against adverse effects to the public health, the land and its vegetation and wildlife, and the waters of the state and their aquatic life, while generally protecting public rights of navigation and corollary rights incidental thereto." The Act

tells cities and counties that "Permitted uses in the shorelines of the state shall be designed and conducted in a manner to minimize, insofar as practical, any resultant damage to the ecology and environment of the shoreline area and any interference with the public's use of the water."

The Growth Management Act (GMA) requires cities and counties to examine their Shorelines Master Plans to ensure they conform to GMA's requirements to protect critical areas through Critical Areas Ordinances (CAO). GMA says, "When developing policies and regulations to designate and protect critical areas, cities and counties should give "special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries."

WAC 365-195-920 (3) says "Conservation or protection measures necessary to preserve or enhance anadromous fisheries include measures that protect habitat important for all life stages of anadromous fish, including, but not limited to, spawning and incubation, juvenile rearing and adult residence, juvenile migration downstream to the sea, and adult migration upstream to spawning areas. Special consideration should be given to habitat protection measures based on the best available science relevant to stream flows, water quality and temperature, spawning substrates, in stream structural diversity, migratory access, estuary and near shore marine habitat quality, and the maintenance of salmon prey species. Conservation or protection measures can include the adoption of interim actions and long-term strategies to protect and enhance fisheries resources."

The State Environmental Policy Act (SEPA) RCW 43.21C.030 (1) "requires an environmental impact statement (the detailed statement required by RCW 43.21C.030(2)(c)) shall be prepared on proposals for legislation and other major actions having a probable significant, adverse environmental impact." This would include any regulation or project that could affect steelhead habitat.

The legislature put these tools in place so that citizens, interested groups and agencies would have public processes to examine projects and comment on potential impacts. These impacts could then be avoided or mitigated.

RCW 43.21C.031 "authorizes and directs that, to the fullest extent possible: (1) The policies, regulations, and laws of the state of Washington shall be interpreted and administered in accordance with the policies set forth in this chapter, and (2) all branches of government of this state, including state agencies, municipal and public corporations, and counties shall:
(a) Utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man's environment."

The point of quoting all of these rules and regulations is to show that although the Department has a limited role in habitat protection, there are other tools available for the Department, sister agencies and the public to use in habitat protection. Citizens and other agencies have an important opportunity to examine a Shoreline Master Plans, Critical Areas Ordinances or SEPA proposals to see if it adequately protects steelhead habitat. However, as the agency with expertise

in steelhead and their habitats, it is vital that the Department remain engaged in these important planning and protection programs.

In addition to habitat protection programs, the Department plays an important role in habitat restoration activities. RCW 77.85 governs Salmon Recovery in Washington. The Governor's Salmon Recovery Office provides statewide management and coordination for lead entities and regional salmon recovery groups that are principally engaged in salmon habitat restoration. The Department actively supports habitat restoration by providing logistical, engineering, biological, and permit assistance to lead entities, regional fisheries enhancement groups and watershed restoration groups. The Department frequently expedites permits for habitat restoration projects.

Department strategies to improve habitat protection and restoration include facilitating access to habitat information and providing technical expertise to local citizens, concerned groups, the tribes, and state, local and federal agencies so they can identify problems and develop and implement local solutions. It can seek to enhance the effectiveness of the Hydraulic Project Approval process, implement a hierarchy of protection and mitigation for projects with unavoidable impacts, develop guidance and promote funding of habitat restoration programs, and improve fish passage and nutrient enhancement strategies.

Four alternatives for WDFW policy regarding wild steelhead habitat are presented in this section. Each presents a different level of commitment to habitat restoration and protection. Detailed technical information about the key elements of the science behind the alternatives is presented in draft report "*Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs"(Draft July 21, 2006).*

Affected Environment

The affected environment for the Habitat Protection and Restoration section is the watersheds, riparian, near shore and marine habitats where steelhead spend any part of their life cycle. This includes all areas of the watershed regulated by the state or federal government that could affect steelhead and their habitat (see the Federally Managed Lands map in section 2.2).

Habitat Protection and Restoration Alternatives

- **Alternative 3 – Current Approach (Status Quo Alternative) - Protect habitat through the current HPA process, and maintain involvement in State and Federal protection and restoration processes.**

This alternative emphasizes protection and restoration of wild steelhead habitat using existing federal statutes and programs. It does not require the Department to increase participation in SMA SEPA, GMA, SEPA and external conservation processes to ensure habitat is protected and maintains existing participation in habitat recovery through the Salmon Recovery Act. Not as pro-active as Alternatives 1 and 2, this status quo alternative is essentially neutral with respect to habitat impact on either other species or recreation opportunity. But as such, it does not add to the competition for funding and staff resources to reduce impacts in the other seven policy subject areas of the *SSMP*. Currently, the Department provides technical assistance to salmon recovery groups, local governments, and hydraulic project proponents as workload and funding allow.

- **Alternative 2 – Increased Wild Protection (Preferred Alternative) - Fully implement and enforce current authorities, and increase participation in effective external conservation processes. Encourage other agencies/entities to follow suit.**

This alternative emphasizes protection and restoration of wild steelhead habitat using existing statutes and programs. It requires the Department to increase participation in SMA, GMA, SEPA, HPA and external conservation processes to ensure laws are enforced and habitat is protected and to increase participation in habitat recovery through the Salmon Recovery Act and meets ESA requirements. As with Alternative 1, the focus on steelhead habitat requirements is also likely to benefit less demanding species as well. Department actions resulting from the selection of this alternative may include increased efforts to track local government permitting decisions more thoroughly, and to maximize the agency's expertise in the development and review of those decisions. Additionally, the Department may apply greater resources to appealing or challenging land and water use decisions that are inconsistent with the applicable laws and best available science related to steelhead habitat requirements. Under current HPA authority, the Department may apply greater administrative and political effort in the prosecution of hydraulic violations under RCW 77.55.

- **Alternative 1 – Maximize Wild Protection (Most Conservative Alternative) - Seek legislation to gain jurisdiction over habitat actions and implement those actions to achieve a no-net loss of existing habitat and an increase in productive habitat.**

This alternative places the greatest emphasis on protection and restoration of wild steelhead habitat with the least impact to wild populations. With steelhead often being considered a water quality index species, it is unlikely that enhancing habitat to meet steelhead needs would be detrimental to other species that have less stringent tolerances. This alternative assumes the Department will get additional authority for habitat protection from the Legislature. Department actions resulting from the selection of this alternative may include tracking local government permitting decisions more thoroughly, and to maximize the agency's expertise in the development and review of those decisions. Additionally, the Department may apply greater resources into appealing and challenging land and water use decisions that are inconsistent with the applicable laws and best available science related to steelhead habitat requirements. Lastly, the Department will seek legislative authorities consistent with the outcome of the HPA Habitat Conservation Plan (HCP) under development.

- **Alternative 4 – Increased Fishing Opportunity (Least Conservative Alternative) - Protect habitat through the current HPA process, and maintain involvement in State and Federal protection processes.**

This alternative emphasizes protection of wild steelhead habitat using existing federal statutes and programs. It does not require the Department to increase participation in SEPA, SMA, GMA, SEPA and external conservation processes and does not require additional participation in habitat recovery through the Salmon Recovery Act. From the habitat protection standpoint,

Alternatives 3 and 4 are identical and essentially impact neutral.

Significant Impacts and Mitigation Measures

Alternatives 1 and 2 (Preferred Alternative) provide policy guidance, which in itself does not have associated direct environmental impacts, aimed at protecting and restoring habitat for wild steelhead. If the WDFW Habitat Program followed this guidance, the expected outcome would be an increased amount of steelhead habitat and additional steelhead occupying their niches in the ecosystems. A significant adverse environmental impact for other species of plants, fish or wildlife, unique species and fish and wildlife migration routes is unlikely if either of these alternatives is adopted. Both alternatives call for the Department to increase its focus on enforcement of all laws affecting habitat or that could affect land and shoreline use, existing land use plans, recreational activities, vehicular traffic, waterborne traffic and parks and recreational facilities. It is therefore not anticipated that this would result in significant adverse environmental impacts.

Policy actions for Alternatives 3 (Status Quo) and 4 are feasible and meet the purpose and need of this impact statement but do not meet the plan objective because steelhead habitat could continue to be at risk if they were adopted. Without the shift in focus to VSP characteristics for escapement, adequate risk identification and evaluation will continue to be elusive.

Cumulative Impacts

Adoption of alternatives 3 and 4 could hinder the success of efforts to maintain and restore natural production by allowing cumulative minor impacts to eventually reduce the amount of spatial structure in which natural production can increase.

3.1.3 Fisheries Management

Introduction

The natural production and habitat alternatives focused the on defining the role natural production plays in restoring steelhead stocks throughout their habitats and how to protect and restore those habitats. The job of fisheries management is to coordinate how this can be done and still "achieve cultural, economic and ecosystem benefits for the current and future residents of Washington." Fisheries management is necessary to ensure sufficient abundance; diversity and spatial distribution are maintained to preserve the wild steelhead stocks.

This means State and Tribal fishery managers must have knowledge of the abundance and timing of the stocks and the spatial structure of the populations in the available habitat so they can coordinate actions to support natural production strategies that achieve abundant and diverse populations.

Fisheries management relating to wild steelhead is more than just setting an opening and closing date for a harvest. The Department must work with the Tribal co-managers to agree on the pre-season runsize abundance to compare to the escapement goal so the number of fish to be harvested can be determined. The number of Tribes fishing on a run, the condition of the many different habitats and stocks, and the fact that summer and winter stocks can be in the same habitat at the same time complicates this greatly. Once the escapement goal and allowable harvest is set, the co-managers must be sure that harvest efforts are adjusted so efforts do not impede recovery of listed fish. Only then should seasons and limits be set for each stream.

The *SSMP* seeks to reduce mortality on under-escaped wild steelhead stocks. This goal can be met while allowing for limited retention or catch and release fisheries of wild steelhead in rivers with healthy wild stocks. The plan also provides a tool for fisheries managers to know when harvest of hatchery fish must be closed to prevent excess incidental mortality to wild fish.

Fishery management must also be coordinated with hatchery and habitat managers. Fishery managers must use caution when setting fishing seasons to be sure they maximize the harvest of hatchery fish without over harvesting the wild stock. Impact on wild stocks can occur in several ways. First, a poorly timed hatchery release could put hatchery steelhead in direct competition with wild steelhead for the limited food and refuge resources in a stream. Second, spawning between hatchery fish and wild fish can harm the long term genetic vigor of wild fish by introducing genes from stocks that are less adapted to a particular stream. Finally, fishery management of steelhead must take into account a stock's role in its ecosystem. Fishery managers cannot manage a fishery solely for the benefit of wild steelhead when other ESA listed species inhabit the same space. Fish managers have to plan activities to make sure each listed wild stock, whether it be steelhead, bulltrout or salmon, has sufficient abundance, productivity, diversity and spatial structure to be resilient through environmental fluctuations, and to continue to be part of the natural ecological functions that drive freshwater and marine ecosystems.

Steelhead fishery management strategies include adaptively managing fisheries to support natural production strategies within a comprehensive All-H context. The strategies seek to identify sources of fishery related mortality so these can be considered when creating a long-term

plan with measurable benchmarks for each stock. These strategies seek to fulfill cultural and ecological needs as well as provide fishing and harvest opportunities for the many different interests in the recreational community while still meeting harvest needs of the Tribal co-managers.

Four alternatives for managing wild steelhead fisheries are presented in this chapter. Detailed technical information about the key elements of the science behind the alternatives is presented in draft report "*Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs*"*(Draft July 21, 2006).*

Affected Environment

The affected environment for the Fisheries Management section is the mainstem, tributaries, riparian, near shore and marine habitats where steelhead spend any part of their life cycle as well as the hatchery environments.

Fisheries Management Alternatives

- **Alternative 3 – Current Approach (Status Quo Alternative) - Manage fisheries for minimum MSH escapement goal to ensure objectives are achieved.**

Guidelines for managing recreational fisheries with known wild and hatchery abundance are summarized in Table 1 in the *SSMP*. This alternative accepts slower recovery of wild steelhead stocks, is vulnerable to the cumulative effects of unidentified and unevaluated habitat degradation, and consequently risks over fishing of some wild stocks in return for greater fishing opportunity as long as fisheries do not impact the majority of under escaped stocks by more than 10%. Wild stock retention could be permitted on stocks that meet the current fishery management guidelines as presented in the *SSMP*. This strategy has successfully met fisheries management objectives in some watersheds, particularly those in which minimal habitat degradation has occurred and the stocks are self-sustaining, however it is not applicable in cases, such as those where escapement data are lacking or active mitigation agreements are in place. The potential for significant recreational impact is adequately mitigated with current policy and existing infrastructure, and this should be assured via the adaptive management policy.

- **Alternative 2 – Increased Wild Protection (Preferred Alternative) - Manage fisheries to ensure: abundance, productivity, spatial structure and life history diversity objectives are achieved.**

This alternative would manage fisheries to achieve wild steelhead abundance, productivity, spatial structure, and life history diversity and to further reduce incidental mortality on wild stocks to levels significantly below the current 10% guideline for MSH fishery management. Alternative 2 would promote faster recovery of wild steelhead stocks at the expense of reduced recreational harvest opportunity. Wild steelhead retention could be permitted. Although an allowable impact on wild steelhead is defined and addressed, there could also be a collateral decline in incidental impacts on other species coincident with a reduced recreational fishing opportunity. Due to an anticipated harvest decrease, there is potential for some other impacts

arising from a displaced angler. This is an example of the greater detail of analysis that will occur at the subsequent watershed and RMP level plan development.

- **Alternative 1 – Maximize Wild Protection (Most Conservative Alternative) - Manage fisheries for average steelhead carrying capacity.**

This alternative places the greatest emphasis on fisheries management protection of wild steelhead stock health. It would probably achieve wild steelhead abundance, productivity, spatial structure, and life history diversity more quickly than the other alternatives. Alternative 1 would eliminate non-Indian harvest of wild steelhead and curtail harvest of hatchery steelhead while attempting to minimize incidental mortality of wild steelhead, generally making no provision for fishing on stocks that exceed escapement goals because protection would focus on achieving carrying capacity. A fisheries management strategy very similar to this is currently being applied to the ESA-listed stocks in Eastern Washington to strongly support ongoing recovery efforts in those watersheds. The guidelines set out in the *SSMP* are flexible enough to encourage the use of this most conservative fisheries management strategy for these steelhead stocks.

- **Alternative 4 – Increased Fishing Opportunity (Least Conservative Alternative) - Manage fisheries for MSH escapement goal.**

This alternative would manage fisheries to increase harvest programs to the maximum rates that the current MSH management guidelines would allow. Alternative 4 would probably jeopardize recovery of wild steelhead stocks and risk over fishing of many wild stocks in return for greater fishing opportunity as long as fisheries management does not impact all under escaped stocks by over 10%. Even for abundant stocks in healthy ecosystems, long-term success with this strategy would be dependent upon a significant increase in functional knowledge of both properly segregated and properly integrated hatchery programs. Recreational impacts could increase with overall increased angler effort.

Significant Impacts and Mitigation Measures

Alternatives 1 and 2 (Preferred Alternative) provide policy guidance for managing steelhead fisheries to increase abundance of wild stocks throughout their habitat. The expected outcome of this would be additional steelhead occupying their life-stage niches in the ecosystems. A significant adverse environmental impact is unlikely if either of these alternatives is adopted. Additional steelhead in the ecosystem could favorably or adversely affect habitat for, and numbers or diversity of, other species of plants, fish, or wildlife; fish and wildlife migration routes; and unique species. However, these impacts should be mitigated by the plan's All H, ecosystem planning and adaptive management strategies and no significant adverse environmental impact should result. Changes in fishing seasons and harvest strategies could result in some environmental health impacts by decreasing or increasing fishing activity in some places.

Policy actions for Alternatives 3 (Status Quo) and 4 are feasible and meet the purpose and need of this impact statement. However, they do not meet the policy objectives for natural production because without the benefits of VSP based escapement goals, the long-term abundance and

diversity levels of steelhead populations could continue to be at risk if they were adopted. The implementation of timely adaptive management can be expected to mitigate some of the abundance trend decline, but reversal would likely be dependent upon preferred alternative adoption in many of the other seven plan areas.

Cumulative Impacts

Adoption of alternatives 3 and 4 could hinder the success of efforts to maintain and restore natural production by allowing unidentified and unevaluated cumulative impact effects to eventually reduce the abundance and subsequent productivity of wild steelhead populations. Success of adaptive fisheries management would be overly contingent upon the ability to accurately predict pre-season and in-season returns.

3.1.4 Artificial Production

Introduction

Artificial production is the rearing and release of fish from an artificial culture setting such as a hatchery, remote site incubator, spawning channel or other non-natural situation. In the past hatcheries have been viewed as a replacement for habitat. The Hatchery Reform Project has shown that this is no longer prudent. Hatcheries should be considered an integral part of the watershed in which they operate. They should be structured and operated to meet the goals for conservation and recovery in a watershed and ecosystem context and balanced to provide harvest benefits for sustainable fisheries now and in the future. As indicated in the key relationships section 1.4.1, this means the artificial production strategy must be coordinated with the harvest and habitat strategies to create the right combination of actions to restore and maintain healthy wild steelhead stocks as the *SSMP* objective.

Depending on program type, the primary objectives of hatchery programs are to enhance harvest opportunities or to provide wild stock recovery, or conservation benefits. Hatchery origin steelhead provides substantial recreational and economic benefits to Washington residents. Recreational anglers have harvested an average of 99,300 steelhead per year since 1995. The vast majority of these were hatchery fish. It is estimated that during that time, steelhead anglers spent $99 million per year or almost $1,000 per fish in Washington communities (Scott, et. al., 2006). It would be unlikely that the Department could meet its *SSMP* goal and legislative mandate by closing down all hatchery operations.

At the same time, hatcheries are popular with the public. A hatchery tour is a valuable learning experience for people of all ages. Legislative efforts to cut hatchery programs are almost always met with criticism by the public. There are approximately 70 State, cooperative, Federal and Tribal facilities raising steelhead in Washington.

Finally, hatcheries have been built in some places to mitigate the loss of habitat. Examples of these are the Mitchell Act hatcheries. The Mitchell Act was passed in 1938 to mitigate the loss of salmon spawning habitat in the Columbia River after Congress made the policy decision to build the hydroelectric system in the basin. In April of 1938, Congressman Wallgren wrote in his report on the Mitchell Act:

> *"It is established that the inroads by progress, man's work, and waste, have combined to destroy the most valuable of the natural spawning grounds of the Columbia River Basin. The only way to maintain the salmon supply is through artificial propagation and the construction and maintenance of stations for this purpose after a survey has been made."*

Fisheries science has come a long way since 1938 and it has been found that some hatchery practices can harm wild stocks. The *SSMP* seeks to avoid these problems while still providing fishery-related benefits by implementing artificial production programs with the following characteristics:

> Conservation Programs. Artificial programs implemented with a conservation objective shall have a net aggregate benefit for the diversity, spatial structure, productivity, and abundance of the target wild stock.

> Harvest Programs. Artificial production programs implemented to enhance harvest opportunities shall provide fishery benefits while allowing watershed-specific goals for the diversity, spatial structure, productivity, and abundance of wild stocks to be met.

Steelhead artificial production strategies include adaptively managing hatcheries to support conservation and harvest programs within a comprehensive All-H and ecosystem management context. Strategies to do this include marking or tagging all steelhead released from artificial production programs, implementing rescue programs for at-risk stocks.

Four alternative strategy proposals for managing wild steelhead Artificial Production are presented in this section. Detailed technical information about the key elements of the science behind the alternatives is presented in draft report "*Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs*"*(Draft July 21, 2006).*

Affected Environment

The affected environment for the Artificial Production section is the mainstem, tributaries, riparian, near shore and marine habitats where steelhead spend any part of their life cycle as well as the hatchery environments.

Artificial Production Alternatives

- **Alternative 3 – Current Approach (Status Quo Alternative) - Produce fish to meet current harvest objectives.**

Current hatchery operations are generally managed to meet production and recreational harvest goals and are somewhat indifferent to wild harvest management that is based on return abundance with respect to MSH escapement goals. However, within existing budget constraints, current research, monitoring and adaptive management efforts are beginning to focus on hatchery and wild fish interactions with efforts to achieve an improved understanding and implementation of properly segregated and properly integrated programs in the context of wild steelhead abundance, productivity, spatial structure, and diversity life history objectives.

- **Alternative 2 – Increased Wild Protection (Preferred Alternative) - Improve and modify current hatchery programs to reduce impacts on wild fish, including habitat related actions. Reduce outplants in places where programs are inconsistent with alternatives.**

This alternative would manage hatchery programs to help ensure wild steelhead abundance, productivity, spatial structure, and diversity is achieved by reducing adverse interactions between hatchery and wild stocks. It places greater emphasis on protection of wild steelhead stocks than Alternative 3 and would accept some negative impacts as long as they are not significantly adverse to wild steelhead stocks or ecosystem health. Alternative 2 also allows for the opportunity to adaptively monitor and manage integrated recovery and conservation programs

for the purpose of stabilizing at-risk wild stocks, and properly segregated harvest programs to enhance recreational fishing for the public.

- **Alternative 1 – Maximize Wild Protection (Most Conservative Alternative) - Eliminate hatchery competition with wild populations within Washington. Initiate conservation programs where required to maintain or increase wild populations and their habitats.**

This alternative places the greatest emphasis on protection of wild steelhead stock health. Eliminating competition with hatchery fish could jeopardize abundance for some integrated hatchery programs aimed at wild stock recovery. Wild and hatchery produced steelhead compete in common areas for most of their life cycles and elimination of hatchery competition with wild populations could mean elimination of many hatchery releases. This alternative emphasizes wild steelhead stock protection without regard to negative impacts on local economies by loss of recreational harvest opportunity for hatchery fish.

- **Alternative 4 – Increased Fishing Opportunity (Least Conservative Alternative) - Increase (segregated) hatchery production; add integrated to offset increased impact on wild.**

This alternative calls for additional integrated and segregated hatchery production. It offsets unavoidable increased impacts of additional segregated hatchery programs on wild steelhead populations by selectively increasing integrated hatchery production. The degree of wild stock protection would be extremely dependent upon the ability to properly integrate and segregate the respective hatchery production programs. Although an increase in recreational opportunity would be realized, the risk of adverse impact to wild stocks would likely be disproportionately high.

Significant Impacts and Mitigation Measures

Alternatives 1 and 2 (Preferred) provide artificial production policy guidance aimed at protecting and restoring wild steelhead to healthy population levels in the seven Washington DPSs. The expected outcome of this would be additional steelhead eventually reoccupying their respective niches in the ecosystems. However, alternative 1 eliminates competition between hatchery and wild stocks in a way that could hinder the use of artificial production for stock recovery and fails to meet the *SSMP* objectives if stock health continued to decline without intervention. A significant adverse environmental impact is unlikely if either of these alternatives is adopted. Both would likely reduce artificial production and emplacement of steelhead into the watersheds but a combination of ecosystem, All-H and adaptive management actions should avoid or mitigate these impacts. Changes in hatchery release strategies could result in some environmental health impacts by decreasing or increasing recreational fishing activity in some places, but these changes are not likely to be significantly adverse.

Policy actions for Alternatives 3 (Status Quo) and 4 are feasible and meet the purpose and need of this impact statement but fail to meet the *SSMP* goal because even though recreational opportunity would increase, wild steelhead populations could continue to be at risk of diversity and productivity loss if they were adopted. Without the benefit of adaptive management

strategies designed to achieve VSP, the timely evaluation of these risk factors may be compromised.

Cumulative Impacts

For the case of either Alternative 1 or the Preferred Alternative 2, ecosystem planning combined with adaptive management of a coordinated All-H watershed recovery program should identify and avoid cumulative impacts that could result in a significant adverse environmental impact. It is currently uncertain whether this can arrest and eventually reverse the effects of cumulative impacts for the Status Quo Alternative 3. In the case of Alternative 4, the extreme need to achieve properly run integrated and segregated programs will probably work against avoiding adverse cumulative impacts, which would place smaller populations at a disproportional increased risk.

3.2 Administrative Policy Direction

Four policy subject areas make up the Steelhead Program Administration major policy category. This category deals with policy decisions that directly affect the administration of programs that relate to steelhead and their habitats. These policy subject areas will provide direction to the Department for decisions that affect regulatory compliance, monitoring, evaluation and adaptive management, research and outreach and education programs. The alternatives span levels of risk for strategies that the FWC is considering using in its *SSMP*.

3.2.1 Regulatory Compliance

Introduction

The alternatives presented in Section 1.1.2 provide a carefully considered plan of action to maintain and restore wild steelhead populations throughout Washington. There are many state and federal rules and regulations designed to protect the fish and their habitats that can help the plan. Gaining compliance with the regulations is essential to protecting and maintaining important habitat functions as well as ensuring that fishery protection strategies are followed. Regulatory compliance efforts must apply to the full range of habitat, hatchery, harvest and hydro rules and regulations to achieve abundant and healthy wild steelhead.

WDFW will utilize both voluntary (such as technical assistance, public outreach, cooperative partnerships, consultation with Federal and Tribal governments) and regulatory approaches (enforcement and legal action) to improve compliance with habitat, harvest, hatchery and hydro regulations.

Section 3.1.2 addresses Department plans for increasing emphasis on regulatory compliance for habitat. This section discusses alternatives that the Department can use to increase emphasis on hatchery, harvest and hydro compliance.

Table 2. Complexity of Achieving Regulatory Compliance

VSP Category	Habitat	Hatchery	Harvest	Hydro
Abundance of wild steelhead	See Chapter 3.1.2	**Federal**, **State and Tribes** – Cooperatively apply SSMP to co-manage broodstocking and release of hatchery fish to support VSP based escapement goals	**Federal** – Monitor fisheries beyond 3 mile limit **Tribes & State** – Co-manage wild escapement **Tribes –** Enforce Tribal fishing regulations **State –** Enforce non-Tribal fishing regulations. Monitor Federal and Tribal actions.	**Federal –** Conduct FERC relicensing. **State –** Participate in FERC relicensing actions. Monitor and see that relicensing agreements are carried out
Productivity of wild steelhead	See Chapter 3.1.2	**Federal**, **State and Tribes** – Cooperatively apply SSMP to co-manage broodstocking and release of hatchery fish to support VSP based escapement goals	**State and Tribes –** cooperatively co-manage wild escapement to support SSMP VSP based escapement goals	**Federal–** Encourage actions to pass smolts/kelts downstream and adults up stream at all FERC facilities **State –** Aggressively pursue fish passage barrier removal and intake screening. Monitor and see that relicensing agreements are carried out.
Diversity of wild steelhead	See Chapter 3.1.2	**Federal**, **State and Tribes** – Cooperatively apply SSMP to co-manage release times, stocks, locations and numbers to support VSP based escapement goals	**Federal**– Monitor fisheries beyond 3 mile limit **State and Tribes** – Cooperatively apply SSMP to co-manage steelhead season openers, lengths and locations to support VSP based escapement goals. Coordinate other fisheries regulations to avoid bycatch.	**Federal -** Monitor FERC activities to support SSMP run timing for VSP **State -** Aggressively pursue fish passage barrier removal and intake screening. Monitor and see that relicensing agreements are carried out.
Spatial Structure of wild steelhead	See Chapter 3.1.2	**Federal**, **State and Tribes** – Cooperatively apply SSMP to co-manage release times, stocks, locations and numbers to support VSP based escapement goals	**State and Tribes –** Cooperatively co-manage escapement to support VSP based escapement goals	**Federal –** Encourage actions to pass smolts/kelts downstream and adults up stream at FERC facilities. **State –** Aggressively pursue fish passage barrier removal and intake screening.

Hatchery regulations - Responsibility for hatchery operations is shared between the Department, the Federal Government and the Tribes. The Federal Government and Tribes are subject to Federal laws governing the Mitchell Act, water diversions and pollution. The Department is subject to state and Federal laws governing water diversions, pollution and Endangered Species. The State and the Tribes have a co-management responsibility for hatcheries. The hatchery policy selected to be part of this *SSMP* is not subject to rule or regulation by the state. It does, however, have to face scrutiny by the public, FWC and the Legislature.

Harvest regulations - Responsibility for harvest operations is shared between the Department, the Federal Government and the Tribes. The Federal Government is responsible for enforcement of fishing regulations outside of the 3-mile limit in U.S. territorial waters and compliance with international treaties on the high seas where steelhead spend most of their lives. The State and Tribes share co-management authority over harvest in Washington Waters. The *US v Washington* and *US v Oregon* decisions gives the Tribes the ability to manage Tribal fishing on reservations and Tribal members fishing in each Tribe's Usual and Accustomed area (UAs). They also give the state authority to manage non-Indian fishing in Washington waters.

Washington elected to ban non-Indian commercial fishing for steelhead in 1936. It has also elected to release wild steelhead on all but a few rivers in Washington by the late 90s. The state is mandated by law to "*conserve the … game fish … resources in a manner that does not impair the resource"* while maintaining *"the economic well being and stability of the fishing industry in the state" and promoting "orderly fisheries"* while enhancing and improving *"recreational … fishing in this state."* Current fishing regulations are designed to accomplish that legislative mandate. Draft report "*Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs"(Draft July 21, 2006)* discusses the challenges of providing fishing opportunity on rivers that contain multiple stocks of fish listed by the Endangered Species Act.

Hydro – Hydro is generally understood to apply to hydroelectric dams but it would be better applied to hydraulic barriers to fish passage. This breaks the issue into 2 categories. The first is dam relicensing and the second is removal of fish passage barriers and screening of hydraulic intakes. Constitutional separation of powers prevents state agencies from requiring federal agencies to take actions, however, department involvement with various technical committees, utility owners and FERC have resulted in fish passage improvements on the Lewis, Baker, Columbia and White Salmon rivers. The Department will continue to work through the appropriate technical committees for each hydroelectric project to ensure implementation of identified measures as well as achievement of outcome based performance measures where applicable. Department State law gives the Department the ability to force removal of non-permitted fish passage barriers and installation of screens on water intakes.

Four alternative strategies for managing wild steelhead natural production are presented in this chapter. Each presents a different level of commitment to encouraging regulatory compliance by the Department. The success of regulatory compliance in all areas of the steelhead life cycle will influence the success of the overall management plan. Being supportive of the four operations categories in nature, this administrative category alternative will not directly source significant adverse impact. It only seeks to increase implementation and monitoring compliance with

approved regulations that have been analyzed and reviewed with regard to the species and recreational impacts under consideration in this document.

Affected Environment

The affected environment for the Regulatory Compliance section is the watersheds, riparian, near shore and marine habitats where steelhead spend any part of their life cycle. This includes all areas of the watershed regulated by the state or federal government that could affect steelhead health.

Regulatory Compliance Alternatives

- **Alternative 3 – Current Approach (Status Quo Alternative) – Use current voluntary and regulatory compliance programs. As funds are available in the capitol budget, bring hatchery programs into compliance.**

This alternative continues status quo compliance monitoring of hatchery, harvest and hydro issues. The Department will address problem compliance issues as needed. Hatchery operations will be brought into compliance as funding becomes available. Although additional enforcement funding has not been drawn out specifically, the actions listed in the *SSMP* contain, as an aspect of the adaptive management process, the intent to re-establish quarterly regional meetings and increase communication to enhance in-field effectiveness. This would directly support efforts to conserve wild stocks and also remove some of the uncertainty in assessing recreation impacts with the tighter adherence to policy and regulation strategies.

- **Alternative 2 – Increased Wild Protection (Preferred Alternative) - Implement compliance regulations. Prioritize Departmental hatchery, harvest and hydro compliance monitoring.**

This alternative supports the *SSMP* by monitoring compliance with Federal, State and Tribal laws governing all aspects of the steelhead life cycle. The Department will address problem compliance issues as needed. Similar to Alternative 1 in purpose, this Preferred Alternative recognizes the probability that WDFW will not be afforded additional regulatory authority via legislative action, although it still pursues additional funding to achieve *SSMP* monitoring and enforcement support goals. It also recognizes the value of prioritizing existing resources to support strategies to increase in-field effectiveness of both habitat-related and harvest-related enforcement monitoring.

- **Alternative 1 – Maximize Wild Protection (Most Conservative Alternative) - Implement compliance regulations. Increase Departmental hatchery, harvest, and hydro regulatory compliance monitoring through actively seeking new legislation to improve compliance.**

This alternative supports the *SSMP* by monitoring of compliance with Federal, State and Tribal laws governing all phases of the wild steelhead life cycle. This alternative emphasizes

compliance with laws protecting only steelhead stocks. It assumes the Department will get additional authority for hatchery, harvest and hydro protection from the Legislature.

- **Alternative 4 – Increased Fishing Opportunity (Least Conservative Alternative) - Harvest and hatchery compliance emphasis.**

This alternative would place an emphasis on department regulatory compliance for its hatchery operations and increased enforcement of fishing regulations. This primary focus would be on minimizing potential adverse impacts on wild populations resulting from an increase in recreational fishing activity.

Significant Impacts and Mitigation Measures

Alternatives 1 and 2 (Preferred Alternative) provide regulatory compliance policy guidance aimed at increasing compliance with rules and regulations dealing with hatchery, harvest and hydro operations. The policy proposals are administrative in nature and support the expected outcome of additional steelhead occupying their respective niches in the ecosystems. A significant adverse environmental impact is unlikely if either of these alternatives is adopted. Policy actions for Alternatives 3 (Status Quo) and 4 continue status quo efforts or limit regulatory compliance efforts to harvest and hatchery operations only. Although these alternatives are feasible they do not support the plan as well in that they are more passive or less pro-active than 1 or 2 and would weaken the operations proposals accordingly.

Cumulative Impacts

Administrative and financial support for increased compliance of existing regulations is not a direct source of regulatory-related favorable or adverse environmental impact. Indirectly, or possibly cumulatively, impacts to regulated species or the recreational issues associated with them are not expected to be adverse, assuming the regulations themselves are soundly derived.

3.2.2 Monitoring, Evaluation and Adaptive Management (ME&AM)

Introduction

The previous alternatives established the wild stock foundation and the habitat, fisheries management, artificial production and regulatory compliance framework for the *SSMP*. This chapter adds a program to monitor the effect those policies, strategies, and actions have on wild stocks, evaluate the results and recommend adaptive management solutions when course changes are needed. This is consistent with strategies mentioned in previous alternatives that call out adaptive management as part of their recovery and maintenance strategies.

The previous alternatives have been carefully considered and chosen because the Department believes they will lead to actions that successfully protect and restore the wild stocks. Against the possibility that some of the actions may not work as well as expected or science may suggest new actions that work better, it is prudent to monitor the implementation of these recommendations to be sure the resulting actions do the job and modify those actions if they do not.

A process called adaptive management is used to modify the actions. According to RCW 77.85.010, adaptive management means "reliance on scientific methods to test the results of actions taken so that the management and related policy can be changed promptly and appropriately." Monitoring, evaluation and adaptive management are critical components to informed decision making because they support a learning-by-doing concept. Continued review, evaluation, and modification of actions that directly influence natural production are essential to assure that economic and cultural benefits are maximized while maintaining acceptable risks to natural populations. Adaptive management is a process that allows managers to make good decisions while operating in the face of uncertainty about future circumstances and consequences. It is likely to be most effective if it is driven by clearly defined intermediate and long-term goals and objectives, performance measures are identified and monitored, and results are readily available, communicated, and evaluated in a defined decision making framework that also should provide an adaptive management capability.

Strategies to support this section include setting up steelhead adult and smolt monitoring programs and fishery/escapement data management systems so data can be evaluated and used for adaptive management decisions that are linked to regional recovery plans. Efforts will include opportunities for the public to assist in monitoring and increased opportunity for agency staff to take part in monitoring and evaluation of habitat enhancements. Particular attention however would have to be paid to insure that volunteer assistance is properly trained in established monitoring protocols that minimize adverse environmental impacts.

This is another of the four policy subject areas that make up the Steelhead Program Administration major policy category. As such, there are no direct adverse impacts associated with these alternatives. This category deals with policy decisions that affect the administration of programs that relate to steelhead and their habitats. This policy subject area will provide direction to the Department for decisions that affect monitoring, evaluation and adaptive management as applied to the four operations categories.

Four alternative strategies for monitoring, evaluation and adaptive management of steelhead are presented in the chapter. Detailed technical information about the key elements of the science behind the alternatives is presented in draft report "*Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs"(Draft July 21, 2006).*

Affected Environment

The affected environment for the Monitoring, Evaluation and Adaptive Management section is the mainstem, tributaries, riparian, near shore and marine habitats where steelhead spend any part of their life cycle as well as the hatchery environments. It is conceivable that All-H issues throughout the state could be subject to monitoring, evaluation and adaptive management as well.

Monitoring, Evaluation, and Adaptive Management Alternatives

- **Alternative 3 – Current Approach (Status Quo Alternative) - Maintain current agency monitoring and evaluation activities to inform decision makers regarding *SSMP* impact on wild stocks. Support existing habitat monitoring and evaluation programs.**

This alternative supports the *SSMP* by continuing current agency monitoring and evaluation programs. It is the status quo alternative but still allows for program addition and modification as resources permit. The current program scope limits the ability to develop effective adaptive management protocols and procedures at the statewide level.

- **Alternative 2 – Increased Wild Protection (Preferred Alternative) - Develop and implement monitoring plans for as many stocks as resources permit with emphasis on key indicator wild stocks so effects of the *SSMP* can be evaluated and actions adapted to support its goals.**

This alternative supports the *SSMP* by developing and implementing VSP-based escapement goals to monitor and evaluate key regional indicator populations. The acquisition and evaluation of VSP based escapement goals will significantly enhance the adaptive management process as MSH abundance data is supplemented with ecosystem related data to improve management decisions. An important initial management decision will be to prioritize and select the key steelhead stocks to be the focus of the *SSMP* restoration effort. Impacts on recreation could be significant as there is no harvest on populations exhibiting low runsize abundance.

- **Alternative 1 – Maximize Wild Protection (Most Conservative Alternative) - Develop and implement monitoring plans for all wild stocks so effects of the *SSMP* can be evaluated and actions adapted to support its goal.**

This alternative supports the *SSMP* by developing and implementing monitoring plans for all wild steelhead stocks so data on each can be evaluated and adaptive management decisions made as needed. Obtaining the maximum data related to abundance, productivity, spatial structure and diversity on steelhead stocks statewide would correspondingly provide the greatest potential for

the *SSMP* adaptive management process to successfully protect and restore wild steelhead populations. This alternative would require a significant commitment of funds and Department staff for an extended period of time.

- **Alternative 4 – Increased Fishing Opportunity (Least Conservative Alternative) - Monitor and evaluate wild stocks to ensure they remain above critical thresholds.**

This alternative supports efforts to monitor wild stocks for their critical threshold abundance. Without the benefits of abundance, productivity, spatial structure and diversity, determining these critical abundance levels or the cause of detected declines may be problematic. Although not a direct adverse impact, adaptive management delay risk could be too high. The timely acquisition of data to demonstrate properly run integrated and segregated programs can be especially important for evaluating and restoring at-risk wild stocks.

Significant Impacts and Mitigation Measures

Alternatives 1 and 2 (Preferred Alternative) are administrative actions and support the plan and elements of fisheries management and artificial production strategies without likelihood of a significant adverse environmental impact. There would be a requirement for increased department presence in streamside, riparian, near-shore and ocean habitats during monitoring operations but if approved protocols are adhered to, this should not result in a significant adverse environmental impact to plants and animals or recreational fishing opportunity. Without the enhancement provided by VSP based escapement goals, Alternatives 3 (Status Quo) and 4 provide significantly less information than the first two and, although feasible, they do not support the plan as well due to possible information deficiency or delay.

Cumulative Impacts

Administrative and financial support for increased monitoring, evaluation and adaptive management is not a direct source of monitoring-related favorable or adverse environmental impact. Indirectly, or possibly cumulatively, in-stream impacts to species being monitored or the recreational issues associated with monitoring are not expected to be adverse, assuming the proper monitoring protocols are adhered to. However, it can be extremely important to detect and evaluate minor but cumulative impacts as quickly as possible when dealing with at-risk wild stocks.

3.2.3 Research

Introduction

Adaptive management relies on scientific methods to test the results of a plan's actions and modify those actions after considering best science if necessary. Some scientific knowledge is within the experience of the Department and need only be recalled from scientific papers. Draft report "*Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs"(Draft July 21, 2006)* is the scientific basis for the plan. However, new discoveries in fisheries science are made every day and a mechanism is needed to include these new discoveries in the plan. Scientific research is needed to provide scientific data for the *SSMP's*

adaptive management decisions and to incorporate new scientific discoveries into the plan when necessary.

Four alternatives for are presented in this section. Detailed technical information about the key elements of the science behind the alternatives is presented in draft report "*Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs"(Draft July 21, 2006).* These administrative category alternatives present a range of strategies to obtain information to subsequently guide actions for the four operations categories. As such, they are not expected to source any significant adverse environmental impacts directly. However it is feasible that as a result of these strategy recommendations, research that may impact the environment could be authorized. In that case, the proposed research operations would have to undergo SEPA scrutiny on their own merits.

Affected Environment

The affected environment for the Research section is the mainstem, tributaries, riparian, near shore and marine habitats where steelhead spend any part of their life cycle as well as the Department hatchery environments and laboratories.

Research Alternatives

- **Alternative 3 – Current Approach (Status Quo Alternative) - Prioritize and conduct research on integrated hatchery programs.**

This alternative continues current research efforts on steelhead and assumes no change in available resource allocation. The current effort is focused principally on integrated hatchery programs applications.

- **Alternative 2 – Increased Wild Protection (Preferred Alternative) - Prioritize, fund and implement critical research to establish VSP based escapement goals especially in light of increasing human population pressures and climate change.**

This alternative implements research on specific issues that affect key wild stocks to assist in achieving VSP based escapement objectives and includes literature search and review, seminar and conference participation and SSP development.

- **Alternative 1 – Maximize Wild Protection (Most Conservative Alternative) - Seek funding to implement conservation research to achieve an increase in productive steelhead populations and their habitats, especially in light of increasing human population pressures and climate change.**

This alternative supports the *SSMP* by seeking research on all wild stocks to support abundance, productivity, diversity and spatial distribution. An expected focus will be to address anticipated human population increase and climate change impacts.

- **Alternative 4 – Increased Fishing Opportunity (Least Conservative Alternative) - Focus research on determining critical thresholds for perpetuation of wild stocks.**

This alternative only provides research on establishing population thresholds that would indicate if wild steelhead stocks are at risk.

Significant Impacts and Mitigation Measures

Alternatives 1 and 2 (Preferred Alternative) are administrative actions to support the plan without the likelihood of a significant adverse environmental impact. There could be a requirement for increased department presence in streamside, riparian, near-shore and ocean habitats during certain research activities but this should not result in a significant adverse environmental impact to plants and animals, shoreline use, transportation or recreation if proper SEPA compatible protocols are followed. Alternatives 3 (Status Quo) and 4 are feasible but do not support the plan as well due to the need to limit the degree of focus.

Cumulative Impacts

For research projects that involve outdoor actions, it is likely that a separate impact assessment may be required based on the specifics and merit of the proposed action. An evaluation of direct and cumulative impacts for each project alternative may be necessary.

3.2.4 Outreach and Education

Introduction

The protection and restoration of wild steelhead is not a project for a small group of anglers who fish for a colorful fish. Success will require a strong effort from everyone in the state and may well require changes in lifestyle. Some of these changes such as the use of lawn fertilizer or proper disposal of wastes can be done by everyone while other changes such as proper methods for catch and release of wild fish will apply to a more select group.

Steelhead trout are not salmon, though they have a life cycle similar to a salmon in that their eggs and juveniles initially rear in fresh water are raised in fresh water and go to sea and mature for most of their life cycle to return to freshwater and spawn. Unlike salmon, they exhibit iteroparity, which means they can spawn more then once and may return to the ocean multiple times. Progeny of anadromous steelhead can spend their entire life in freshwater, while progeny of rainbow trout can migrate seaward. Anadromy, although genetically linked (Thorpe 1987), runs under environmental instruction (Shapovalov and Taft 1954; Thorpe 1987; Mullan et al. 1992b). It is difficult to summarize one life history strategy (anadromy) without due recognition of the other (resident). The two strategies co-mingle on some continuum with certain residency at one end, and certain anadromy on the other. Low heat budgets in the upstream reaches limit distribution. The response of steelhead/rainbow complex in these cold temperatures is residualism, presumably because growth is too slow within the time window for smoltification. However, these headwater rainbow trout contribute to anadromy via emigration and displacement to lower reaches, where warmer water improves growth rate and subsequent opportunity for smoltification.

That is why the final step in the *SSMP* offers alternatives to establish an Outreach and Education Program to enlist the help of the people of Washington in saving wild steelhead. This chapter provides four alternatives that will explain why the plan has been developed, the objectives of the plan and an explanation of what each part of the plan means to them.

Affected Environment

The State of Washington.

Outreach and Education Alternatives

- **Alternative 3 – Current Approach (Status Quo) - Maintain current limited outreach and education on steelhead.**

This alternative is the status quo alternative and is limited to information displayed in the Fishing Regulations.

- **Alternative 2 – Increase Wild Protection (Preferred Alternative) - Develop and implement a plan to provide opportunities for the public to maintain and restore wild steelhead populations. Provide opportunities to form partnerships with the public on steelhead efforts.**

This alternative sets up an outreach and education program to support successful implementation of the SSMP in the State of Washington. The program can be a platform for sharing the story of the life cycle of wild fish, their relationship to hatchery steelhead and other species, the importance of habitat and how the public can help protect and restore the stocks.

- **Alternative 1 – Maximize Wild Protection (Most Conservative Alternative) - Develop and implement a plan to provide opportunities for the public to maintain and restore wild steelhead populations. Provide opportunities to form partnerships with the public on steelhead efforts.**

This alternative sets up an outreach and education program to support successful implementation of the SSMP in the State of Washington. The program can be a platform for sharing the story of the life cycle of wild fish, their relationship to hatchery steelhead and other species, the importance of habitat and how the public can help protect and restore the stocks.

- **Alternative 4 – Increased Fishing Opportunity (Least Conservative Alternative) - Develop materials to display fishing opportunities, techniques, and proper catch and release (C&R).**

This alternative provides a limited outreach and education program only to steelhead anglers focusing on how and where to fish and how to release wild fish without injuring them.

The Preliminary FEIS is subject to change pending final FWC approval of the SSMP.

Significant Impacts and Mitigation Measures

Alternatives 1 and 2 (Preferred Alternative) are administrative actions and support the plan without likelihood of a significant adverse environmental impact. There would be a requirement for increased department presence at department steelhead education activities but this should not result in a significant adverse environmental impact to plants and animals or public recreation. Alternatives 3 (Status Quo) and 4 are feasible but do not support the plan as well as the others.

Cumulative Impacts

As in the case for possible research alternatives, identified projects may need to undergo separate SEPA assessment if they feature outdoor activity that might impact plants and animals or recreational opportunity. It is anticipated that most outreach and education projects would source only minor, but possibly cumulative impacts.

Definitions

The following are definitions of terms as used in the WDFW Steelhead Management Plan. They are presented here to prevent confusion with how these or similar terms are used in other efforts.

Abundance: the size of a salmonid population or of a component of the population expressed as numbers of fish. For anadromous populations, this number is normally expressed in terms of spawners.

Adaptive Management: Periodic, usually annual, review of performance against measurable benchmarks and goals as well as a response towards achieving these goals.

All-H Planning: Developing and implementing comprehensive hatchery, habitat, hydro, and harvest management plans that ensure the artificial production program compliments the strategies for other Hs.

Allocation Unit: A management unit or group of management units for which harvest shares are calculated. Prior court orders specify that an allocation unit comprises the steelhead returning to a single river system flowing into saltwater. The parties may, by agreement specify different allocation units if necessary.

Anadromous fish: Fish that hatch in fresh water, mature in salt water, and return to fresh water to spawn.

Artificial Production: The rearing and release of fish from an artificial culture setting such as a hatchery, remote site incubator, spawning channel or other non-natural situation.

At-Risk Stocks: Fish populations having an unacceptably high risk of extinction within a specified time horizon. Such populations are often listed as critical in the SaSI database, and may be listed or under consideration for listing under the Endangered Species Act.

Carrying Capacity – The maximum number of individuals or biomass of a given species or complex of species of fishes that a limited and specific aquatic habitat may support during a stated interval of time.

Catch: The number of fish retained by a fisher.

Catch-and-Release: A non-retention hook-and-line fishery.

Condition Factor: A measure of the condition of a fish based on comparison of length and weight. The more robust the fish, the higher the condition factor.

Conservation: The use of artificial propagation to conserve genetic resources of a fish population at extremely low population abundance, and potential for extinction, using methods such as captive propagation and cryopreservation.

Critical Population Threshold: An abundance level for a population below which: depensatory processes are likely to reduce it below replacement; short-term effects of inbreeding depression or loss of rare alleles cannot be avoided; and productivity variation due to demographic stochasticity becomes a substantial source of risk.

Critical Stock: A stock of fish experiencing production levels that are so low that loss of genetic diversity is likely or has already occurred.

Depressed Stock: A stock of fish whose status is neither Critical nor Healthy.

Diversity: Variation among individuals in physical, life history, or genetic characteristics.

Escapement Goal: A numerical threshold for the portion of a stock or group of stocks that is protected from harvest and allowed to spawn to meet management objectives and perpetuate the stock.

Evolutionarily Significant Unit (ESU): The smallest biological unit that can be considered to be a species under the Endangered Species Act as administered by the National Marine Fisheries Service (NMFS). A population or population group is considered to be an ESU if 1) it is substantially reproductively isolated from other conspecific population units, and 2) it represents an important component in the evolutionary legacy of the species. USFWS uses a similar term and concept called the distinct population segment (DPS), which is the wording used in the ESA itself. Thus, the ESU is the NMFS' interpretation of a DPS.

Exploitation Rate: The fishery-related mortality of fish expressed as a percentage of the estimated total run size.

Fishery Resource Manager: A tribe or the State of Washington, represented by the Department of Fish and Wildlife, with authority and responsibility over the management of harvest and hatchery programs affecting steelhead.

Gene Flow: The rate at which genetic material flows from one population, population component, or group of populations to another. Gene flow is an important concept in maintenance of among-population genetic diversity and in the linkage of hatchery and natural components of an integrated population. Gene flow is often inferred from stray rates, but such estimates are likely to be overestimates.

Genetic Conservation: Protection of long-term sustainability of wild stocks/runs by conserving genetic diversity.

Genetic Diversity: Genetically determined differences among individuals, local breeding, populations, or groups of populations.

Hatchery-Origin: Fish that have been incubated, hatched or reared in a hatchery or other artificial production facility regardless of parentage.

Hatchery Production: Fish that are reared and released from artificial culture in a hatchery situation.

Healthy and Harvestable: A self-sustaining naturally produced stock that has attained a status that will support meaningful retention and non-retention fisheries on an annual basis.

Healthy Stock: A stock that has sufficient abundance, productivity, diversity and spatial structure to be resilient through environmental fluctuations, to be part of the natural ecological functions that drive freshwater and marine ecosystems, provide related cultural values to society, and sustain tribal and recreational fisheries.

Induced Fishing Mortality: Fish mortality above and beyond that which would occur in the absence of fishing activities (e.g. hooking mortality, net drop out and marine mammal take), and which is not reflected in landed catch records.

Integrated Hatchery Program: The term describes the intended reproductive relationship of a hatchery population relative to the local, naturally spawning population between which gene flow occurs. The principle goal of an Integrated Hatchery Program is to manage the broodstock as an artificially propagated component of a naturally spawning population wherein the natural environment drives adaptation and fitness of a composite population of fish that spawns both in a hatchery and in the wild.

Integrated Hatchery Strategy: A broodstock management alternative where the intent is for returning adults of wild- and hatchery-origin to be reproductively connected to form a single, composite stock. This requires wild-origin adults in the hatchery broodstock, and hatchery-origin adults may spawn naturally.

Locally Adapted: A population is said to be locally adapted if natural selection has made the population be more productive in the environment it occupies than other populations would be if they were introduced into that environment. Because of the large amount of data supporting the concept of local adaptation in salmonids, native populations are typically assumed to be locally adapted, even if they may have had considerable gene flow from nonnative populations. Nonnative populations introduced into an environment may become locally adapted after several generations.

Long Term Goal: A multi-generation performance target.

Major Population Group: A group of populations within a larger conservation unit such as a DPS or ESU that share genetic, life-history, or ecological characteristics that are sufficiently distinct from those of other groups of populations to make conservation or recovery of the group essential for the conservation or recovery of the larger conservation unit. The specific term was developed by the Interior Columbia Technical Recovery Team (TRT), but the basic concept is used by all three TRTs working on Washington salmon and steelhead. A major population group can be as small as one population.

Management Period: The time interval during which regulatory actions are taken to meet the escapement requirements for a management unit or the allocation requirements for an allocation unit, taking into account catches of the units made outside the management period. Management periods are specific to each management unit (or aggregate of management units) and to each fishing area through which the unit(s) pass.

Management Unit (MU): A stock or a group of stocks, which are aggregated for the purpose of achieving a desired spawning escapement objective.

Mark Selective Fishery: A fishery requiring the release of fish possessing an adipose fin.

Maximum Sustained Harvest (MSH) Level: A biological reference point representing the stock size that will support the largest level of harvest mortality that can be maintained indefinitely without diminishing the productive capacity of the resource, given current conditions of habitat and environmental fluctuations.

Maximum Sustained Harvest Escapement Goal (MSH Escapement Goal): The specific escapement for a stock that will allow the maximum number of fish to be harvested on a sustained basis.

Mitigation (mitigation hatchery): The use of artificial propagation to produce fish to replace or compensate for loss of fish or fish production capacity resulting from the permanent blockage or alteration of habitat by human activities.

Natural ecological function: Activity or role performed by an organism or element in relation to other organisms, elements or the environment.

Native-origin: An indigenous stock of fish that has not been substantially impacted by genetic interactions with non-native stocks or by other factors (such as artificial selection) and is still present in all or part of its original range.

Natural-Origin: Fish that are produced by spawning and rearing in the natural habitat, regardless of parentage.

Natural Production: Fish that spawn or rear entirely in the natural environment. These fish may be the offspring of natural or hatchery production.

Natural Stock: Fish that are produced by spawning and rearing in the natural habitat, regardless of parentage.

Natural Stock Reserve: A network of wild stock populations across the state where stocks are not planted with hatchery steelhead and are largely protected from the effects of hatchery programs (i.e. gene bank).

Non-native: With respect to a particular location, fish populations that exist, either because of migration or introduction, that were not historically present.

Non-Treaty: All fishers except those with reserved rights identified in the Stevens-Palmer treaties.

Population (Major Population Group): A group of interbreeding salmonids of the same species of hatchery, wild, or unknown parentage that have developed a unique gene pool, that breed in approximately the same place and time, and whose progeny tend to return and breed in approximately the same place and time. They often, but not always, can be separated from another population by genotypic or demographic characteristics. This term is synonymous with stock.

Productivity: A stock's intrinsic rate of increase. The higher the productivity, the better the population will fill the habitat and the more resilient it will be to harvest and to survive other sources of mortality.

pHOS: Proportion of spawners consisting of hatchery-origin fish.

pNOS: Proportion of spawners consisting of natural-origin fish.

pHOB: Proportion of broodstock consisting of hatchery-origin fish.

pNOB: Proportion of broodstock consisting of natural-origin fish.

Proportionate Natural Influence (PNI): In an integrated hatchery program, a mathematical relationship between gene flow from the hatchery to the natural component and from the natural to the hatchery component, that determines the degree to which natural selective forces direct the expression of a trait. Mathematically, PNI = pNOB/(pHOS + pNOB). The HSRG guideline for properly integrated populations is that PNI should exceed 0.5. For stocks of moderate or high biological significance and viability, PNI should exceed 0.7. (HSRG, WDFW, and NWIFC 2004).

Run: The sum of stocks of a single salmonid species, which migrate to a particular region, river or stream of origin at a particular season.

Segregated Hatchery Program: The intended reproductive relationship of a hatchery population relative to a naturally spawning population, which are reproductively isolated from one another. The principal intent is to propagate a genetically segregated hatchery stock that is adapted to perform more optimally in artificial culture than in the wild, irrespective of the ability of returning adults to reproduce naturally or confer any benefits to naturally spawning populations.

Segregated Hatchery Strategy: A broodstock management strategy where the intent is for the hatchery stock to have no reproductive interactions with wild stocks. Also referred to as an Isolated Hatchery Strategy.

Selective Fishery: A fishery with time, area, gear, or retention regulations designed to reduced impacts on non-target species or stocks.

Selective Gear Rules: No bait, and only unscented flies or lures with a single barbless hook may be used.

Short Term Goal/Benchmark: An intermediate performance target that is basic to the adaptive management evaluation process.

Mark Selective Fishery. A fishery requiring the release of fish lacking an adipose fin.

Stock: A group of fish within a species, which is substantially reproductively isolated from other groups of the same species.

Viable: Negligible risk of extinction over a specified time period (McElhany et al. 2000). For the purposes of this plan, a viable steelhead population is one that has a less than 5% probability of extinction over at least 100 years.

Viable Salmonid Population (VSP) Parameters: Parameters that are used to evaluate the status of a given stock. The four parameters are abundance (A), productivity (P), diversity (D), and spatial structure (S) (McElhany et al. 2000).

Viability Stressors: Habitat, harvest, or hatchery actions that affect population VSP parameters (abundance, productivity, diversity, and spatial structure) in a way that currently results in a significant reduction in the viability of a population.

Wild (see natural stock): Naturally produced fish from a locally adapted stock regardless of origin or parentage. Still used in harvest record keeping Catch Record Cards (CRC) to indicate steelhead with adipose fins intact (not marked at the hatchery for harvest).

Wild Fish: A naturally produced fish from a locally adapted stock regardless of parentage.

Wild-Origin: The progeny of fish that were spawned naturally from a locally adapted stock regardless of parentage.

Wild Steelhead Release (WSR): A hook-and-line fishery that requires wild steelhead (defined by not having fin clips) to be released. Hatchery steelhead (defined by having fin clips) may be retained.

List of Acronyms and Abbreviations

BRAP	Benefit-Risk Assessment Program
BRP	Biological Reference Point
CWT	Coded-wire tag
DPS	Distinct Population Segment
ER	Exploitation Rate
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FWC	Fish and Wildlife Commission
FMEP	Fisheries Management and Evaluation Plan
HCP	Habitat Conservation Plan
HPA	Hydraulics Project Approval
HSRG	Hatchery Scientific Review Group
IHOT	Integrated Hatchery Operations Team
ISBM	Individual stock-based management
MSH	Maximum sustainable harvest
MSY	Maximum sustainable yield
NA	Not available
NMFS	National Marine Fisheries Service
NWIFC	Northwest Indian Fisheries Commission
pHOS	Proportion of hatchery origin spawners
pNOS	Proportion of natural origin spawners
pHOB	Proportion of hatchery origin broodstock
pNOB	Proportion of natural origin broodstock
PNI	Proportionate natural influence
PUD	Public Utilities Department
RER	Rebuilding exploitation rate
RMP	Regional Management Plan
R/S	Recruit per spawner
SaSI	Salmonid Stock Inventory
SCPAG	Steelhead and Cutthroat Policy Advisory Group
SEPA	State Environmental Policy Act
SSMP	Statewide Steelhead Management Plan
TRT	Technical Review Team
VSP	Viable Salmonid Population
WDF	Washington Department of Fisheries
WDFW	Washington Department of Fish and Wildlife
WWTIT	Western Washington Treaty Indian Tribes

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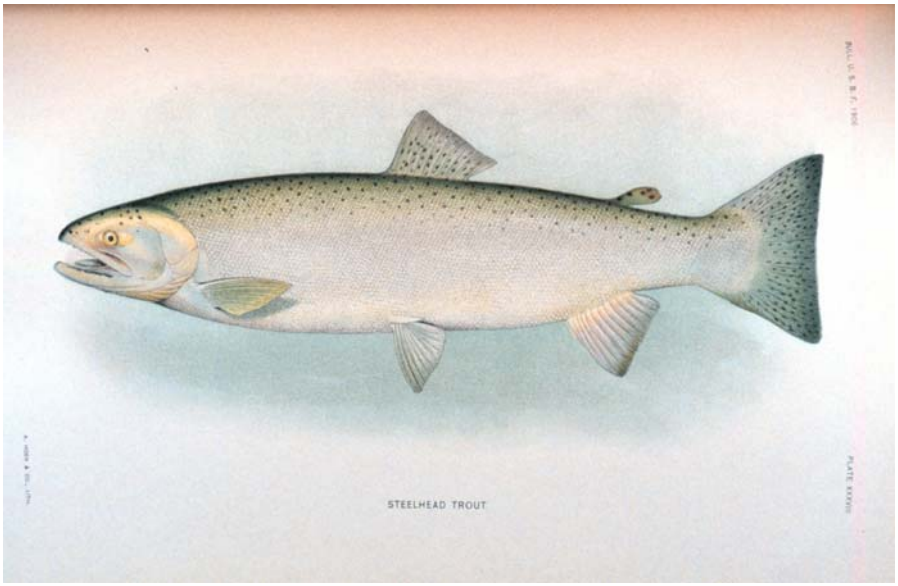
Appendix A. Statewide Steelhead Management Plan

The Preliminary FEIS is subject to change pending final FWC approval of the SSMP.

The Preliminary FEIS is subject to change pending final FWC approval of the SSMP.



Washington Department of Fish and Wildlife

Statewide Steelhead Management Plan:

Statewide Policies, Strategies, and Actions

December 5, 2007

The Preliminary FEIS is subject to change pending final FWC approval of the SSMP.

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EXECUTIVE SUMMARY

In 2004, the Director of the Washington Department of Fish and Wildlife challenged the agency to develop a scientific foundation for a Statewide Steelhead Management Plan (SSMP). The scientific foundation for the SSMP comes from the Department's steelhead science paper "*Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs"* (Draft July 21, 2006), which provided several findings and recommendations to rebuild Washington's wild stocks. The findings and recommendations represent the underpinnings of the Statewide Steelhead Management Plan.

The steelhead management plan is necessary because in spite of seventy years of conservation efforts directed at the state's steelhead stocks, many of these stocks are at a fraction of their historic numbers. Five of the seven distinct population segments that exist in Washington are currently federally listed under the Endangered Species Act.

Public review of *O mykiss* and the SSMP as well as comments and concerns expressed during the SEPA process contributed to the management plan. The plan provides a framework of policies, strategies, and actions that present overarching guidelines for department managers to collaborate with tribal co-managers and other interested parties, including watershed and regional groups, in the development of watershed and regional management plans (RMPs). RMPs will identify the long-term goals, benchmarks for modifications to management actions, escapement objectives, and the expected trajectory for the diversity, spatial structure, productivity, and abundance of each wild stock within its management area.

Policies, strategies and actions in the plan apply to steelhead program operations as well as administration. Steelhead operations include chapters dealing with natural production, habitat protection and restoration, artificial production, and fisheries management. These chapters explain how the Department will deal with steelhead and their habitats and are strongly interrelated.

Steelhead administration includes policy decisions that affect the administration of operations programs related to steelhead and their habitats. These chapters provide guidance to the Department for decisions affecting regulatory compliance, monitoring, evaluation and adaptive management, research and outreach & education programs. Their implementation increases the probability of success for the operations policies.

A summary of the policies for each chapter can be found under Goals and Policies following the Introduction. The Policy Statement for each chapter is shown in a box at the beginning of the chapter. Each chapter contains a short narrative followed by the strategies and actions to support achieving the goals and policies**.**

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Assistant Director Fish Program: Lew Atkins
Deputy Assistant Director Fish Program: Jo Wadsworth

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The Preliminary FEIS is subject to change pending final FWC approval of the SSMP.

INTRODUCTION

Steelhead, the Washington State fish, is an icon of the Pacific Northwest and has been a source of important cultural and economic benefits throughout the region's history. Although once abundant throughout much of the state, substantial variation now exists among the status of steelhead stocks. Five of the seven Distinct Population Segments (DPSs) within the State of Washington are listed under the federal Endangered Species Act (ESA), the most recent federal listing being the Puget Sound Distinct Population Segment (May 11, 2007; 72 FR 26722). The varied status of wild steelhead stocks statewide, in conjunction with the increased expectations for resource managers to balance public interests towards conservation, tribal and non-tribal fisheries, economic stability as well as other social-cultural and environmental values, motivated the development of a statewide steelhead plan.

To restore and preserve this important resource, the Washington Department of Fish and Wildlife (the Department) initiated a multi-step process to improve the management and status of steelhead in Washington. The first step in this process was to lay the scientific foundation for the subsequent development of improved management plans. Drawing on decades of research and new analyses, a comprehensive review of steelhead stocks and their status in Washington was published in the report "*Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs*". Review of this report is crucial to understanding the subsequent foundation laid in this document for future management of steelhead in the state. Each chapter in the Science Paper concluded with numerous findings and recommendations to guide future management.

Building on the science foundation, this second step, the Statewide Steelhead Management Plan (SSMP), provides a framework of policies, strategies, and actions for steelhead management throughout the state in steelhead management. Recognizing that substantial variation exists in the status of stocks, habitat conditions, and that tribal, local, and federal authorities vary across the state the objective for this document is to guide the Department in the development of the third and final step, Regional Management Plans (RMPs).

The 1998 Salmon Recovery Act, codified as RCW 77.85 created lead entities in each watershed in the state to address salmon recovery. The law included steelhead because they often share habitat with other salmonids. As required by statute, these lead entities listed factors limiting production of salmon and steelhead and created prioritized lists of habitat recovery projects that would benefit their watersheds. Some of these entities have already moved toward regionalizing their salmon recovery efforts. The Department will use the SSMP to build on the habitat work already done by the watershed and regional groups by incorporating hatchery, harvest and hydro actions into watershed plans. These watershed plans will then be combined into Regional Management Plans for each DPS.

For many of these regions, ESA recovery plans have been developed and will serve as primary guidance for detailed strategies and actions in the RMPs. An ESA recovery plan is intended to sufficiently recover a species so it can be delisted while the SSMP is intended to restore and maintain healthy steelhead stocks. By definition, a healthy stock has sufficient abundance, productivity, diversity and spatial structure to be resilient through environmental fluctuations, to perform natural ecological functions in freshwater and marine systems, provide related cultural values to society, and sustain tribal and recreational fisheries. The SSMP recognizes that more

conservative actions may already be in place in ESA recovery plans than those recommended by the SSMP. It also recognizes that not all steelhead stocks are listed and seeks to provide flexible management strategies that will allow each region to pick actions that best fit its situation. RMPs will be developed simultaneously during the next 24 to 36 months for the following regions:

Puget Sound DPS
Olympic Peninsula DPS
Southwest Washington DPS
Lower Columbia River DPS
Mid-Columbia River DPS
Upper Columbia River DPS
Snake River Basin DPS

The statewide plan provides guidance for WDFW employees to manage the steelhead resource, however, many of the regional plans must be developed with appropriate Indian tribes. The U.S. Government recognizes twenty-five tribes as parties of the Stevens-Palmer Treaties. Twenty-four tribes have usual and accustomed fishing places within the boundaries of the State of Washington. In addition, there are nine federally recognized tribes that are not party to one of the Stevens-Palmer treaties. The overlapping nature of the tribes and state jurisdictions and authorities creates a co-management relationship because the WDFW and the respective tribes have certain authorities that potentially pertain to the fisheries resource. As a result, there is a need for the state and the tribes to cooperate in the discharge of their respective authorities. To minimize potential conflict, and to promote effective and efficient management of fisheries resources that are subject to both state and tribal management, the Department and tribes have developed a cooperative management approach to exercise their respective authorities and to achieve our shared conservation objectives. This cooperative management will be reflected in the individual regional management and watershed level plans, with the respective tribes.

GOAL AND POLICIES

The purpose of this document is to provide a framework of policies, strategies, and actions that will lead to achievement of the following goal for the steelhead stocks and fisheries of Washington:

> **Restore and maintain the abundance, distribution, diversity, and long-term productivity of Washington's wild steelhead and their habitats to assure healthy stocks. In a manner consistent with this goal, the Department will seek to protect and restore steelhead to achieve cultural, economic, and ecosystem benefits for current and future residents of Washington State.**

The WDFW will seek to achieve this goal through implementation of the following policies:

- ***Natural Production:*** Steelhead management shall place the highest priority on the protection of wild steelhead stocks to maintain and restore stocks to healthy levels.

- ***Habitat Protection and Restoration:*** Protect and restore the quality, quantity, and productivity of freshwater and marine habitat necessary to sustain and restore healthy steelhead stocks.

- ***Fishery Management:*** Promote achievement of region-wide conservation and recovery goals through the protection and restoration of the diversity, spatial structure, abundance, and productivity of wild steelhead stocks through fisheries management. The Department shall implement a cooperative management approach for fishery resources subject to both state and tribal management, with the state and tribes exercising their respective authorities. Within the constraints of the natural production policy and tribal harvest-sharing obligations, the Department shall strive to provide diverse recreational fishing opportunities.

- ***Artificial Production:*** Promote the achievement of the natural production policy and provide fishery-related benefits by implementing artificial production programs with the following characteristics:
    - *Conservation Programs*. Artificial programs implemented with a conservation objective shall have a net aggregate benefit to the diversity, spatial structure, productivity, and abundance of the target wild stock.
    - *Harvest Programs*. Artificial production programs implemented to enhance harvest opportunities shall provide fishery benefits while allowing watershed-specific goals for the diversity, spatial structure, productivity, and abundance of wild stocks to be met.

- ***Regulatory Compliance:*** Improve compliance with state and federal regulations applicable to hatchery operations, habitat conservation, hydro operation, and fisheries.

- ***Monitoring, Evaluation, and Adaptive Management:*** Implement monitoring, evaluation and adaptive management to influence management decisions to protect

the abundance, diversity and productivity of wild steelhead stocks and the habitats they rely on.

- ***Research:*** Implement steelhead research to inform the agency and the Commission on critical steelhead management issues.

- ***Outreach and Education:*** Implement outreach and education programs to ensure Washington's citizens value, support and have the information and opportunities necessary to participate in the restoration and protection of steelhead and their habitats.

NATURAL PRODUCTION

Policy Statement

Steelhead management shall place the highest priority on the protection of wild steelhead stocks to maintain and restore stocks to healthy levels.

The long term persistence of steelhead requires viable, locally-adapted, diverse populations with the plasticity to endure and rebound throughout the natural perturbations they experience in fresh and saltwater. Abundance and productivity are therefore the cornerstone to healthy, self-sustaining wild steelhead production. Strategies that focus on ensuring the long term abundance, spatial structure, diversity, and productivity of wild steelhead will provide the highest likelihood for achieving the goal of maintaining and restoring stocks to healthy levels.

Strategies

A healthy wild stock meets viable salmonid population parameters (VSP): abundance, productivity, diversity and spatial structure to be resilient through environmental fluctuations, to perform natural ecological functions in freshwater and marine systems, provide related cultural values to society, and sustain tribal and recreational fisheries.

1) ***Protect and Restore the Diversity of Wild Stocks*.** Evaluate and modify management actions to promote local adaptation, increase and maintain the diversity within and among stocks, and sustain and maximize the long-term productivity of wild stocks.

2) ***Provide Sufficient Wild Steelhead Spawners*.** Provide sufficient diversity and numbers of wild spawning steelhead to promote levels of diversity, spatial structure, productivity, and abundance consistent with a healthy stock.

   Selection of an effective strategy for implementing the natural production policy and identifying escapement objectives depends on the certainty of our understanding of stock population dynamics, the condition of the habitat, and the status of the stock. An escapement objective greater than the number of spawners associated with the Maximum Sustained Harvest (MSH) may be necessary to sustain populations over the long term, achieve diversity and spatial structure objectives, address uncertainties in management, or to test assumptions about stock productivity and habitat.

   Escapement strategies will be based on the following guidelines:

   a. SaSI Status is Unknown. Apply a precautionary strategy by implementing low-risk fishery and hatchery management regimes.
   b. SaSI Status is Depressed or Critical, or ESA-Listed. Promote a trend of increasing numbers of wild steelhead spawning by implementing an escapement strategy with a series of interim, variable escapement objectives for wild fish.
   c. SaSI Status Healthy. Implement a strategy that promotes maintenance of healthy stocks, with an escapement objective at least, if not more than, the number of wild steelhead spawners associated with MSH.

3) ***Establish Network of Wild Stock Gene Banks***. Establish a network of wild stock gene banks across the state where wild stocks are largely protected from the effects of hatchery programs. At least one wild stock gene bank will be established for each major population group in each steelhead DPS. Each gene bank established will have the following characteristics and management:
    a. Each stock selected for inclusion in the gene bank must be sufficiently abundant and productive to be self-sustaining in the future.
    b. No releases of hatchery-origin steelhead will occur in streams where spawning of the stock occurs, or in streams used exclusively by that stock for rearing.
    c. Fisheries can be conducted if wild steelhead management objectives are met as well as any necessary federal ESA determinations.

4) ***Manage from Ecosystem Perspective.*** Protect and restore salmonid stocks and other indigenous aquatic species to levels that sustain healthy ecosystem processes, including food web links to wild stocks of steelhead.

5) ***Describe Path with Measurable Benchmarks to Long-term Goals.*** Identify the long-term goal and the factors limiting the health of each stock. Describe a path to the long-term goal with measurable benchmarks for modifications to fishery, hatchery, and habitat management and the expected performance of each stock. These goals will recognize that long-term variations in the abundance of wild steelhead, even with pre-settlement freshwater habitat, will occur in response to variations in marine conditions and steelhead survival.

Actions

1) Prevent the loss of wild steelhead stocks through diligent monitoring of at-risk stocks and implementation of improved harvest, hatchery, and habitat management strategies.
    a. Provide a report on at-risk stocks of wild steelhead to the Director and Fish & Wildlife Commission at the time this policy is approved and subsequently at 5-year intervals. Include in the report a summary of limiting factors and recommended management actions. Recommend and implement new actions to address limiting factors and, if warranted, initiate “rescue programs” like kelt reconditioning, natural stream channel rearing, or hatchery supplementation to conserve wild stocks until limiting factors are resolved.
    b. Annually monitor and review the status of wild steelhead stocks at risk, identify limiting factors, and assess the effectiveness of management actions.
    c. Develop a hatchery conservation reference document that discusses the conditions under which a hatchery conservation program may be warranted to maintain or restore at-risk wild stocks and the key questions that should be addressed in an implementation plan.

2) Develop an implementation plan for establishing a network of wild stock gene banks.

3) Develop and implement regional management plans that identify the long-term goal, benchmarks for modifications to management actions, escapement objectives, and the expected trajectory for the diversity, spatial structure, productivity, and abundance of each wild stock (based on TRT viability analyses and productivity graphs where

applicable). Complete this action within two years of the adoption of this policy for stocks that are listed under the Endangered Species Act or have a SaSI status of Critical. Complete this action for the remainder of stocks within five years of the adoption of this policy.

4) Implement consistent procedures with watershed planning groups to review changes in habitat resulting from restoration projects or other factors and adjust escapement objectives.

5) Support programs that restore balanced ecological functions and reduce predation impacts critical to steelhead. Opportunistic predation by marine mammals and birds due to manmade structures, can lead to elevated mortality rates that can impact the short and long term health of wild anadromous fish runs:
    a. Identify structures that allow high rates of unnatural predatory opportunity to occur.
    b. Address nuisance seal and sea lion predation by pursuing authorization from the National Marine Fisheries Service to use hazing and/or lethal means to protect endangered and threatened salmon and steelhead when necessary.
    c. Identify bird species that take an unusually large number of juveniles or out migrating smolts. Identify whether these bird species numbers have risen in response to hatchery releases of salmonids.
    d. Identify the predator attraction impact on wild steelhead juveniles and smolts due to hatchery salmonid smolt releases.

HABITAT PROTECTION AND RESTORATION

Policy Statement

Protect and restore the quality, quantity, and productivity of freshwater and marine habitat necessary to sustain and restore healthy steelhead stocks.

Habitat is used in its broadest sense and includes the functions provided by freshwater, estuarine, and marine environments, water quality and quantity, marine-derived nutrients, and forage fish. Access to suitable and sufficient habitat is a critical requirement for maintaining healthy wild steelhead stocks.

Habitat protection under existing assistance and regulatory authorities has been insufficient to protect steelhead. WDFW will advance the protection and restoration of functional habitat through increased and focused technical assistance, implementation of a more efficient HPA program and state fish passage law, and by exercising our authority under the Federal Power Act.

Strategies

1) ***Encourage Local Problem Solving***. Encourage local problem solving with participation by local citizens, concerned groups, the tribes, and state, local, and federal agencies in the development or implementation of improved strategies for habitat protection and restoration.

2) ***Provide Technical Expertise***. Ensure that technical expertise is available to local planning and fish recovery groups, and governments to assist in the identification of the habitat factors limiting the health of steelhead stocks and actions to achieve desired protection and restoration outcomes.

3) ***Facilitate Access to Information.*** Promote effective steelhead protection and restoration by providing web access to a cohesive set of tabular and map-based habitat information, including watershed utilization by steelhead and priorities for protection and restoration.

4) ***Promote Comprehensive Ecosystem Based Approach and an All-H Strategy***. Develop and implement comprehensive hatchery, habitat, hydro, and harvest management plans that link all strategies within an "All-H" context. Identify the long-term goal and the factors limiting the health of each stock. Describe a path to the long-term goal with measurable benchmarks for modifications to habitat management and the expected performance of each stock.

5) ***Enhance Effectiveness of WDFW's Hydraulic Project Approval (HPA).*** Work with stakeholders and staff to evaluate the effectiveness of the HPA program and develop strategies to improve where necessary. Advance the protection of steelhead habitat through the implementation of the Department's Habitat Conservation Plan development process. Maximize the current use of existing HPA authorities. Continue to streamline

HPA's for habitat restoration projects, and implement an effective analysis for HPA projects.

6) ***Develop and Implement Interagency Agreements to Improve the Effective Coordination of State Regulatory Processes Among Permitting Agencies***. Work with local governments and sister state agencies to improve the protection of steelhead habitat through the consistent implementation of existing regulatory authorities. Using best available science, increase the protection needs where they under-support steelhead habitat.

7) ***Manage WDFW-Owned Lands Consistent with Steelhead Habitat Conservation.*** Consistent with Lands 20/20 vision and the developing HCP, acquire critical steelhead habitats. Ensure that existing WDFW ownership meets Clean Water Act standards for fine sediment and other water quality elements. Develop and use structural designs and materials in capital projects that support steelhead and their habitats.

8) ***Implement Hierarchy of Protection and Mitigation Approaches***. Recognizing that at some times the needs of society will result in habitat degradation, the agency will pursue the following hierarchy of approaches to minimize the effects to steelhead stocks:
    a. Avoiding the impact altogether by not taking a certain action or parts of an action.
    b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
    c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
    d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
    e. Compensating for the impact by replacing or providing substitute resources or environments.
    f. Monitoring the impact and taking appropriate corrective measures to achieve the identified goal

9) ***Develop Guidance for the Lead Entity and Regional Fisheries Enhancement Group (RFEG) Programs to Assist in Habitat Restoration for Steelhead.*** Identification of important steelhead habitat characteristics and limiting factors can assist in developing and prioritizing habitat restoration projects that will benefit steelhead in freshwater and in marine systems.

10) ***Promote Funding of Habitat Protection and Restoration.*** With local governments, Salmon Recovery Funding Board, Governor's office, Congressional representatives, and state legislators, secure federal, state, and local funding to continue protection and restoration of freshwater and marine habitat for steelhead.

11) ***Implement Nutrient Enhancement Where it Will Enhance Stock Productivity***. Promote nutrient enhancement in streams that display nutrient deficiency from historical levels and to compliment VSP identified in watershed goals.

12) ***Develop a Climate Change Response Plan***. Participate in national and international fishery forums that quantify and assess impacts of climate change.

13) ***Enhance Fish Passage Strategies***. Maximize opportunities to eliminate fish passage barriers. Develop and encourage progressive fish passage strategies around hydro facilities with other state and federal agencies.

14) ***Mitigate for Wild Steelhead Habitat Loss***. Actions that result in irreparable loss of steelhead habitat mitigated at least proportional to their affect on steelhead habitat. Mitigation actions will follow a mitigation sequencing hierarchy and appropriate watershed and RMP priority restoration sequencing

15) ***Develop and Support a Statewide Adaptive Management Program to Ensure the Effectiveness of Steelhead Habitat Protection and Recovery Strategies***. Working with local governments, other state agencies, tribes, and the public, implement monitoring strategies so that effective recovery processes are supported and ineffective strategies are changed or discarded.

Actions

1) Enhance the ability of local planning groups to effectively pursue new funding opportunities and efficiently use existing fund sources by developing a web application that identifies a schedule of priority habitat protection areas and restoration projects based on Subbasin plans, Limiting Factors Analysis Reports, and regional recovery planning or other watershed planning efforts.

2) Ensure lead entities and RFEG's have sufficient information to identify and prioritize projects that provide a benefit to steelhead.

3) Use the Federal Energy Regulatory Commission (FERC) as a vehicle to negotiate with power project owners at the watershed level to assess, protect, and restore habitat, and implement research, monitoring, and evaluation of steelhead management objectives.

4) Negotiate with action agencies to improve upstream and downstream survival of steelhead, including kelts, through hydro facilities.

5) Through a recently initiated project to evaluate the feasibility of developing habitat conservation plans for the (HPA) program, and for WDFW owned and managed wildlife areas, assess the potential impacts of WDFW land management activities on steelhead:
    a. Assess the potential impacts of HPA-permitted activities on steelhead.
    b. Evaluate potential conservation measures to fully mitigate for adverse impacts resulting from HPA-permitted activities.
    c. Identify HPA-permitted activities that will require new research or monitoring efforts to assess impacts and potential mitigation measures.
    d. Develop tools and strategies to facilitate the monitoring, tracking, and adaptive management of HPA-permitted activities.

2) Promote coordination between state and local agencies as well as interested organizations to develop innovative approaches in securing materials from timber blow down, road clearing, and other site preparation for use in stream restoration projects.

3) Encourage local government participation to improve efforts to correctly identify fish bearing streams prior to approving land use decisions.

4) Seek funds, provide technical and engineering guidance on projects, and provide permit assistance to maximize the opportunity to increase fish passage at road crossings and other structures.

5) Work with local and regional habitat managers and fish recovery groups at the watershed level to assess, protect, and restore habitat using a comprehensive, ecosystem based approach that recognizes the continuum that extends throughout the watershed, its estuary, and near shore marine waters.

6) Work with stakeholders and staff to evaluate the effectiveness of the HPA program and develop strategies to improve where necessary. Continue to streamline HPA's for habitat restoration projects, and implement an effective analysis for HPA projects.

7) Develop a plan that describes the projected impacts of climate change on steelhead habitat, provides hypotheses on effects on steelhead populations, and identifies actions to promote perpetuation of steelhead.

8) Mitigate unavoidable wild steelhead habitat loss by enhancement and replacement with at least equivalent habitat for wild production. To the extent possible, follow regional recovery plans and RMPs to appropriately design and implement priority mitigation actions.

9) Manage WDFW-owned lands consistent with regulations. Ensure that existing WDFW lands meet Clean Water Act standards for fine sediment, temperature, and other water quality elements. Analyze and utilize WDFW-owned water rights to ensure they are wisely used for the protection and benefit of steelhead. Prevent the use of toxic materials and detrimental construction designs where they negatively influence steelhead or their habitats.

FISHERY MANAGEMENT

Policy Statement

Promote achievement of region-wide conservation and recovery goals through the protection and restoration of the diversity, spatial structure, abundance, and productivity of wild steelhead stocks through fisheries management. The Department shall implement a cooperative management approach for fishery resources subject to both state and tribal management, with the state and tribes exercising their respective authorities. Within the constraints of the natural production policy and tribal harvest-sharing obligations, the Department shall strive to provide diverse recreational fishing opportunities.

The Department promotes the effective and efficient management of steelhead resources subject to state and tribal management and authority through joint planning, explicit definition of fishery objectives, and maintenance of consistent stock assessment and catch information for use by the Department, the affected Indian tribes, other states, and the National Oceanic and Atmospheric Administration (NOAA).

The Department recognizes that there are inherent differences and values between hatchery steelhead and wild fish to recreational fishers. They have different run timing, management objectives, escapement requirements, and economic and cultural values. The Department will address these differences and fisheries benefits when designing annual fishery management plans to meet management objectives. In general, non-treaty fishers should have an opportunity to utilize a portion of both the hatchery and wild fish that are available for harvest unless otherwise agreed by the Department and the affected Indian tribes.

Strategies

1) ***Manage Fisheries Consistent with Natural Production Strategies***. Design, implement, and evaluate fishery management to assure consistency with the natural production policy and strategies in this plan.

2) ***Promote Selective Harvest.*** Reduce impacts to non-target stocks and species.
    a. Steelhead Fisheries. Promote the use of fishing methods and regulations that focus harvest on hatchery-origin steelhead and provide for the conservation of wild steelhead.
    b. Other Fisheries. Develop and promote the implementation of fishing methods and regulations that maximize the harvest of the target species while maintaining impacts to non-target species within allowable limits.

3) ***Develop Comprehensive All-H Strategy***. Develop and implement comprehensive hatchery, habitat, hydro, and harvest management plans that link fishery management strategies within an "All-H" context.

4) ***Account for all Sources of Fishery Related Mortality***. Incorporate all sources of fishing related mortality in fishery management.

5) ***Describe Path with Measurable Benchmarks to Long-term Goals***. Evaluate the current benefits and risks of the current fishery management regime relative to the long-term goals for each stock. Describe a path to the long-term goal with measurable benchmarks for modifications to fishery, hatchery, and habitat management and the expected performance of each stock. For fishery management affecting wild stocks important for recovery and conservation, escapement objectives will be established based on the following guidelines:
    a. SaSI Status is Unknown. Apply a precautionary strategy by implementing low-risk fishery and hatchery management regimes.
    b. SaSI Status is Depressed or Critical, or ESA-Listed. Promote a trend of increasing numbers of wild steelhead spawning by implementing an escapement strategy with a series of interim, increasing escapement objectives for wild fish.
    c. SaSI Status Healthy. Implement a strategy that promotes maintenance of healthy stocks, with an escapement objective at least, if not more than, the number of wild steelhead spawners associated with the MSH.

6) ***Provide Diverse Fishing Opportunities***. Assure that the diverse interests of the recreational fishing community are addressed, including catch and release, retention, accommodations for disabled anglers, access, and multiple gear type opportunities.

7) ***Adaptively Manage Fisheries***. Adaptively manage fisheries to assure that fishery plans are responsive to variable productivity, region-wide conservation and recovery goals are achieved. Consistent with this goal, the Department will seek to maintain fishing-related economic and cultural benefits.

Actions

1) In fisheries where steelhead are captured incidentally to the harvest of other species, implement regulations/selective fishing techniques that protect the wild stocks.
    a. Protect juvenile steelhead and resident rainbow trout by closing fisheries during the spring smolt migration period and/or through the use of minimum fish size, gear restrictions and bag limits, or area closures during periods when the fisheries are open.
    b. Develop methods for improving the selective harvest of salmonids in commercial fisheries.

2) Compute the total fishery related mortality of fisheries impacting steelhead. As a precautionary measure, assume and apply an overall mortality rate no higher than 10% for steelhead caught and released in recreational fisheries unless an ESA permit directs otherwise or empirical research shows a different overall mortality rate is applicable. The 10% mortality factor incorporates immediate mortality of fish caught and released, delayed mortality, potential mortality of fish that are hooked but not landed, potential reductions in reproductive success, potential effects of multiple encounters, and uncertainty in the number of encounters. For commercial fisheries, the Department will use a site-specific mortality rate.

3) Recreational Fishery Management Guidelines – Abundance and Escapement Known. Where abundance and escapement are known, guidelines for managing recreational steelhead fisheries are described in tables 1 (ESA-listed and SaSI status Critical stocks) and 2 (not ESA-listed and not SaSI status Critical). Wild steelhead release (WSR), selective gear rules, closed seasons or closed areas will be implemented as appropriate to regulate the recreational fishery.

4) Recreational Fishery Management Guidelines – Abundance or Escapement Not Known. Manage the recreational fishery with the following precautionary measures where the abundance or escapement of a wild stock is not known.
   a. Streams with Wild Steelhead but No Hatchery-Origin Steelhead. No recreational fishing for steelhead will be authorized.
   b. Streams with Wild Steelhead and Hatchery-Origin Steelhead. A recreational fishery with wild steelhead release may occur. If a difference exists between the run timing of the hatchery and wild steelhead, no recreational fishing for steelhead will be authorized beyond the time and area when wild stocks are reasonably vulnerable.

5) Work with the affected Indian tribes, on a watershed by watershed basis, to obtain annual state-tribal harvest management plan agreements that include shared conservation, hatchery production, and harvest sharing objectives for state and tribal fisheries.

The Preliminary FEIS is subject to change pending final FWC approval of the SSMP.

Table 1. Guidelines for managing recreational steelhead fisheries with known abundance, stock in ESA-listed DPS, or one or more of stocks in management unit have a SaSI stock status of Critical.

Abundance of Wild Management Unit (MU)	Abundance of Hatchery Management Unit (MU)	
	Less than the Hatchery MU escapement objective	**Greater than** the Hatchery MU escapement objective
Abundance Less than Wild MU escapement objective	• Close all recreational steelhead fisheries.	• If the abundance of wild steelhead is less than the critical threshold, no fisheries directed at steelhead. • If wild abundance is less than the escapement objective, in no case exceed a 10% impact from all fisheries *or* the ESA fishery permit limit(s).
Abundance Greater than Wild MU escapement objective	• Assure wild MU escapement objective is achieved. • Minimize mortality impacts on hatchery fish to provide sufficient broodstock.	• Assure wild and hatchery MU escapement objectives are achieved. • Provide recreational fishery opportunities for both hatchery and wild fish.

Table 2. Guidelines for managing recreational steelhead fisheries with known abundance, stock not in ESA-listed DPS, and SaSI stock status not Critical.

Abundance of Wild Management Unit (MU)	Abundance of Hatchery Management Unit (MU)	
	Less than the Hatchery MU escapement objective	**Greater than** the Hatchery MU escapement objective
Abundance Less than Wild MU escapement objective	• Close all recreational steelhead fisheries.	• Minimize mortality to wild stock(s); in no case exceed a 10% impact from all fisheries *or* the ESA fishery permit limit(s).
Abundance Greater than Wild MU escapement objective	• Assure wild MU escapement objective is achieved. • Minimize mortality impacts on hatchery fish to provide sufficient broodstock.	• Assure wild and hatchery MU escapement objectives are achieved. • Provide recreational fishery opportunities for both hatchery and wild fish.

6) Develop and implement regional management plans that identify the long-term goal, benchmarks for modifications to management actions, escapement objectives, and the expected trajectory for the diversity, spatial structure, productivity, and abundance of each wild stock. Complete this action within two years of the adoption of this policy for stocks that are listed under the Endangered Species Act or have a SaSI status of Critical. Complete this action for the remainder of stocks within five years of the adoption of this policy.

   The regional RMPs and/or Fisheries Management and Evaluation Plans (FMEPs) will include the following elements:

   a. Fishery Assessment. Assess the current benefits and risks of each fishery relative to the potential effects on the diversity and spatial structure, and abundance and productivity of wild stocks. Several key risk factors to consider are discussed below.
      - *Diversity and Spatial Structure*. Evaluate the potential selective effects on wild stocks of fisheries that target hatchery stocks, particularly those with a different run timing or spatial distribution. Modify the timing of fisheries, gear types, or fishery characteristics to enhance diversity and spatial structure consistent with watershed goals.
      - *Abundance and Productivity*. Evaluate the effects of harvest rates established for management units on the abundance and productivity of the constituent stocks. Reduce fishing harvest rates if the projected abundance of a stock is inconsistent with the wild production goal. Assure that harvest rates on wild stocks during periods targeting hatchery fish are responsive to changes in productivity and are consistent with the path to achieving benchmarks and long-term goals.
   b. Fishery Management. Describe the harvest rate, escapement goal or other management strategy that will be used, the expected short and long-term effects of the fishery, measurable benchmarks on the diversity, spatial structure, productivity, and abundance of the wild stock, and other necessary metrics to determine whether the fishery management program is meeting its objectives.
   c. Monitoring, Evaluation, and Adaptive Management. Document the monitoring and evaluation plan for each fishery and the process for making revisions (adaptive management) to the program.

7) Provide recreational fishers with two general types of fishing opportunities on adult steelhead:
   a. *Retention*: Retention fisheries will allow the opportunity to catch and retain hatchery and/or naturally produced fish that are more abundant than the escapement objective.
   b. *Catch-and-Release*: Catch-and-release fisheries will be used to maximize the opportunity to catch and release steelhead (or catch rate) and provide extended fishing periods for hatchery and/or naturally produced fish that are more abundant than the escapement objective. Catch-and-release fisheries can be targeted on hatchery or wild fish but they must be consistent with wild fish protection guidelines.

c. "Selective Gear Rules", as described in the fishing pamphlet, will apply to catch and release fisheries that target wild steelhead in excess of the escapement objectives.

8) Distribute recreational opportunities among retention and catch-and-release fisheries based upon testimony received at Fish & Wildlife Commission meetings, letters to the Department, angler preference surveys, and other methods for determining the preferences of the recreational fishing community. Angler preference surveys should be conducted at least every five years.

9) Evaluate and report results from the fishery management monitoring and evaluation plan (FMEP) requirements on an annual basis with an initial summary in five years and every five years there after.

10) Develop (web based access) central repository for reporting total harvest of steelhead through direct and indirect fisheries.

ARTIFICIAL PRODUCTION

Policy Statement

Promote the achievement of the natural production policy and provide fishery-related benefits by implementing artificial production programs with the following characteristics:

Conservation Programs. Artificial production programs implemented with a conservation objective shall have a net aggregate benefit for the diversity, spatial structure, productivity, and abundance of the target wild stock.

Harvest Programs. Artificial production programs implemented to enhance harvest opportunities shall provide fishery benefits while allowing watershed-specific goals for the diversity, spatial structure, productivity, and abundance of wild stocks to be met.

Washington's hatchery system represents a tremendous investment by its citizens. Hatchery origin steelhead provide a substantial recreational and economic benefit to Washington State residents and comprise the vast majority of the recreational fishery harvest of steelhead (96% of recreational fishery harvest in 2003-2004). However, the federal Endangered Species Act (ESA) listings for several of the steelhead populations within the state have identified hatcheries as contributors to the natural population declines. There has been a fundamental paradigm shift in how hatcheries are viewed. Hatcheries are no longer a replacement of habitat, but rather an integral part of the watershed in which they operate. Rather than focus on an unproductive debate over whether hatcheries are inherently good or bad, the Department began with a premise that hatcheries are an important tool. The Hatchery Reform Project is a systematic science-driven redesign of our hatchery system to achieve two new goals: 1) Conserve naturally spawning populations and 2) Support sustainable fisheries. The Hatchery Reform Project, when coupled with the recently completed Steelhead Science Paper: "*Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs"*, lays the foundation for how we manage steelhead into the future to ensure healthy natural populations and healthy fisheries.

Strategies

1) ***Describe Path with Measurable Benchmarks to Long-term Goals***. Evaluate the current benefits and risks of the current relative to the long-term goals for each stock. Describe a path to the long-term goals with measurable benchmarks for modifications to fishery, hatchery, and habitat management and the expected performance of each stock. For programs affecting the wild stocks of importance for conservation and recovery, the long-term goal will include the following elements:
   a. Integrated programs implemented to enhance harvest opportunities (i.e. integrated harvest program) will achieve a proportionate of natural influence (PNI) equal to or greater than 0.70 on average, use hatchery practices that reduce the risks of domestication, and use broodstock that is indigenous to the watershed.
   b. Segregated programs implemented to enhance harvest opportunities (i.e. segregated harvest program) will result in an average gene flow of less than 2%

from the hatchery to the wild stock. Use broodstock that originated from releases of juveniles in that watershed unless no hatchery or trapping facility exists.

c. Integrated conservation programs implemented to preserve and recover depleted wild stocks to minimize potential genetic divergence between the hatchery broodstock and the wild populations. PNI will be determined by the status of the natural population, based on the goal of PNI being as high as practical.
d. Segregated conservation programs implemented to maintain the hatchery population as a distinct, or genetically segregated population in order to preserve and recover depleted wild stocks.

2) Mark all Artificial Production. Mark or tag all steelhead released from artificial production programs to evaluate program risks and benefits and facilitate selective fisheries.

3) Develop Comprehensive All-H Strategy. Develop and implement comprehensive hatchery, habitat, hydro, and harvest management plans that ensure the artificial production program compliments the strategies for other Hs (i.e., "All-H" context).

4) Manage from Ecosystem Perspective. Design, operate, and evaluate artificial production programs from an ecosystem perspective, rather than with a focus only on fish production, and assess genetic, demographic, and ecological risk factors.

5) Implement Rescue Programs for At-Risk Stocks. Maintain at-risk wild stocks until limiting factors are addressed by implementing programs such as kelt reconditioning and hatchery conservation programs.

6) Adaptively Manage Programs. Adaptively manage artificial production programs to assure that current programs are responsive to variable productivity, region-wide conservation and recovery goals are achieved, and fishing-related economic and cultural benefits are maximized.

Actions

1) Protect wild steelhead stocks from potential interactions with hatchery-origin rainbow trout:
   a. Hatchery-origin rainbow trout shall not be released in anadromous waters.
   b. Hatchery-origin rainbow trout shall not be released in lakes if the release would result in a significant negative impact to wild steelhead.

2) Ensure compliance of WDFW facilities with environmental regulations (e.g. water quality, fish passage, and screening). Identify facilities currently not in compliance and develop a capital budget plan to bring facilities into compliance.

3) Protect wild steelhead stocks from the importation, dissemination, and amplification of pathogens by adhering to the "Salmonid Disease Control Policy of the Fisheries Co-managers of Washington State".

4) Select either an integrated or segregated reproductive strategy for the operation of each hatchery program based upon watershed goals, program objectives (harvest,

conservation, research, or education), facility capabilities, and a scientific assessment of the potential risks and benefits of an integrated or a segregated strategy.

5) Assess the current risks and benefits, including economic benefits, of each artificial production program relative to genetic, demographic, and ecological risk factors. Key factors to include in the risk assessment for each type or program are discussed below.

Segregated Programs. Key risks associated with segregated programs are a potential loss of diversity (within and between stocks), loss of fitness, and competition.

a. Manage the collection of broodstock for Chambers Winter and Skamania Summer programs to maintain or increase the difference in spawn timing with wild steelhead stocks by establishing a spawn timing cutoff date for each hatchery program. (No egg takes of Chambers winter run after January 31st of each year).
b. Evaluate the potential range of gene flow from returning adults of hatchery-origin to wild-origin stocks in all watersheds where Chambers Winter or Skamania Summer steelhead stocks are released, or where a segregated program has been in place for three or more generations.
c. Evaluate the potential effects of competition of hatchery-origin juveniles, adults, and the progeny of naturally spawning hatchery adults with wild-origin stocks. Place a priority evaluation for all wild stocks that are listed under the ESA, or have a SaSI status of Critical or Depressed.
d. Where risks are inconsistent with watershed goals, implement one or more of the following actions:
    - Leave trapping facilities open during the entire return time for adults of the segregated stock.
    - Eliminate recycling of hatchery-origin adults to anadromous waters.
    - Release steelhead juveniles from steelhead programs only at locations where returning adults can be captured.
    - Increase the harvest rates on hatchery-origin fish.
    - Reduce the number of fish released or change the release location, rearing practices affecting the rate of residualism, or other program characteristics to reduce the rate of gene flow.
    - Eliminate the segregated hatchery program.
    - Replace the segregated program with an integrated program with risks that are consistent with watershed goals

Integrated Programs. Three key risk factors associated with integrated programs are a loss of diversity, loss of fitness, and a reduction in the number of wild spawners.

a. Use broodstock that originated from the stock that inhabits the area of the watershed in which the juveniles will be released or, if the wild stock has been extirpated, a stock with morphological, life history, and genetic characteristics similar to the extirpated stock.
b. Collect broodstock from the wild stock that is representative of their abundance, diversity, distribution, and run timing.
c. Evaluate the PNI and the effect of annual variations in wild stock abundance, potential range of changes in productivity of wild spawners, and demographic risks and benefits. Where risks are shown to be inconsistent with watershed goals, modify the size, fish culture practices, release strategy, or other characteristics of the program, reduce fishery harvest rates on wild-origin steelhead and increase fishery harvest rates on hatchery-origin steelhead, and/or enhance the productivity of the natural habitat.

6) Develop and implement regional management plans that identify the long-term goal, benchmarks for modifications to management actions, escapement objectives, and the expected trajectory for the diversity, spatial structure, productivity, and abundance of each wild stock. Complete this action within two years of the adoption of this policy for stocks that are listed under the Endangered Species Act or have a SaSI status of Critical. Complete this action for the remainder of stocks within five years of the adoption of this policy.

   Regional plans will include the following elements.

   a. Artificial Production Program Assessment. Assess the current benefits and risks of each program relative to the potential effects on the diversity, spatial structure, abundance, and productivity of wild stocks.
   b. Describe each artificial production program with an operational plan (i.e. Hatchery Genetic Management Plan (HGMP)) that documents the program objectives, performance objectives, indicators, specific operational components, risk control measures, and benchmarks for the program modifications necessary to achieve the long-term goal.
   c. Monitoring, Evaluation, and Adaptive Management. Document the monitoring and evaluation plan for each artificial production program and the process for making revisions (adaptive management) to the program.

7) Evaluate and report results from the artificial production monitoring and evaluation plan on an annual basis with an initial summary in five years and every five years there after.

REGULATORY COMPLIANCE

Policy Statement

Improve compliance with state and federal regulations applicable to hatchery operations, habitat conservation, hydro operation, and fisheries.

Gaining compliance with existing and future regulations is essential in protecting and maintaining important habitat functions as well as ensuring that fishery protection strategies are followed. WDFW will utilize both voluntary (such as technical assistance, public outreach, cooperative partnerships) and regulatory approaches to improve compliance with habitat, hydro, hatcheries, and fishery regulations.

Strategies

1) ***Improve Enforcement of Existing Habitat Regulations***. Rigorously enforce current regulations to protect salmonid habitat:
   a. Prioritize enforcement of habitat protection measures.
   b. Work to increase the accountability of government entities for the enforcement of state and local habitat protection laws.
   c. Establish partnerships in enforcing laws needed to protect salmon habitat.

2) ***Improve Understanding of Priority Enforcement Issues.*** Improve coordination of fishery managers, habitat managers, and enforcement staff to identify and prioritize enforcement activities.

3) ***Increase Enforcement Presence in Fishery Areas with ESA Listed Fish as well as populations of special concern***. Ensure fishery compliance through increased officer focus on areas containing ESA-listed fish or species of concern.

4) ***Actively Pursue Funding Opportunities***. Pursue funding for regulatory compliance from a variety of sources, such as state funding, federal grants, contracts, non-governmental organizations and the Bonneville Power Administration.

5) ***Increase Penalties Associated with Noncompliance***. Increase the consequences associated with noncompliance by requesting increased penalties for illegal actions through legislative process.

6) ***Implement Improved Compliance Strategies***. Improve compliance with existing regulations through the development, testing, and implementation of innovative techniques. Monitor compliance with HPA permits.

Actions

1) Seek legislation to change the (HPA) Program to provide an expansion in civil authority that includes infractions, fines, stop work, and remediation orders to increase the effectiveness of HPA compliance.

2) Regional Fish Program staff will meet at least quarterly with corresponding Enforcement Program Captain and Sergeants to discuss areas needing specific enforcement emphasis for the protection of the steelhead resource.

3) Fish and Wildlife enforcement staff will monitor compliance with priority HPAs.

4) Fish and Wildlife enforcement staff will conduct routine and emphasis patrols on fisheries that directly or indirectly impact ESA listed stocks.

5) WDFW will seek legislation that increases the penalties and fines associated with the illegal take of unmarked steelhead.

6) Develop and track performance measures associated with fishery and habitat compliance.

7) Develop and implement a statewide "Stream Watch" program that puts volunteer observers on rivers to increase the awareness of regulations and accountability of fishers.

8) Develop and implement innovative techniques to improve compliance such as wild fish tags, outreach programs, signage, and law enforcement emphasis patrols.

9) Conduct pilot review of performance and outcome of the HPA Program.

10) Provide adequate resources to implement regulatory compliance.

11) Ensure that existing WDFW lands meet Clean Water Act standards for fine sediment, temperature, and other water quality elements. Analyze and utilize WDFW-owned water rights to ensure they are wisely used for the protection and benefit of steelhead. Prevent the use of toxic materials and detrimental construction designs where they negatively influence steelhead or their habitats.

12) Provide fish passage at all road crossings on WDFW-owned forest roads by 2016. Provide fish passage to wild steelhead in streams adjacent to hatchery facilities.

MONITORING, EVALUATION, AND ADAPTIVE MANAGEMENT

Policy Statement

Implement monitoring, evaluation and adaptive management to influence management decisions to protect the abundance, diversity, and productivity of wild steelhead stocks and the habitats they rely on.

Fishery management and artificial production both have direct and indirect influence on the overall abundance, spatial structure, diversity, and productivity of wild steelhead. Informed decision-making is an important aspect to active management of a natural resource that is also influenced by natural perturbations both in freshwater and the marine environment. Monitoring, evaluation, and adaptive management are critical components to informed decision making because they support a "learning by doing" concept. Continued review, evaluation, and modification of actions that directly influence natural production is essential to assure that economic and cultural benefits are maximized while maintaining acceptable risks to natural populations. Adaptive management is a process that allows managers to make good decisions while operating in the face of uncertainty about future circumstances and consequences. It is likely to be most effective if it is driven by clearly defined goals and objectives, performance measures identified and monitored, and results readily available, communicated, and evaluated in a defined decision making framework.

Strategies

1) ***Actively Pursue Funding Opportunities***. Pursue funding for monitoring, evaluation, and adaptive management from a variety of sources, such as state funding, federal grants, contracts, non-governmental organizations, and the Bonneville Power Administration.

2) ***Establish Fishery/Escapement Data Management System***. Monitor the effectiveness of management actions in achieving watershed based wild stock and hatchery escapement goals by establishing and maintaining an accurate data system with age-specific estimates of abundance, escapement, harvest, fishery, other related mortality, etc. of each SaSI stock.

3) ***Establish an Adaptive Management System (feedback loop) to Evaluate and Implement Appropriate Actions to Support Progress Towards Achieving the Identified Goals Within the Plan's Chapters***.
    a. Regional adaptive management systems will be developed in concert with regional recovery plans;
    b. Or, developed in those regions without a recovery plan.

4) ***Develop Comprehensive Steelhead Adult and Smolt Monitoring Program***. Develop juvenile and adult abundance and productivity estimates for all steelhead populations consistent with the Governor's Monitoring Forum, regional salmon recovery plans, sub-basin plans, watershed and other local or regional plans.

5) ***Link Recovery Plan Actions with Status and Trends of Steelhead Distinct Population Segments (DPSs)***. Actions and monitoring and evaluation programs identified in regional recovery plans directed at other species can also be beneficial for steelhead and identification of these links will be important.

6) ***Ensure the Department's Habitat Staff are Involved in and Part of the Development of Monitoring and Evaluation Plans Associated with Habitat Enhancement.*** Work with habitat staff to address steelhead habitat enhancement needs.

7) ***Enhance Public Participation in Monitoring***. Increase monitoring effectiveness through enhanced public participation in the collection of data where appropriate.

8) ***Expand Life History Studies***. Early marine survival as well as ocean distribution and survival are important for understanding and quantifying status and trend changes.

Actions

Stock Structure, Diversity, and Abundance

1) Evaluate the stock structure of steelhead in the Puget Sound, Olympic Peninsula, and Southwest Washington regions. Evaluate assumptions of the 1992 co-manager analysis and, building on the tools developed by the Puget Sound, Willamette/Lower Columbia, and Interior Columbia technical recovery teams, define and implement a consistent procedure for evaluating stock structure. Collect samples for analysis with methods that assure run timing and life history types are known.
2) Increase the percentage of wild stocks with escapement assessed on a regular basis through prioritization of monitoring, soliciting funding, developing alternative estimation methods and sample designs, and enlisting the assistance of other organizations and the public.
3) Periodically evaluate genetic conservation guidelines to ensure steelhead genetic diversity is conserved.
4) Include British Columbia, Oregon and Idaho hatcheries within a broad scale monitoring and evaluation plan that assesses the productivity of wild stocks relative to the presence or absence of integrated or segregated hatchery programs.
5) Monitor and evaluate juvenile and adult abundance and productivity for all stocks with a priority towards SaSI critical and federally-listed steelhead.
6) Design and implement a program to monitor the genetic and life history characteristics of steelhead stocks and a management structure for analysis and reporting. Prioritize the collection of samples from reference stocks and from watersheds with both a hatchery program and a significant wild stock.
7) Assess the gene flow rate between the non-local segregated hatchery stocks and wild stocks in conjunction with the stock assessment work.
8) Establish a web-accessible database with age-specific estimates of the abundance, escapement, harvest, fishery and other related mortality of both wild and hatchery steelhead stocks.
9) Seek funding to support the additional monitoring and evaluation components that will address unknown mortality factors.

Stock Status

10) Assess the status of all populations in Washington on a 4 to 8 year cycle to assure that opportunities for early action are not missed. Use population viability analysis (PVA) to evaluate spawner abundance and, for populations identified to have a potential conservation concern, broaden the analysis to evaluate the contribution of rainbow trout to population viability, the previous performance of the population, and factors affecting population status.
11) Annually monitor and review the status of populations at risk, identify limiting factors, and assess the effectiveness of management actions. Recommend new programs to address limiting factors, and potentially initiate "rescue programs" like kelt reconditioning, natural stream channel rearing, or hatchery supplementation to conserve wild populations until limiting factors are resolved.

Fishery Management

12) Produce an annual report of smolts stocked by river for management and informational purposes (web-accessible).
13) Produce an annual recreational and tribal harvest report.
14) Monitor recreational, commercial and tribal harvest and encounter rates through creel censuses, catch record cards, enforcement, commercial fish buyer's receiving tickets, onboard observers, and tribal reporting.
15) Improve the precision and accuracy of estimates for direct and indirect harvest related mortalities.

Habitat Monitoring

16) Develop and implement a consistent method for using remote sensing data to monitor the status and trends of steelhead habitat.
17) Enhance Geographic Information System (GIS) capabilities by creating spatial data layers that identify barriers to fish passage, by incorporating additional variables into models that predict fish distribution, and by annually mapping the distribution of spawner redds.
18) Assess long-term planning acts (Growth Management Act (GMA), Shoreline Management Act (SMA), and Stream Restoration Act (SRA)) to determine whether they maintain or increase the amount of mature riparian forest as designed.
19) Delineate or model the past, current, and likely future distributions of steelhead populations to facilitate the identification of conservation and restoration priorities as expected changes to habitat occur through climate change and management influences.
20) Develop tools that allow us to better predict the effects of water management (quantity and quality) practices under different climate, weather, and management scenarios.

Artificial Production

21) Implement hatchery evaluation studies on selected facilities to compare replacement rate (recruits per spawner) of wild steelhead in the absence of artificial production with wild populations influenced by artificial production.
22) Implement hatchery monitoring and evaluation program(s) to determine if artificial production strategy (integrated or segregated) are achieving the identified program goals for proportion of natural influence and stray rate.

23) Develop broodstock management plans for all steelhead programs and provide summary of hatchery replacement rate every five years.
24) Seek funding to bring hatchery facilities into compliance with federal and state standards.

Verification and Accountability

25) Develop and implement a web-based reporting system for monitoring and evaluating the effectiveness of policy, actions, and stock performance. Include SaSI stock status assessments, priority actions and performance measures for harvest, hatchery, hydro, and habitat management.
    a. Annually collect, record and update the web-based reporting system.
    b. Every five years a report will be compiled and provided to the Director and Fish and Wildlife Commission articulating results and progress towards wild production goals, including agency compliance with statewide policies and guidelines.
26) Upon completion of the statewide management plan, WDFW will conduct an assessment to evaluate all current programs in order to develop a baseline to determine which programs are in compliance and which programs are not in compliance. For those programs not currently in compliance with the statewide management plan, WDFW will then develop objectives toward reaching our goal.

RESEARCH

Policy Statement

Implement steelhead research to inform the agency and the Commission on critical steelhead management issues.

Adaptive management relies on scientific methods to test the results of a plan's actions. Some scientific knowledge is within the experience of the Department and need only be recalled from scientific papers. However, new discoveries are made in fisheries science every day and a mechanism is needed to include these new discoveries in the plan. Scientific research is needed to provide scientific data for the statewide steelhead management plan adaptive management decisions and to incorporate new scientific discoveries into the plan when necessary.

Strategies

1) ***Identify and Prioritize Research***. Annually convene key agency staff and stakeholders to review steelhead studies and prioritize research needs throughout the state.

2) ***Actively Pursue Funding Opportunities***. Pursue funding for research from a variety of sources, such as state funding, federal grants, contracts, non-governmental organizations and the Bonneville Power Administration.

3) ***Collaborate with External Agencies and Organizations***. Pursue enhanced collaboration with universities, the tribes, other agencies, and organizations.

4) ***Promote Interest in Steelhead Research***. Promote increased interest and funding of steelhead research by presenting study results to scientific and general audiences, develop web page highlighting research findings, and publishing research findings in peer review publications.

Actions

1) Assess the fishery related mortality caused by steelhead fisheries, including catch and release fisheries, through mark recapture or tagging studies.

2) Expand and support research to define the relationship between steelhead productivity and habitat, both freshwater and marine.

3) Assess migration pathways, rates and use of estuary, nearshore, and marine habitat by juvenile steelhead. Develop a long-term acoustic tagging study designed to increase understanding of early marine survival.

4) Cooperatively establish and participate in a multi-agency, international study that would incorporate acoustic tagging and genetic baseline information to understand ocean migration patterns.

5) Develop improved tools that relate environmental factors (e.g., climate, water temperature, stream flow) and the physiological status (e.g., length, growth rate, life history pathways) of juvenile *O. mykiss* to the diversity, spatial structure, abundance, and productivity of steelhead stocks.

6) Support and expand research to link changes in genetic markers to the abundance and productivity of populations (e.g. quantitative traits).

7) Build on studies in the Cedar River, Yakima River, and other locations to develop a better understanding of the relationship of resident and anadromous *O. mykiss*. From these studies, develop improved tools to assess the potential effects of management actions and enhanced management strategies that effectively address resident and anadromous life history forms.

8) Determine the statistical requirements to provide reliable estimates of escapement and harvest. Determine the number of coded-wire tags and other marks needed in relation to the number of recoveries expected in all geographical areas and at large and small scales.

9) Conduct study to determine effects of integrated artificial programs on diversity and productivity of wild stocks.

10) Establish a series of representative reference streams and steelhead populations (coordinating with recovery actions identified by the Technical Review Teams (TRTs)) against which recovery actions taken in other systems and habitat and the population's responses can be measured.

OUTREACH AND EDUCATION

Policy Statement

Implement outreach and education programs to ensure Washington's citizens value, support and have the information and opportunities necessary to participate in the restoration and protection of steelhead and their habitats.

Involving and educating the public in steelhead restoration and natural resource issues is critical to successfully meeting the goal of healthy, self-sustaining steelhead stocks. When people understand the needs and value of steelhead they are able to make informed decisions about changes necessary to restore and maintain healthy watersheds and healthy wild stocks. A mobilized public that has ownership will work in support of steelhead restoration, contribute resources toward steelhead restoration, and change current practices and behaviors to support restoration.

Strategies

1) ***Develop Comprehensive Approach to Reach Out to a Broad Base of Citizens***. Work with public and private partners such as: Public Utilities Departments (PUDs), counties, and Regional Fisheries Enhancement Groups (RFEGs), to develop short and long-term strategies for outreach messages and products which focus on user groups, service organizations, landowners and environmental organizations and classroom-oriented education. Messages should address the economic, cultural and ecological values of steelhead to Washington.

2) ***Involve Citizens in all Phases of Restoring and Conserving Natural Steelhead Stocks***. Work with partners to develop opportunities for citizens to help with data collection and monitoring and stream-watch activities, improving understanding of fishery management techniques, habitat restoration, and protection activities.

3) ***Capitalize on Existing Programs***. Work with existing programs to identify ways we can partner to increase protection and restoration of steelhead stocks: Steelhead/Cutthroat Policy Advisory Group, Regional Fisheries Enhancement Groups, Lead Entities, Salmon Recovery groups, Salmon in the Classroom (830 schools), Wild About Washington (WDFW television program), Eyes in the Woods-Stream Watch, Washington State University (WSU) Cooperative Extension, and University of Washington Cooperative Research.

4) ***Promote Historical Significance of Steelhead and Designate Fish and Wildlife Viewing Destinations.***

Actions

1) Develop an Outreach and Education plan – evaluate current programs and partnerships and develop ways to involve citizens in steelhead protection and restoration.

2) Develop a media plan to share the steelhead management plan, and to develop methods to communicate important steelhead messages.

3) Develop messages, classes, events, and methods of delivery to communicate the importance of healthy steelhead stocks.

4) Create a speakers bureau (not just brochures/fliers/information) to provide information on steelhead local user groups. Chapters of Trout Unlimited, Puget Sound Anglers, Cowlitz Game and Anglers, Vancouver Wildlife League, etc.

5) Continue outreach and education to improve understanding of fishery management techniques.

6) Develop information to assist salmon recovery efforts to create complementary activities to address steelhead conservation as well as salmon conservation.

7) Develop brochures and materials that describe the important characteristics of steelhead habitat to assist habitat restoration groups.

8) Work with WDFW's Salmon in the Classroom Program, currently in more than 830 schools statewide, to describe healthy ecosystems and their value to steelhead populations.

9) Work with the Eyes in the Woods to expand the Stream Watch program.

10) Develop and provide recreational anglers and others with information related to artificial production and harvest through various methods including public forums, web-based steelhead information site, etc.

11) Maintain citizen advisory groups such as the Steelhead and Cutthroat Policy Advisory Group and the Regional Fisheries Enhancement Advisory Board to advise Department on policy issues related to steelhead. Establish ad hoc advisory groups to assist the Department in addressing emerging issues.

12) Develop talking points for interaction with landowners to help them understand how healthy steelhead stocks could benefit them.

13) Develop the infrastructure that supports fish and wildlife viewing destinations such as fish migration corridors in the upper Skagit River watershed.

14) At hatchery facilities that implement kelt-reconditioning programs, develop the infrastructure for convenient public opportunity to view wild adult steelhead.

15) Develop market campaign that highlights the value of natural resources and the need to conserve irreplaceable assets.

DEFINITIONS

The following are definitions of terms as used in the WDFW Steelhead Management Plan. They are presented here to prevent confusion with how these or similar terms are used in other planning efforts.

Abundance: The size of a salmonid population or of a component of the population expressed as numbers of fish. For anadromous populations, this number is normally expressed in terms of spawners.

Adaptive Management: Periodic, usually annual, review of performance against measurable benchmarks and goals as well as a response towards achieving these goals.

All-H Planning: Developing and implementing comprehensive hatchery, habitat, hydro, and harvest management plans that ensure the artificial production program compliments the strategies for other Hs.

Allocation Unit: A management unit or group of management units for which harvest shares are calculated. Prior court orders specify that an allocation unit comprises the steelhead returning to a single river system flowing into saltwater. The parties may, by agreement specify different allocation units if necessary.

Anadromous fish: Fish that hatch in freshwater, mature in saltwater, and return to freshwater to spawn.

Artificial Production: The rearing and release of fish from an artificial culture setting such as a hatchery, remote site incubator, spawning channel or other non-natural situation.

At-Risk Stocks: Fish populations having an unacceptably high risk of extinction within a specified time horizon. Such populations are often listed as critical in the SaSI database, and may be listed or under consideration for listing under the Federal Endangered Species Act.

Catch: The number of fish retained by a fisher.

Catch-and-Release: A non-retention hook-and-line fishery.

Condition Factor: A measure of the condition of a fish based on comparison of length and weight (i.e. the more robust the fish, the higher the condition factor).

Conservation Hatchery Program: The use of artificial propagation to conserve genetic resources of a fish population at extremely low population abundance, and potential for extinction, using methods such as captive propagation and cryopreservation.

Critical Threshold (or Critical Population Threshold): An abundance level for a population below which: depensatory processes are likely to reduce it below replacement; short-term effects of inbreeding depression or loss of rare alleles cannot be avoided; and productivity variation due to demographic stochasticity becomes a substantial source of risk.

Critical Stock: A stock of fish experiencing production levels that are so low that loss of genetic diversity is likely or has already occurred.

Depressed Stock: A stock of fish whose status is neither Critical nor Healthy.

Diversity: Variation among individuals in physical, life history, or genetic characteristics.

Escapement Goal: A numerical threshold for the portion of a stock or group of stocks that is protected from harvest and allowed to spawn to meet management objectives and perpetuate the stock.

Evolutionarily Significant Unit (ESU): The smallest biological unit that can be considered to be a species under the Endangered Species Act as administered by the National Marine Fisheries Service (NMFS). A population or population group is considered to be an ESU if 1) it is substantially reproductively isolated from other conspecific population units, and 2) it represents an important component in the evolutionary legacy of the species. USFWS uses a similar term and concept called the distinct population segment (DPS), which is the wording used in the ESA itself. Thus, the ESU is the NMFS' interpretation of a DPS.

Exploitation Rate: The fishery-related mortality of fish expressed as a percentage of the estimated total run size.

Fishery Resource Manager: A tribe or the State of Washington, represented by the Department of Fish and Wildlife, with authority and responsibility over the management of harvest and hatchery programs affecting steelhead.

Gene Flow: The rate at which genetic material flows from one population, population component, or group of populations to another. Gene flow is an important concept in maintenance of among-population genetic diversity and in the linkage of hatchery and natural components of an integrated population. Gene flow is often inferred from stray rates, but such estimates are likely to be overestimates.

Genetic Conservation: Protection of long-term sustainability of wild stocks/runs by conserving genetic diversity.

Genetic Diversity: Genetically determined differences among individuals, local breeding, populations, or groups of populations.

Hatchery-Origin: Fish that have been incubated, hatched or reared in a hatchery or other artificial production facility regardless of parentage.

Hatchery Production: Fish that are reared and released from artificial culture in a hatchery situation.

Healthy and Harvestable: A self-sustaining naturally produced stock that has attained a status that will support meaningful retention and non-retention fisheries on an annual basis.

Healthy Stock: A wild stock that has sufficient viable salmonid parameters (VSP): abundance, productivity, diversity and spatial structure to be resilient through environmental fluctuations, to perform natural ecological functions in freshwater and marine systems, provide related cultural values to society, and sustain tribal and recreational fisheries.

Induced Fishing Mortality: Fish mortality above and beyond that which would occur in the absence of fishing activities (e.g. hooking mortality, net drop out, and marine mammal take), and which is not reflected in landed catch records.

Integrated Hatchery Program: The term describes the intended reproductive relationship of a hatchery population relative to the local, naturally spawning population between which gene flow occurs. The principle goal of an Integrated Hatchery Program is to manage the broodstock as an artificially propagated component of a naturally spawning population wherein the natural environment drives adaptation and fitness of a composite population of fish that spawns both in a hatchery and in the wild.

Integrated Hatchery Strategy: A broodstock management strategy where the intent is for returning adults of wild- and hatchery-origin to be reproductively connected to form a single, composite stock. This requires wild-origin adults in the hatchery broodstock, and hatchery-origin adults may spawn naturally.

Locally Adapted: A population is said to be locally adapted if natural selection has made the population be more productive in the environment it occupies than other populations would be if they were introduced into that environment. Because of the large amount of data supporting the concept of local adaptation in salmonids, native populations are typically assumed to be locally adapted, even if they may have had considerable gene flow from nonnative populations. Nonnative populations introduced into an environment may become locally adapted after several generations.

Long Term Goal: A multi-generation performance target.

Major Population Group: A group of populations within a larger conservation unit such as a DPS or ESU that share genetic, life-history, or ecological characteristics that are sufficiently distinct from those of other groups of populations to make conservation or recovery of the group essential for the conservation or recovery of the larger conservation unit. The specific term was developed by the Interior Columbia Technical Recovery Team (TRT), but the basic concept is used by all three TRTs working on Washington salmon and steelhead. A major population group can be as small as one population.

Management Period: The time interval during which regulatory actions are taken to meet the escapement requirements for a management unit or the allocation requirements for an allocation unit, taking into account catches of the units made outside the management period. Management periods are specific to each management unit (or aggregate of management units) and to each fishing area through which the unit(s) pass.

Management Unit (MU): A stock or a group of stocks which are aggregated for the purpose of achieving a desired spawning escapement objective.

Mark Selective Fishery: A fishery requiring the release of fish possessing an adipose fin.

Maximum Sustained Harvest (MSH) Level: A biological reference point representing the stock size that will support the largest level of harvest mortality that can be maintained indefinitely without diminishing the productive capacity of the resource, given current conditions of habitat and environmental fluctuations.

Maximum Sustained Harvest Escapement Goal (MSH Escapement Goal): The specific escapement for a stock that will allow the maximum number of fish to be harvested on a sustained basis.

Mitigation (mitigation hatchery): The use of artificial propagation to produce fish to replace or compensate for loss of fish or fish production capacity resulting from the permanent blockage or alteration of habitat by human activities.

Mortality: See Induced Fishing Mortality.

Native-origin: An indigenous stock of fish that has not been substantially impacted by genetic interactions with non-native stocks or by other factors (such as artificial selection) and is still present in all or part of its original range. See also Wild-origin.

Natural ecological function: Activity or role performed by an organism or element in relation to other organisms, elements or the environment

Natural-origin: Fish that are produced by spawning and rearing in the natural habitat, regardless of parentage. See also Wild-origin.

Natural Production: Fish that spawn or rear entirely in the natural environment. These fish may be the offspring of natural or hatchery production.

Natural Stock: Fish that are produced by spawning and rearing in the natural habitat, regardless of parentage. See also Wild Fish.

Natural Stock Reserve: A network of wild stock populations across the state where stocks are not planted with hatchery steelhead and are largely protected from the effects of hatchery programs (i.e. gene bank). See also Wild Stock Gene Bank.

Non-native: With respect to a particular location, fish populations that exist, either because of migration or introduction, which were not historically present.

Non-Treaty: All fishers except those with reserved rights identified in the Stevens-Palmer treaties.

Population: A group of interbreeding salmonids of the same species of hatchery, wild, or unknown parentage that have developed a unique gene pool, that breed in approximately the same place and time, and whose progeny tend to return and breed in approximately the same place and time. They often, but not always, can be separated from another population by genotypic or demographic characteristics.

Productivity: A stock's intrinsic rate of increase. The higher the productivity, the better the population will fill the habitat and the more resilient it will be to harvest and to survive other sources of mortality.

pHOS: Proportion of spawners consisting of hatchery-origin fish.

pNOS: Proportion of spawners consisting of natural-origin fish.

pHOB: Proportion of broodstock consisting of hatchery-origin fish.

pNOB: Proportion of broodstock consisting of natural-origin fish.

Proportionate Natural Influence (PNI): In an integrated hatchery program, a mathematical relationship between gene flow from the hatchery to the natural component and from the natural to the hatchery component, that determines the degree to which natural selective forces direct the expression of a trait. Mathematically, PNI = pNOB/(pHOS + pNOB). The HSRG guideline for properly integrated populations is that PNI should exceed 0.5. For stocks of moderate or high biological significance and viability, PNI should exceed 0.7. (HSRG, WDFW, and NWIFC 2004).

Run: The sum of stocks of a single salmonid species which migrate to a particular region, river or stream of origin at a particular season.

Segregated Hatchery Program: The intended reproductive relationship of a hatchery population relative to a naturally spawning population, which are reproductively isolated from one another. The principal intent is to propagate a genetically segregated hatchery stock that is adapted to perform more optimally in artificial culture than in the wild, irrespective of the ability of returning adults to reproduce naturally or confer any benefits to naturally spawning populations.

Segregated Hatchery Strategy: A broodstock management strategy where the intent is for the hatchery stock to have no reproductive interactions with wild stocks. Also referred to as an Isolated Hatchery Strategy.

Selective Fishery: A fishery with time, area, gear, or retention regulations designed to reduced impacts on non-target species or stocks.

Selective Gear Rules: No bait, and only unscented flies or lures with a single barbless hook may be used.

Short Term Goal/Benchmark: An intermediate performance target that is basic to the adaptive management evaluation process.

Mark Selective Fishery. A fishery requiring the release of fish lacking an adipose fin.

Stock: A group of fish within a species, which is substantially reproductively isolated from other groups of the same species.

Viable: Negligible risk of extinction over a specified time period (McElhany et al. 2000). For the purposes of this plan, a viable steelhead population is one that has a less than 5% probability of extinction over at least 100 years.

Viable Salmonid Population (VSP) Parameters: Parameters that are used to evaluate the health of a given stock. The four parameters are abundance (A), productivity (P), diversity (D), and spatial structure (S) (McElhany et al. 2000).

Viability Stressors: Habitat, harvest, or hatchery actions that affect population VSP attributes (abundance, productivity, diversity, and spatial structure) in a way that currently results in a significant reduction in the viability of a population.

Wild: Naturally produced fish from a locally adapted stock regardless of origin or parentage. Still used in harvest record keeping Catch Record Cards (CRC) to indicate steelhead with adipose fins intact (not marked at the hatchery for harvest). See also Natural Stock.

Wild Fish: A naturally produced fish from a locally adapted stock regardless of parentage.

Wild-origin: The progeny of fish that were spawned naturally from a locally adapted stock regardless of parentage.

Wild Steelhead Release (WSR): A hook-and-line fishery that requires wild steelhead (defined by not having fin clips) to be released. Hatchery steelhead (defined by having fin clips) may be retained.

Wild Stock Gene Bank: One area within each steelhead DPS where the wild stock is largely protected from the effects of hatchery programs. Each stock selected must be sufficiently abundant and productive in order to be self-sustaining in the future. No releases of hatchery steelhead will occur in streams where spawning occurs or where rearing takes place. Fisheries can be conducted in these areas if wild steelhead management objectives are met.

LIST OF ACRONYMS AND ABBREVIATIONS

BRAP	Benefit-Risk Assessment Program
BRP	Biological Reference Point
CWT	Coded-wire tag
DPS	Distinct Population Segment
ER	Exploitation Rate
ESA	Endangered Species Act
ESU	Evolutionarily significant unit
FMP	Fishery management plan
FMEP	Fisheries Management and Evaluation Plan
GMA	Growth Management Act
HCP	Habitat Conservation Plan
HGMP	Hatchery Genetic Management Plan
HPA	Hydraulic Project Approval
HSRG	Hatchery Scientific Review Group
IHOT	Integrated Hatchery Operations Team
ISBM	Individual stock-based management
MSH	Maximum sustainable harvest
MSY	Maximum sustainable yield
NA	Not available
NMFS	National Marine Fisheries Service
NWIFC	Northwest Indian Fisheries Commission
pHOS	Proportionate of hatchery origin spawners
pNOS	Proportionate of natural origin spawners
pHOB	Proportionate of hatchery origin broodstock
pNOB	Proportionate of natural origin broodstock
PNI	Proportionate of natural influence
PUD	Public Utilities Department
R/S	Recruit per spawner
RER	Rebuilding exploitation rate
RMP	Regional management plan
SaSI	Salmonid Stock Inventory
SCPAG	Steelhead and Cutthroat Policy Advisory Group
SEPA	State Environmental Policy Act
SMA	Shoreline Management Act
SRA	Stream Restoration Act
SSMP	Statewide Steelhead Management Plan
TRT	Technical Review Team
VSP	Viable Salmonid Population
WDF	Washington Department of Fisheries
WDFW	Washington Department of Fish and Wildlife
WWTIT	Western Washington Treaty Indian Tribes

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Appendix 1. Agency Legislative Mandate and Strategic Plan

Legislative Agency Mandate

"The Department shall conserve the wildlife and food fish, game fish, and shellfish resources in a manner that does not impair the resource. The Department shall promote orderly fisheries and shall enhance and improve recreational and commercial fishing in this state."

WDFW Strategic Plan

Mission Statement
The Washington Department of Fish and Wildlife serves Washington's citizens by protecting, restoring and enhancing fish and wildlife and their habitats, while providing sustainable fish and wildlife-related recreational and commercial opportunities.

Vision Statement
Make Washington State a world-class outdoor destination by fostering an appreciation of abundant and sustainable fish and wildlife resources and their ongoing contributions to the Northwest quality of life.

Goal I – Fish and Wildlife: Achieve healthy, diverse and sustainable fish and wildlife populations and their supporting habitats.

Goal II – Public Benefit: Ensure sustainable fish and wildlife opportunities for social and economic benefit.

Goal III – Funding: Ensure effective use of current and future financial resources in order to meet the needs of the states fish and wildlife resource for the benefit of the public.

Goal IV – Competence: Implement processes that produce sound and professional decisions, cultivate public involvement and build public confidence and agency credibility.

Goal V – Science: Promote development and responsible use of sound, objective science to inform decision-making.

Goal VI – Employee: Create and agency environment that nurtures professionalism, accountability, enthusiasm, and dedication in order to attract, develop, and retain a workforce that can successfully carry out the mandate of the agency.

Appendix B. Statewide Steelhead Management Plan Response to Comments.

State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Mailing Address: 600 Capitol Way N Olympia, WA 98501-1091 (360) 902-2222, TDD (360) 902-2207
Main Office Location: Natural Resources Building 1111 Washington Street SE Olympia, WA

April 3, 2007

Ad hoc Stakeholder Respondents

Subject: Response to comments - Statewide Steelhead Management Plan

The Washington Department of Fish and Wildlife's (Department) Statewide Steelhead Management Plan DRAFT was released for comment on December 22, 2006 with a follow-up Ad hoc stakeholder meeting on January 9, 2007 to review and receive preliminary input on the contents of the document. Subsequent to the meeting, several written comments were received by the Department as well. Many comments were insightful, constructive and formed the basis for a number of revisions or clarifications within the Department's revised DRAFT (Attachment A). In addition, although the Department received a number of written comments, consistent themes became evident. Thus the Department has opted to respond to the comments through a single letter organized by the themes within the stakeholder comments.

Wild, Natural, Native or Locally Adapted Steelhead
Stakeholders, tribes, local entities, and other state and federal agencies use a variety of terms to describe steelhead stocks relative to their origin within the context of a watershed. Furthermore, stakeholders and staff used several terms to describe steelhead stocks during the meetings. The lack of a consistent and clear definition often resulted in confusion and debates regarding the intent of the Department's policies, strategies, and actions. Clarifying the Department's definition is crucial for evaluating how steelhead will be conserved and managed. Rebuilding criteria for some of the currently federally listed ESA populations represents the underpinning for the Department's decision to use the term "wild"; defined as "Naturally produced fish from a locally adapted stock regardless of origin or parentage". Further definitions for "wild fish" and "wild-origin" can be located in 'Definitions' of the statewide steelhead management plan on page 30.

Long term goal for rebuilding and conserving Washington's steelhead

A long-term goal is crucial in defining the scope of the Department's management actions, and thus establishes a benchmark from which management can be assessed. Several comments suggested four main alternatives for a long term goal:

1) Historical abundance levels extending beyond those currently described in the 'steelhead science paper':
    a. Use cannery pack data or other anecdotal information prior to European settlement.
    b. Establish long-term abundance goals greater than current level.
2) MSH-based goals (maximum sustainable harvest):
    a. Fishery management driven goal
    b. Based on stock recruitment information
    c. Successful when habitat and stock are at healthy levels.
3) Technical recovery teams (TRT) use Viable Salmonid Population (VSP) characteristics (McElhany et al. 2000).
    a. VSP represents characteristics of a population that collective define the depth and breathe of health and productivity to withstand natural perturbations within its life history.
    b. Characteristics include abundance (number of fish), productivity (ability to replace itself), diversity (variation among), and spatial structure (physical distribution).
4) Healthy and harvestable goals for steelhead stocks.
    a. Consistent with federal ESA recovery plans for listed populations
    b. Based on 'Properly Functioning Conditions' (PFC) for habitat
    c. Co-manager recovery goals for Puget Sound Chinook derived from PFC, expressed as a range of spawners at MSH to replacement level.

Considering the state's population growth, the commensurate required infrastructure and the condition of the habitat currently throughout the state, recovering steelhead to historical abundances is an impractical goal. These goals will recognize that long-term variations in the abundance of wild steelhead, even with pre-settlement freshwater habitat, will occur in response to variations in marine conditions and steelhead survival.

Maximum sustainable harvest goals are insufficient to meet the rebuilding rates required to increase abundance, diversity and spatial structure of populations throughout the state, even though MSH goals are sufficient when populations are at abundances that achieve density dependent parameters.

Viable Salmonid Population represents metrics to assess a long-term goal because it describes measurable characteristics of a population, but in and of itself fails to capture fisheries in relation to a stock as well as adequately define numerical values. Thus MSH is fishery management biased, while VSP is population biased. Some combination of the two captures the conservation and sustainable fishery goals of the Department.

Thus, the Department chose a long-term goal based on the concept of "healthy and harvestable" stocks utilizing the concept of VSP as a metric for population health, and developing numerical

values similar in principle to those developed by the Department and Puget Sound Tribes and TRT analyses of Columbia Basin stocks.

The Department will place the highest priority on the protection of wild steelhead stocks and the restoration of these stocks to healthy and harvestable levels. See 'Goals and Policies' as well as the 'Natural Production Policy Statement' on pages 3 & 5, respectively, of the steelhead statewide plan; see page 5 as well for the definition of a healthy stock. The Department acknowledges the policy for wild steelhead management framed by the definition of healthy will be difficult to achieve, and nearly impossible without substantial habitat improvements; for stocks with low abundance, an interim escapement objective must be established that builds stock abundance in lieu of an escapement goal based on MSH.

Escapement Goals

Prior to federal ESA listings, escapement goals for salmonids were based on fixed values to produce the MSH. Today, escapement goals and objectives for salmonids are a mixed bag, reflecting de-listing criteria, inclusion of VSP characteristics, PFC for habitat, and harvest rates that ultimately provide for increasing escapement in the absence of explicit changes in escapement goals. MSH spawner escapement goals were established for most Washington steelhead stocks in the early 1980s. De-listing criteria have been established for the majority of ESA-listed stocks in the Columbia River basin with consideration of VSP characteristics that are consistent with a 5% risk of extinction over a 100-year time frame. WDFW provided recovery goals derived from PFC of aquatic habitat for the Lower Columbia steelhead DPS.
Several comments suggested three main alternatives:

1) MSH-based escapement goals, which are consistent with existing tribal agreements and definable by stock-recruit functions
2) Escapement goals greater than MSH to assure VSP achieved, extinction risk is lowered, and to avoid negative feedback in stock productivity associated with insufficient inputs of marine-derived nutrients
3) Maximum Sustained Recreational (MSR) opportunity, a variation of alternative 2, manages for recreational fishing opportunities, implemented through catch and release fisheries, rather than MSH which is implicit with harvest.

The Department has chosen an approach that identifies achievement of escapement objectives as a higher priority than fishing opportunity. This approach will be prioritized based upon stock status to include alternative escapement objectives that will provide increasing numbers of adults as habitat is restored. It will also include VSP characteristics to maximize the rebuilding and plasticity of the population over time. MSH may still be used on stocks of high abundance with good habitat. Where a fixed escapement goal is not appropriate, interim objectives will be used to increase spawning in order to move towards an escapement goal. This decision is further reflected in 'Natural Production, Strategies, page 5, with strategy 2 "Provide Sufficient Spawners" and strategy 4 "Describe Path to Short-term and Long-term Goals". In the 'Natural Production', Actions 2 & 3, page 5 & 6, further describes the Departments goals and states that for healthy steelhead stocks, the escapement policy will be <u>to provide at least, if not more than</u>, the number of wild spawners necessary to achieve MSH. Significant work will be required to establish an interim escapement goal that provides for rebuilding. Furthermore, fisheries may become more restrictive, especially on stocks with "unknown" status, while some tribes may

disagree with an escapement alternative to MSH. Additional funding and staffing will be required to increase precision in stock assessment.

Early-timed component of steelhead stocks
Stakeholders and some historic data suggests the early-timed component of some winter steelhead stocks has been diminished in abundance because of relatively high harvest rates targeting hatchery origin steelhead during the early portion of the run. In addition, interbreeding between non-local hatchery steelhead and early timed wild steelhead has also been cited as a risk. Managing escapements inclusive of VSP characteristics will help restore the diversity and spatial structure of steelhead, both within and among stocks, and will be essential to assuring long-term viability.

Further detail on this approach can be found in the "Natural Production" chapter, Strategy 1, page 5. More information can also be found in the "Fishery Management" chapter, Strategy 1 and Actions 2 & 3 on pages 10-11. Evaluation of the potential selective effects of fisheries on run-timing of wild stocks will require substantial staff time, including assessment of the incidental mortality during fisheries directed at hatchery-origin fish. Reductions in early-season fisheries, changes in release sites for Chambers Creek type steelhead, or both may be required to protect and restore the early run-timing component of some steelhead stocks. Steelhead management shall place the highest priority on the protection of wild steelhead stocks and restoration of these stocks (Natural Production Policy Statement, page 5).

Management of under-escaped steelhead stocks.
Stakeholders provided the following alternatives for fishery management actions when abundance of returning adults was less than the escapement objective:

1) Close all fisheries including those that incidentally impact the stock
2) Allow only incidental impacts on fisheries directed at other species
3) Open fisheries if the abundance of hatchery-origin adults exceeds broodstock requirements, but require the release of all unmarked steelhead
4) Limit mortalities in all fisheries to either 10% or, for ESA-listed species, the fishery permit limit

The Department will assess and manage steelhead fisheries based on total fishing-related mortality for all non-tribal fisheries, though some uncertainty exists in the mortality of unmarked fish released, especially as it relates to long-term survival. Until further studies refine precision, the Department will apply a 10% hook and release mortality rate to steelhead as a risk containment measure (see Fishery Management chapter, Action 9, page 12). More information The SSMP recognizes that more conservative actions may already be in place in ESA recovery plans than those recommended by the SSMP. It also recognizes that not all steelhead stocks are listed and seeks to provide flexible management strategies that will allow each region to pick actions that best fit its situation.

Various concepts regarding wild stock management, natural production reserves and/or sanctuaries have been proposed. In general, the consistent concept is to provide a genetic reserve of wild fish to protect the fish in the event of a temporary loss of a nearby stock through a catastrophic loss in habitat e.g. eruption of Mt. St. Helens, Elwha Dam breach, landslide; a risk

containment measure in the recovery of ESA-listed species; or, as a control for scientific studies assessing the effects of hatchery, harvest, and/or habitat actions. Stakeholders generally support the concept of natural stock reserves (wild steelhead management zones), despite the substantial variation in the influence of hatchery and harvest actions allowed in these areas. Stakeholders provided the following alternatives:

1) Protect and restore habitat in the natural stock reserve; eliminate all hatchery programs and fisheries impacting the stock
2) Eliminate all steelhead hatchery programs and fisheries impacting the stock
3) Eliminate segregated hatchery steelhead programs impacting the stock and allow only catch-and-release fisheries
4) Eliminate only steelhead hatchery programs impacting the stock

The Department chose to focus on the definition and major objective; limit direct and indirect impacts of steelhead hatchery programs. Thus, a network of "Natural Stock Reserves" will be established across the state consistent with the applied definition. One natural stock reserve will be established for each major population group with the following characteristics 1) the area of the natural stock reserve must incorporate the spawning area of the stock, 2) the stock must be sufficiently abundant and productive to be self-sustaining into the future, 3) limited direct and indirect influence from hatchery production. For more information on natural stock reserves, see "Artificial Production" chapter, Strategy 1 on page 14.

Implementation of the natural stock reserves may require substantial modification of some artificial production programs as well as agreement with tribal managers. Analyses and subsequent discussions will be forthcoming with stakeholders and Department staff to identify potential natural stock reserves for steelhead.

Selective Fisheries

A variety of views were expressed regarding the relative emphasis on selective fishing methods in recreational, non-treaty commercial fisheries directed at other species, and treaty fisheries. Selective fisheries, characterized as those that minimize the impact on wild fish (or non-target populations) while attempting to maximize harvest of abundant hatchery origin fish, are a valuable management tool. Stakeholders provided the following alternatives:

1) The Department should advocate the use of selective fishing methods for recreational fisheries and non-treaty commercial fisheries directed at all species
2) The Department should advocate the development of selective fishing methods for recreational and non-treaty commercial fisheries directed at other species
3) The Department should advocate the use of selective fishing methods for recreational fisheries and non-treaty commercial fisheries, as well as treaty fisheries directed at steelhead
4) WDFW should advocate the use of selective fishing methods only for stocks returning at abundance levels less than the escapement objective

The Department will promote the use of selective fisheries, and expand the selectivity of all non-treaty fisheries, see "Fishery Management" chapter, Strategy 2, page 10.

Habitat
Stakeholders expressed the need for a habitat chapter and challenged the Department to address steelhead habitat issues. Although the DRAFT Statewide Steelhead Plan is not a species recovery plan, the Department has included a habitat chapter in order to address current initiatives, the Department's leadership role, and foster the application of VSP for steelhead habitat issues. The Agency's Habitat Program has been instrumental in developing the science foundation for habitat in the Steelhead Science Paper, as well as the habitat chapter of the DRAFT Statewide Plan. For more information on this issue see "Habitat Protection and Restoration" chapter, page 7.

Goals and benchmarks for restoration and conservation
Stakeholders expressed the need for the Department to establish short and long-term goals for restoration and conservation of wild steelhead populations to provide more timely and informed decision making to long term rebuilding. The DRAFT Statewide Steelhead Plan requires each region to describe a path to short-term and long-term goals (see "Natural Production", Strategy 4, page 5). The Department also chose to establish these goals in fisheries management (see "Fishery Management, Strategy 5, page 10) and in artificial production (see "Artificial Production" chapter, Strategy 5, page 14) since each will play a pivotal role in the overall restoration and conservation of wild steelhead.

Implementation of integrated hatchery steelhead programs
Stakeholders expressed general opposition to the widespread development and use of integrated hatchery programs, particularly in the Puget Sound region. However, if a risk analysis showed an integrated program to be more beneficial than a segregated program, the integrated program included a sunset provision, with a clearly defined monitoring plan, could potentially be considered.

The Department has provided a description of both segregated and integrated artificial production programs in the "Artificial Production" chapter, Strategy 5, pages 14-15. The Department requires regions to evaluate the current benefits and risks of artificial production programs within the context of the individual watershed plans through a "viability stressors" table. Further detail will be provided in the individual watershed plans.

Protection and management of resident *O. mykiss* populations
Anadromy is not obligatory in *O. mykiss*. Progeny of anadromous steelhead can spend their entire life in freshwater, while progeny of rainbow trout can migrate seaward. Anadromy, is both environmentally and genetically linked. It is difficult to summarize one life history strategy (anadromy) without due recognition of the other (resident). The two strategies co-mingle on some continuum with certain residency at one end, and certain anadromy on the other.

Many stakeholders expressed a desire to have the Department address a vital component of steelhead life history particularly in regard to protection of resident trout populations and hybridization with anadromous populations. Managing from an ecosystem perspective (see Artificial Production chapter, Strategy 4, page 14) will allow natural dynamics to occur. To support native trout management, the Department will discontinue the release of hatchery-origin rainbow trout in rivers, streams and lakes that would result in a significant negative impact to

steelhead (see Action 1 & 2, page 15). In addition, the Department will prioritize research (see Research chapter, Strategy 1, page 23) and promote interest in steelhead research on the contribution of resident rainbow trout to anadromous steelhead populations (Research chapter, Strategy 4, page 23) and build on current studies in the Cedar and Yakima rivers to develop a better understanding of the relationship of resident and anadromous O. Mykiss (Research chapter, Action 7, page 23).

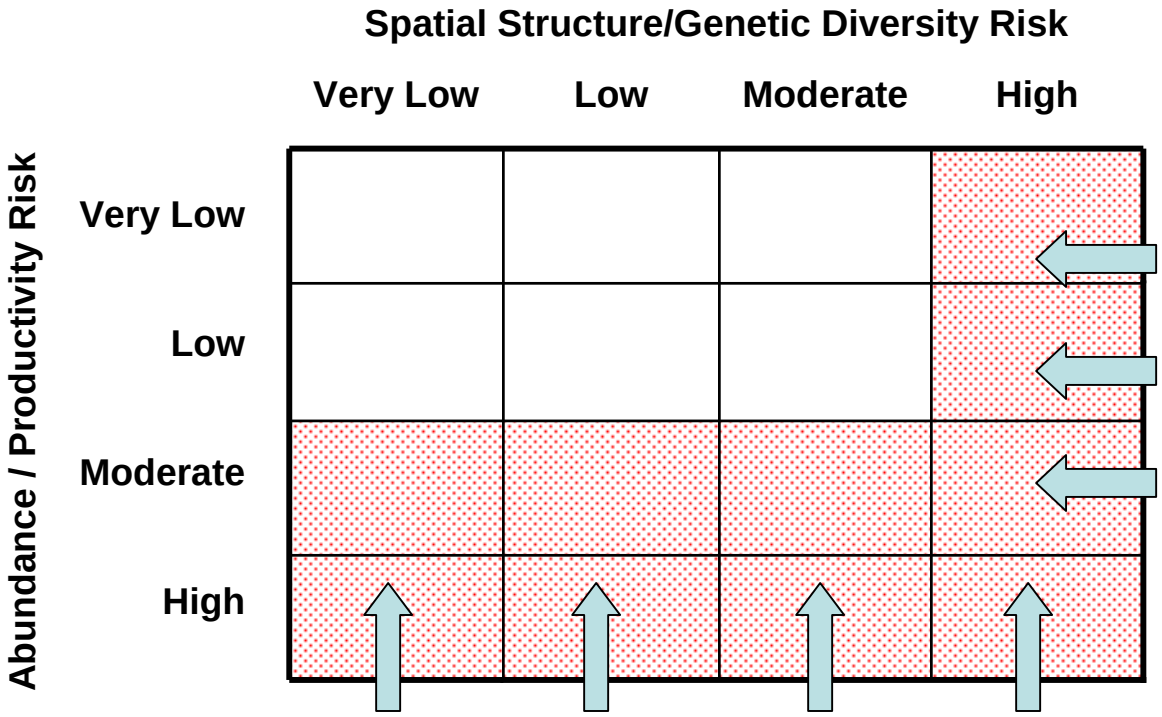
Address sources of wild steelhead mortalities

Stakeholders requested the Department expand mortality estimates to include all sources e.g. hook and line release, net-drop out, poaching, etc. Limited information currently exists to accurately quantify the various sources of mortality. However, the Department will prioritize research (see Research chapter, Strategy 1, page 23) to expand and increase precision for fishery related mortality associated with catch-and-release fisheries, through mark and recapture or tagging studies as well as expand enforcement efforts and outreach and education programs to address poaching issues (Research, Action 1, page 23).

VSP analysis for wild steelhead populations

VSP criteria will be used to assist in developing interim escapement objectives to rebuild wild steelhead populations. However, we should be clear that greater risk might be taken with some characteristics of VSP in order to secure significant benefits in another characteristic. For example, spatial structure and diversity can add plasticity to the overall stock, but if abundance and productivity are so low that genetic changes occur e.g. inbreeding depression than the stock improvement does not occur. Thus, in some situations, abundance and productivity may be prioritized in order to build stocks to a level that diversity and spatial structure can be optimized. Furthermore, it will be difficult for stocks to move diagonally up through the blocks (figure 1), and in practice stair stepping upwards will be the likely outcome.

Figure 1. Example of VSP and actions that can reduce risk to characteristics (NOAA Fisheries 2006).



- Hatchery programs preserve a population until the factors limiting recovery are addressed.
- Manage the proportion of hatchery origin fish spawning naturally (*p*HOS).
- Reduce the influence of *p*HOS that depresses natural origin productivity (straying from Segregated Hatchery Programs).
- Improve juvenile and adult fish passage or reestablish access to underutilized habitat.
- Restore or improve habitat quality
- Adjust harvest timing and/or broodstock collection timing to reflect historical run timing.
- Establish natural stock reserves.

- Hatchery programs preserve a population until the factors limiting recovery are addressed.
- Offspring from naturally spawning HOF jump-start naturally self-sustaining populations after the factors limiting recovery are addressed.
- Reduce the influence of *p*HOS that depresses natural origin productivity (straying from Segregated Hatchery Programs).
- Reduce the number of NOF killed or injured by hatchery water diversions.
- Freshwater nutrient levels increase due to fish carcasses (all anadromous species).
- Reduce hatchery origin predation on and competition with natural origin fish through release timing and release location measures.

For more information see Goals and Policies and Natural Production Chapter, and the definition of a healthy stock, page 5.

Monitoring, Adaptive Management and Regulatory Compliance
The Department recognizes the importance of establishing clear and measurable goals for the steelhead stocks, and key to long-term success will be the development of intermediate goals since many years are required to rebuild the stocks to more productive and abundance levels. This in turn requires monitoring so that we know how quickly, directly, and efficiently we are moving towards achieving our goals.

The DRAFT Statewide Steelhead Management Plan establishes a framework to develop monitoring and evaluation plans that will support adaptive management (see Monitoring, Evaluation, and Adaptive Management chapter, Policy Statement, page 19). The strategy establishes a feedback loop to implement and evaluate appropriate actions to support progress towards achieving the identified goals (see Strategy 2, page 19). Status of all steelhead populations will be reassessed on 4 to 8 year cycles; with annual review of at risk populations to ensure opportunities for early action are not missed (Actions 10 & 11, Stock Status, page 20). Annual reports for natural production will be developed and include spawner distribution, habitat utilization through mapping, and subsequent natural smolt production and migration (Habitat Monitoring, Action 16, page 21). Annual recreational and tribal harvest reports will be available (Fishery Management, Actions 12 & 13, page 21). A number of artificial production programs will have commensurate hatchery monitoring and evaluation plans, inclusive of broodstock management to determine if strategies are achieving the identified program goals as well as summarize every five years the hatchery replacement rate to support adaptive management (Artificial Production, Action, 21 and 22, page 21). Every five years a regional report that compiles and summarizes the above pieces will be written and provided to the Director and FWC articulating the results and progress towards wild production goals (Verification and Accountability, Action 24, page 21).

Increased monitoring and reporting of fisheries readily expands to regulatory compliance. Increased emphasis on regulatory compliance will also extend to a greater level of enforcement affecting habitat (Verification and Accountability, Action 25, page 22) (see Regulatory Compliance chapter, Strategies 1-5, Actions 1-9, pages 17-18).

Steelhead as part of Salmonid Stock Inventory (SaSI) information
It was clear based upon the common response from stakeholders that the Department needed to update the SaSI database to reflect current data on steelhead stocks, and prioritize data needs to address the “unknown” stocks, as well as clarify the definition of “healthy” to be linked with the definition provided in the DRAFT Steelhead Statewide Management Plan. The Department has made a commitment to update SaSI stock information (see Monitoring, Evaluation, and Adaptive Management chapter, Action 10, page 20), and developed a budget package for the 2007-09 biennial period to increase stock assessment in Puget Sound to resolve some of the ‘unknown’ stock statuses. The biennial package was not funded, however, the Department remains committed to seeking the state funds necessary to determine stock status of Puget Sound ‘unknowns’. In addition, the SaSI definition of a “healthy” will be updated to more accurately

reflect the definition of healthy included with the DRAFT Steelhead Statewide Plan as well as numerous regional recovery plans.

Stakeholder involvement has been key to the development of the current DRAFT Statewide Steelhead Management Plan. The Department is aware this process has been laborious, time consuming and sometimes even frustrating. However, we also believe the final product will more accurately reflect stakeholder values and management principles from a scientific foundation than most other documents the Department has written to date. The Department has greatly valued your time, feedback, and assistance in developing a plan that will be successful in all aspects of protecting and restoring steelhead populations statewide. Thank you for your continued participation and support. You have been a vital part of the development of the statewide steelhead management plan process.

Sincerely,

Heather Bartlett
Salmon and Steelhead Division Manager

Cc:Phil Anderson
Lew Atkins
Craig Burley
John Easterbrooks
Pat Frazier
Bob Gibbons
Bill Gill
Sara LaBorde
Bob Leland
John Long
Joe Miller
Jim Scott
Jo Wadsworth
Ron Warren

Appendix C. Summary of Initial Environmental Impact Potential Review for the *SSMP* Non-project Action

Statewide Steelhead Management Plan - EIS Potential Impacts from WAC 197-11-960 Environmental Checklist, Section B: Environmental Elements

The *SSMP* is a **non-project action** intended to provide statewide guidelines for improving the management and status of steelhead in Washington. It seeks to conserve the wild steelhead resource and provide utilization opportunity to the citizens of the state (the terms dual, primary and secondary are removed in the Preliminary FEIS). Considering the current and anticipated factors affecting the steelhead resource, a key element of the plan is the shift in emphasis to VSP-based management, with a focus on the watershed ecosystem, from the current co-management based largely on abundance considerations and harvest agreements.

The establishment of new statewide guidelines to address wild steelhead populations and steelhead recreational opportunity would not be expected to have direct adverse environmental impacts in itself. However, as the detailed analysis at the watershed level begins to emerge, it is likely that specific **project actions** will be recommended to achieve some guideline strategies. This initial impact analysis was conducted to set the framework for the more detailed evaluation of potential environmental impacts associated with the subsequent watershed plans and proposed actions.

Environmental impact potential review summarized by element: The elements in UPPER CASE (#5 and #12) are addressed in this Preliminary FEIS because 1) the *SSMP* focus is on strategies affecting wild steelhead and recreation by intent, and 2) strategy implementation at the watershed level could result in action details that may require further assessment of potential impacts in these two element areas. Items in **bold** indicate other possible elements to be considered during watershed plan development.

1. Earth
    a. No clearing, grading or filling
    b. No additional impervious surface due to construction activity
    c. **Potential reduction of access and fishing related impacts in some areas**

2. Air
    a. **Quantities of emissions from fishing related boating activity will likely decrease to a small degree.**

3. Water
    a. No dredge or fill operations in surface waters
    b. In-channel monitoring and evaluation activities are conducted **during normal stream flow and under established protocols**
    c. No groundwater withdrawal or discharges into ground
    d. No activities to affect surface runoff flow or quality

4. Plants
    a. No removal or alteration of existing vegetation
    b. No additions to existing vegetation

5. ANIMALS
    a. Some steelhead stocks are listed under ESA as being Threatened or Endangered
    b. For all species, the plan will be in compliance with the ESA process to allow fisheries and incidental take. The process includes utilization of 4 (d) rules, or the Fisheries Management and Evaluation Plan (FMEP) process, and Section 7/10 Consultation/Permits.
    c. **The** (the terms dual, primary and secondary are removed in the Preliminary FEIS) **purpose of the plan is the preservation and enhancement of steelhead stocks and their ecosystems**

6. Energy and natural resources
    a. No energy use requirements
    b. Will not affect alternative energy projects or potential use

7. Environmental health
    a. **Reduced fishing activity in some areas would reduce risk of any associated environmental health hazards**
    b. No new special emergency services required
    c. **Reduced fishing or boating activity in some areas would decrease the overall noise level.**

8. Land use and shoreline use
    a. No structures demolished
    b. No introduction or displacement of people
    c. The WSP (WDFW 1997, EIS prepared) is compatible with existing and projected land use and plans statewide. The *SSMP* is a further, and probably more restrictive, enhancement of the WSP guidelines

9. Housing
    a. No housing introductions or eliminations

10. Aesthetics
    a. No aesthetics impact (degraded or blockage of views)

11. Light and Glare
    a. No light or glare impacts

12. RECREATION
    a. Stream closures or fishing restrictions **could displace some recreational fishing opportunity**
    b. **Recreational fishing would be allowed when/where appropriate, as outlined in the plan**

13. Historic and cultural preservation
    a. No environmental impacts

14. Transportation
    a. Proposal will not affect existing State of Washington transportation infrastructure
    b. Vehicular trip reduction possible to a minor degree

15. Public services
    a. No environmental impacts

16. Utilities
    a. No environmental impacts

Appendix D Public Comments

The 30 day public comment period for the SSMP DEIS began on August 1st. At the public's request, the comment period was extended to September 11th on August 16th.

Meeting notes were taken at 6 public meetings. These notes were received as part of the general conversation during the meetings. Attendees were reminded they needed to provide written comments for the public record.

The following are the written comments received about the DEIS.

Approximately 35 changes were incorporated into the DEIS and SSMP as a result of comments received from seventy-seven people and organizations.

The FEIS finds that there would be no likely adverse environmental impact if the preferred alternatives of the DEIS are implemented.

Table of Contents for Appendix D

Please Note from this example:

Number of comment on your letter → 5 10.01 ← The response to your comment can be found at this number in the response section starting on Appendix D. page 176.

All people who indicated support for the Wild Steelhead Coalition's position are referred to the Wild Steelhead Coalition Letter filed as Simms(WSC).

Significant Differences between the DEIS, FEIS and Changes to the SSMP

1. References to dual, primary and secondary goals are removed from the documents to avoid confusion. Statute does not set a goal hierarchy. Goals of the plan are also separated from plan objectives to clarify the intent of Section 1.2.3.
2. Wild stock gene banks are moved from Artificial Production to Natural Production to emphasize their importance in preserving wild stocks. The preferred alternative in Section 3.1.1, Natural Production is changed to "Manage for viable salmonid population (VSP) parameters. Establish a network of wild stock gene banks."
3. The Artificial Production Section in the SSMP is rewritten to prioritize strategies and clarify actions that support segregated hatchery programs. The FEIS is modified to accommodate the changes.
4. The use of the term VSP parameters is clarified to emphasize that the parameters apply to abundance as well as productivity, diversity and spatial structure.
5. Explanations are added to clarify that the Department, using the strategies and actions in the SSMP, will work with watershed, regional and co-manager groups within the legislative intent of RCW 77.85, The Salmon Recovery Act of 1998, to develop and implement RMPs.
6. Demographic and run status information is added for the Puget Sound, Olympic and Southwest Washington DPSs.
7. Additional Information is added to Section 3.1.2, Habitat Protection and Restoration, and 3.2.1, Regulatory Compliance, to emphasize the Department's role in habitat protection on department property and throughout the state.
8. The preferred alternative for Monitoring, Evaluation and Adaptive Management is change to "Develop and implement monitoring plans for as many stocks as resources permit with emphasis on indicator stocks."
9. Additional acronyms are listed in the List of Acronyms and Abbreviations to assist readers.
10. The definition of PNI has been simplified.

Alphabetical list of People Who Provided Written Comments

Last Name	First Name	Organization
Allen	Randy	South Sound Fly Fishers
Alzuro	Carol	American Rivers
Axel	Brad	American Rivers
Bakke	Bill	Native Fish Society
Becker	Dave	Friends of the Cowlitz
Bee	Gary	Trout Unlimited
Benjamin	Dale	American Rivers
Bergquist	Gary	Wild Steelhead Coalition
Best	Lynn	City of Seattle
Breckel	Jeff	Lower Columbia FRB
Brown	Alexa	American Rivers
Burgess	Paula	The Wild Salmon Center
Campbell	Sarah	American Rivers
Collins	Charles	Private Citizen
Conley	Alex	Yakima Basin Fish and Wildlife Board
Corrado	Greg	Wild Steelhead Coalition
Dahlgren	Shelley	American Rivers
Di Vittorio	John	Fish First
Doyle	Gary	Wild Steelhead Coalition
Dresser	Tom	Grant County PUD
Everett	Mrs. George	American Rivers
Farrar	John	Private Citizen
Farrow	Earl	Wild Steelhead Coalition
Garrity	Michael	American Rivers
Goin	Dick	Private Citizen
Grieve	James	Wild Steelhead Coalition
Hawkins	Johnnie & Cindy	American Rivers
Holliday	Shannon	Wild Steelhead Coalition
Hunt	Richard	Wild Steelhead Coalition
Hunter	Ryan	Gifford Pinchot Task Force
Karsten	Cameron	American Rivers
Kavanaugh	Rob	Private Citizen
Kraemer	Curt	Private Citizen
Kruse	John	Private Citizen
LaRiviere	Mark	Tacoma Power
Levreault	Michael	American Rivers
Masonis	Robert	American Rivers
Matera	Stephen	American Rivers
MacArthur	June	American Rivers

McRoberts	James	Private Citizen
Milliken	Gerry	American Rivers
Mitchell	Marianne	Wild Steelhead Coalition
Moore	Erin	American Rivers
O'Halloran	James	American Rivers
O'Hartigan	Philip	American Rivers
Parker	Michael	Private Citizen
Pascoe	Russ	American Rivers
Post	Rebecca	American Rivers
Redman	Bill	Federation of Fly Fishers
Rich	Tim	American Rivers
Robinson	Bill	Private Citizen
Royer	Alice	American Rivers
Schaad	Douglas	Washington Fly Fishing Club
Schlie	Gerald	Private Citizen
Schmitz	James	American Rivers
Shea	Brian	Grays Harbor County
Sherwood	Kurt	Wild Steelhead Coalition
Simms	Richard	Wild Steelhead Coalition Personal Comment
Simms	Richard	Wild Steelhead Coalition Comment
Simonson	Russ	Steelhead Trout Club of Washington
Smith	Diana	American Rivers
Smith	Richard	American Rivers
Speer	Peter	Wild Steelhead Coalition
St John	David	King County
Taylor	Mark	Nooksack Salmon Enhancement Coalition
Teixeira	Fred	American Rivers
Thompson	Herbert	Private Citizen
Thompson	Richard	American Rivers
Urabeck	Frank	Private Citizen
Wallis	Tim	Wild Steelhead Coalition
Watts	Carol	American Rivers
Weeks	Ken & Jocelyn	American Rivers
White	Ray	Private Citizen
Wild Steelhead Coalition via Nate Mantua & Richard Simms		
Yen	Alan	Wild Steelhead Coalition
Yates	Jeremy	American Rivers

Comments Directory

#	LAST	FIRST	ORGANIZATION	CATEGORY	COMMENT	RESPONSE	ANSWER
1	Allen	Randy	South Sound Fly Fishers	GENERAL	PREFERRED ALT SUPPORT	0 NOTED	THANKS
2	Allen	Randy	South Sound Fly Fishers	GENERAL	FUNDING & IMPLEMENTATION	07.3	SSMP pg 09, 8.
3	Allen	Randy	South Sound Fly Fishers	GENERAL	TRIBE - NEED TRIBAL BUY IN	07.4	SSMP pg 01
	Alzuro	Carol	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Axel	Brad	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Bakke	Bill	Native Fish Society	GENERAL	COORDINATION - SSMP POSSIBLE ONLY IF GOV CREATES ONE	0 NOTED	THANKS
2	Bakke	Bill	Native Fish Society	GENERAL	DEIS ASSUMES ALT 2	08.4	SCOTT
3	Bakke	Bill	Native Fish Society	SECTION 3.1.1	VSP - ASSUMES MORE VSP KNOWLEDGE THAN EXISTS	08.3	SSMP pg 37 et al
4	Bakke	Bill	Native Fish Society	SECTION 3.1.1	VSP - CARRYING CAPACITY ALTS 1 &2 SAME	10.0	DEIS 3.1.1 & definitions
5	Bakke	Bill	Native Fish Society	SECTION 3.1.3	ALT 2 DOES NOT MEET OBJECTIVE - SCOTT/HEATHER	10.13	SEPA HANDBOOK
6	Bakke	Bill	Native Fish Society	GENERAL	FUNDING OF ADAPTIVE MANAGEMENT	07.3	SSMP pg 09, 8.
7	Bakke	Bill	Native Fish Society	SECTION 3.2.2	ME&AM - INDICATOR STOCKS - DOESN'T LIKE	10.05	SSMP pg 24
7	Bakke	Bill	Native Fish Society	GENERAL	NO ASSURANCE CONSERVATION/RECOVERY WILL BE ACHIEVED/STATUS QUO	01.3	SEPA HANDBOOK
1	Becker	Dave	Friends of the Cowlitz	SECTION 1.2.3	ADD HABITAT ENFORCEMENT TO 1.2.3	07.5	DEIS 1.2.3 & SSMP 8-11.
2	Becker	Dave	Friends of the Cowlitz	SECTION 3.1.4	HATCHERY PRODUCTION - ONLY MODIFY WHEN PROVEN PROBLEM	10.03	DEIS 3.2.2 SSMP pg 24-26
3	Becker	Dave	Friends of the Cowlitz	GENERAL	COORDINATION 3- SSMP LACKS STRATEGY FOR REBUILD	07.2	DEIS pg 16
4	Becker	Dave	Friends of the Cowlitz	SECTION 3.1.3	HARVEST - OPPOSE LOSS OF HARVEST OPPORTUNITY	10.01	DEIS 3.1.3, SSMP pg 13 &14
5	Becker	Dave	Friends of the Cowlitz	SECTION 3.1.2	DETERMINE WHEN STREAM CAN'T SUSTAIN WILD FISH	10.12	SSMP pg 10
6	Becker	Dave	Friends of the Cowlitz	GENERAL	COORDINATION 1- WORRIES ABOUT SCOPE OF PLAN - DOESN'T UNDERSTAND	07.0	SSMP pg 16, 6, also DEIS pg 16, 2.1
1	Bee	Gary	Trout Unlimited	DRAFT RESP	WILD STEELHEAD - SUPPORTS STATEWIDE RELEASE	0 NOTED	THANKS
2	Bee	Gary	Trout Unlimited	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
3	Bee	Gary	Trout Unlimited	SECTION 3.2.2	ME&AM - MONITOR INTEGRATED/SEGREGATED PROGRAMS VIS HSRG RECS	10.03	DEIS 3.2.2 SSMP pg 24-26
	Benjamin	Dale	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Bergquist	Gary	Wild Steelhead Coalition	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
2	Bergquist	Gary	Wild Steelhead Coalition	SECTION 3.2.1	FERC, READS STATEMENT TO MEAN DFW NOT MONITORING FERC LICENSES	11.36	FEIS pg 55
3	Bergquist	Gary	Wild Steelhead Coalition	HABITAT	EXPRESSES UNHAPPINESS WITH DFW	0 NOTED	NOTED
1	Best	Lynn	City of Seattle	HABITAT	SUPPORTS PREFERRED ALTERNATIVE W/MONITORING AND AM	0 NOTED	THANKS
2	Best	Lynn	City of Seattle	HABITAT	ECOSYSTEM APPROACH, STRONGLY SUPPORTS	0 NOTED	THANKS
3	Best	Lynn	City of Seattle	SECTION 3.1.3	HARVEST - SUPPORTS REDUCTION ON WILDS UNTIL RESTORED	10.01	DEIS 3.1.3, SSMP pg 13 &14
4	Best	Lynn	City of Seattle	SECTION 3.1.4	GENE BANKS - SUPPORTS	0 NOTED	SSMP pg 18, STRAT 1
5	Best	Lynn	City of Seattle	SECTION 3.1.2	CLIMATE CHANGE - CONSIDER INCREASED HYDROLOGIC ACTIVITY	09.0	SSMP pg 09, 10.
6	Best	Lynn	City of Seattle	SECTION 3.1.2	LOOK FORWARD TO WORKING TOGETHER	0 NOTED	THANKS
1	Breckel	Jeff	Lower Columbia FRB	GENERAL	COORDINATION 1- REGIONAL RECOVERY PLAN TO INCORP 77.85.005	07.0	SSMP pg 16, 6, also DEIS pg 16, 2.1
2	Breckel	Jeff	Lower Columbia FRB	SECTION 1.1.2	REGIONAL RECOVERY PLAN TO INCORP 77.85.005	07.0	SSMP pg 16, 6, also DEIS pg 16, 2.1
3	Breckel	Jeff	Lower Columbia FRB	SECTION 1.1.3	PHASED REVIEW - FEIS SHOULD CONTAIN MORE DETAIL ON RMPS	02.1	DEIS 1.1.3 & 1.6
4	Breckel	Jeff	Lower Columbia FRB	SSMP FIXES	COMMENTS FROM JANUARY NOT INCLUDED	04.0	APPENDIX B
5	Breckel	Jeff	Lower Columbia FRB	SECTION 1.2	DETAILED DISCUSSION OF HOW SSMP RELATES TO EXISTING PLANS	07.0	SSMP pg 16, 6, also DEIS pg 16, 2.1
6	Breckel	Jeff	Lower Columbia FRB	SECTION 1.4	UNCLEAR HOW MANAGEMENT STRATEGIES FIT IN WITH LOWER COLUMBIA	07.0	SSMP pg 16, 6, also DEIS pg 16, 2.1
7	Breckel	Jeff	Lower Columbia FRB	SECTION 2.1	REGIONAL RECOVERY PLAN TO INCORP 77.85.005	07.0	SSMP pg 16, 6, also DEIS pg 16, 2.1
8	Breckel	Jeff	Lower Columbia FRB	SECTION 3.2.2	ME&AM - FEIS SHOULD INCLUDE ASSESSMENT OF CURRENT ME&AM	07.8	SEE 1.3
9	Breckel	Jeff	Lower Columbia FRB	GENERAL	SUMMARY OF COMMENTS	0 NOTED	THANKS
	Brown	Alexa	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Burgess	Paula	The Wild Salmon Center	GENERAL	SUMMARIZES IMPROVEMENTS TO SSMP	0 NOTED	THANKS
2	Burgess	Paula	The Wild Salmon Center	GENERAL	NO RECOVERY BENCHMARKS, TIMELINES	07.2	SSMP pg 16, 6, also DEIS pg 16, 2.1
3	Burgess	Paula	The Wild Salmon Center	SECTION 3.1.1	HISTORIC ABUNDANCE - TAKE INTO ACCOUNT & SUPPORTS ALT 1	08.1	SSMP pg 06 & 76

Comments are listed in alphabetic order of those who signed the comment letter.

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#	LAST	FIRST	ORGANIZATION	CATEGORY	COMMENT	RESPONSE	ANSWER
4	Burgess	Paula	The Wild Salmon Center	SECTION 3.1.4	GENE BANKS - IN ART PROD FOR EMERGENCIES ONLY	10.14	SSMP pg 6, STRAT 3
5	Burgess	Paula	The Wild Salmon Center	SECTION 3.1.1	INTEGRATED HATCHERY STRATEGY, DISLIKES	08.2	SSMP pg 19, 5 & DEIS 3.1.4 alt 2
6	Burgess	Paula	The Wild Salmon Center	SECTION 3.1.2	HPA TO HALT HABITAT LOSS/ FERC / DFW USE CONSULTIVE ROLE	06.2, 11.36	DEIS pg 09 & 42
7	Burgess	Paula	The Wild Salmon Center	SECTION 3.1.3	HARVEST - NO WILDS UNTIL VSP ACHIEVED	10.01	DEIS 3.1.3, SSMP pg 13 &14
8	Burgess	Paula	The Wild Salmon Center	SECTION 3.1.3	HARVEST - ESCAPEMENT GOALS SHOULD BE SET HIGHER/MSH UNRELIABLE	10.02	DEIS APP B, PG 76
9	Burgess	Paula	The Wild Salmon Center	SECTION 3.1.3	SELECTIVE FISHERY - USE NON LETHAL COMMERCIAL AND TRIBAL HARVEST	10.06	SSMP pg 13, ACTS 1 &2
10	Burgess	Paula	The Wild Salmon Center	SSMP FIXES	TABLE 1 &2 HATCHERY BROODSTOCK COUNTS ARE AS IMPORTANT AS WILD ESCAPEMENT	10.17	SSMP pg 15
11	Burgess	Paula	The Wild Salmon Center	SECTION 3.1.3	HARVEST - ELIMINATE FOREGONE OPPORTUNITY	10.01	DEIS 3.1.3, SSMP pg 13 &14
12	Burgess	Paula	The Wild Salmon Center	SSMP FIXES	PNI DISCUSSIONS - NEED SCOTT	10.21	SCOTT
13	Burgess	Paula	The Wild Salmon Center	SECTION 3.1.4	RISK ASSESSMENT FOR HATCHERIES	10.03	DEIS 3.2.2 SSMP pg 24-26
14	Burgess	Paula	The Wild Salmon Center	SECTION 3.1.4	CONTINGENCY PLANS FOR HATCHERY FAILURE	10.03	SSMP pg 20, 5
15	Burgess	Paula	The Wild Salmon Center	SECTION 3.2.2	ME&AM - MONITOR HATCHERY EFFECTS ON WILD STOCKS	10.03	DEIS 3.2.2 SSMP pg 24-26
16	Burgess	Paula	The Wild Salmon Center	SSMP FIXES	MARK SELECTIVE FISHERY DEFINITION IS BACKWARDS, PG 34	12.18	THANKS
17	Burgess	Paula	The Wild Salmon Center	SSMP FIXES	DEFINITIONS - DISAGREES WITH WILD AND NATURAL FISH DEFINITIONS	07.7	SSMP pg 35
18	Burgess	Paula	The Wild Salmon Center	SSMP FIXES	INSTITUTIONAL AND BUDGETARY FOCUS MAY DERAIL PLAN	0 NOTED	THANKS
19	Burgess	Paula	The Wild Salmon Center	GENERAL	PLAN WILL REQUIRE STRONG LEADERSHIP	07.3	SSMP pg 09, 8.
	Campbell	Sarah	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Collins	Charles	Private Citizen	SECTION 3.1.3	HARVEST - FORBID C&R USING BAIT	10.01	DEIS 3.1.3, SSMP pg 13 &14
2	Collins	Charles	Private Citizen	SECTION 3.2.4	O&E - C&R IN REGS	10.08	PASSED ON
1	Conley	Alex	Yakima Basin Fish and Wildlife Bd	GENERAL	COORDINATION 2 - EMPHASIZE ALT 1 IS ALREADY IN PLACE IN EAST WA	07.1	SSMP pg 16, 6, also DEIS pg 16, 2.1
2	Conley	Alex	Yakima Basin Fish and Wildlife Bd	GENERAL	COORDINATION 4- MONITORING FOR ESA MAY BE MORE INTENSIVE THAT PREFERRED ALT	07.1	SSMP pg 16, 6, also DEIS pg 16, 2.1
3	Conley	Alex	Yakima Basin Fish and Wildlife Bd	SSMP FIXES	VSP - CAUTIONS USE OF VSP TERMINOLOGY - NEED HEATHER	0 NOTED	THANKS
4	Conley	Alex	Yakima Basin Fish and Wildlife Bd	SSMP FIXES	Pg 6 ACTION 4 "HIGHER THAN WHAT PRESETTLEMENT ABUNDANCE NUMBERS?	10.22	SSMP pg 06
5	Conley	Alex	Yakima Basin Fish and Wildlife Bd	GENERAL	COORDINATION 4- MONITORING FOR ESA MAY BE MORE INTENSIVE THAT PREFERRED ALT	07.1	SSMP pg 16, 6, also DEIS pg 16, 2.1
6	Conley	Alex	Yakima Basin Fish and Wildlife Bd	SSMP FIXES	10% INCIDENTAL MORTALITY NEED TO EXPLAIN BETTER	12.06	ESA PERMITS
7	Conley	Alex	Yakima Basin Fish and Wildlife Bd	GENERAL	COORDINATION 5 - COMBINE 5 YR STATUS REPORTS WITH NOAA STATUS REVIEWS	12.21	SSMP pg 27
8	Conley	Alex	Yakima Basin Fish and Wildlife Bd	GENERAL	COORDINATION 1 - LEAD ENTITIES AND RECOVERY GROUPS SHOULD BE ADDED	07.0	SSMP pg 16, 6, also DEIS pg 16, 2.1
9	Conley	Alex	Yakima Basin Fish and Wildlife Bd	SSMP FIXES	SSMP PG 30 WHAT DOES "BRIDGE PEOPLE WITH FISH MEAN?"	10.19	SSMP pg 30
10	Conley	Alex	Yakima Basin Fish and Wildlife Bd	SSMP FIXES	BASIC EDITING THROUGHOUT DOCUMENT	12.19	THANKS
1	Corrado	Greg	Wild Steelhead Coalition	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
2	Corrado	Greg	Wild Steelhead Coalition	SECTION 3.1.3	HARVEST - SUPPORTS NO WILDS UNTIL RESTORED	10.01	DEIS 3.1.3, SSMP pg 13 &14
	Dahlgren	Shelley	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	DiVitterio	John	Fish First	SECTION 3.1.3	INCIDENTAL TAKE - COMMERCIALS	10.20	SSMP pg 13, ACTS 1 &2
	Doyle	Lawrence	Wild Steelhead Coalition	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Dresser	Tom	Grant County PUD	GENERAL	SUPPORTS PLAN	0 NOTED	THANKS
	Everett	Mrs. George	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Farrar	John	Private Citizen	SECTION 3.1.4	GENE BANKS - 1 MAJOR RIVER PER DPS WILD	10.14	SSMP pg 6, STRAT 3
2	Farrar	John	Private Citizen	SECTION 3.1.4	HATCHERY - ABANDON ARTIFICIAL PRODUCTION	10.03	DEIS 3.2.2 SSMP pg 24-26
	Farrow	Earl	Wild Steelhead Coalition	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Garrity	Michael	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Goin	Dick	Private Citizen	SECTION 3.1.1	SUPPORTS NAT PROD	0 NOTED	THANKS
2	Goin	Dick	Private Citizen	SECTION 3.2.2	ME&AM - HARDER THAN IT LOOKS	0 NOTED	THANKS
3	Goin	Dick	Private Citizen	SECTION 3.1.3	FISHING INDUSTRY, OBJECTS TO	0 NOTED	THANKS
4	Goin	Dick	Private Citizen	GENERAL	PLAN LACKS DETAILS	01.3	SEPA HANDBOOK
	Grieve	James	Wild Steelhead Coalition	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC

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#	LAST	FIRST	ORGANIZATION	CATEGORY	COMMENT	RESPONSE	ANSWER
	Hawkins	Johnnie & Cindy	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Holliday	Shannon	Wild Steelhead Coalition	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Hunt	Richard	Wild Steelhead Coalition	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Hunter	Ryan	Gifford Pinchot Task Force	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Karsten	Cameron	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Kavanaugh	Rob	Private Citizen	SECTION 3.1.2	HABITAT - STOCK WATERING	10.16	RCW90
2	Kavanaugh	Rob	Private Citizen	SECTION 3.1.2	HABITAT - GRAZING	09.1	SSMP pg 10, 5 & 21st Century
1	Kraemer	Curt	Private Citizen	SECTION 3.1.3	MANAGE SURVIVAL CONDITIONS IN CONTEXT WITH CURRENT CONDITIONS	10.02	DEIS APP B, PG 76
2	Kraemer	Curt	Private Citizen	SECTION 3.1.1	VSP - NO ESTABLISHED WAY TO DETERMINE VSP NUMBERS	08.3	SSMP pg 37 et al
3	Kraemer	Curt	Private Citizen	SECTION 3.1.3	MANAGE FOR MSH AT 70S LEVEL W/VSP FOR LISTED STOCKS	10.02	DEIS APP B, PG 76
4	Kraemer	Curt	Private Citizen	SECTION 3.1.3	MANAGE SUPPORTS MSH ESCAPEMENT THAT EXCEEDS VSP	10.02	DEIS APP B, PG 76
5	Kraemer	Curt	Private Citizen	SECTION 3.1.3	MANAGE FOR MSY UNDER NOAA PFC	10.02	DEIS APP B, PG 76
6	Kraemer	Curt	Private Citizen	SSMP FIXES	PNI DISCUSSION S	10.21	SCOTT
7	Kraemer	Curt	Private Citizen	SECTION 3.1.1	INTEGRATED HATCHERY PROGRAMS & GENETICS	08.2	SSMP pg 19, 5 & DEIS 3.1.4 alt 2
8	Kraemer	Curt	Private Citizen	GENERAL	TRIBES - DEIS/SSMP DOES NOT PAY ATTENTION TO	07.4	SSMP pg 01
1	Kruse	John	Private Citizen	GENERAL	DEIS IS HARD TO UNDERSTAND	0 NOTED	THANKS
2	Kruse	John	Private Citizen	SECTION 3.1.1	PREDATION NOT ADDRESSED	08.0	SSMP pg 06 & 7.
3	Kruse	John	Private Citizen	GENERAL	COORDINATION 1- FIT INTO EXISTING PLANS	07.0	SSMP pg 16, 6, also DEIS pg 16, 2.1
1	LaRiviere	Mark	Tacoma Power	SECTION 3.1.4	TACOMA POWER SUPPORTS THE PREFERRED ALT	0 NOTED	THANKS
2	LaRiviere	Mark	Tacoma Power	SECTION 3.1.4	GENE BANKS - ABOVE COWLITZ FALLS DAM	10.14	SSMP pg 6, STRAT 3
3	LaRiviere	Mark	Tacoma Power	GENERAL	VSP - SUPPORTS VSP	0 NOTED	THANKS
4	LaRiviere	Mark	Tacoma Power	SECTION 3.1.3	INCIDENTAL TAKE - COMMERCIALS	10.20	SSMP pg 13, ACTS 1 &2
5	LaRiviere	Mark	Tacoma Power	GENERAL	COORDINATION 1- FIT INTO EXISTING PLANS	07.0	SSMP pg 16, 6, also DEIS pg 16, 2.1
	Levreault	Michael	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	MacArthur	June	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Masonis	Robert	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Matera	Stephen	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	McRoberts	James	Private Citizen	SECTION 3.1.1	EMPHASIZE ALT 1 IS ALREADY IN PLACE IN EAST WA	07.1	SSMP pg 16, 6, also DEIS pg 16, 2.1
2	McRoberts	James	Private Citizen	GENERAL	LEADERSHIP AND FUNDING CONCERNS	07.3	SSMP pg 09, 8.
	Milliken	Gerry	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Mitchell	Marianne	Wild Steelhead Coalition	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
2	Mitchell	Marianne	Wild Steelhead Coalition	SECTION 3.1.4	HATCHERY - CONCERNED DEPARTMENT IS NOT IMPLEMENTING HSRG	10.03	DEIS 3.2.2 SSMP pg 24-26
3	Mitchell	Marianne	Wild Steelhead Coalition	DRAFT RESP	COST BENEFIT CONCERNS	03.2	SEE RESPONSE 03.2
	Moore	Erin	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	O'Halloran	James	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	O'Hartigan	Philip	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Parker	Michael	Private Citizen	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Pascoe	Russ	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Post	Rebecca	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Redman	Bill	Federation of Fly Fishers	SECTION 3.1.1	EXPERIMENT BETWEEN ALT 1 & 2	07.1	SSMP pg 16, 6, also DEIS pg 16, 2.1
2	Redman	Bill	Federation of Fly Fishers	GENERAL	COORDINATION - NOT ALL WATERSHEDS SHOULD HAVE SAME ALT	07.1	SSMP pg 16, 6, also DEIS pg 16, 2.1
3	Redman	Bill	Federation of Fly Fishers	SECTION 3.1.4	GENE BANKS - IN ART PROD FOR EMERGENCIES ONLY	10.14	SSMP pg 6, STRAT 3
4	Redman	Bill	Federation of Fly Fishers	HABITAT	HPA - HPA, MAX CONSULT, FERC, MITIGATE COLUMBIA	06.2, 11.36	DEIS pg 09 & 42
5	Redman	Bill	Federation of Fly Fishers	GENERAL	HATCHERY - MITIGATION FOR HABITAT LOSS ON COL/SNAKE IS HATCHERY	0 NOTED	THANKS
6	Redman	Bill	Federation of Fly Fishers	SECTION 3.1.3	HARVEST - NO WILDS UNTIL VSP ACHIEVED	10.01	DEIS 3.1.3, SSMP pg 13 &14

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7	Redman	Bill	Federation of Fly Fishers	SECTION 3.1.3	HARVEST - ESCAPEMENT GOALS SHOULD BE SET HIGHER/MSH UNRELIABLE	10.02	DEIS APP B, PG 76
8	Redman	Bill	Federation of Fly Fishers	SECTION 3.1.3	SELECTIVE FISHERY - USE NON LETHAL COMMERCIAL AND TRIBAL HARVEST	10.06	SSMP pg 13, ACTS 1 &2
9	Redman	Bill	Federation of Fly Fishers	SSMP FIXES	TABLE 1 &2 HATCHERY BROODSTOCK COUNTS ARE AS IMPORTANT AS WILD ESCAPEMENT	10.17	SSMP pg 15
10	Redman	Bill	Federation of Fly Fishers	SECTION 3.1.3	HARVEST - ELIMINATE FOREGONE OPPORTUNITY	10.01	DEIS 3.1.3, SSMP pg 13 &14
11	Redman	Bill	Federation of Fly Fishers	SSMP FIXES	PNI DISCUSSIONS - NEED SCOTT	10.21	SCOTT
12	Redman	Bill	Federation of Fly Fishers	SECTION 3.1.4	RISK ASSESSMENT FOR HATCHERIES	10.03	DEIS 3.2.2 SSMP pg 24-26
13	Redman	Bill	Federation of Fly Fishers	SECTION 3.1.4	CONTINGENCY PLANS FOR HATCHERY FAILURE	10.03	SSMP pg 20, 5
14	Redman	Bill	Federation of Fly Fishers	SECTION 3.2.2	ME&AM - MONITOR HATCHERY EFFECTS ON WILD STOCKS	10.03	DEIS 3.2.2 SSMP pg 24-26
15	Redman	Bill	Federation of Fly Fishers	SSMP FIXES	MARK SELECTIVE FISHERY DEFINITION IS BACKWARDS, PG 34	12.18	THANKS
16	Redman	Bill	Federation of Fly Fishers	SSMP FIXES	DEFINITIONS - DISAGREES WITH WILD AND NATURAL FISH DEFINITIONS	07.7	SSMP pg 35
17	Redman	Bill	Federation of Fly Fishers	SSMP FIXES	INSTITUTIONAL AND BUDGETARY FOCUS MAY DERAIL PLAN	0 NOTED	THANKS
18	Redman	Bill	Federation of Fly Fishers	GENERAL	PLAN WILL REQUIRE STRONG LEADERSHIP	07.3	SSMP pg 09, 8.
	Rich	Tim	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Robinson	Bill	Citizen	SECTION 3.1.3	HARVEST - SUPPORTS WILD RELEASE	10.01	DEIS 3.1.3, SSMP pg 13 &14
2	Robinson	Bill	Citizen	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
3	Robinson	Bill	Citizen	SECTION 3.1.4	HATCHERY - NEED ADEQUATE MONITORING FOR INT/SEG HSRG RECS	10.03	DEIS 3.2.2 SSMP pg 24-26
4	Robinson	Bill	Citizen	SECTION 3.1.4	GENE BANKS - REDUCE PRODUCTION/ SET WILD SALMONID MGMT AREAS	10.14	SSMP pg 6, STRAT 3
5	Robinson	Bill	Citizen	SECTION 3.1.2	UNREALISTIC TO EXPECT MORE LEGISLATIVE AUTHORITY	07.3	SSMP pg 09, 8.
6	Robinson	Bill	Citizen	SECTION 3.2.1	UNREALISTIC TO EXPECT MORE STAFF	07.3	SSMP pg 09, 8.
7	Robinson	Bill	Citizen	GENERAL	FUNDING AND LEADERSHIP CONCERNS	07.3	SSMP pg 09, 8.
8	Robinson	Bill	Citizen	GENERAL	FISHING COMMUNITY IS NOT SUPPORTING RECOVERY EFFORTS	0 NOTED	THANKS
9	Robinson	Bill	Citizen	GENERAL	SUPPORTS ALT 2 EVEN THOUGH HE CONSIDERS IT WEAK	0 NOTED	THANKS
	Royer	Alice	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Schaad	Douglas	Washington Fly Fishing Club	GENERAL	SUPPORTS ALT 1 - ALT 2 DID NOT PROVIDE TIMELINE OR SUF PROTECTION	0 NOTED	THANKS
2	Schaad	Douglas	Washington Fly Fishing Club	SECTION 3.1.3	HARVEST - SUPPORTS NO WILDS UNTIL RESTORED IF ALT 2	10.01	DEIS 3.1.3, SSMP pg 13 &14
3	Schaad	Douglas	Washington Fly Fishing Club	SECTION 3.1.2	HABITAT - IF ALT 2 MORE REFUGIA ON EVERY BASIN	09.2	SSMP pg 08 & 22
4	Schaad	Douglas	Washington Fly Fishing Club	SECTION 3.2.1	IF ALT 2 INCREASE DILIGENCE ON HABITAT ENFORCEMENT	09.2	SSMP pg 08 & 22
5	Schaad	Douglas	Washington Fly Fishing Club	SECTION 3.2.2	ME&AM - IF ALT 2 INCREASE MONITORING ON ALL WILD STOCKS	10.05	SSMP pg 24
	Schlie	Gerald	Private Citizen	SECTION 3.1.3	HARVEST - SUPPORTS NO WILDS UNTIL RESTORED	10.01	DEIS 3.1.3, SSMP pg 13 &14
	Schmitz	James	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Shea	Brian	Grays Harbor County	GENERAL	NO PROBABLE SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACT	0 NOTED	THANKS
	Sherwood	Kurt	Wild Steelhead Coalition	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Simms	Richard	Personal Comment - WSC	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Simms(WSC)		Wild Steelhead Coalition Comment	GENERAL	PRIMARY VS SECONDARY GOALS	01.0 & 1.2	RCW77.04.012
1.1	Simms(WSC)		Wild Steelhead Coalition Comment	GENERAL	ALT 4 - NOT REASONABLE	01.1	SEPA HANDBOOK
1.2	Simms(WSC)		Wild Steelhead Coalition Comment	GENERAL	PRIMARY VS SECONDARY GOALS - PT2	01.0 & 1.2	RCW77.04.012
2	Simms(WSC)		Wild Steelhead Coalition Comment	SECTION 3.2.1	ESA & NOAA - FAILS TO ANALYZE PROPOSED ALT PER ESA	02.0	DEIS pg 06, 3.
2.1	Simms(WSC)		Wild Steelhead Coalition Comment	SECTION 1.1.3	PHASED REVIEW - WORRIED ABOUT EIS FOR RMPS	02.1	DEIS 1.1.3 & 1.6
3	Simms(WSC)		Wild Steelhead Coalition Comment	SECTION 1.1.2	PREFERRED ALT - SHOULD NOT BE NAMED	03.0 & 3.1	SEPA HANDBOOK
3.1	Simms(WSC)		Wild Steelhead Coalition Comment	SECTION 1.1.2	PREFERRED ALTS SHOULD BE NAMED IN RMPS	03.1	SEPA HANDBOOK
3.2	Simms(WSC)		Wild Steelhead Coalition Comment	SECTION 3.1.4	COST BENEFIT CONCERNS	03.2	SEE RESPONSE 1.3
4.1	Simms(WSC)		Wild Steelhead Coalition Comment	ATTACHED LTR	FEB 17, 2006 LETTER TO GILL RE O MYKISS	04.0	APPENDIX B
4.2	Simms(WSC)		Wild Steelhead Coalition Comment	ATTACHED LTR	JULY 18, 2004 LETTER TO SEPA ABOUT GRANDY CREEK	04.0	APPENDIX B
4.3	Simms(WSC)		Wild Steelhead Coalition Comment	SSMP FIXES	COMMENTS FROM JANUARY NOT INCLUDED	04.0	APPENDIX B
5	Simms(WSC)		Wild Steelhead Coalition Comment	SECTION 3.0	ASSERTIONS AND ASSUMPTIONS UNSUBSTANTIATED	05.0	WE AGREE

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5.1	Simms(WSC)		Wild Steelhead Coalition Comment	SECTION 3.0	ASSERTIONS AND ASSUMPTIONS UNSUBSTANTIATED	05.1	WE AGREE
5.2	Simms(WSC)		Wild Steelhead Coalition Comment	SECTION 3.0	ASSERTIONS AND ASSUMPTIONS UNSUBSTANTIATED	05.2	WE AGREE
5.3	Simms(WSC)		Wild Steelhead Coalition Comment	SECTION 3.0	ASSERTIONS AND ASSUMPTIONS UNSUBSTANTIATED	05.3	WE AGREE
5.4	Simms(WSC)		Wild Steelhead Coalition Comment	SECTION 3.0	ASSERTIONS AND ASSUMPTIONS UNSUBSTANTIATED	05.4	WE AGREE
6	Simms(WSC)		Wild Steelhead Coalition Comment	HABITAT	HPA- INSUFFICIENT INFO ON DFW HABITAT MGMT AUTHORITY	06.0	DEIS 3.1.2 & 3.2.1
6.1	Simms(WSC)		Wild Steelhead Coalition Comment	HABITAT	HABITAT PROTECTIONS, FAILS TO IDENTIFY SEVERAL	06.1	DEIS 3.2.1
6.2	Simms(WSC)		Wild Steelhead Coalition Comment	HABITAT	HABITAT - MUST IDENTIFY & ANALYZE ALL LAWS BEFORE DECISION	06.2	DEIS 3.2.1
6.3	Simms(WSC)		Wild Steelhead Coalition Comment	HABITAT	HPA- INSUFFICIENT INFO ON HPAS	06.3	DEIS pg 09 & 42
1	Simonson	Russ	Steelhead Trout Club of Washington	GENERAL	DO NOT SUPPORT ANY ALTS BUT FAVOR MOST PREF ALTS WITH RESERVATIONS	0 NOTED	THANKS
2	Simonson	Russ	Steelhead Trout Club of Washington	SECTION 3.1.3	TRIBES - FISHING PUBLIC BELIEVES TAKING MORE THAN THEIR SHARE	0 NOTED	THANKS
3	Simonson	Russ	Steelhead Trout Club of Washington	SECTION 3.1.3	HARVEST - DOES NOT SUPPORT C&R	10.01	DEIS 3.1.3, SSMP pg 13 &14
4	Simonson	Russ	Steelhead Trout Club of Washington	SECTION 3.1.4	HATCHERY - DEPARTMENT SPENDS TOO MUCH ON A FISH THAT WILL RECOLONIZE BY ITSELF	10.04	RCW77.85
5	Simonson	Russ	Steelhead Trout Club of Washington	SECTION 3.2.3	RESEARCH - ACOUSTIC TAGGING, LIKES PROGRAM	10.07	SSMP pg 28,4
	Smith	Diana	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Smith	Richard	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Speer	Peter	Wild Steelhead Coalition	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	St John	David	King County	GENERAL	DEIS - SHOULD LIST WHAT IS ALREADY DECIDED VS WHAT IS NOT	07.2	DEIS pg 16
2	St John	David	King County	GENERAL	DEIS - TOO GENERAL	07.2	DEIS pg 16
3	St John	David	King County	SECTION 1.1.2	ALT 4 - MIRRORS WSC/AMERICAN RIVERS SHOULD NOT BE INCLUDED	01.1	SEPA HANDBOOK
4	St John	David	King County	SSMP FIXES	COMMENTS FROM JANUARY NOT INCLUDED	04.0	APPENDIX B
5	St John	David	King County	SSMP FIXES	O MYKISS NOT SOLE SCIENTIFIC BASIS	0 NOTED	THANKS
6	St John	David	King County	SECTION 3.1.4	COST BENEFIT - MIRRORS WSC/AMERICAN RIVERS CONCERN	03.2	SEE RESPONSE 03.2
7	St John	David	King County	SECTION 1.1.3	PHASED REVIEW - MIRRORS WSC/AMERICAN RIVERS CONCERNS	02.1	DEIS 1.1.3 & 1.6
8	St John	David	King County	GENERAL	COORDINATION 1- DEIS DOESN'T EXPLAIN HOW DFW WORKS WITH SHARED STRATEGY	07.0	SSMP pg 16, 6, also DEIS pg 16, 2.1
9	St John	David	King County	SECTION 3.2.1	ESA & NOAA - MIRRORS WSC/AMERICAN RIVERS CONCERN ABOUT MGMT	02.0	DEIS pg 06, 3.
10	St John	David	King County	ATTACHED LTR	JANUARY 11, 2007 LETTER TO SEPA RE SCOPING	04.0	APPENDIX B
11	St John	David	King County	ATTACHED LTR	SEPTEMBER 15, 2006 LETTER TO GILL RE SSMP	04.0	APPENDIX B
0	St John	ATTACH A	KING COUNTY	SECTION 1.0	PROGRAMMATIC EIS SHOULD EXPLAIN HOW SCIENCE TRANSFERRED TO LOCALS	11.0	SSMP pg 32
1	St John	ATTACH A	KING COUNTY	GENERAL	CONSIDER ALT 5 AS COMBINATION OF ALTS 1 &2	11.01	SEE RESPONSE 07.1
2	St John	ATTACH A	KING COUNTY	SECTION 1.1.2	STATUS QUO SHOULD EXPLAIN HOW CURRENT APPROACH PROTECTS STEELHEAD & 10%	11.02	See 1.3 & 12.6
3	St John	ATTACH A	KING COUNTY	SECTION 1.1.2	HPA PROGRAM SHOULD ADDRESS CUMULATIVE EFFECTS	11.03	SEE RESPONSE 06.3
4	St John	ATTACH A	KING COUNTY	SECTION 1.1.2	WILD STOCK GENE BANKS SHOULD BE MORE THOROUGHLY EXPLAINED /HPAS	11.04	SSMP__, 6.3
5	St John	ATTACH A	KING COUNTY	SECTION 1.1.2	HATCHERY MANAGEMENT AND CARRYING CAPACITY CONCERNS	11.05	DEIS Section3
6	St John	ATTACH A	KING COUNTY	GENERAL	SSMP SHOULD DESCRIBE ASSUMPTIONS NEEDED FOR EFFECTIVE PROGRAM	11.06	SEE RESPONSE 01.3
7	St John	ATTACH A	KING COUNTY	SECTION 3.2.2	ADAPTIVE MANAGEMENT SHOULD BE INCLUDED IN PLAN OBJECTIVES	11.07	DEIS 3.2.2 SSMP pg 24
8	St John	ATTACH A	KING COUNTY	SECTION 1.4	SUMMARY TABLE SHOULD INCLUDE DETAILS PART 1	11.08	SSMP pg 05
9	St John	ATTACH A	KING COUNTY	SECTION 1.4	SUMMARY TABLE SHOULD INCLUDE DETAILS PART 2	11.09	SEE RESPONSE 11.08
10	St John	ATTACH A	KING COUNTY	SECTION 1.4.1	PRODUCTION AND CAPACITY SHOULD CONSIDER FRESHWATER HABITAT CONDITIONS	11.10	SEE RESPONSE 01.3
11	St John	ATTACH A	KING COUNTY	SECTION 1.4.1	DEIS SHOULD EXPLAIN HATCHERY OPS IN DETAIL	11.11	SSMP pg 18, STRAT 1
12	St John	ATTACH A	KING COUNTY	SECTION 2.2	ENVIRONMENTAL SETTING SHOULD INCLUDE REFERENCE TO DROMOUS O MYKISS	11.12	SSMP pg 28
13	St John	ATTACH A	KING COUNTY	SECTION 2.2	COMMENTS ABOUT FOREST AND FISH PROTECTIONS QUESTIONED	11.13	PER DNR
14	St John	ATTACH A	KING COUNTY	SECTION 2.2	CONCERNS ABOUT FEDERAL JURISDICTION OVER STEELHEAD HABITAT	11.14	DEIS pg 18
15	St John	ATTACH A	KING COUNTY	SECTION 2.2	SSMP SHOULD ADDRESS NEED TO IMPROVE GENETIC KNOWLEDGE OF PUGET STOCKS	11.15	SSMP pg 22-29
16	St John	ATTACH A	KING COUNTY	SECTION 3.1.1	CONCERNS ABOUT THE TERM ECOSYSTEM APPROACH	11.16	SSMP pg 06, 3
17	St John	ATTACH A	KING COUNTY	SECTION 3.1.1	DEFINE NATURAL ECOLOGICAL FUNCTION	11.17	ADDED TO GLOSSARY

Comments are listed in alphabetic order of those who signed the comment letter.

Comments Directory

#	LAST	FIRST	ORGANIZATION	CATEGORY	COMMENT	RESPONSE	ANSWER
18	St John	ATTACH A	KING COUNTY	SECTION 3.1.2	DEIS SHOULD RECOGNIZE LOCAL GOVERNMENT HABITAT RESPONSIBILITIES	11.18	DEIS 3.1.2 SSMP pg 8
19	St John	ATTACH A	KING COUNTY	SECTION 3.1.2	WATER RIGHT APPLICATIONS - DFW SHOULD CITE ITS AUTHORITY TO COMMENT ON	11.19	RESPONSE 6.2 & 6.3 DEIS pg 9&42
20	St John	ATTACH A	KING COUNTY	SECTION 3.1.2	CONCERNS ABOUT NEED FOR "INCREASED STEELHEAD HABITAT."	11.20	DEIS 3.1.2, SSMP all
21	St John	ATTACH A	KING COUNTY	SECTION 3.1.2	SHORELINES/WATER RIGHTS - DFW SHOULD AMPLIFY ITS ROLE TO COMMENT ON	11.21	DEIS 6.2 & 6.3 pg 9&42
22	St John	ATTACH A	KING COUNTY	SECTION 3.1.2	CONCERNS WITH USE OF TERM "NEUTRAL" IN STATUS QUO ALTERNATIVE	11.22	DEIS pg 42
23	St John	ATTACH A	KING COUNTY	SECTION 3.1.2	DEIS SHOULD EXPLAIN HOW DEPARTMENTS ACTIONS WILL DIFFER FORM STATUS QUO	11.23	SEE RESPONSE 01.3
24	St John	ATTACH A	KING COUNTY	SECTION 3.1.3	SSMP ACTIONS SHOULD BE WELL GROUNDED IN MceLHENY ET AL.	11.24	NOTED
25	St John	ATTACH A	KING COUNTY	SECTION 3.1.3	INCIDENTAL TAKE - CONCERNS ABOUT RECREATIONAL BYCATCH OF LISTED FISH	11.25	ESA 9, 4d & 10
26	St John	ATTACH A	KING COUNTY	SECTION 3.1.3	INCIDENTAL TAKE - CONCERNS ABOUT HOOKING MORTALITY	11.26	SSMP pg 12, 2
27	St John	ATTACH A	KING COUNTY	SECTION 3.1.4	HATCHERY - DEFINE SIGNIFICANTLY ADVERSE NEGATIVE IMPACTS	11.27	SEPA HANDBOOK
28	St John	ATTACH A	KING COUNTY	SECTION 3.1.4	CONCERNS ABOUT GENERAL PUBLIC'S FEELINGS ABOUT HATCHERIES	11.28	NOTED
29	St John	ATTACH A	KING COUNTY	SECTION 3.1.4	HATCHERY - IDENTIFY TRIGGER POINTS FOR HATCHERY CLOSURES	11.29	SSMP pg 03, 19
30	St John	ATTACH A	KING COUNTY	SECTION 3.1.4	WHAT DOES SELECTION OF AN EFFECTIVE POLICY PROPORTIONALLY … MEAN?	11.30	DEIS pg 36
31	St John	ATTACH A	KING COUNTY	SECTION 3.1.4	HATCHERY - PREFERRED ALT SHOULD ELIMINATE OUTPLANTS WHERE INCONSISTENT	11.31	SEE RESPONSE 11.29
32	St John	ATTACH A	KING COUNTY	SECTION 3.1.4	HATCHERY - INTEGRATED/SEGREGATED PROGRAMS, DEFINE PROPERLY	11.32	SSMP pg 19,5
33	St John	ATTACH A	KING COUNTY	SECTION 3.1.4	COST BENEFIT - MIRRORS WSC/AMERICAN RIVERS CONCERN	11.33	SEE RESPONSE 03.2
34	St John	ATTACH A	KING COUNTY	SECTION 3.1.4	HATCHERY - INTEGRATED - FEIS SHOULD CLARIFY DFW ASSUMPTIONS ABOUT	11.34	SEE RESPONSE 01.3 &SSMP PG 8,12,19
35	St John	ATTACH A	KING COUNTY	SECTION 3.2.1	ADDRESS HOW EXISTING RESOURCES ARE USED FOR REG COMPLIANCE	11.35	SEE RESPONSE 01.3
36	St John	ATTACH A	KING COUNTY	SECTION 3.2.1	SMOLT/KELT PASSAGE INSTEAD OF ENCOURAGE, REQUIRE ACTIONS FOR	11.36	FEIS pg 55
37	St John	ATTACH A	KING COUNTY	SECTION 3.2.1	DIFFERENCES BETWEEN REG COMP ALTS SHOULD BE MORE CLEARLY CONVEYED	11.37	SSMP pg 22
38	St John	ATTACH A	KING COUNTY	SECTION 3.2.1	HATCHERY - INTEGRATED - PREFERRED ALT NEEDS LARGER/INTEGRATED PROGRAMS	11.38	SSMP pg 24
39	St John	ATTACH A	KING COUNTY	SECTION 3.2.3	RESEARCH - KEY TOPICS SHOULD BE DEVELOPED	11.39	SSMP pg 28
40	St John	ATTACH A	KING COUNTY	SECTION 3.2.3	HUMAN POPULATION INCREASE AND GLOBAL WARMING SHOULD BE IN ALL ALTS	11.40	SSMP pg 28
1	St John	ATTACH B	KING COUNTY	SSMP FIXES	THE SSMP SHOULD NOT BE PRESENTED AS A NEW CONCEPT.	12.01	NOTED
2	St John	ATTACH B	KING COUNTY	SSMP FIXES	SaSI SYSTEM NOT ROBUST ENOUGH TO JUSTIFY RISK FOR HEALTHY STOCKS	12.02	SSMP pg 05 et al
3	St John	ATTACH B	KING COUNTY	SSMP FIXES	CONCERNS ABOUT IDENTIFICATION OF LIMITING FACTORS	12.03	SEE RESPONSE 07.0
4	St John	ATTACH B	KING COUNTY	SSMP FIXES	HABITAT RESTORATION AND PLANNING, DFW SHOULD ASSUME LEAD ROLE IN	12.04	COMMENT NOTED
5	St John	ATTACH B	KING COUNTY	SSMP FIXES	CLARIFY IF HP&R STRAT 6 APPLIES TO HPAS	12.05	SSMP pg 09, 21st CENT
6	St John	ATTACH B	KING COUNTY	SSMP FIXES	10% INCIDENTAL MORTALITY, WHAT IS BASIS?	12.06	ESA PERMITS
7	St John	ATTACH B	KING COUNTY	SSMP FIXES	MAXIMIZED CULTURAL AND ECONOMIC BENEFITS OUT OF TUNE WITH ADAPTIVE MGMT	12.07	SEE RESPONSE 01.0
8	St John	ATTACH B	KING COUNTY	SSMP FIXES	CONSIDER TERM BANNING FISHING WHEN WILD FISH ARE "REASONABLY VULNERABLE"	12.08	SEE RESPONSE 12.6
9	St John	ATTACH B	KING COUNTY	SSMP FIXES	HATCHERY FISH MUST BE CULLED FROM SPAWN GRNDS IN SEGREGATED SCENARIO	12.09	BARTLETT
10	St John	ATTACH B	KING COUNTY	SSMP FIXES	PNI - STATE GOAL INTEGRATED SETTING	12.10	SCOTT
11	St John	ATTACH B	KING COUNTY	SSMP FIXES	HATCHERY - INTEGRATED -SEPARATE HABITAT ELEMENT FROM DEMOGRAPHIC FACTORS	12.11	BARTLETT
12	St John	ATTACH B	KING COUNTY	SSMP FIXES	SUPPORT ACTION 6a	12.12	THANKS
13	St John	ATTACH B	KING COUNTY	SSMP FIXES	CORRECTION ON PG 21, ACTION 6, 5TH LINE	12.13	THANKS
14	St John	ATTACH B	KING COUNTY	SSMP FIXES	INCLUDE REGULATORY COMPLIANCE IN MONITORING PROGRAM	12.14	NOTED
15	St John	ATTACH B	KING COUNTY	SSMP FIXES	DESCRIBE SH BIOLOGY/HUMAN ASSUMPTIONS BEFORE DEVELOPING ME&AM	12.15	SEE RESPONSE 01.3
16	St John	ATTACH B	KING COUNTY	SSMP FIXES	ME&AM ACTIONS 4, 6 AND 7 ARE CRITICAL	12.16	NOTED
17	St John	ATTACH B	KING COUNTY	SSMP FIXES	VSP - CONSIDER ANADROMOUS/DROMOUS RISK TO O MYKISS W VSP IN DPS &REGIONS	12.17	NOTED
	Taylor	Mark	Nooksack Salmon Enhancement Coalition	ZZDONE	MAILING LIST - WANTED ON	0 DONE	THANKS
	Teixeira	Fred	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Thompson	Herbert	Private Citizen	SECTION 3.1.1	VSP - WORRIED ABOUT VSP IS NOT UNDERSTOOD	08.3	SSMP pg 37 et al
2	Thompson	Herbert	Private Citizen	SECTION 3.2.2	ME&AM - SHOULD BE HYBRID 2 AND 3	0 NOTED	THANKS
3	Thompson	Herbert	Private Citizen	GENERAL	FIND OUTSIDE FUNDING	07.3	SSMP pg 09, 8.

Comments are listed in alphabetic order of those who signed the comment letter.

Comments Directory

#	LAST	FIRST	ORGANIZATION	CATEGORY	COMMENT	RESPONSE	ANSWER
4	Thompson	Herbert	Private Citizen	SSMP FIXES	ADD ACRONYMS TO FEIS AND CLARIFY RESOURCE/REGIONAL MGMT PLAN	12.23	DEIS/SSMP Acronyms
5	Thompson	Herbert	Private Citizen	GENERAL	DEIS - NEED TO CLARIFY SENTENCE STRUCTURE , pg 3	12.20	CLARIFICATION
6	Thompson	Herbert	Private Citizen	GENERAL	EXTERNAL CONSERVATION PRACTICES, NEED TO DEFINE	07.6	DEIS Table 1
7	Thompson	Herbert	Private Citizen	SSMP FIXES	DISAGREES WITH TERM "HEALTHY" TO DESCRIBE STEELHEAD STOCK/ABUNDANCE	12.22	DEIS/SSMP Glossary
8	Thompson	Herbert	Private Citizen	SSMP FIXES	EXPLAIN WHY MSH IS VULNERABLE TO HABITAT DEGRADATION	10.23	SSMP GOAl
9	Thompson	Herbert	Private Citizen	GENERAL	MUCH OF THE PROBLEM IS DUE TO EFFECT OF MARINE ECOLOGY ON PUGET STOCKS	10.10	THANKS
10	Thompson	Herbert	Private Citizen	GENERAL	THE STEELHEAD CYCLE IS NOW DOWN	10.11	THANKS
11	Thompson	Herbert	Private Citizen	GENERAL	DOCUMENT GENERALIZES AGAINST SPORT/REC VS COMMERCIAL/TRIBAL FISHERIES	05.4	RCW77.04.012
12	Thompson	Herbert	Private Citizen	Omykiss 2.3.1	FIX TYPO IN OMYKISS 2.3.1	0 DONE	THANKS
	Thompson	Richard	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
1	Urabeck	Frank	Private Citizen	GENERAL	DEIS - EASY TO UNDERSTAND	0 NOTED	THANKS
2	Urabeck	Frank	Private Citizen	GENERAL	TRIBE - SSMP/DEIS NEED TO EXPAND DISCUSSION OF TRIBAL ROLE	07.4	SSMP pg 01
3	Urabeck	Frank	Private Citizen	GENERAL	COORDINATION 1- WHO CREATES WATERSHED PLANS	07.0	SSMP pg 16, 6, also DEIS pg 16, 2.1
4	Urabeck	Frank	Private Citizen	GENERAL	COORDINATION 1- LOOKS FORWARD TO WORKING ON PLANS	0 NOTED	THANKS
5	Urabeck	Frank	Private Citizen	SECTION 1.4	ALT 2 - SUPPORTS	0 NOTED	THANKS
6	Urabeck	Frank	Private Citizen	SECTION 3.1.3	SELECTIVE FISHERY - NEED TO INCLUDE DISCUSSION OF SELECTIVE FISH TOOL	10.06	SSMP pg 13, ACTS 1 &2
7	Urabeck	Frank	Private Citizen	SECTION 2.0	RECOMMENDS SCHEMATIC DRAWING SHOWING STATE/FED/LOCAL GOVT	10.24	PROVIDED
8	Urabeck	Frank	Private Citizen	SECTION 2.0	TRIBE - SSMP/DEIS NEED TO EXPAND DISCUSSION OF TRIBAL ROLE	07.4	SSMP pg 01
9	Urabeck	Frank	Private Citizen	SECTION 2.0	MISSING POP FIGURES IN PUGET, SW WA AND OLYMPIC DPS	10.18	Omykiss, CHAP 5
10	Urabeck	Frank	Private Citizen	SECTION 2.0	TRIBE - SSMP/DEIS NEED TO EXPAND DISCUSSION OF TRIBAL ROLE	07.4	SSMP pg 01
11	Urabeck	Frank	Private Citizen	SECTION 3.1.3	SELECTIVE FISHERY - NEED DISCUSSION	10.06	SSMP pg 13, ACTS 1 &2
12	Urabeck	Frank	Private Citizen	SSMP FIXES	MSH - DO TRIBAL AGREEMENTS REQUIRE MSH?, PG 5	10.15	LOWER COLUMBIA
13	Urabeck	Frank	Private Citizen	SSMP FIXES	PREDATION - PG 6 INCLUDE BIRD/FISH PREDATION ON WS	08.0	SSMP pg 06 & 7.
14	Urabeck	Frank	Private Citizen	SSMP FIXES	PG 8 EXAMPLES OF LOCAL PROBLEM SOLVING THAT HELPED STEELHEAD	10.25	SEE RESPONSE 01.3
15	Urabeck	Frank	Private Citizen	SSMP FIXES	WIRA SALMON RECOVERY COUNCILS	10.09	RCW77.85.050
16	Urabeck	Frank	Private Citizen	SSMP FIXES	DEFINITIONS - DEFINE LEAD ENTITIES	10.09	RCW77.85.050
17	Urabeck	Frank	Private Citizen	SSMP FIXES	WORDING ON SPORTS VS TRIBAL, PG 12 CHECK	10.27	
18	Urabeck	Frank	Private Citizen	SECTION 3.1.3	INCIDENTAL TAKE - COMMERCIALS	0 NOTED	SSMP pg 13, ACTS 1 &2
19	Urabeck	Frank	Private Citizen	SECTION 3.1.3	INCIDENTAL TAKE - DROP OUT MORTALITY AND PURCHASE TRIBAL SHARE, PG 13 STRAT 4	10.26	SEE RESPONSE 1.3
20	Urabeck	Frank	Private Citizen	SSMP FIXES	TABLE 1 , MODIFY TABLE, PG 15	10.28	OUT OF SCOPE
	Wallis	Tim	Wild Steelhead Coalition	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Watts	Carol	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Weeks	Ken & Jocelyn	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	White	Ray	Private Citizen	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Yates	Jeremy	American Rivers	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC
	Yen	Alan	Wild Steelhead Coalition	DRAFT RESP	FOR WILD STEELHEAD COALITION & AMERICAN RIVERS RESPONSE SEE WSC	0 WSC	SEE WSC

Comments are listed in alphabetic order of those who signed the comment letter.

Allen, Randy

SOUTH SOUND FLY FISHERS
P.O. BOX 2792
OLYMPIA, WA 98507

September 10, 2007

SEPA/NEPA Coordinator
Regulatory Services Section, Habitat Program
600 Capitol Way North
Olympia, Washington 98501

Dear SEPA/NEPA Coordinator,

On behalf of the South Sound Fly Fishers I'd like to thank you for the opportunity to comment on the Draft Environmental Impact Statement for the Statewide Steelhead Management Plan. Our organization appreciates your efforts to develop a wild steelhead recovery plan for the state of Washington and the difficulties inherent in the process.

1 [Comment noted]

Our organization is dedicated to the protection, preservation and enhancement of wild salmonid species in the Pacific Northwest and, as such, our preferred alternative would normally be the Most Conservative one as outlined in the Draft EIS - especially in light of the dire straits of most, if not all, steelhead runs in this state. Nevertheless, we support your Preferred Alternative as a necessary (but first step) in restoring these wild steelhead runs. We commend you for your efforts and look forward to working with you on plan implementation.

2 [7.2] 3 [7.4]

We do have several concerns, however. The first is funding. Implementation of the Preferred Alternative will require additional legislative appropriations that may not be forthcoming. Does WDFW have any contingency plans to implement your Preferred Alternative should adequate funding not be provided? The second concern is Treaty Tribe buy-in. Should tribal support not be realized, what options are there to pursue wild steelhead recovery?

In closing, thank you again for the opportunity to comment on this Draft EIS. We appreciate and support this latest effort to save our wild steelhead.

Sincerely,

Randy Allen, President

Alzuro, Carol – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Axel, Brad – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Bakke, Bill

NFS

NATIVE FISH SOCIETY

Conserving biological diversity of native fish and protecting their habitats

August 21, 2007

Teresa A. Eturaspe
SEPA/NEPA Coordinator, Regulatory Services Section
600 Capitol Way North, Olympia, WA 98501

COMMENTS ON THE DEIS FOR THE STATEWIDE STEELHEAD MANAGEMENT PLAN

Please accept my comments on the wild steelhead management DEIS and enter them into the record. I am confining my comments to management actions that the Washington Department of Fish and Wildlife has authority over. These include fisheries management, hatchery management, monitoring and research, and compliance monitoring of agency authority and commitment and funding to support wild steelhead recovery plans. While habitat issues are important and represent a limitation on the success of any wild salmonid recovery plan, the agency has only advisory privilege on habitat alteration. A comprehensive wild steelhead recovery plan is therefore only possible if the Governor decides to create one, for the WDFW is unable as a single agency to develop such a plan. A comprehensive plan for wild steelhead means that the WDFW provides the abundance and diversity of adult spawners while the land and water management agencies protect the habitat that will maintain and improve the productive capacity for each wild steelhead population by watershed in the state.

1 Noted

3.1.3 Fisheries Management

The statement is made that "…fishery managers must have knowledge of the abundance and timing of the stocks and the spatial structure of the populations in the available habitat so they can coordinate actions to support the VSP-based natural production strategies within the available habitat." (VSP objectives are to protect and maintain abundance, productivity, diversity and spatial structure) This assumes more knowledge and data than exists and also assumes selection of Alternative 2. To accomplish the VSP strategy requires a strong research and monitoring program that is well funded, a strong compliance monitoring program, and a well funded management program. At this time it is beyond the capacity of the WDFW to successfully implement these strategies. The DEIS

2 8.4

3 8.3

3 cont.

success will be achieved. This points out an important issue that the EIS avoids, that is, wild steelhead recovery will take new measures and strategies to be successful. By assuming the existing models will actually function to recover wild steelhead (which has not happened), the DEIS is defeating its own premise, that wild steelhead will be recovered.

Alternatives:

4 10.0

The main difference between the descriptions of Alternative 1 and 2 is fisheries on wild stock. The alternatives do not provide an adequate explanation, so the difference may be arbitrary and designed to influence public selection of alternatives, driving them to select alternative 2, the preferred one by the agency.

Alternative 2 would allow "wild stock retention" where VSP goals are achieved. Alternative 1 would allow "no provision for fishing opportunity on stocks that meet VSP goals." This distinction between the two alternatives is not explained. The DEIS says (Alternative 1) that there would be no fishing on stocks that meet VSP goals, because "protection goals are carrying capacity focused." Yet in Alternative 2 meeting the same VSP goals there is no similar carrying capacity constraint. Unless this distinction can be explained in the DEIS, it must be considered an arbitrary device to discourage support for the alternative. It is unreasonable to forbid a live release fishery on wild steelhead as long as conservation goals are expected to be achieved. A strong monitoring program can switch fisheries on and off according to conservation requirement standards for each stock.

Alternative 1:

This alternative is no different than Alternative 2 except for the no fishing clause which the agency knows is unacceptable to the public most interested in this DEIS and the adoption of a state wide steelhead conservation plan. Reviewers must then ask why the agency wants to drive public comment toward Alternative 2, the preferred one?

Alternative 2:

This alternative allows 10% incidental harvest of depleted steelhead stocks and a kill fishery on steelhead populations that meet VSP goals. The agency is nervous about this alternative and worries about lost fishing opportunity and license sales.

This alternative makes a major assumption that VSP objectives can be defined with enough precision to recover each wild steelhead population to recover

integrated hatchery experiment an unqualified endorsement and paints a more positive picture than is supported by the science.

5 10.13 Alternative 2 would "accept some negative impacts as long as they are not significantly adverse to wild steelhead stocks or ecosystem health." The DEIS should quantify "significantly adverse impacts." This subjective approach to criteria opens the door to interpretation and disagreement and may not actually protect wild steelhead. Because of this problem, the alternative should be rejected because it is not sufficient to achieve its objective.

Alternative 2 could be strengthened by stating that each hatchery program will be subject to a risk analysis for wild steelhead. This risk analysis should be independently reviewed by an independent scientific team. Members of the independent scientific team would have no stake or investment in the hatchery program.

6 7.3 Alternative 2 relies upon adaptive management and monitoring and evaluation. Funding to support these actions is required so that the data is collected to support adaptive management. Since the alternative does not address either the kind of data needed or the funding to get it, the alternative is merely a promise that cannot be kept.

The combination of issues and problems associated with Alternative 2 make it unreliable and therefore unacceptable. It is likely that the default for hatchery management, given these problems, will be the status quo hatchery program similar to that described in Alternatives 3 and 4 and wild steelhead recovery will not take place.

3.2.2. Monitoring, Evaluation and Adaptive Management:

These alternatives, especially Alternatives 1 and 2, will require sufficient funding to provide the data support for making decisions and corrections. The DEIS should provide a detailed monitoring, evaluation and adaptive management plan and the funding needed to achieve it. Lacking this detail, the alternatives 1 and 2 (preferred alternative) cannot achieve the stated benefits with any certainty.

7 10.05 The major difference between Alternative 1 and 2 is the degree of scientific monitoring and evaluation. Alternative 1 would require all wild steelhead populations to be evaluated for compliance with VSP objectives while Alternative 2 would be based on a few "indicator stocks." The agency is resistant to Alternative 1 because it would be more expensive. Alternative 2 assumes that all regional wild steelhead stocks would be similar enough to the indicator stock

7 cont. objectives is substantial but the DEIS provides no detail by which to make a decision about Alternatives. Based on the lack of information to identify VSP objectives, implement them, and monitor results in both Alternative 1 and 2, the costs would be the same.

8 1.3 Even though the reviewers are encouraged to support Alternative 2, there is no assurance that wild steelhead conservation and recovery will be achieved due to the assumptions used, the lack of data on wild populations to accomplish VSP objectives, and the lack of compliance monitoring relative to achieving VSP objectives. It is likely; that this DEIS will default to status quo in steelhead management unless it is strengthened in ways suggested in these comments.

Sincerely,

Bill M. Bakke, Director

Friends of the Cowlitz

Friends of the Cowlitz

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Friends of The Cowlitz comments on statewide steelhead management plan

Teresa A. Eturaspe
600 Capital Way, Olympia WA, 98501

The Friends of the Cowlitz has only recently received a copy of the Statewide Steelhead Management Plan (SSMP) so we have only had a few days to review the DEIS and provide the following comments.

1. **Add habitat enforcement to the list of plan objectives under (1.2.3)**
2. **(.4.1.) Key Relationships. Here the DEIS describe a concern that some hatchery practices can adrersely impact the health of wild stocks. A similar statement in the SSMP under Artificial Production, identifying hatcheries as contributors to the natural production declines. We are concerned with the over reaction of the above mentioned, discussions. Hatchery practies must only be modified when studies and clear evidence indicates that an adverse impact is present and is site specific. The notionthat hatcheries contribute to natural population decline is in many cases misleading. If a hatchery is operating in a river basin, which has a dam, and effectively blocks the fish from a portion of its habitat, is the hatchery the source of wild fish decline or is the dam?**
3. **The SSMP lacks the strategy to recognize when it is not possible to rebuild a population of wild steelhead to sustainable levels. To not acknowledge this scenario is to turn a blind eye to the cause. This would be a windfall to dam operators giving them an almost free ticket by allowing only a small portion of the historic population to exist, at the expense of the state and it's fishermen.**

Becker, Dave

4 10.01

4. We object vehemently that the loss of recreation will be a consequence of the SSMP. We believe in the need and the right to the recreation and consumptive bebefits of the steelhead resources at baseline levels of abundance. Losses will not be inconsequential. Estimates of $1000.00 per fish caught may translate into millions of dollars lost in the state.

5 10.12

5. A new section in the SSMP should be added and devoted to establishing criteria to determine each anadromous waters ability to sustain a viable population of wild steelhead. Waters that are found to be deficient in their ability to sustain wild steelhead, such as streams with dams that have inadequate fish passage, should be exempt from policies in the SSMP until such time the constraints have been identified and corrected.

6 7.0

6. Finally, we are concerned with the wisdom of developing such a broad sweeping plan that attempts to recover wild steelhead throughout the state. Implementing a policy on this scale runs the risk of applying a strategy or treatment that is designed to work well in one scenario is applied to another with a less understood constraint. This is likely to happen many times over and many go unchecked for years, therefore we request that the state include local advocate groups in developing and implementing plans, utilizing all the expertise available in any given water shed.

We hope that you give serious consideration to these comments. Feel free to contact us for any clarifications, and to keep us involved as this process moves forward.

Sincerely,

Special Projects Advisor
Dave Becker
FOC President
Don Glaser

Bee, Gary

TROUT UNLIMITED

RECEIVED
SEP 12 2007
HABITAT PROGRAM

September 11, 2007

Teresa A. Eturaspe
SEPA/NEPA Coordinator, Regulatory Services Section
600 Capitol Way North, Olympia, WA 98501

Re: Comments on Statewide Steelhead Management Plan

I'd like to make the following comments on the Draft Environmental Impact Statement and thank you for the opportunity to do so.

1 Noted
I'm a strong supporter of the development of a total statewide wild steelhead release policy.

2 Simms (WSC)
I would strongly support the comments which have been provided by the Wild Steelhead Coalition, particularly their assessments of the harvest and hatchery components of the "Plan".

3 10.03
I am a strong supporter of the HSRG Recommendations but we have very few examples of the longer term impacts to wild steelhead as a result of the implementation of "integrated" and "segregated" hatchery programs. As such, we need to spend money to adequately monitor and evaluate these programs as we move forward with implementation of their recommendations in specific steelhead programs across the state of Washington.

Thank you for the opportunity to provide these comments.

Gary Bee
President of the Sky Valley Chapter of Trout Unlimited

Benjamin, Dale – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Bergquist, Gary

Gary Bergquist
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September 8, 2007

Teresa A. Eturaspe WDFW
Atten: SEPA Center
600 Capitol Way North
Olympia, WA 98501-1091

Re: Comments with respect to the Draft EIS for the Proposed Statewide Steelhead Management Plan

Dear Ms Eturapse:

1 Simms (WSC)

This letter is in response to the Washington Department of Fish and Wildlife ("WDFW") Draft EIS for the Proposed Statewide Steelhead Management Plan. I have read the Draft EIS for the proposed plan and the comments of the Wild Steelhead Coalition in its letter dated September 5, 2007. I fully support the comments made by the Wild Steelhead Coalition.

2 11.36

I also add to the comments of the Wild Steelhead Coalition. At page 55 of the Draft EIS, WWDFW bemoans the fact that it has no enforcement authority to "…force the owner of a [FERC] licensed facility to actually complete improvements." I read this statement to mean WDFW is not monitoring compliance by FERC licensees with terms of their respective licenses and requesting FERC to enforce compliance. If that is the case, WDFW has abandoned the State's interest to FERC and there is no justification for doing so.

3 Comment Noted

Notwithstanding WDFW's acknowledgment in its August 1, 2007, transmittal letter, that "…in spite of seventy years of conservation efforts, many steelhead stocks are at a fraction of their historic levels and five of the seven distinct population segments that exit in Washington are federally listed under the Endangered Species Act.", WDFW appears to be incapable of mustering sufficient fortitude to address the issues pertinent to restoration of healthy steelhead populations in our streams and rivers. Some things never seem to change.

Sincerely,

Gary Bergquist

Best, Lynn

City of Seattle

Gregory J. Nickels, Mayor

Seattle City Light
Jorge Carrasco, Superintendent

Seattle Public Utilities
Chuck Clarke, Director

September 10, 2007

Teresa Eturaspe, SEPA/NEPA Coordinator
Regulatory Services Section
Washington Department of Fish and Wildlife
600 Capital Way North
Olympia, WA 98501

Dear Ms. Eturaspe:

Thank you for the opportunity to provide comments on the Washington Department of Fish and Wildlife's Draft Environmental Impact Statement (DEIS) for the Statewide Steelhead Management Plan (SSMP). We appreciate the department's thoughtful approach to this complicated initiative and applaud your efforts to seek public input.

1 Comment Noted

We support WDFW's preferred alternative with the recognition that plan implementation and outcomes will need to be carefully monitored and adjusted as new information becomes available. We encourage the department to move forward aggressively with much needed protections for distressed steelhead populations using the best available science. Balancing certainty with flexibility is a difficult challenge, and it will be important to implement programs that promote continued learning and improvement. With this in mind, we would like to offer a few brief comments.

2 Comment Noted

We strongly support WDFW's decision to a take an ecosystem approach to steelhead management in the Washington state. We agree that WDFW has limited ability to control adverse impacts though the HPA process and that a Maximum Sustained Harvest (MSH) based approach is vulnerable to cumulative impacts of habitat degradation. To help address this vulnerability, WDFW should continue to provide resources to support efforts such as the Habitat Conservation Plans developed by the City of Seattle and the Washington State Department of Natural Resources in addition to WRIA-based, regional salmon recovery efforts and FERC relicensing. The Department may also find it beneficial to review the current HPA process and identify additional voluntary and regulatory approaches for protecting steelhead habitat. Risks to steelhead can also be substantially reduced by moving

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from an MSH based harvest management strategy to an approach that embraces the principles of maintaining Viable Salmonid Populations (VSP).

3 10.01 We also support WDFW's proposed action of reducing harvest on wild steelhead until populations rebuild to sustainable and healthy numbers. Increasing restrictions on recreational harvest opportunities can be compensated by improving catch-and-release fishing opportunities, and by promoting catch-and-release fishing for steelhead through public outreach and education programs.

4 Comment Noted We support WDFW's proposed action of preserving genetic variability through creating a wild stock gene bank. However, we also believe that WDFW should increase its analysis of the patterns of genetic variability in Washington steelhead populations. Moreover, WDFW should more closely examine the genetic relationship between the resident and anadromous life history forms of *Onchorhynchus mykiss* and the importance of these different life history patterns in maintaining viable populations.

5 9.0 The steelhead management plan should also consider the possibility of increased hydrological variability in Washington streams and rivers caused by climate change, and the potential impacts to steelhead habitat that could result from the combined impacts of increasing hydrological variability and physical habitat degradation.

6 Comment Noted The task of protecting and restoring Washington's salmonid populations is an important and worthy challenge. Success in this endeavor will require broadly based partnerships and creative solutions to long-standing problems. Our experiences with your department and others in systems such and the Skagit, Cedar, and Tolt rivers give us hope that, by working together, we can conserve these treasured resources and the ecosystems upon which we depend.

Sincerely,

Lynn Best, Director
Environmental Affairs Division
Seattle City Light

Bruce Bachen, Director
Scientific and Technical Services Division
Seattle Public Utilities

Breckel, Jeff

LOWER COLUMBIA FISH RECOVERY BOARD

REGIONAL LEADER FOR RESTORING HABITAT AND RECOVERING FISH

September 10, 2007

Teresa Eturaspe
Regulatory Services Section, Habitat Program
Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, WA 98501

Subject: LCFRB COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE STATEWIDE STEELHEAD MANAGEMENT PLAN

Dear Ms. Eturaspe:

The Lower Columbia Fish Recovery Board (LCFRB) appreciates the opportunity to review and comment on the Draft Environmental Impact Statement (DEIS) for the Washington Department of Fish and Wildlife's (WDFW) proposed Statewide Steelhead Management Plan (SSMP). The DEIS cover letter states that the Department will use the plan *"to develop and implement regional management plans that identify the long-term goal, benchmarks for modification to management actions, escapement objectives, and the expected trajectory to the diversity of, spatial structure, productivity, and abundance of each wild stock."* As indicated in our previous correspondence, it is unclear how the proposed statewide steelhead planning effort will integrate and relate to existing or proposed recovery plans. Reference to regional recovery plans in the DEIS is largely lacking, and the planning elements referenced above may in many instances be duplicative of work already completed by regional recovery regions under RCW 77.85.005. 70

We appreciate Director Koening's August 2, 2007 memorandum to the statewide recovery regions in which he reaffirmed the Department's support of regional recovery plans and noted that the SSMP will serve to assist the Department in implementing recovery plans. Consistent with Director Koening's memorandum, the final EIS should be revised to acknowledge regional recovery plans and explain how the SSMP will assist in implementing their steelhead management goals, strategies, measures, and priorities. In addition to this general comment, we offer the following additional comments and recommendations for your consideration

Section 1.1.2. Alternatives. Development and identification of project alternatives is one of the principle requirements of an EIS. The alternatives analysis process is intended to provide the framework for weighing the merits of difference choices and to facilitate selection of an approach for implementation. However, for a particular course of action to be selected, it must be within the general range of alternatives discussed within the EIS.

None of the four project alternatives presented in this section explicitly discuss the use of, or reliance upon, existing or proposed recovery plans as an alternative to achieving the project goals and objectives. WDFW's preferred alternative (Alternative 2) does describe conservation goals in terms of viable salmonid population (VSP) parameters and also references harvest, habitat, and hatchery management programs. While these are all core elements of regional recovery planning, there is no discussion of the relationship between the preferred alternative and existing recovery plans. Regional recovery plans, where we have them, already address VSP parameters and management objectives, strategies and measures (e.g., harvest, hatcheries, habitat, hydro, etc.) for listed steelhead populations. The role of existing recovery plans in achieving project goals and objectives should be explicitly acknowledged and discussed in the description of project alternatives outlined in this section, including the preferred alternative. 71 2

Post-it® Fax Note 7671	Date 9/10/07 # of pages 4
To T. Eturaspe	From J. Breckel
Co./Dept. WDFW	Co. LCFRB
Phone #	Phone # 360 425-1554
Fax # 360 902-2946	Fax #

Breckel, Jeff

3 2.1 **Section 1.1.3 Non-Project Proposal.** This section acknowledges that some regions in the state have already been evaluated during development of currently functioning plans, and that an analysis will be included in the roll-up of watershed plans into the respective Regional Management Plan (RMP) supplements to the SSMP. This is consistent with the requirements of WAC 197-11, which suggests that review of non-project proposals include consideration of other existing regulations and plans, and any under development. However, details on how this will be accomplished are not provided, and the analysis is being deferred until subsequent SEPA phases.

The scope and scale of the proposed SSMP and subsequent RMPs will vary depending on how comprehensively existing and proposed regional recovery plans address the project goals and objectives. In cases where approved recovery plans have been developed in collaboration with the State, federal agencies, tribes and local partners, it may not be necessary for WDFW to develop a separate and distinct RMP. However, in some cases it may be necessary to address gaps or recommend updates to existing plans based upon new information or data. Because the selection of a preferred alternative or course of action will depend on how comprehensively existing plans achieve management goals an objectives, the proposed analysis should be conducted as part of final EIS development and not be deferred until subsequent SEPA phases. At a minimum, details on how the regional plans will be factored into the analysis should be provided in the final EIS.

4 4.0 **Sections 1.1.4 Scoping and 1.3 Issues Identified Through Scoping.** This section provides an overview of the scoping process that led to development of the DEIS. WDFW's formal response to the questions and comments raised during the scoping process is included in Appendix B. In reviewing these sections, we cannot find where the LCFRB's comments have been formally addressed in the DEIS. The LCFRB submitted a letter dated January 2, 2007 that outlined our concerns regarding the lack of acknowledgement of existing regional recovery plans, and the need to rely upon them as the foundation and framework for developing the SSMP. While we did receive a subsequent August 2, 2007 memorandum from Director Koenings, we are concerned that our comments are not reflected in the formal SEPA public record or substantively addressed in the DEIS. We request that LCFRB's scoping and DEIS comments, along with WDFW's response, be addressed in the final EIS.

5 7.0 **Section 1.2 Purpose and Need for the Non-Project Action.** As noted above, in many areas of the state existing regional recovery plans prepared under Chapter 77.55 RCW already address the various elements outlined in the Purpose, Need, and Plan Objectives sections. These sections should be rewritten to include a detailed discussion of the relationship between the SSMP and existing and proposed regional recovery plans that already accomplish the stated goals and objectives. The purpose and needs statements should also clearly describe and affirm WDFW's role in, and commitment toward, implementing these existing plans.

6 7.0 **Section 1.4 Summary Table of Alternatives and Strategies by Policy and Subject Area.** This section takes the four general alternatives introduced in Section 1.1.2 and expands them into 32 alternative implementation strategies intended to achieve the SSMP goals and objectives. Many of the general strategies outlined in this section are already identified in existing recovery plans. For example, the Lower Columbia Salmon Recovery and Fish & Wildlife Subbasin Plan (LCFRB, 2006) already identifies specific steelhead management measures and strategies that address harvest, hatcheries, hydropower, ecological interactions, and habitat impacts. Over 100 specific management actions, many relating to steelhead, have been identified for implementation by WDFW. These measures, strategies, and actions were developed in collaboration with WDFW and over 70 other implementation partners. In reading this section, it is unclear how the proposed management strategies relate to, or will be integrated with those identified within the Lower Columbia or other recovery plans.

Breckel, Jeff

6 cont.

This section and the related DIES chapters should be rewritten to clearly describe how the strategies and actions in existing recovery plans will be used as the foundation and framework for the SSMP. These plans represent a collaborative effort involving multiple stakeholders, and have resulted in enhanced partnerships and cooperation among entities engaged in recovery efforts. Relying on the plans as a foundation for development of the SSMP

would build upon extensive technical analysis already completed, and complement and reinforce the strategies, measures, and actions set forth in the recovery plans. These plans further established collaborative relationships and commitments between federal and state agencies, tribes, local governments, and other regional groups. The LCFRB believes that relying on these plans will avoid duplication of effort, and substantially increase WDFW's effectiveness in recovering listed steelhead populations.

7 7.0

Section 2.1 Historical Background. The fourth paragraph on Page 16 references select excerpts from RCW 77.85, and indicates that local initiatives and strategies will be used to "fine tune" the SSMP strategies during development of the RMP's. The LCFRB believes that this approach does not reflect the intent of RCW 77.55.005, which also states the following:

"*...and that the state may best accomplish this objective by integrating local and regional recovery activities into a statewide strategy that can make the most effective use of provisions of federal laws allowing for a state lead in salmon recovery, delivered through implementation activities consistent with regional and watershed recovery plans...*"

This statement establishes that a statewide strategy must be based upon local and regional recovery and watershed plans. As currently written, the DEIS appears to chart a separate course for development of a steelhead recovery plan and does not clearly or fully acknowledge the intent of the legislature to implement salmon recovery through locally-based efforts. The final EIS should emphasize the primary role of regional plans in steelhead recovery, and WDFW should ensure that measures, strategies, and actions within these plans are fully integrated into the SSMP.

8 7.8

Section 3.2.2 Monitoring, Evaluation, and Adaptive Management (ME&AM). This section of the DEIS presents four general alternative strategies for monitoring, evaluation and adaptive management of steelhead. Development of ME&AM programs has been a core element of regional recovery planning in Washington. Existing programs have been developed in collaboration with WDFW, and include common elements such as identification of key management questions, documentation of data and information needs, and identification of strategies for filling monitoring gaps. These programs all recognize and rely upon WDFW's vital role in monitoring and evaluating salmonid populations, and sharing information with decision-makers, constituent groups, and the general public.

To support regional recovery plan implementation and avoid duplication, we recommend that the final EIS include an assessment of existing regional ME&AM programs to determine if gaps exist that should be addressed in the SSMP and RMPs. The various project alternatives should be discussed in relation to existing regional recovery programs, and the preferred alternative should be designed to ensure that both statewide and regional monitoring and evaluation needs are being met with WDFW management actions.

Breckel, Jeff

TO: Teresa Eturaspe
RE: LCFRB Comments on the Statewide Steelhead Management Plan DEIS
September 10, 2007, Page 4

9 Coment noted

Summary. The LCFRB appreciates the commitment that Director Koenings has made for moving recovery plans forward and ensuring that the role of regional recovery plans will be articulated in the final EIS and SSMP. As discussed above, we believe that much of the DEIS will need to be re-written to avoid duplication of efforts and establish the necessary framework for successfully integrating regional recovery plans into the SSMP.

Thank you for the opportunity to provide these comments and recommendations. If you have any questions or need additional information, please feel free to contact me at (360) 425-1553.

Sincerely,

Jeff Breckel
Executive Director

Cc: Jeff Koenings
Sara LaBorde
Guy Norman
Council of Regions
Governor's Salmon Recovery Office

Brown, Alexa – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Burgess, Paula

September 14, 2007

Teresa A. Eturaspe
SEPA/NEPA Coordinator, Regulatory Services Section
Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, WA 98501

Subject: Statewide Steelhead Management Plan

Dear Ms. Eturaspe:

The Wild Salmon Center (WSC) is pleased to submit comments on the Draft Environmental Impact Statement for the Statewide Steelhead Management Plan.

1 Comment Noted

First, we would like to thank the members of the WDFW staff who have listened carefully to the comments of the stakeholders and made a number of important improvements to the Plan based in part on stakeholder inputs. They have been very patient and attentive to our views.

The result is a new draft with significant departures from the previous plan; however, we believe the new draft does not yet reflect full application of the best available science in *O.mykiss* management. To the credit of the agency, the new draft is a more conservative management strategy based on wild, naturally-spawned steelhead, VSP based measurements of stock health, and habitat protection and restoration on all policy fronts. Specific improvements in this draft include the following:

- Placing highest priority on natural production, especially compared to harvest and hatcheries, which have been at the heart of WDFW steelhead management for almost a half century;
- More aggressive WDFW involvement in habitat protection decisions;
- Moving away from Maximum Sustained Harvest (MSH) fisheries management, which has been largely and scientifically identified as ineffective, toward a model with more conservative (higher) buffers for escapement; and
- Hatchery management that begins to implement some of the key recommendations of the Hatchery Scientific Review Group, along with aggressive monitoring and scientific study to understand hatchery/wild

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Burgess, Paula

spawning issues and the impacts of hatchery operations on wild fish.

However, in spite of the improvements noted above, the DEIS does not provide a road map or policy prescriptions to future abundance of wild steelhead. For example, it does not:

- Take into account historic levels of abundance or specific life history structure of populations;
- Provide recovery benchmarks in terms of either abundance of life history diversity; or
- Provide time lines for recovery.

1 cont.

Absent these critical components, it is our view that the DEIS is falls short as a mechanism for rebuilding and managing wild steelhead stocks. Given the ESA listed status of five of the seven Distinct Population Segments of Washington steelhead and the depressed state of all steelhead populations compared to historic abundance, WSC supports the WDFW decision to abandon Alternative 3 management. Indeed, given the alarmingly precarious status of wild steelhead, we believe the Department should drop further consideration of Alternatives 3 and 4 as incompatible with the protection and restoration of wild steelhead stocks. In our opinion, the best policies and strategies for advancing steelhead recovery are reflected in Alternatives 1 and 2.

2 7.2

NATURAL PRODUCTION

Alternative 1 represents the best management approach to protecting wild steelhead and restoring wild steelhead stocks to healthy levels. In management units (watersheds) dominated by hatchery fish (e.g., Cowlitz) and where the potential for genetic mixing between wild and hatchery fish is higher, Alternative 1 may be impractical. These hatchery fish-dominated watersheds could be managed as artificial production zones for supplementing the sport fishery. These few exceptions aside, however, the SSMP and, in particular, Alternative 1 represents a promising approach to managing wild steelhead and this Alternative should be adopted and implemented throughout the state.

3 8.1

One of the most dramatic examples of the need to focus on natural production is the comparison of current wild steelhead abundance with historic records. Current wild steelhead populations statewide are mostly in the range of 1 percent to 6 percent of historic levels as estimated primarily from various commercial harvest and canning records.[1] In one specific Puget Sound stream, the Stillaguamish River steelhead run in 1895 has been estimated at 60,000 to 90,000 wild returning adults, compared to a recent five year average of 593. The current WDFW escapement goal is 1800, 2 percent to 3 percent of historic abundance. No one claims that today's habitat conditions are equivalent to those of a century ago, but there is a very limited possibility that habitat loss can account significantly for the 97 percent to 98 percent loss of all steelhead stocks.

[1] Wild Salmon Center publication, Bill McMillan and Nick Gayeski: "Historic Steelhead Abundance: Washington NW Coast and Puget Sound", May 2006

Burgess, Paula

3 cont.

The SSMP is predicated on similarly low escapement targets for virtually all watersheds including Olympic Peninsula streams where 50 percent to 95 percent of individual watersheds are in relatively pristine condition in the Olympic National Park. Even in these systems with a high percentage of intact habitats, the Department and co-managers have established escapement goals that: 1) are very small fractions of historic abundance; and, 2) lack explicit effort to conserve key life histories, such as summer run stocks which are almost extinct in these watersheds. An indicator of the impact of such low and unspecified escapement goals can be evidenced with Hoh River winter steelhead which spawn primarily in Park waters yet have not met their escapement goals for several years.

The SSMP, at a minimum, should consider establishing abundance/life history diversity benchmarks based on higher percentages of historic run size along with a timeframe for achieving those goals. Absent such bench marks, the SSMP provides no meaningful guides lines for management decisions.

4 10.14

WILD SALMONID REFUGIA

WDFW will miss a superb opportunity to restore *O.mykiss* if it fails to thoroughly test Alternative 1 in high potential watersheds around the state over the next five to ten years. This can best be demonstrated in wild salmonid refugia., especially where high quality habitat is largely intact and ecosystem processes are more or less functioning normally.

The only mention in the draft SSMP of anything close to a wild refuge is the strategy to "Establish Network of Wild Stock Gene Banks," which is found in the Artificial Production policy, as if its primary purpose is to provide emergency (i.e. hatchery) backup for failing populations. This completely misses the point of a refuge, which is to provide functional natural habitat for wild populations of target species.

Basin-wide wild salmonid refugia would complement the technological approach, providing the seed sources and an insurance policy against future declines under Alternative 1 in all eight management categories, both operational and administrative. Each would be a true wild salmonid (not just steelhead) refuge, with prescriptions for reducing over time hatchery stocking from current levels to zero or prohibiting hatchery releases where they do not currently exist. Selected refugia should have a reasonable foundation of wild steelhead, at least modestly intact habitat, and substantial likelihood that the habitat will remain intact. All fishing, including that for juvenile steelhead and resident rainbow trout, would be temporarily prohibited until monitoring shows that the stock has recovered to safe fishing levels. Then limited season, catch and release, selective gear, sport fishing for adult wild steelhead should be allowed. If stray hatchery steelhead are caught, they should be retained.

The Department can no longer discount the sea change in angling preferences that has occurred in the last 50 years from almost entire emphasis on harvest to

Burgess, Paula

4 cont.

catch and release of wild fish. Catch and release has been proven in many places as a successful strategy to provide angling opportunity while minimizing mortality and supporting the primary goal of wild, natural production.

Increased scientific analysis and regulatory enforcement, careful monitoring, and adaptive management would complete the suite of strategies for the refugia. These refugia would serve as base lines for comparison with all other approaches to steelhead recovery and would be the best way to determine the approximate carrying capacity of rivers with today's habitat

Examples of successful steelhead recovery in wild fish refugia are found in British Columbia, Alaska's Situk River, a small number of Oregon coastal streams, parts of Eastern Oregon's John Day River basin, and in Washington after commercial fishing for steelhead was banned. These programs give us the highest confidence that this is an effective way to achieve the objectives of the draft SSMP.

Examples of viable watershed refuge candidates in Washington are the Elwha (post-dam removal); the Hoh/Queets; Skagit/Sauk; interior Columbia Basin (Klickitat or Wenatchee); lower Columbia (Wind, Kalama, Grays or Naselle); and, Snake River (Grande Ronde).

5 8.2

Conversely, conservation and/or integrated hatcheries are not proven strategies to recover depressed populations of wild fish, and can not be until the cycle is completed by terminating the hatchery infusions, and then monitoring stock status. As such, these hatcheries should be treated with caution as test cases and utilized only with specific geographic limitations, rather than as a broadly applied reform. To our knowledge there have been no examples to date of success with steelhead recovery through this complete cycle, and the science is not hopeful. The Salmon Recovery Science Panel (SRSP), which advises NOAA Fisheries on salmon and steelhead recovery, has written that even hatchery salmon spawned from locally adapted wild stocks decline in fitness at the rate of about 20 percent per generation. Therefore, these hatchery programs must also be treated as scientific experiments and tightly monitored against VSP criteria and, especially, the impacts of wild/hatchery spawning on wild stock health.

In addition to this major focus on Natural Production and its support from the other seven Policies, our specific comments on the other SSMP Policies include the following.

6 6.2,11.36

HABITAT PROTECTION AND RESTORATION

1. WDFW should use all of the power allocated to it in the HPA process to halt habitat loss and degradation known to impair *O.mykiss* productivity.

2. WDFW should maximize its consultative role to influence Department of Ecology (DOE) and the Department of Natural Resources (DNR) and DNR

Burgess, Paula

habitat decisions for the benefit of wild steelhead. 6 cont.

3. WDFW should influence FERC dam re-licensing to allow for the greatest maximum passage of juvenile and adult migrations past dams. Hatcheries are used as "mitigation" for habitat loss and fish passage barriers in the Columbia/Snake mainstem rivers.

FISHERY MANAGEMENT

7 10.01 1. Steelhead harvest should be constrained until stocks have recovered to VSP healthy levels. Accordingly, all hatchery steelhead should be fin clipped prior to release, including those currently stocked in the Upper Columbia DPS without a fin clip; all steelhead angling should be under selective fishing regulations; and wild steelhead harvest must be prohibited and hatchery steelhead harvest encouraged.

8 10.02 2. MSH is a harvest management regime based on unreliable steady state environmental assumptions and inadequate stock health data with inadequate buffers for wild escapement. It is incompatible with the primary goal of rebuilding natural production. Escapement goals should be set higher, incrementally closer to historic levels in order to support the primary Natural Production goal.

9 10.06 3. Non-lethal methods of tribal and commercial fishing must be implemented to increase survival of released by-catch, including steelhead.

10 10.17 4. Tables 1 and 2 in this section of the SSMP give the impression that hatchery brood stock counts are as important as wild fish escapements. This runs directly counter to placing highest priority on natural production.

11 10.01 5. WDFW and co-managers should eliminate the concept of "foregone opportunity." If either side wishes to allow its allotted share to escape to spawn, the other should not be permitted to harvest above their allocation. Further, WDFW should insure harvest agreements with co-managers do not include provisions for co-managers to harvest more than their rightful 50% of harvestable numbers. In any case, as a first step, WDFW should further work with the tribes to establish much higher escapement goals which are more reflective of historic levels of abundances as well as insuring harvest regimes to include provisions for restoring depressed life history variations in wild steelhead stocks.

ARTIFICIAL PRODUCTION

12 10.21 1. A 0.70 Percent Natural Index (PNI) target for integrated hatchery programs is woefully low. Based upon the Department's own long-term studies on the Kalama, a 30 percent straying rate of hatchery fish into the wild breeding population is disturbing. Presence of 30 percent of hatchery fish means that the likelihood of wild-wild pairings is less than 50 percent. Since only wild-wild pairings produce returning adults, the proposed index reduces the productivity of

Burgess, Paula

12 cont. the wild stock by 50 percent each generation. This is not acceptable in a watershed where wild steelhead management should be the top priority. Except in cases, such as the Cowlitz, where natural production is not viable, the SSMP should aim to eliminate completely hatchery and wild interactions. As a first step, the SSMP should establish refugia where no hatchery fish would be stocked, followed by temporary weir removal during known periods of heavy straying.

13 10.03 2. More specific definition of the risk assessment and benefits of hatchery programs need to be done.

14 10.03 3. WDFW needs to have alternate plans for steelhead recovery if conservation and integrated hatchery programs fail to live up to their billing upon close monitoring.

4. Eliminating the program should be included among the alternatives for addressing shortcomings in integrated programs.

MONITORING, EVALUATION, AND ADAPTIVE MANAGEMENT

15 10.03 1. It is critical that Natural Production (especially Wild Salmonid Refugia) and Artificial Production are high priorities for operational monitoring. One of the tragedies of salmon management in the last century has been the glaring lack of science-based monitoring of hatchery operations and results.

DEFINITIONS

16 12.18 1. The definition of Mark Selective Fishery, appearing in two places in the definitions section, is precisely backward. It should require the release of fish with adipose fins.

17 7.7 2. The definition of wild and natural fish as "naturally produced fish from a locally adapted stock regardless of origin or parentage" implies that hatchery fish may be continuously used over multiple generations to rebuild wild populations. The science has demonstrated that there is loss of fitness in locally adapted fish descended from multiple generations of fish raised in hatcheries. The proposed definition needs to be eliminated or changed to treat wild fish as fish born in the wild from wild parents.

IMPLEMENTATION OF THE PLAN

18 Comment Noted We are concerned that reliance on hatchery programs could slow funding or implementation of the SSMP because these programs are resource intensive. This institutional and budgetary focus on hatcheries may derail the necessary achievement of the overall objective, that of increasing natural production.

19 7.3 To be successful, this Plan will require strong executive leadership deeply

Burgess, Paula

19 cont.

committed to steelhead recovery grounded in the best available science and the fundamental principles of wild natural production. We have every bit of confidence in the agency's leadership to implement the SSMP and are happy to explore ways we can help address conservation concerns discussed in these comments.

We appreciate the opportunity to comment, respect the improvements you have made in the Plan, and look forward to working more with the Department.

Best regards,

Paula T. Burgess
The Wild Salmon Center

Campbell, Sara – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Collins, Charles

I went to the public meeting in Richland WA on August 22, 2007. Luckily I had happened upon a same such meeting being replayed on channel TVW and found out about this meeting on the recovery of Steelhead. A subject I am very interested in as an avid fisherman.

Six years ago I was invited to go on a fishing trip for Steelhead and/or Salmon. It was my first time ever and this experience changed my thoughts about the fishing as a whole. My friend explained at length the differences between Steelhead and Salmon and their lifetimes.

I believe this recovery plan is very important and well designed. My thoughts as to what is most important would be …..
#1 Regulation on types of fish harvesting as/in "bait fishing" which I believe has the highest death rates in the practice of "catch and release" procedures.
#2 Education of the regulations on the books now, mostly the practice of catch and release.

2 [10.08] 1 [10.01]

Charles W. Collins

RECEIVED
AUG 30 2007
HABITAT PROGRAM

Conley, Alex

YAKIMA BASIN
FISH AND WILDLIFE
RECOVERY BOARD

September 10th, 2007

Teresa Eturaspe
Regulatory Services Section, Habitat Program
Washington Department of Fish and Wildlife
600 Capitol Way North Olympia, WA 98501

COMMENTS ON WDFW STATEWIDE STEELHEAD MANAGEMENT PLAN

Dear Ms. Eturaspe,

The Yakima Basin Fish & Wildlife Recovery Board appreciates the chance to comment on the Washington Department of Fish and Wildlife's Statewide draft Steelhead Management Plan and EIS. As noted in our recent letter to Director Koening, we look forward to working closely with the state and the Yakama Nation in subsequent development of the Middle Columbia Regional Steelhead Management Plan. At this time, we offer a few comments specific to the draft statewide plan and EIS:

1 7.1

1) While the draft plan does a good job of explaining that different protective standards may be applied in different areas, those that read just the EIS may be mislead into believing that Alternative #2 will be applied across the Board. In our area and several others in the state, current management already resembles the more protective Alternative #1, and not the less-protective "current" Alternative #3 described in the EIS. It should be clear in the EIS that the plan does not propose rolling back current protections in areas like ours to better match Alternative #2. The brief reference to maintaining flexibility to use a more protective standard to support recovery on p.47 under Alternative I should be given more prominence in the Executive Summary and other portions of the EIS.

2 7.1

2) The EIS also implies that the monitoring standard will move from Alternative #3 to Alternative #2, which calls for implementing monitoring plans for key indicator stocks. This is different from Monitoring Strategy #4 on page 24 of the plan, which calls for monitoring of all steelhead populations. Addressing Mid-Columbia Steelhead ESA delisting criteria will require monitoring each individual population, and not just key indicators, as per Alternative #1. The EIS should recognize that in parts of the state a monitoring approach that is more intensive than the statewide preferred alternative will be needed, and that the cost will need to be shared by NOAA fisheries, the state, and parties engaged in mitigation (under the ESA or the Power Planning Act).

3 Comment Noted

3) While the general objective of better linking steelhead management objectives to the Viable Salmoid Population (VSP) framework is one of the strengths of the plan, the usage of the term VSP in the EIS is sometimes unclear, and in a few cases inaccurate. VSP is a conceptual framework, not a specific definition of "health" for a stock. Uses of the term like page 61's reference to "achieving VSP" make no sense without reference to specific standards developed within the VSP framework. Those standards are not predetermined by VSP, and will vary with

PO Box 2662, Yakima, WA 98907
Phone (509) 453-4104 Email: info@ybfwrb.org Web: www.ybfwrb.org

Conley, Alex

management objective. The current NOAA/recovery plan goals are only one of many possible sets of objectives, and are intended to minimize risk of extinction so that populations can be de-listed. Achieving a "healthy" state that supports harvest objectives will require a different set of standards. The plan should explicitly state how these objectives will be set (in the place of generic references to stock "health" or "achieving VSP") and then note how the VSP framework will be used to turn those objectives into specific criteria. (3 cont.)

4) On page 6 of the plan, under strategy 4, the statement that "presettlement abundances were likely much higher than initially estimated" needs explanation. Higher than which earlier estimates? Presumed higher based on which evidence? The same comment is made again on p76. (4 10.22)

5) On p. 6 of the plan, Action 2 needs to indicate that this should be coordinated with the Regional Recovery Plans. (5 7.1)

6) On page 13, under action #2, the references to 10% mortality are unclear. While the goal is to achieve less than 10% incidental mortality, using a rate over 10% mortality for handled fish in calculating the incidental mortality is appropriate if data supports it. Empirically determined incidental mortality rate, as per research action #1 on p. 28, should be used whenever available, as noted on p. 78 and 81in the response to comments. Page 13 action #2 implies that the rate used in calculation can not exceed 10%, even if empirical data indicated a higher rate should be used. (6 12.06)

7) On page 27, the five-year status report to the Director should be coordinated with the 5-year NOAA status reviews to be conducted for all listed populations. (7 12.21)

8) On p 30, Lead Entities and Regional Recovery Organizations should be added to the list of outreach partners. (8 7.0)

9) On page 31, #14, what does it mean to "bridge people with fish"? (9)

10) Some basic editing of the document still needs to be done. There are numerous citations in the EIS text that are not included in the bibliography of the EIS (Busby 1996, Phelps 1997, WDF 1993 and many more in pages on p 21-33). The Glossary and list of abbreviations include terms not used in the document, which is distracting and unnecessary (they appear to come from the initial science assessment). The 2nd sentence of 3.2.4 Intro on page 62 needs to be rewritten. The second line of the 3rd paragraph on p. 80 the "is" should be removed. The reference in the box on page 5 of the plan (not the EIS) incorrectly refers to VSP as "viable salmonid parameters". On page 9, #9 of the plan, the phrase "to compliment VSP identified in watershed goals" needs clarification. In the plan, the source for the economic data is given as the WDFW Steelhead Science Assessment. In referring to that document, I found that the sources cited in the box on economic value (4.2.1 in that document) were not included in the bibliography of that document. (10 12.19)

Again, we appreciate the opportunity to comment on this draft plan and EIS and look forward to supporting WDFW and tribal co-managers's efforts to develop steelhead management plans that help us achieve our goals of restoring anadromous fish runs in the Yakima Basin.

Sincerely,

Alex Conley
Executive Director

Corrado, Greg

From: "Greg Corrado" <Gcorrado@wavecable.com>
To: <SEPAdesk2@dfw.wa.gov>
Date: Fri, Sep 7, 2007 3:54 PM
Subject: WSC Comments for the WDFW Steelhead Management Plan

Teresa Eturaspe
SEPA/NEPA Coordinator
Regulatory Services Section, Habitat Program
600 Capitol Way North
Olympia, WA 98501

Dear Teresa,

1 Simms(WSC)

I would have preferred to send a formal letter regarding my support of the Wild steelhead Coalition's Comments on the WDFW Steelhead Mgmt Plan but have just received it and it does not allow time for postage before September 10th.

I fully support WSC's positions especially the first that all decisions must be based on "Best Science Available". Having been a Washington resident for over 25 years and having fished here much longer than that it appears that to many decisions are political compromises and involve almost no science at all.

2 10.01

There can be no doubt that stocks are dwindling, as evidenced by the ESA listing of Puget Sound Steelhead, and yet we continue to let both Tribal and Sport Fishermen kill wild fish in this State. There is no room for this practice and I would just as soon have the rivers closed to all fishing until stocks return as to see this practice of allowing Wild Fish kills to continue.

1 cont.

The WSC makes a number of good comments and I am in support of all of them. I urge you to give them serious consideration in your determination of a long term plan.

I am a long time outdoorsman and sport fisher and hate to lose any opportunities to fish, but this is an issue that if not decided properly could cause us to lose an important species forever.

Sincerely

Greg Corrado
7512 Long Lake Rd SE
Port Orchard, WA 98367

Gcorrado@wavecable.com

206-383-7560

Dahlgren, Shelley – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

DiVittorio, John

FISH FIRST
THE LEWIS RIVER
1359 Down River Drive • Woodland, WA 98674

SEPA/NEPA Coordinator
Regulatory Services
Habitat Program
600 Capitol Way N
Olympia, WA 98501

RE: Statewide Steelhead Management Plan

Dear Sir or Madam,

1 10.20 Thank you for the opportunity to review this plan. For me, the glaring omission in this plan is the failure to address commercial take of wild, native and T&E steelhead in the Columbia River commercial gillnets as legal (and illegal) by-catch. This is clearly a violation of the ESA that no one is enforcing. The potential for wiping out small runs of wild and native fish is great. I would encourage you to address this in the plan by recommending selective commercial fishing technology in the Columbia and enforcement of the ESA to prevent this in the future.

Best Regards,

John DiVittorio
Executive Director

Doyle, Larry

Teresa A. Eturaspe

SEPA/NEPA Coordinator

Agency Responsible Official

Regulatory Services Division

Habitat Program

September 9, 2007

Dear Ms. Eturaspe,

1 Simms(WSC)

After considerable review, I have agreed with the Wild Steelhead Coalition comments and conclusion on the Draft EIS for the Proposed Statewide Steelhead Management Plan which are in transit to you. These are repeated below.

They are not merely copied and forwarded but also reflect much of my thinking in the context of a system level specification, a difficult undertaking, which you should be commended on undertaking.

Sincerely,

Lawrence B. Doyle

Member, Wild Steelhead Coalition

Board Member, Grey Wolf Fly Fishing Club

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WSC Comments:

- **The DEIS improperly treats the secondary goal of providing fishing opportunity as equal to WDFW's legislatively mandated primary goal of assuring healthy stocks of wild steelhead.**
- **The DEIS fails to acknowledge and analyze the proposed alternatives relative to compliance with the Endangered Species Act (ESA).**
- **Preferred alternatives should not have been selected for the four operational policies because critical information and analysis is missing from the proposed alternatives, and preferred alternatives for natural production, fishery management, and artificial production require stock-specific information.**
- **The DEIS and SSMP come before revisions and completion of the WDFWs Steelhead Science and Management review paper, most recently reviewed by the public in February 2007.**
- **The DEIS contains insufficient information regarding WDFW's habitat management authority and habitat condition to enable an informed analysis of habitat alternatives and the selection of a preferred alternative.**
- **The DEIS relies on a number of value-laden and unsubstantiated assertions and assumptions which undermine the credibility of the analysis. The lack of a critical evaluation of the performance of steelhead hatchery programs in meeting WDFW objectives is especially glaring, particularly when combined with proposed harvest practices.**

WSC Conclusions:

"Because we feel that the DEIS is fundamentally flawed in so many respects, we recommend that WDFW step back, complete the science paper, continue developing the SSMP, and then issue a new DEIS that addresses our comments and the new information from the revised sciencepaper and SSMP"

Grant County
PUBLIC UTILITY DISTRICT
Excellence in Service and Leadership

Dresser, Tom

September 10, 2007

Teresa A. Eturaspe
SEPA/NEPA Coordinator
Regulatory Services Section
Habitat Program
600 Capitol Way North
Olympia, WA 98501

Re: Draft Environmental Impact Statement (DEIS) for the Statewide Steelhead Management Plan (SSMP)

Dear Ms. Eturaspe:

Public Utility District No. 2 of Grant County, Washington (Grant PUD), the owner and operator of the Priest Rapids Hydroelectric Project (Priest Rapids Project) is pleased to provide these comments on the Draft Environmental Impact Statement (DEIS) for the Statewide Steelhead Management Plan (SSMP). Grant PUD recognizes and appreciates the efforts of the Washington Department of Fish and Wildlife (WDFW) in managing wild steelhead populations in Washington state. The document was posted on WDFW's website on August 1, 2007 and public comments were extended to September 10, 2007.

1 Comment Noted

Upper Columbia steelhead were listed as an endangered species on August 18, 1997 and upgraded to Threatened on January 5, 2006. On May 3, 2004, the National Marine Fisheries Service issued a Biological Opinion on the effects of the Priest Rapids Project on listed species in accordance with Section 7 of the Endangered Act of 1973. The Biological Opinion identified 40 Reasonable and Prudent Alternatives (RPA) to be implemented at the Priest Rapids Project as protective and conservation measures. RPAs 25 through 27 are directly related to steelhead conservation efforts by way of passage and supplementation plans. For example, RPA 27 (Upper Columbia Supplementation Plan) requires Grant PUD to rear and release up to 100,000 yearling steelhead for release in the upper Columbia Basin. Grant PUD is committed to meeting or exceeding RPAs associated with steelhead migrating through the Priest Rapids Project.

Grant PUD continues to support the Upper Columbia Spring Chinook Salmon, Steelhead, and Bull Trout Recovery Plan (Recovery Plan) presented to the Upper Columbia Salmon Recovery Board in 2006 as the primary method of recovering listed steelhead populations migrating through the Priest Rapids Project. The following mission statement was taken from the Recovery Plan.

> *To restore viable and sustainable populations of salmon, steelhead, and other at-risk species through the collaborative efforts, combined efforts, and wise resource management of the Upper Columbia Region.*

In addition to the Recovery Plan, Grant PUD also supports using the best available science in all interests associated with upper Columbia River steelhead recovery.

Dresser, Tom

1 cont.

Grant PUD also believes that many factors will continue to negatively affect the future loss of critical habitat used by steelhead and, therefore, supports the conservative approach of Alternative 2 (Preferred Alternative) for adoption in the SSMP for steelhead populations in areas without a current recovery plan. Of the four different potential alternatives, Alternative 2 (as written) appears to provide the best chance for steelhead recovery while still providing for some recreational opportunity as conditions allow.

Thank you once again for the opportunity to provide comments on the Draft Environmental Impact Statement for the Statewide Steelhead Management Plan.

Sincerely,

for

Tom Dresser
Manager, Fish, Wildlife, and Water Quality

Everett, Mrs. George – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Farrar, John

Wild Steelhead Rivers Fix Statewide Steelhead Management Plan

An angler releases his catch, a hatchery steelhead marked with a clipped-fin. The released fish spawns with wild steelhead, diluting and weakening the wild stock's genetic integrity. Is the angler wrong to practice catch-and-release, or is the government agency that releases artificial fish at fault?

Sport does not oblige an angler to kill his catch. If hatchery fish stray and spawn with wild fish and thereby threaten them, we best preserve the fishery by abandoning artificial production.

Wild steelhead abound in pristine, unobstructed waters. When they pass freely to and from the sea, when they rear and spawn in unpolluted rivers flowing though unspoiled habitat and when harvest is limited, wild fish thrive and hatcheries prove superfluous.

Substituting hatchery fish for wild causes us to ignore the problem—rivers dammed and degraded, habitat destroyed and harvest unchecked. We deny wild fish the environment and conditions required for recovery.

Washington manages more hatcheries then any other state in the nation, or any other nation in the world. Some seventy state hatcheries sustain better than ninety-five percent of the steelhead harvest. However, half a century of hatchery dependancy has resulted in five of the state's seven wild steelhead populations being federally listed under the Endangered Species Act. Artificial production impedes rather than advances wild stock restoration.

1 10.14

The Washington Department of Fish and Wildlife (WDFW) submits its Statewide Steelhead Management Plan for public review. Of the four alternatives weighed only one forgoes artificial for natural production, but natural production alone is discounted as too conservative. Indeed, artificial production is so ingrained in WDFW's fishery operations and management that it is impossible for the bureaucracy to wholly abandon it. Extinction's dire consequence urges that WDFW accomplish in part what it can not do in whole.

2 10.03

The plan is best amended so that at least one major river in each distinct steelhead population region is reserved for natural production alone. Designated Wild Steelhead Rivers, WDFW must ensure that these waters reach carrying capacity—the maximum number of spawning wild steelhead—in twenty years or less. River restoration is a concomitant goal.

When we agree to save wild steelhead and specify and demonstrate how, they like the bald eagle will flourish.

John Farrar, Guide
P.O. Box 55802
Seattle WA 98155

206-324-3605
206-660-2173
farrar.j@comcast.net

Farrow, Earl

From: "Earl Farrow" <eandkfarrow@comcast.net>
To: <SEPAdesk2@dfw.wa.gov>
Date: Sun, Sep 9, 2007 9:14 PM
Subject: Draft Environmental Impact Statement for the Proposed Statewide Steelhead Management Plan

Dear Ms. Eturapse,

1 Simms(WSC)

As a resident of the State of Washington and a wild steelhead enthusiast, I support the Wild Steelhead Coalition's comments on the Washington Department of Fish and Wildlife's Draft Environmental Impact Statement on its Statewide Steelhead Management Plan. I encourage the WDFW to consider and address the concerns raised by the Wild Steelhead Coalition.

Sincerely,

Earl Farrow

Garrity, Michael – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Goin, Richard

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8/23/07

Teresa A. Eturapse
SEPA/NEPA Coordinator,
Regulatory Services Section
600 Capitol Way North
Olympia, Wa. 98501

Ms. Eturapse:
My comments on this DEIS will be brief and restricted to the effects on the Olympic Peninsula and western Puget Sound steelhead and they will be minimal until we actually start to address these two DEP's.

As a steelhead fisherman of 65 years seniority, I have seen the intense degradation of our fishery and am a student of history of the steelhead runs in the past.

We are at the eleventh hour for our wild (indigenous) steelhead and I feel that alternative one offers at least a forlorn hope of saving a few of these native stocks.

1 Comment Noted

3. 1 . 4 /Artificial production.
The introduction of non-native hatchery stocks, at least on the Olympic Peninsula, has been the single most damaging action perpetrated on our steelhead, resulting in the almost total loss of our once most numerous component of winter run steelhead.

There have been many studies on hatcheries, but almost no discernable changes.

2 Comment

3.2.2. Monitoring, evaluation. Adaptive management
This actions a lot more difficult to set up and follow thru then you make it sound.

We have worked under this concept since the beginning of salmon recovery efforts and have found that most people/entities do not follow thru for any length of time.

3 Comment Noted

Pg 55. Harvest regulations -----Paragraph 3
Maintaining the economic well being and stability of the fishing industry.

Comments:
The "fishing industry" is based on harvesting a natural resource largely fumbled by public money.

There is ample evidence that businesses based on natural resource harvesting will eventually destroy that resource. At this moment this is happening all over the world and has for centuries.

Goin, Richard

3 cont. In closing, I have been involved in fishery issues, projects, clubs, boards, education, etc. for fifty-one years and I have heard it all.

4 1.3 I sincerely hope the plan works, but it is disturbing to hear MSH is alive and well, hatcheries a large part of the plan, no realistic historical assessment of steelhead numbers, no information on how the tribes will be melded into the process, etc.

What I am hearing is not that much different from previous plans.

I must remind you, the fishery belongs to the people and WDFW is charged With taking care of it.

YOU HAVE FAILED !

Sincerely,

Dick Goin

Dick Goin
502 Viewcrest
Port Angeles, Wa. 98362

Grieve, Chris

From: "Chris Grieve" <chris.nffa@gmail.com>
To: <SEPAdesk2@dfw.wa.gov>
Date: Sat, Sep 8, 2007 10:32 PM
Subject: Comments on the Draft Environmental Impact Statement for Washington's Statewide Steelhead Management Plan

Hi Teresa,

1 [Simms(WSC)]
I am emailing you to let you know that I support the Wild Steelhead Coalition's comment letter for the Draft Environmental Impact Statement for Washington's Statewide Steelhead Management Plan.

James C. Grieve
email: chris.nffa@Gmail.com

Hawkins, Johnnie – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Holiday, Shannon – Wild Steelhead Coalition Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Hunt, Richard

From: "Richard Hunt" <Richardh@OBWilliams.com>
To: <SEPAdesk2@dfw.wa.gov>
Date: Mon, Sep 10, 2007 7:34 AM
Subject: SSMP & DEIS comments

Dear Teresa Eturaspe,

1 [Simms(WSC)]

I reviewed and support the comments delivered to your office by the Wild Steelhead Coalition to be adopted and incorporated into the Draft Environmental Impact Statement for Washington's Statewide Steelhead Management Plan.

Thanks Richard Hunt

Hunter, Ryan

GIFFORD PINCHOT TASK FORCE

917 SW Oak Street, Suite 410 Portland, OR 97205 Phone: (503) 221-2102 Fax: (503) 221-2146 http://www.gptaskforce.org

Jim Buck
WDFW
Attn: SEPA Center
600 Capitol Way North
Olympia, WA 98501-1091

RE: Draft DEIS for the Proposed Statewide Steelhead Management Plan

Dear Mr. Buck, September 10th, 2007

1 Simms(WSC)

I am writing on behalf of the Gifford Pinchot Task Force (GP Task Force) to comment on the Draft DEIS for the Proposed Statewide Steelhead Management Plan. The GP Task Force is a non-profit organization with over 3,000 members. We work to preserve and restore the ecosystems and communities of southwestern Washington by promoting conservation of forest ecosystems and sustainable restoration-based employment.

We have reviewed the comment letter submitted to WDFW on September 5th by Mr. Rich Simms on behalf of the Wild Steelhead Coalition and support the comments, conclusions, and recommendations in the letter.

Thank you for the opportunity to provide comments on this issue. If you have any questions, please do not hesitate to contact us.

Regards,

Ryan Hunter

Ryan Hunter
Program Director

Karsten, Cameron – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Kavanaugh, Rob

CONSTITUENT: KAVANAUGH, ROB
ASSIGNED TO: WILDLIFE
DUE DATE: 08.12
SIGNATURE: DEPT. Assignment #207333
(If response requires Director's/Deputy Director signature, be sure to send response in draft form electronically to Linda Bures.)

17Aug.2007

JimBuck
WDFW EIS Mgr.
WDF&W
Olympia,Wa.98504

RE:Steelhead Recovery EIS Comments

Pg 10 #5

Greetings:

I am especially concerned that present WDFW steelhead mgt for Columbia and Snake Rv.stocks does not address the special habitat problems in these areas.The EIS alternative must be more specific in how the preferred plan will help resolve these issues.

The first issue of concern deals with water resources & out of stream consumptive use of state waters now regulated by the WDOE.For many years tributary streams have been overappropriated by permited agricultural uses.Many stream diversions in natural low summer flow streams simply dry up.RCW 90.14 provides no protection for out of stream livestock use.(Manning & Slattery WDOE 07 ltr.5June).This may have severe impacts on juvinile steelhead in upper tribuataries.Your plan ignores this. Please provide a solution.

1 10.16 Making matters worse,the WDFW knowingly allows livestock consumptive use on listed steelhead streams on state wildlife lands.(Pintler Cr.& s.fk.Asotin Cr.2006)in Asotin Co.Wa.

And worse,the WDFW knowingly refused to consult with Federal and tribal agencies over the WDFW/WCA Pilot Grazing Project Here over 400 cattle were allowed to use these two streams. (Koenings,Quinn,Brittel,Dice,Pasanghra)This constitutes a violation of Title 16 of the ESA.

The Dir.WDOE,Jay Manning,refuses to enforce against out of stream consumptive use for stock watering.(Manning ltr.2007)The Governor was asked to itervene but refused.(Phillips,Mankowski 2007)

This lack of cooperation between the WDFW & WDOE is a cause of great concern to the BPA,USFWS,and the Nez Perce Tribe because they are expending both federal and tribal funds to protect steelhead habitat while Koenings works to cause damage by his cattle grazing operations on the Blue Mtn.WMA.

2 9.1 A second issue not addressed in theEIS is the problem of water quality damages cause by ag.activity in tributaries.Here we find damage to water quality by direct impacts of livestock feeding in streams and devegetating riparian areas on the Blue Mtn.WMA.(WDOE 4May 2007)Again the WDFW fails to cooperate with the WDOE or even conduct water quality monitoring of the livestock grazing permited by Koenings,the Governor

2 cont.

And the WCA.These actions violate RCW90.48.080.The EIS must design corrective measures to be incorporated in the draft EIS for public review.This has not been adequately addressed. You need to design a solution in the EIS.
In summary,the WDFW violated RCW 90.14 by not obtaining water rights before it allows out of stream use for livestock watering. The WDFW violates RCW 90.48.080by not protecting the water quality for the federally listed summer run steelhead of Asotin and Pintler Cr.& Kelly Cr.during 2006.The WDFW fails to consult with federal and tribal agencies with respect to permited livestock use of state wildlife areas.And the WDFW fails to enforce to protect the habitat of the endangered summer run steel head of these two streams.The EIS must describe how to counter these threats to the viability of the wild steel head. WDFW must provide leadership and set a better example.
Sincerely.

Rob Kavanaugh
6919 41st Ave.se.
Olympia,Wa.98503
mikavan@aol.com
Please send me a copy of the revised EIS.

cc.Glen Mendel WDFW Dist.Fish Bio
Tom Schrim WDFW Dist.Habitat bio
Aron Miles,Dir.Nez Perce Tribe Dept.of Natural Res.
Jay Manning.Dir.WDOE
Administrator,BPA
Cong.Norm Dicks
Sen.Karen Fraser
Gov.Gregoire

Please print these in my EIS cants!

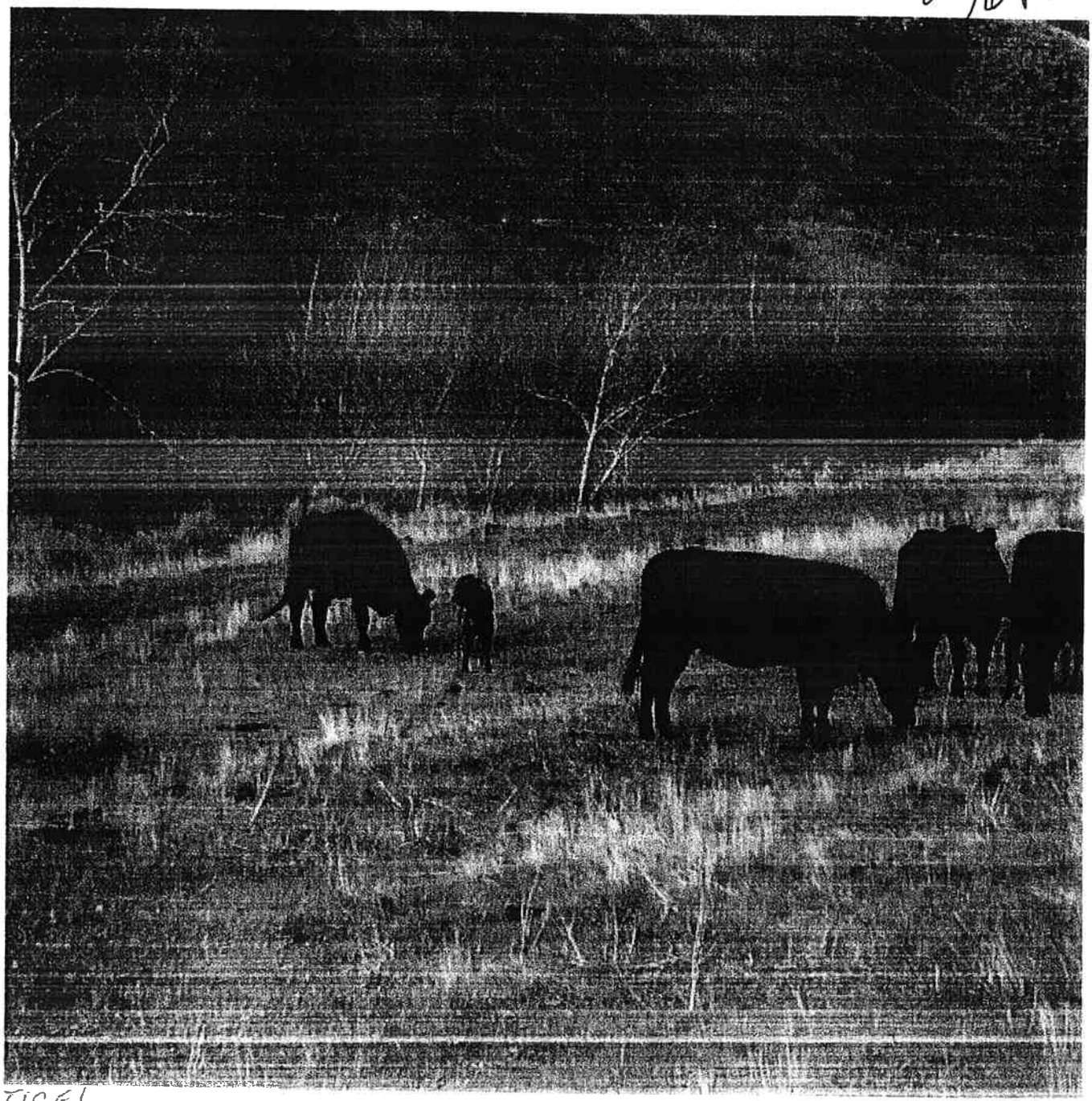
Kavanaugh, Rob

Pintler Watershed, Washington State / IMGP4878

Photos by Katie Fite-WWP
4/12/07

Dir Jeff Koenning
not plan for ESA
steelheads!

Pintler Cr
2007
unfenced
riparian
area



NOTICE!

1. These cows are eating new green grass + not old dead "wolfy veg" as any fool can tell!
2. This grass is less than 4" tall, much to short to be grazed.
3. Cattle favor flat terrain & not steep hillsides
4. They must stay near w because they are lactating!

Kavanaugh, Rob

Riparian Spring damaged by cow
Keller Cr/Butler Cr
2007
Bluewater
WMA


Kavanaugh, Rob

Kraemer, Curt

State Steelhead Management Plan

September 6, 2007

Thank you for the opportunity to comment on WDFW's Draft Environmental Impact Statement for the Statewide Steelhead Management Plan (SSMP).

I have read the document carefully and attended the Mill Creek public meeting covering the DEIS and have several thoughts on the document. The focus of my interest is the escapement objectives under the various options and the need to clarify those objectives to put them in some sort of environmental context. Without that context the stated objectives are essentially meaningless which in turn undermines the whole document and the any utility that it may have for future management.

While I have a number of concerns about some of the details in the DEIS it is largely pointless to address those without first cleaning up the escapement objectives. In fact I'm of the opinion that the whole document needs to be re-written once new definable objectives are in-corporate into the document

Comments specific to the escapement objectives -

I found that the objectives for the various options under the natural production section to be naive at best. While it would not be surprising, in fact it should be expect; that the lay public would confuse and poorly understand the nature of spawner recruit curves it was shocking to see a resource management agency to do so as well. While folks talk about MSH escapement levels or carrying capacity as a single value for a given population the reality is that those values are developed from a family of stock recruitment curves which may vary considerably under different survival parameters. For example MSH and carrying capacity would be entirely different values during periods of different marine survival. Those values would be considerably lower during periods of low survival compared to periods of high survival. Typically when determine MSH or carrying capacity it is done so by putting those values in some sort of context; usually under the so-called average conditions. But even then the term average condition probably needs to be quantified. Are the average conditions those seen recently? Those seen 30 years ago? Or those expected if habitat is restored. 1 10.02

Without putting those objectives in some sort of context discussing various options is a meaningless exercise in rhetoric.

At the Mill Creek meeting when Mr. Buck was asked about under what sort of survival conditions was the carrying capacity under Alternative #1 to be determined. The answer was under current conditions. With many of our steelhead populations ESA listed and for at least some populations little or no fishing it should be apparent to many that those populations are near current carrying capacity yet are ESA listed. To strive for the conservative goal that would still leave populations below ESA recovery levels would seem inappropriate; we should be striving

for more.

In the preferred alternative the goal seems to be VSP. To my knowledge no one has ever established what that may be for a Washington steelhead population or even how to do so. So the first question has to be the practicability of such an objective. By leaving that aside let's look closer at what VSP maybe and what sort of objective that may be. Again to my knowledge this is a relatively new concept that has grown out of the need to describe what a recovered population may look like. Essentially a recovered population would have abundance, productivity, diversity and spatial parameters about some minimal levels that reduces the risk of extinction to an acceptable level. In short if those values could be defined they would be the minimal parameters needed to achieve a delisting under ESA.

I have to assume that current policy for the State and WDFW is recovery ESA listed steelhead populations. Would not make the current or status quo objectivity for the listed populations to be achieve escapement levels at or above VSP

2 8.3

The agency mandate is to "Restore and maintain the abundance, distribution, diversity, and long term productivity of Washington's wild steelhead and their habitats to assure healthy stocks. In a manner consistent with this primary goal, the Department will seek to protect and restore steelhead to achieve cultural, economic, and ecosystem benefits for current and future residents of Washington State.

To the above it probably should be added something about fulling court and Federal manadates. The existence of tribal fisheries must not only be recognized but the impacts those fisheries must be considered in examining and implementing various management options. Equally important I think it is clear in the second half of the mandate that once the resource has been protect the agency is charged with maintaining benefits from the steelhead population including such activities as fishing (whether tribal or recreational) and that should be reflected in the DEIS objectives.

Looking more closely at alternatives #3, #2, and #1.

Under alternative #3 the DEIS characterizes the current management as MSH. As pointed out earlier this MSH management needs to be put in some sort of context. For most of Western Washington the current steelhead escapement goals were developed in 1984 and reflected what was thought to buffered MSH levels under the survival conditions that the Boldt Case area steelhead were experiencing in the 1970s and early1980s. That should be clarified in the

3 10.02

document along with caveat that current survival conditions are substantially different (especially the marine survival) than that seen at that time.

In addition I believe that the agency's current management if to strive for recovery of ESA listed populations. If that is indeed the case that I would think an objective that achieves that (VSP) would reflect the status quo of current management and objectives,

With the above clarifications # 3 (MSH at 1970s survival conditions and VSP for listed

stocks) would be acceptable to me.

Alternative #2 sets a target of VSP as an escapement target. As mentioned earlier to date I'm not sure how a numeric target would be set under VSP. However setting that issue aside literature seems to define VSP as a ESA recovery target. If indeed that is the case and one has to assume it is so since there has not been any attempt to define VSP as something other than that then I have to seriously question whether that is an appropriate objective for a preferred alternative.

First as mentioned above it should be the status quo for the State to achieve recovery of our listed stocks which would make VSP the status quo target for the listed stocks. Further setting an objective that just meets recovery needs does not leave room for any of the benefits listed in the second portion of the agency mandate.

If it is decided the concept of VSP should be part of the preferred alternative than I think the objective needs to be modify to provide for situations where there can be targeted (non-incidental) impacts on the non-listed stocks. To do so I would suggest that the objective for this option be **to management for MSH escapement levels that exceed VSP**. This would result in populations larger than currently provided for in the DEIS while insuring the opportunity to fish.

4 10.02

In addition I think so serious thought should be given towards using MSY rather than MSH. While MSH is the standard it does stress harvest while MSY, where yield could be defined any number of ways - for example man days of fishing - which would be more in line withe the current recreational interests in diverse fishing opportunities.

Alternative #3 sets the objective at carrying capacity but as noted earlier it the survival conditions dictating that capacity is undetermined. This is key and the discussion must be expanded to clarify under conditions this carrying capacity is being determined; for many of the listed stocks the populations are all ready near carrying capacity and this option would be little different than the current status.. As noted in the discussion management for carrying capacity essentially means that in all but the best survival conditions (which can not be known before) there can not be any fishing. Clearly this does not mean the second portion of the States mandate and this option should be eliminated.

I would like to suggest a different objective for this most conservative alternative. That **would be managing for MSY and habitat conditions that are under what NOAA Fisheries has called properly functioning conditions (PFC).** This has all ready been suggested by the co-managers for the list Puget Sound Chinook. For the Puget Sound rivers it was estimated that the productivity under PFC for the listed Chinook would be approximately 80% of the historic levels. This would represent a several fold increase in current abundances and allow for a fishing option as habitat is restored.

5 10.02

Yes it would be managing for MSY rather than carrying capacity but one needs to remember under what conditions those points are being determined. MSY escapement levels under PFC would higher than carrying capacity under poor conditions.

5 cont.

Regarding the adequacy of the DEIS in addressing the potential for significant adverse impacts on the environment.

While the determination of no adverse impact on the natural environment is certainly correct (there is a potential to see an improvement in some of those factors) I'm so sure that can be said for the built environment. The changes needed to improve survival conditions (especially the freshwater portion) for the State's steelhead will require changes in land use, transportation and public services. Depending on which alternatives are selected (especially those that require increase protection and restoration of the fish's habitat) there will be impacts on how some folks might potentially use the built environment. Depending on one's perspective those impacts could be considered to negative. Regardless in interest of completeness those potential impacts probably needs to be discussed.

SSMP Comments

6 10.21

I have provide detailed comments regarding the SSMP earlier and would like to focus my comments here on the idea of development of integrated hatchery programs and the difficulties of doing so with wild steelhead. To date much of the theory behind the development of integrated hatchery programs has largely been just that a theory. It is far too early to see how such programs will perform in the real world. The theory seems sound to me but it also seems that the underlying principle in a successful integrated program is using wild brood stock in the hatchery program that is representative of the wild population with which the hatchery fish will interact in the wild. While this seems to relatively straight forward for a fish like Puget Sound fall Chinook steelhead would seem to present some difficult challenges.

The generic integrated brood stock approach begins with the assumption that the wild brood stock can be collected that are representative of the wild population. This would assure that the hatchery fish produced from such a program will be sufficiently similar to the naturally produced fish that when they spawn with those wild fish their impacts on the productivity of the population will be acceptable. To further assure that is the case the generic model calls for a Proportionate Natural Influence (PNI) should exceed 0.70.

With steelhead gathering a wild brood stock and producing a hatchery product that is representative of the wild population is extremely difficult. The extended freshwater rearing of the smolts, diverse life histories, extended spawning and run times all conspire to make achieve a will integrated hatchery program difficult.

Some of the specific challenges that steelhead present include:

The domestication of the hatchery produced smolts. Because of the extended rearing required to produce successful smolts and the compression of the normal freshwater rearing period it is difficult for the hatchery program itself not to modify the behaviors and traits of those adults returning to spawn.

6 cont.

Inclusion of the life history diversity in the brood stock. Developing research has indicates it is not uncommon for the resident form of *O. mykiss* (rainbows) to interact with wild spawning steelhead result in a mixing of the two life histories.

There are other potential challenges in collecting brood stock that has a representative run timing. Such efforts are relatively straight forward if there is collection facility (such as a dam) low down in the system. However outside that rarely is the case. With winter steelhead on the coast collection of brood stock with a run timing that is not bias is often complicated by highly variable flows across the run.

However the largest challenge for many populations is caused by the extend and late spawning time of winter steelhead. In many cases there are substantial portions of the population spawning so late that it is not practical to include those fish if the go is to produce one year smolts.

I argue that the challenges that steelhead in much of the state present in collecting a brood stock that is truly representative of the wild population that some adjustment is needed to the generic integrated model. Perhaps the easy way to adjust that model is to look closely at the acceptable PNI. The more dissimilar the brood stock is to the over all wild population the higher the acceptable PNI should be. For example with a least a full year of hatchery rearing and the likely domestication that will result maybe for steelhead the minimum PNI should be something like 0.75. Similar adjustments should also be made when other factors are acting to separate the hatchery fish from the wild fish. Some suggestions -

1) When the portion of wild population run timing or spawn timing represented in the brood stock is less than 90% of the over all wild population the acceptable PNI should be raised.

2) When the portion of the spawning population that produced the current brood year of wild fish exceeded 30% the acceptable PNI shoul be raised.

3) When the brood stock collected does not capture the full array of diversity found in the wild population the acceptable PNI should be raised.

4) Etc.

Under such approach it is probable that the target PNI for most basins would be more than 0.80.

7 8.2

Another serious deficiency in the integrated hatchery approach is the failure to recognize that for many of the larger basins in western Washington many steelhead integrated programs would also be a segregated one. Most of the large basin have multiple stocks using the basin and fish from an integrated hatchery program will spawn through out the basin. When those fish interact with those other stocks they should be treated as segregated.

Typically when looking at a segregated hatchery stock interacting with wild fish it is assumed that the fish will randomly distribute themselves through out the basin (as assumption that errs on the side of the wild fish). When looking at fish from an integrated stock spawning with other

stocks the same desire to err on the side of the wild fish should be applied.

8 7.4 Both the DEIS and SSMP probably do not pay enough attention to Treaty fishing rites. Those rights are assured by the courts and are a reality of today's fish management world and should be plainly laid out in the document. Further those Tribal fisheries does implications for the wild fish; especially the incidental take of those fish while targeting integrated hatchery fish from a supplementation program. How does the Tribal fisheries access the harvestable hatchery without over fishing the wild stock or driving the PNI below acceptable levels?

Thank you for the opportunity to comment this important document.

Curt Kraemer
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Kruse, John

August 28, 2007

TO: SEPA/NEPA Coordinator
WDFW

RE: Comments on Statewide Steelhead Management Plan

I recently attended the presentation in Wenatchee concerning the steelhead management plan. I was told that despite my attendance, it would be best to give written comments. With that in mind – here they are:

1 Comment Noted

1. **The plan is hard to understand** – I'm a layperson (a sports fisherman, writer and outdoors enthusiast). Many aspects of the presented plan were very difficult to understand due to acronyms and scientific jargon.

2 8.0

2. **Concern about established plans on the Upper Columbia River** – The Wenatchee River system has been shut down to steelhead fishing for 10 years due to ESA regulations. A plan has been developed for this region that includes an actual trigger for when we could actually have a fishery again. Despite assurances at the meeting, I'm concerned that a statewide plan would retard these local efforts – essentially making us take steps backward to get in lockstep with the state plan.

3 7.0

3. **Predation not addressed** – Predation of steelhead smolt and adult steehead is a serious issue. Terns, cormorants, mergansers, squawfish (sorry – northern pikeminnow), and sea lions all have a significant impact on the amount of fish that return to our streams as adults. I did not see any part of the plan specifically address this issue.

Those are the main topics I wanted to comment on. I am appreciative of the fact that the WDFW is soliciting input from the public and I hope recurring themes will be addressed in the final plan.

Sincerely,

John Kruse
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LaRiviere, Mark

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HABITAT PROGRAM

September 7, 2007

Teresa A. Eturaspe
SEPA/NEPA Coordinator
Regulatory Services Section
Washington Department of Fish and Wildlife
600 Capitol Way No.
Olympia, WA 98501

RE: Comments on WDFW Statewide Steelhead Management Plan and Draft Environmental Impact Statement

Dear Teresa:

Tacoma Power is a party to a settlement agreement for the Cowlitz Hydroelectric Project (FERC No. 2016), which includes a Fisheries and Hatchery Management Plan (FHMP) developed by the Cowlitz Fisheries Technical Team (FTC) and approved by FERC in August 2006. The FHMP includes goals, objectives, actions and strategies to protect and enhance natural-origin salmonid stocks in the Cowlitz River above the mouth of the Toutle River. The FHMP can best be described as a "bottoms up" plan that stresses actions and strategies designed to recover listed stocks to healthy, harvestable levels.

1 Comment Noted

Many of the actions and strategies proposed in the WDFW Statewide Steelhead Management Plan (SSMP) are included in the Cowlitz FHMP. The repetition of these strategies and actions is consistent with other state-wide reviews (i.e., Hatchery Scientific Review Group recommendations) as many biologists and managers agree on the steps necessary for the recovery of listed salmonids.

Tacoma Power commends the WDFW for releasing the SSMP, and for setting timelines for the approval and implementation of the plan to recover native steelhead stocks in Washington State. We have the following comments:

Tacoma strongly supports the preferred alternative as we recognize the need to balance protection for wild stocks with some harvest opportunity.

2 10.14

The concept of establishing wild gene banks in distinct population segments statewide is an excellent proposal. Tacoma proposes that the upper Cowlitz River basin (above Cowlitz Falls Dam) be considered as a wild gene bank area for the lower Columbia River steelhead population.

3 Comment Noted

The use of the viable salmonid population (VSP) parameters as recovery goals is also supported by Tacoma as the best means to measure achieving stock recovery of a fit and productive natural-origin population.

4 10.20

WDFW should increase the emphasis and analyses of the impacts of the incidental take of natural-origin steelhead in commercial gill net fisheries in the lower Columbia River in the final EIS. The DEIS did not focus on this source of mortality to these populations and more detail is needed.

5 7.0 The FHMP can be described as a "within watershed" plan for the Cowlitz River already in place and being implemented. WDFW should align the regional management plan (RMP) for the lower Columbia River with the implementation actions of the Cowlitz FHMP.

Thank you for this opportunity to comment.

Sincerely,

Mark G. LaRiviere
Senior Fisheries Biologist
Generation, Natural Resources
Tacoma Power

Cc: Cowlitz Fisheries Technical Committee

Levreault, Michael – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

MacArthur, June – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Masonis, Rob

American Rivers
Thriving By Nature

September 10, 2007

Teresa A. Eturaspe
SEPA/NEPA Coordinator, Regulatory Services Section
600 Capitol Way North
Olympia, WA 98501

Submitted via Fax

Dear Ms. Eturaspe:

1 See Simms(WSC) for response to this letter

Thank you for the opportunity to comment on the Washington Department of Fish and Wildlife's (WDFW) Draft Environmental Impact Statement (DEIS) on its Statewide Steelhead Management Plan (SSMP). American Rivers is a not-for-profit river conservation organization, and our mission is to protect and restore healthy, natural rivers for the benefit of people, fish and wildlife.

We represent over 1,500 members and supporters in Washington. Nationwide, American Rivers has over 65,000 members and supporters. When we sent an action alert to our members last week about WDFW's DEIS on the SSMP, over 75 people took action, voicing their concerns about the DEIS's treatment of habitat related issues.

Since 1992 when our Northwest regional office was opened, we have advocated for the protection and restoration of river habitat to enable the recovery and long-term sustainability of naturally produced salmon and steelhead in Washington, Oregon and Idaho. Accordingly, our comments are primarily focused on the DEIS's treatment of habitat related issues.

Before addressing specific habitat related issues, we want to raise two overarching concerns regarding the DEIS that we believe have a direct bearing on the legal sufficiency of the DEIS and its usefulness in achieving its stated purpose.

General Comments

The DEIS improperly treats the secondary goal of providing fishing opportunity as equal to WDFW's legislatively mandated primary goal of assuring healthy stocks of wild steelhead

The SSMP objectives (p. 6, Section 1.2.3), accurately and appropriately establish the primacy of the goal of assuring healthy stocks of wild steelhead in Washington State, and the secondary goal of providing cultural and economic opportunity, which primarily means fishing opportunity. This is consistent with WDFW's statutory mandate set forth in RCW 77.04.012, which expressly subordinates uses of steelhead to the conservation of steelhead. Contrary to that required

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hierarchy, the DEIS states that the SSMP seeks to "balance" these two goals and that the four alternatives "were developed across a spectrum between these two goals." (p. 13). Thus, WDFW treats these two goals as competing and of equal weight, contrary to the legislative mandate.

SEPA regulations state that "[r]easonable alternatives shall include actions that could feasibly attain or approximate a proposal's objectives, but at a lower cost or decreased level of environmental degradation." WAC 197-11-440(5)(b). Alternative 4, which would maximize harvest opportunity, is patently inconsistent with the primary goal of protecting and restoring wild steelhead. In addition, it is contrary to the requirements of the ESA, the compliance with which the DEIS states is an SSMP objective, as it must (p. 6). Accordingly, it is per se unreasonable and should not be included as an alternative.

Moreover, the treatment of these two goals as of equal weight skews the alternatives analysis throughout the document. This skewing is most evident in the analysis of fisheries management and artificial production alternatives and the selection of a proposed alternative. In both cases, WDFW implies that despite the fact that the most conservative alternative (Alternative 1) is the best for meeting the primary goal of wild steelhead protection and recovery, it is not selected as the preferred alternative because of the potential impact on fishing opportunity. (pp. 47, 51). Alternative 2, the preferred alternative, is less protective of wild fish, but was presumably selected because it provides for greater fishing opportunity. If WDFW is going to select less protective policies in these two areas, it must provide a much more in-depth analysis explaining how adoption of those policies does not undermine the primary goal of wild steelhead protection.

The DEIS fails to address Endangered Species Act (ESA) requirements in the selection and analysis of alternatives

As previously noted, one of the SSMP's goals set forth in Section 1.2.3 is to ensure compliance with federal and state law. It is surprising, then, that the alternatives analysis is almost completely devoid of ESA consistency analysis. Consequently, it is not possible to determine whether the alternatives would comply with this federal law. This flaw must be remedied by selecting a range of alternatives that are consistent with legal mandates, including the ESA, and explain how they are consistent.

Habitat Comments

The DEIS contains insufficient information regarding WDFW's habitat management authority and habitat condition to enable an informed analysis of habitat alternatives and the selection of a preferred alternative

As the DEIS accurately notes, the protection and restoration of habitat is essential for achieving wild steelhead populations that meet VSP criteria. (p. 40). Habitat protection and restoration policy is appropriately established at the state level because WDFW's authority is established pursuant to state legislation and WDFW's habitat programs are developed with a statewide scope. Consequently, a comprehensive analysis of habitat policy is appropriate in this non-

project EIS because basin and/or stock-specific information is not necessary to determine appropriate statewide habitat policy.

a. The DEIS fails to identify and analyze several habitat protection measures available to WDFW

The DEIS contains insufficient information to enable an informed decision about habitat policy. First, it fails to identify all of the statutory and regulatory means by which the agency can protect habitat. In particular, water quantity is completely omitted from the habitat analysis (p. 40) despite the fact that WDFW has statutory authority to require the Department of Ecology to set instream flow rules where necessary to protect fish and wildlife. RCW 90.22.010.

Similarly, the DEIS does not mention Outstanding Resource Waters designations, an important and highly relevant tool available under the federal Clean Water Act to protect high-quality rivers that either provide cold water refugia for aquatic species or are of exceptional statewide ecological significance. 33 U.S.C. § 1370. Rivers designated as Outstanding Resource Waters are protected from future water quality degradation, and designation can be obtained by petitioning the Department of Ecology. In its supplement to the Puget Sound Chinook Recovery Plan, NOAA explicitly endorses use of this tool for Chinook recovery, and the same rationale applies with equal force to steelhead. The DEIS also fails to address the opportunity presented by the Endangered Species Act listings of many Washington wild steelhead stocks. WDFW has the opportunity to work directly with NOAA to ensure that "critical habitat" is appropriately designated and that strong habitat protection and restoration actions are included in steelhead recovery plans being developed by NOAA.

These authorities and opportunities – and any others that have not been mentioned – must be identified and analyzed before WDFW selects a habitat policy for the SSMP. We realize that there may be political resistance to some habitat protection measures WDFW could either implement or request, but that is not a legitimate basis for limiting the scope of analysis. (See WAC 197-11-402(10): "EISs shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made.")

b. The DEIS does not adequately describe current habitat conditions or analyze the habitat policy alternatives in relation to those conditions and thus there is no basis for selecting a preferred habitat policy

The DEIS also lacks a discussion of current habitat conditions relative to those necessary to achieve WDFW's primary goal of healthy wild steelhead populations.[1] For example, there is no discussion of the fact that most steelhead rivers either lack instream flow rules or have outdated instream flow rules based on flawed science. Moreover, there is no analysis of how the habitat alternatives presented would address the habitat conditions that are limiting factors for wild steelhead. Selecting a preferred alternative without such information is clearly inappropriate.

[1] The Regional Management Plans should include additional analysis of habitat conditions at the regional scale, which should guide the relative allocation of WDFW resources and selection of the specific habitat protection tools in each region. It bears emphasis, however, that the RMPs are not the place for establishing statewide habitat protection and restoration policy.

c. The DEIS lacks a comprehensive analysis of WDFW's habitat protection authority under the Hydraulic Code and thus fails to provide sufficient information upon which to determine an appropriate policy

The DEIS gives just passing mention to the hydraulic permitting process (HPP), which WDFW is responsible for administering. The statute and implementing regulations are not presented so it is not possible to ascertain how useful this authority could be. Moreover, there is no discussion of the level of resources currently devoted to implementation of this program (or any of the other state programs identified), or of the adequacy of the law with respect to WDFW's ability to assure healthy wild steelhead populations. Without this essential information it is not possible for the public to provide meaningful comment or for WDFW to make informed policy decisions.

Had such an analysis been presented, it would have revealed major deficiencies in the law itself, the way it has been administered, and the resources available to administer it. Specifically, the law does not authorize WDFW to require mitigation for permitted projects beyond 10 years, there is no required evaluation of cumulative impacts, there is no civil stop work authority under the statute, insufficient resources are dedicated to implementing the program, and permits are almost never denied. This information is essential for an objective analysis of the adequacy of the program to inform policy-making.

Conclusion

American Rivers appreciates the opportunity to comment on the DEIS for the SSMP, and looks forward to working with the agency to protect and restore the rivers and streams that support wild steelhead in Washington State. Due to the significant flaws we have identified in the DEIS, we strongly encourage WDFW to issue a revised draft EIS prior to issuing a final Final Environmental Impact Statement and selecting a habitat policy for its Statewide Steelhead Management Plan.

Sincerely,

Robert J. Masonis
Senior Director

Matera, Stephen – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

McRoberts, James

Teresa A. Eturaspe
SEPA Responsible Official
Washington State Fish & Wildlife
Habitat Program
600 Capitol Way North
Olympia, WA 98501-1091

Subject: Statewide Steelhead Management Plan

Dear Ms. Eturaspe:

As a stakeholder in the Statewide Steelhead Management Plan process, I am pleased to submit comments on the DEIS for the SSMP.

First, I would like to thank the members of the WDFW staff who have listened carefully to the comments of the stakeholders and made some important improvements to the Plan based in part on stakeholder inputs. They have been very patient and attentive to our views.

My comments are offered as a concerned citizen. Currently I am a member of the Director's **S**teelhead **C**utthroat **P**olicy **A**dvisory **G**roup. I have been a member for a number of years and have had the privilege to work on the Statewide Steelhead Management Plan from the outset. Also I am a member of several organizations which I know are making comments to help guide the final document.

1 7.1 When I first received the DEIS for the SSMP, I thought that Alternative 2 would probably be a good position to take even though I favor Alternative 1. The problem arises with the statement in **3.1.1 Natural Production Alternatives; Alternative 1.** In there the words *"In some eastern Washington watersheds, existing mitigation agreements long with the assessment that this steelhead management strategy will have little significant adverse environmental impact to other salmonids have made this the preferred management approach"*, make it apparent that Alternative 2 could not be applied in these watersheds. Therefore, Alternative 2 seems to lack merit for the overall choice. You should consider that a *one-size-fits-all* approach is not possible at the statewide level. The fine tuning of the alternatives should be done when each Regional Management Plan is developed.

2 7.3 All of the Alternatives have a ***it would be nice if we could*** approach on how to obtain help from other state, i.e. DOE and DNR, branches as well as federal and tribal entities. The Department and the Commission must impress upon the Governor and the legislature that obtaining cooperation is **A MUST** and in everyone's best interest to **save wild steelhead! The mandate in RCW 77.04.012, "The department shall conserve the wildlife and food fish, game fish, and shellfish resources in a manner that does not impair the resource" should not be taken lightly**. The Department must be funded properly to make this happen.
Alternative 1 would seem to be the most prudent choice.

Respectfully,

Mr. James C. McRoberts
5430 Lake Washington Blvd SE
Bellevue, WA 98006-2643

Milliken, Gerry – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Mitchell, Marianne

September 10, 2007

To: Teresa Eturaspe
WDFW

From: Marianne Mitchell

Re: Draft EIS for the Proposed Statewide Steelhead Management Plan

1 Simms(WSC)

I would like to support the comments provided to you by the Wild Steelhead Coalition. I am in complete agreement with them. The Draft EIS is flawed in many ways, not least of all because of the Department's continued over-reliance on political palatability and unsubstantiated opinion rather than on scientific fact. I would particularly like to focus on the issue of Artificial Production, i.e. hatcheries.

2 10.03

If the Department intends to go forward with the EIS as it is structured, I believe the Preferred Alternative (#2) in terms of Artificial Production should be much more conservative.

Even though there is a substantial and growing body of scientific evidence that hatchery fish drive out wild fish by, among other things, consuming the food and crowding out the habitat they need, the Department continues to add hundreds of thousands of hatchery smolts to our rivers every year. The Department itself recognizes on Page 51 (Alternative 1) that "Wild and hatchery produced steelhead compete in common areas for most of their life cycles and elimination of hatchery competition with wild populations could mean elimination of many hatchery releases."

Furthermore, in terms of working to eliminate the interaction of hatchery fish with wild fish on the spawning grounds, the Department has been largely unresponsive. In its March 2004 response to the Hatchery Scientific Review Group report, the Department resists the principal recommendations of the HSRG (see, for example, Page 183 of the report as it relates to the Quillayute System winter steelhead) and continues to focus on its response to HSRG recommendations in terms of the **quantity** of items implemented with no reference that I have seen to the implementation with regard to qualitative and substantive measures and results achieved.

In its May 17, 2007 Comments on the SSMP, the HSRG states, among other things, that "…ubiquitous in these (WDFW hatchery) programs was inadequate provision for the recapture of unharvested returning hatchery adults" and that "any segregated harvest program conducted under these circumstances will pose a high risk to naturally-spawning steelhead stocks." The report also notes that "integrated harvest programs are not currently a viable alternative in most places." Its primary recommendation is to "Select a balance of large and small streams and habitat types in each region that are **not planted** (my emphasis) with hatchery fish and are instead managed for native stocks." (This recommendation, by the way, does not preclude fishing in these managed areas.)

3 3.2

On Page 51 (Alternative 1) the Department also makes the assertion that a more conservative approach "emphasizes wild steelhead stock protection without regard to negative impacts on local economies by loss of recreational harvest opportunity for hatchery fish." This is a biased statement that has little or no basis in fact. First of all, it assumes that if hatchery fish were eliminated, wild fish would not replace them. In fact, for example, intense fishing pressure on early winter hatchery stocks have almost eliminated the early winter wild runs on the Quillayute system, in particular.

Further, as is pointed out on Page 5 of the WSC comments and as I noted in my September 26, 2006 comments to the Department on the SSMP, this statement ignores substantial evidence we have available from other geographic areas such as the State of Montana and Smithers, BC, where the local economies have significantly **benefited** from the elimination of hatchery programs and the subsequent gains in blue ribbon sport fisheries. In these areas, dire economic consequences were predicted for the local economies; I invite you to visit Ennis, Montana on any given summer day.

Thank you for the opportunity to comment.

Moore, Erin

O'Halloran, James

O'Hartigan, Philip

Moore, Erin – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

O'Halloran, James – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

O'Hartigan, Philip – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Parker, Michael

From: Michael Parker <elparquito@comcast.net>
To: <SEPAdesk2@dfw.wa.gov>
Date: Mon, Sep 10, 2007 1:34 PM
Subject: Comments on the State Steelhead Management Plan

Dear Teresa Eturaspe,

[Simms(WSC) 1

I have reviewed and support the comments delivered to your office by the Wild Steelhead Coaliton to be adopted and incorporated into the Draft Environmental Impact Statement for Washington's Steelhead Management Plan.

Thanks,

Michael Parker
WA State Resident
Seattle, WA.

Pasco, Russ – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Post, Rebecca

Teresa A. Eturaspe
SEPA/NEPA Coordinator
Regulatory Services Section WDFW
600 Capital Way North
Olympia, WA 98501-1091

September 7, 2007

I am writing to comment on the Washington Department of Fish and Wildlife's (WDFW) Draft Environmental Impact Statement (DEIS) on its Statewide Steelhead Management Plan (SSMP).

I believe that the DEIS contains serious flaws and that the habitat policy chosen by WDFW does not do enough to protect wild steelhead or the rivers and streams that are essential to their survival and recovery.

The DEIS contains insufficient information to enable an informed decision about habitat policy. First, it fails to identify all of the statutory and regulatory means by which the agency can protect habitat. In particular, water quantity is completely omitted from the habitat policy analysis despite the fact that WDFW has statutory authority to require the Department of Ecology to set instream flow rules where necessary to protect fish and wildlife. In commenting on the Chinook salmon recovery plan for Puget Sound, the National Marine Fisheries Service stressed that keeping enough water in rivers and streams is of critical importance to salmon recovery, and the same holds true for steelhead. Thus, instream flow regulation must be addressed and a habitat policy should ultimately be chosen that calls for WDFW using its full authority to protect and restore instream flow.

1 Simms(WSC)

Similarly, the DEIS does not mention Outstanding Resource Waters designations, an important and highly relevant tool available under the federal Clean Water Act to protect high-quality rivers that provide cold water refugia for aquatic species or are of exceptional statewide ecological significance. Rivers designated as Outstanding Resource Waters are protected from future water quality degradation, and designation can be obtained by petitioning the Department of Ecology. WDFW should seek protection of the best remaining steelhead habitat through Outstanding Resource Waters designation.

The DEIS also fails to address the opportunity presented by the Endangered Species Act listings of many Washington wild steelhead stocks. WDFW has the opportunity to work directly with the National Oceanic and Atmospheric Administration (NOAA) to ensure that "critical habitat" is appropriately designated and that strong habitat protection and restoration actions are included in steelhead recovery plans being developed by NOAA. WDFW should use the Endangered Species Act to increase protection for steelhead and the habitat they depend on.

Additionally, the DEIS fails to address conservation opportunities based on Tribal treaty rights. WDFW has the opportunity to work with treaty tribes on fisheries management.

The DEIS should mention this opportunity and how partnering with tribes can aid in steelhead habitat management and recovery strategies.

These authorities and opportunities must be identified and adequately explained in a revised DEIS, and policy alternatives presented and analyzed in a revised DEIS must include the full range of habitat protection and restoration tools WDFW possesses. In the absence of such an analysis an informed decision about habitat protection policy cannot be made.

Second, despite emphasizing that habitat protection and restoration is essential to healthy wild steelhead populations the DEIS fails to analyze the effectiveness of habitat policy alternatives in addressing the significant habitat protection needs. Without such an analysis it is not possible for WDFW to make an informed choice among habitat policy alternatives.

Thank you for the opportunity to comment on the DEIS for the SSMP. I encourage WDFW to address the concerns I have raised in a revised DEIS prior to issuing a final Final Environmental Impact Statement and selecting a habitat policy for its Statewide Steelhead Management Plan.

Rebecca Post
5330 Beverly Drive NE
Olympia, WA 98516

Redman, Bill

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HABITAT PROGRAM

FEDERATION OF FLY FISHERS™

Conserving - Restoring - Educating Through Fly Fishing

Steelhead Committee
~~10621 SE 30th St.~~
~~Bellevue, WA 98004~~

7549 SE 29th St. #307
Mercer Island, WA 98040
(206) 236-5912
September 5, 2007

Teresa A. Eturaspe
SEPA/NEPA Coordinator, Regulatory Services Section
Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, WA 98501

Subject: Statewide Steelhead Management Plan

Dear Ms. Eturaspe:

As stakeholders in the Statewide Steelhead Management Plan process, the Steelhead Committee of the Federation of Fly Fishers is pleased to submit comments on the DEIS for the SSMP.

First, we would like to thank the members of the WDFW staff who have listened carefully to the comments of the stakeholders and made some important improvements to the Plan based in part on stakeholder inputs. They have been very patient and attentive to our views.

The result is a draft Plan that makes significant departures from the failed status quo management to a more conservative management strategy based more on wild, naturally spawned steelhead, VSP based measurements of stock health, and habitat protection and restoration on all policy fronts. Specific improvements include the following:

1 7.1

1. Placing highest priority on natural production, especially compared to harvest and hatcheries, which have been at the heart of WDFW steelhead management for almost a half century.

2. Calling for more aggressive WDFW involvement in habitat protection decisions.

3. Moving away from the failed Maximum Sustained Harvest (MSH) fisheries management model toward more conservative (higher) buffers for escapement.

4. Hatchery management that follows some of the recommendations of the Hatchery Scientific Review Group, along with aggressive monitoring and scientific study to understand hatchery/wild spawning issues and the impacts of hatchery operations on wild fish.

1 cont.

Given the ESA listed status of five of the seven Distinct Population Segments of Washington steelhead and the depressed state of all steelhead populations compared to historic abundance, WDFW has made a wise decision to abandon its current Alternative 3 management. Indeed, the current sad state of the steelhead should persuade the Department to dismiss all further consideration of Alternatives 3 and 4 out of hand as not compatible with the highest priority goal of protecting and restoring wild steelhead stocks. These alternatives simply are not up to the daunting challenges ahead. The discussion needs to focus on the relative merits of Alternatives 1 and 2.

NATURAL PRODUCTION

2 7.1

This DEIS for the SSMP begs the question: If "Steelhead Management shall place the highest priority on the protection of wild steelhead stocks and restoration of these stocks to healthy levels," then why not go for Alternative 1, the most aggressive in protection and restoration of these stocks?

We are not so unrealistic as to expect the Department to move immediately to Alternative 1 management in all watersheds. In streams with extremely low wild fish stocks and high dependence on hatcheries (the Cowlitz comes to mind), it will likely be appropriate to manage them as "industrial" sport fishing zones.

However, the new management approach should allow WDFW to use this crossroad to try a series of scientific experiments with more conservative management approaches. There should not be a requirement that all watersheds be managed at the same Alternative level.

One of the most dramatic examples of the need to focus on natural production is the comparison of current wild steelhead abundance with historic records. Current wild steelhead populations statewide are mostly in the range of 1% to 6% of historic levels as estimated primarily from various commercial harvest and canning records. In one specific Puget Sound stream, the Stillaguamish River steelhead run in 1895 has been estimated at 60,000 to 90,000 wild returning adults, compared to a recent five year average of 593. The current WDFW escapement goal is 1800, 2% to 3% of historic abundance. No one claims that today's habitat conditions are equivalent to those of a century ago, but there is no possible way that habitat loss can account for a 97% to 98% loss of steelhead stocks. This is an undammed watershed, and something else must be going on. That leaves harvest and hatcheries, two major causes of decline largely under the control of WDFW.

3 10.14

WILD SALMONID REFUGIA

WDFW will miss a superb opportunity if it fails to thoroughly test Alternative 1 in high potential watersheds around the state over the next five to ten years. This can best be done with a variety of carefully chosen wild salmonid refugia.

The only mention in the draft SSMP of anything close to a wild refuge is the strategy to "Establish Network of Wild Stock Gene Banks," which is found in the Artificial Production policy, as if its primary purpose is to provide emergency (i.e. hatchery) backup for failing populations. This mostly misses the point of a refuge.

Full fledged wild salmonid refugia would go well beyond emergency backup. The refugia should be the flagship experiments of Alternative 1 in all eight management categories, both operational and administrative. Each would be a true wild salmonid (not just steelhead) refuge, with no hatchery stocking. Refugia selected should have a reasonable foundation of wild steelhead, at least modestly intact habitat, and substantial likelihood that the habitat will remain intact. All fishing, including that for juvenile steelhead and resident rainbow trout, would be prohibited until monitoring shows that the stock is recovering. Then limited season, catch and release, selective gear, sport fishing for adult wild steelhead should be allowed. If stray hatchery steelhead are caught, they should be retained.

The Department can no longer discount the sea change in angling preferences that has occurred in the last 50 years from almost entire emphasis on harvest to catch and release of wild fish. Catch and release has been proven in many places as a successful strategy to provide angling opportunity while minimizing mortality and supporting the primary goal of wild, natural production.

3 cont.

Increased scientific analysis and regulatory enforcement, careful monitoring, and adaptive management would complete the suite of strategies for the refugia. These refugia would serve as base lines for comparison with all other approaches to steelhead recovery and would be the best way to determine the approximate carrying capacity of rivers with today's habitat

Examples of successful steelhead recovery in wild fish refugia are found in British Columbia, Alaska's Situk River, a small number of Oregon coastal streams, parts of Eastern Oregon's John Day River basin, and in Washington after commercial fishing for steelhead was banned. They give us the highest confidence that this is the surest way to achieve the objectives of the draft SSMP.

Watershed refuge candidates in Washington should include the post dam removal Elwha, the Hoh in cooperation with the Hoh River Trust and the Wild Salmon Center, at least one North Puget Sound stream, and in the interior Columbia Basin, one or more among the Klickitat, the Wenatchee, and the Grande Ronde.

Conversely, conservation and/or integrated hatcheries have not been proven as strategies to recover depressed populations of wild fish, and can not be until the cycle is completed by terminating the hatchery infusions, and then monitoring how the stocks do. To our knowledge there have been no examples to date of success with steelhead recovery through this complete cycle. And the science is not hopeful. The Salmon Recovery Science Panel (SRSP), which advises NOAA Fisheries on salmon and steelhead recovery, has written that even hatchery salmon spawned from locally adapted wild

stocks decline in fitness at the rate of about 20% per generation. Therefore, these hatchery programs must also be treated as scientific experiments and tightly monitored against VSP criteria and, especially, the impacts of wild/hatchery spawning on wild stock health. 3 cont.

In addition to this major focus on Natural Production and its support from the other seven Policies, our specific comments on the other SSMP Policies include the following.

HABITAT PROTECTION AND RESTORATION

1. WDFW should use all of the power allocated to it in the HPA process to stop habitat loss and degradation.

2. Although it may not be realistic to expect WDFW to gain legislation to take primary responsibility for habitat protection from the Department of Ecology (DOE) and the Department of Natural Resources (DNR), WDFW should maximize its consultative role to influence DOE and DNR habitat decisions for the benefit of these fish. 4 6.2,11.36

3. WDFW should oppose FERC dam re- licensing until juvenile and adult migrations past dams are adequately accommodated.

4. "Mitigation" for habitat loss in the Columbia/Snake mainstem boils down to hatcheries as tradeoffs for migration blocking dams. That is not habitat protection and a half century of history says it does not work. 5 Noted

FISHERY MANAGEMENT

1. There should be no entitlement to wild steelhead harvest by anyone – tribal and non-tribal commercial by-catch, sport fishers, poachers, or anyone else – until stocks have recovered to VSP healthy levels. Accordingly, all hatchery steelhead should be fin clipped prior to release, including those currently stocked in the Upper Columbia DPS without a fin clip; all steelhead angling should be under selective fishing regulations; and wild steelhead harvest must be prohibited and hatchery steelhead harvest encouraged. 6 10.01

2. MSH is a failed harvest oriented policy based on dangerous steady state environmental assumptions and inadequate stock health data with inadequate buffers for wild escapement. It is incompatible with the primary goal of rebuilding natural production. Escapement goals should aim much higher, closer to historic levels in order to support the primary Natural Production goal. 7 10.02

3. Non-lethal methods of tribal and commercial fishing must be implemented to increase survival of released by-catch, including steelhead. 8 10.06

4. Tables 1 and 2 in this section of the SSMP give the impression that hatchery broodstock counts are as important as wild fish escapements. This runs directly counter to placing highest priority on natural production. 9 10.17

10 10.01 5. "Foregone opportunity" should be eliminated from all WDFW and tribal catch negotiations. If one side wants no harvest for conservation reasons, the other side should not be able to claim the conserving side's 50% share.

ARTIFICIAL PRODUCTION

11 10.21 1. A 0.70 Percent Natural Index (PNI) target for integrated hatchery programs seems woefully low. This would allow 30% invasion of hatchery traits on the wild stocks – not many generations before the stock is likely to be seriously degraded.

12 10.03 2. More specific definition of the risk assessment and benefits of hatchery programs needs to be done.

13 10.03 3. WDFW needs to have alternate plans for steelhead recovery if conservation and integrated hatchery programs fail to live up to their billing upon close monitoring.

4. Eliminating the program should be included among the alternatives for addressing shortcomings in integrated programs.

MONITORING, EVALUATION, AND ADAPTIVE MANAGEMENT

14 10.03 1. It is most important that Natural Production (especially Wild Salmonid Refugia) and Artificial Production get the highest priority and greatest amount of monitoring resource among the operational policies, Natural Production to measure its upside potential and Artificial Production largely to measure its negative impacts.

2. One of the tragedies of salmon management in the last century has been the almost complete absence of science based monitoring of hatchery operations and results. Monitoring can not be allowed to be cut from the bottom of the budget priorities.

DEFINITIONS

15 12.16 1. The definition of Mark Selective Fishery, shown in two places in the definitions section, is exactly backward. It should require the release of fish HAVING an adipose fin.

16 7.7 2. The definitions of wild and natural stock fish as "naturally produced fish from a locally adapted stock regardless of origin or parentage" is a serious mistake in our judgment, considering the substantial body of research showing that, even with local wild broodstock, the degraded fitness of the offspring compared to wild fish can continue for

16 cont.

multiple generations. This definition needs to be tightened by defining wild fish based on lineage farther back than one generation.

IMPLEMENTATION OF THE PLAN

17 Comment Noted

Among the issues we worry about most in the implementation of the SSMP is the long term, deep running WDFW allegiance to hatchery programs, which have used a large amount of WDFW human resources and budgets over the years. Although this Plan points the way to significantly improved steelhead management, there continue to be worrisome marks of the continuing influence of the hatchery culture, some of them pointed out in these comments, on the SSMP. This influence could detract from and possibly even derail achievement of the highest objective, Natural Production. This will not be a quick fix, and the temptation to fall back to the hatchery mentality if results are not achieved in one or two generations must be avoided.

18 7.3

Finally, this Plan will require strong executive leadership deeply committed to steelhead recovery based on wild natural production, if it is to succeed in implementation. Without this kind of leadership, the SSMP will do little more than gather dust, and management may continue pretty much "business as usual."

Thank you for the opportunity to comment on the DEIS for the Statewide Steelhead Management Plan. We look forward to continuing to support the Department as stakeholders.

Bill Redman

Bill Redman, Chair
Steelhead Committee
Federation of Fly Fishers

Rich, Tim – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Robinson, Bill

September 10, 2007

Teresa A. Eturaspe
SEPA/NEPA Coordinator, Regulatory Services Section
600 Capitol Way North, Olympia, WA 98501

Re: Comments on Statewide Steelhead Management Plan

I'd like to make the following comments on the Draft Environmental Impact Statement and thank you for the opportunity to do so.

1 10.01 I'm a strong supporter of the development of a total statewide wild steelhead release policy.

2 Simms(WSC) I would strongly support the comments which have been provided by the Wild Steelhead Coalition, particularly their assessments of the harvest and hatchery components of the "Plan".

3 10.03 I am a strong supporter of the HSRG Recommendations but we have very few examples of the longer term impacts to wild steelhead as a result of the implementation of "integrated" and "segregated" hatchery programs. As such, we need to spend money to adequately monitor and evaluate these programs as we move forward with implementation of their recommendations in specific steelhead programs across the state of Washington.

4 10.14 Decreasing the number of hatchery production is one way to reduce the ecological interactions between natural production and hatchery produced steelhead. Another scientifically based method is to develop "Wild Salmonid Management Areas" as recommended by the HRSG. These areas should be salmonid preserves and include in their management a "no fishing" component.

There are so many "feel good" comments in the DEIS that are, from my perspective, not realistic.

5 7.3 One example is the pronounced continued expectation that the Washington State Legislature will increase the regulatory authorities of the Washington Department of Fish and Wildlife. Do people really believe that this will happen? I've worked on water resources and habitat initatives in this state for 20 years and can tell you that the support our fisheries resources is not a top, nor secondary, not even tertiary tier. The "Plan" also mentions restoring our riverine habitats to their full productive capacities-is this a realistic goal?

6 7.3 Another example is the goal of increasing WDF+W staffing to work closer with agencies to strengthen fish and wildlife resources as they are faced with increasing pressures from growth and development-both on the landscape and in Olympia! As a WDF+W biologist friend of mind says from time to time, "I see more and more developments but very few aquatic habitat restoration projects". Do people really believe that we will see real increases in funding from the Washington State Legislature for the WDF+W to achieve these needs?

Robinson, Bill

7 7.3 Yet another need is funding the monitoring and evaluation needs to ensure that the science to be used in the development of the Regional Plans and Watershed Plans be of the highest quality. Adequate funding is critical for this aspect of "planning" to be successful.

8 Comment Noted If there is one low point for fishers in this opportunity to comment, it is the lack their participation in the "Watershed Planning" processes and on the ground participation in restoration activities. The "Plan" suggests that fishers/conservationists take part in these efforts. Unfortunately, the idea that "someone else will do it" is alive and well in the fishing community and has been for many years.

9 Comment Noted In closing at this point, if I had to pick an Alternative, I'd hold my nose and go with Alternative #2. It is very apparent that the proposed Alternative #2 is very weak and as such needs to be crafted much more conservatively, with a greater focus of wild steelhead recovery, to address the shortfalls with the "Statewide Steelhead Management Plan". Hopefully, as this process moves forward and people contribute their thoughts, the product will be greatly improved.

Thanks for the opportunity to provide these comments.

Bill Robinson

Bill Robinson

Member of the Steelhead Cutthroat Policy Advisory Committee
Member of Trout Unlimited, Wild Steelhead Coalition, Washington Wildlife Federation
(but not representing those organizations)

Royer, Alice – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Schaad, Douglas

WFFC Conservation
c/o Douglas C. Schaad
5020 38th Ave NE
Seattle Wa 98105-3023

Teresa A. Eturaspe
SEPA/NEPA Coordinator, Regulatory Services Section
Washington Department of Fish and Wildlife
600 Capital Way North
Olympia WA 98501

Re: Statewide Steelhead Management Plan

Dear Ms. Eturaspe:

1 Comment Noted

The Conservation Committee of the Washington Fly Fishing Club has followed with interest the development of SSMP and is pleased to submit succinct comments on the DEIS associated with the SSMP. We also wish to recognize the considerable effort that WDFW has placed upon the development of the SSMP and the involvement of multiple stakeholders in that process.

Following several meetings, and numerous electronic discussions, the Conservation Committee of the Washington Fly Fishing Club recommends that the Commission select Alternative 1. While Alternative 2 received some support from the Conservation Committee, the clear consensus indicated that Alternative 2 did NOT provide a time-line or protection commensurate with the need for recovery of wild steelhead populations.

Should the Commission decide that Aternative 2 be enacted, the WFFC Conservation Committee recommends adding:

2 10.01 A ban on the retention of all wild steelhead statewide

3 9.2 Increased refugia on every major river basin

4 9.2 Increased diligence and regulatory authority to prohibit habitat destruction or deterioration

5 10.05 Increased monitoring of all wild stocks and review of current escapement goals.

Respectfully submitted,

Douglas C. Schaad
Co-Chair Conservation Committee
Washington Fly Fishing Club

Schlie, Gerald

3 September 2007

SEPA/NEPA Coordinator
Regulatory Services Section
Habitat Program
600 Capitol Way North
Olympia, Washington 98501

RE: Comments for Statewide Steelhead Management Plan

1 10.01

I am in favor of whichever plan eliminates retaining native steelhead until most rivers within the State can withstand harvesting native steelhead.

Fisherman will always go where they can legally harvest native steelhead. This has increased fishing pressure for native Olympic Peninsula steelhead, and this increased pressure will continue until harvesting native steelhead on the Olympic Peninsula "healthy stocks" are no longer healthy. Even with the limit reduced on one/year, the increased number of fisherman results in a proportional increase in harvested native steelhead.

Therefore, native steelhead harvesting rules must be consistent throughout the State.

Gerald Schlie
Box 25
Beaver, WA 98305

Schmitz, James – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Shea, Brian

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F. PAUL EASTER
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GRAYS HARBOR COUNTY
STATE OF WASHINGTON

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September 11, 2007

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Grays Harbor Co. Web Page
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Theresa Eturaspe
Department of Fish and Wildlife
State of Washington
600 Capital Way North
Olympia, Washington 98501-1091

RE: *Determination of Non-Significance*

Ms. Eturaspe:

1 Comment Noted

Thank you for the opportunity to comment on the Washington State Department of Fish and Wildlife's State Environmental Policy Act (SEPA) *Determination of Non-Significance* (DNS) associated with the draft *Washington Administrative Code Chapter 232-13* for governing public conduct in wildlife areas and access sites managed by the Washington State Department of Fish and Wildlife in Washington State.

Grays Harbor County has reviewed the threshold determination and related environmental checklist and concurs that the proposal does not represent a probable significant adverse impact to either the natural or built environment.

Thank you again.

Sincerely,

Brian Shea
Director
Planning and Building Division

Cc: File

Sherwood, Kurt

Teresa A. Eturaspe
SEPA/NEPA Coordinator, Regulatory Services Section
600 Capitol Way North, Olympia WA 98501

RE: Statewide Steelhead Management Plan

1 Simms(WSC)

After review of the SSMP DEIS document, and review of the comments from the Wild Steelhead Coaliton, my wife Shannon, and I request that you include our support for the comments and recommendations of the Wild Steelhead Coalition.

The SSMP document is broken down into 4 proposals in each critical topic. The proposals span from the status quo (which is ridiculous since we have such a serious problem of declining wild runs!) to 3 more options of differing reach. We must remember to focus on wild steelhead recovery!

Thank you for you time.

Kurt Sherwood
Shannon Holliday

September 10, 2007

To: Teresa Eturaspe

WDFW

From: Richard K. Simms

Re: Draft EIS for the Proposed Statewide Steelhead Management Plan

[1 Simms(WSC)]

I have reviewed and support the comments delivered to your office by the Wild Steelhead Coalition to be adopted and incorporated into the Draft Environmental Impact Statement for Washington's Steelhead Management Plan.

Thank you for the opportunity to comment on this important document.

Sincerely,

RK. SIMMS

Rich Simms

Teresa A. Eturaspe WDFW
Attn: SEPA Center
600 Capitol Way North
Olympia, WA 98501-1091
September 5, 2007

From: **The Wild Steelhead Coalition**

Re: **Comments on the Draft EIS for the Proposed Statewide Steelhead Management Plan**

Dear Ms. Eturapse,

The Wild Steelhead Coalition is a not-for-profit steelhead conservation organization made up primarily of concerned, passionate, and well informed steelhead anglers. Our organization formed in 2000 to advocate for an improved future for wild steelhead and steelhead fisheries in the Pacific Northwest. As engaged stakeholders in WDFW-sponsored forums for nearly a decade now, we are pleased to have this opportunity to comment on the Washington Department of Fish and Wildlife's (WDFW) Draft Environmental Impact Statement (DEIS) on its Statewide Steelhead Management Plan (SSMP).

The Wild Steelhead Coalition respectfully submits the following comments on the DEIS for the proposed Statewide Steelhead Management Plan. While we credit the department for recognizing the challenges facing this precious natural resource and making an effort to plan for a sustainable future, we find the SSMP and the DEIS to be inadequate basis upon which to pursue this goal. Specifically, the DEIS fails to provide a reasonable set of alternatives, and provides insufficient analysis to justify the rationale supporting selection of the preferred alternatives. We have identified several recurring themes that individually flaw this document. Taken together, these flaws represent a serious failure to meet the SEPA mandate for providing and critically evaluating reasonable alternatives for guiding the Statewide Steelhead Management Plan. Of the many flaws we have identified in this document, we view the following as critical:

- **The DEIS improperly treats the secondary goal of providing fishing opportunity as equal to WDFW's legislatively mandated primary goal of assuring healthy stocks of wild steelhead.**
- **The DEIS fails to acknowledge and analyze the proposed alternatives relative to compliance with the Endangered Species Act (ESA).**
- **Preferred alternatives should not have been selected for the four operational policies because critical information and analysis is missing from the proposed alternatives, and preferred alternatives for natural production, fishery management, and artificial production require stock-specific information.**
- **The DEIS and SSMP come before revisions and completion of the WDFWs Steelhead Science and Management review paper, most recently reviewed by the public in February 2007.**
- **The DEIS contains insufficient information regarding WDFW's habitat management authority and habitat condition to enable an informed analysis of habitat alternatives and the selection of a preferred alternative.**
- **The DEIS relies on a number of value-laden and unsubstantiated assertions and assumptions which undermine the credibility of the analysis. The lack of a critical evaluation of the performance of steelhead hatchery programs in meeting WDFW objectives is especially glaring, particularly when combined with proposed harvest practices.**

Due to these fundamental flaws, we believe that the DEIS and the SSMP do not present a legally or scientifically sound basis for future management. Because we feel that the DEIS is fundamentally flawed in so many respects, we recommend that WDFW step back, complete the science paper, continue developing the SSMP, and then issue a new DEIS that addresses our comments and the new information from the revised science paper and SSMP.

Our more specific comments follow in sections under the heading of the key themes listed above. A final section contains a brief summary of our major comments, concerns, and recommendations.

Specific Comments

1.0 1.0 &1.2

1. The DEIS improperly treats the secondary goal of providing fishing opportunity as equal to WDFW's legislatively mandated primary goal of assuring healthy stocks of wild steelhead.

The SSMP objectives (p. 6, Section 1.2.3), accurately and appropriately establish the primacy of the goal of assuring healthy stocks of wild steelhead in Washington State, and the secondary goal of providing cultural and economic opportunity, which primarily means fishing opportunity. This is consistent with WDFW's statutory mandate set forh in RCW 77.04.012, which expressly subordinates uses of steelhead to the conservation of steelhead. Contrary to that required hierarchy, the DEIS states that the SSMP seeks to "balance" these two goals and that the four alternatives "were developed across a spectrum between these two goals." (p. 13). Thus, WDFW treats these two goals as competing and of equal weight, contrary to the legislative mandate.

1.1 1.1

SEPA regulations state that "[r]easonable alternatives shall include actions that could feasibly attain or approximate a proposal's objectives, but at a lower cost or decreased level of environmental degradation." WAC 197-11-440(5)(b). Alternative 4, which would maximize harvest opportunity, is patently inconsistent with the primary goal of protecting and restoring wild steelhead. In addition, it is contrary to the requirements of the ESA, compliance with which the DEIS properly states is an SSMP objective (p. 6). Accordingly, it is per se unreasonable and should not be included as an alternative.

1.2 1.0 & 1.2

Moreover, the treatment of these two goals as of equal weight skews the analysis of the alternatives throughout the document. This is most evident in the analysis of fisheries management and artificial production alternatives and the selection of a proposed alternative for these policies. In both cases, WDFW implies that despite the fact that the most conservative alternative (Alternative 1) is the best for meeting the primary goal of wild steelhead protection and recovery, it is not selected as the preferred alternative because of the potential impact on fishing opportunity. (pp. 47, 51). Alternative 2, the preferred alternative, is less protective of wild fish, but was presumably selected because it provides for greater fishing opportunity. If WDFW is going to select less protective policies in these two areas, it must provide a much more in-depth analysis explaining how adoption of those policies does not undermine the primary goal of wild steelhead protection and is consistent with its statutory mandate.

2.0 2.0

2. The DEIS fails to acknowledge and analyze the proposed alternatives relative to compliance with the Endangered Species Act (ESA)

As previously noted, one of the SSMP's goals set forth in Section 1.2.3 is to ensure compliance with federal and state law. It is surprising then that the alternatives analysis is almost completely devoid of ESA consistency analysis. Thus, with the exception of Alternative 4, it is not possible to determine whether the alternatives would comply with this federal law. This flaw must be remedied by selecting a range of alternatives that are consistent with legal mandates, including the ESA..

2.1 We are also concerned about the use of a phased EIS process for the SSMP. The WAC describes the required contents for an EIS that follows a non-project EIS as follows: "A nonproject proposal may be approved based on an EIS assessing its broad impacts. When a project is then proposed that is consistent with the approved nonproject action, the EIS on such a project shall focus on the impacts and alternatives including mitigation measures specific to the subsequent project and not analyzed in the nonproject EIS. The scope shall be limited accordingly. " (WAC 197-11-443 (2)) We are concerned 2.1 that given the extremely general set of alternatives and strategies described by WDFW, and despite substantial shortcomings in the analysis, any subsequent RMP may be considered "consistent", and thus not in need of detailed analysis for those topics that are ostensibly covered in this DEIS. As currently written, the DEIS provides a general menu of options, but little guidance on how the menu would likely be applied at a Regional level, relative to the local context and the status of affected populations of steelhead. In our view, none of the impacts or alternatives have been sufficiently analyzed in the nonproject proposal to be eligible for a 'free pass' as regional plans are developed.

3. Preferred alternatives should not have been selected for the four operational policies because critical information and analysis is missing, and preferred alternatives for natural production, fishery management, and artificial production require basin and/or stock-specific information.

3.0 SEPA does not require the selection of a preferred alternative. If a preferred alternative is to be 3.0 selected it should be based on aspects of steelhead management for which there is sufficient information to guide decisions and/or for which a preferred approach can be properly determined based on basin and/or stock-specific information. Any preferred alternative will necessarily need to be consistent with and applicable to regional ESA recovery planning objectives and requirements, which can be quite variable depending on the status of the DPS in question and its component sub-populations. Given the present dearth of critical information on all four operational policies, it is clearly inappropriate to select preferred policy alternatives at this juncture.

3.1 Preferred policy alternatives for natural production, fishery management, and artificial production should 3.1 be advanced in the Regional Management Plans (RMPs) consistent with the goal of maintaining the long term viability of steelhead populations and, where necessary, supporting their recovery under the ESA. The DEIS acknowledges as much, stating that basin and/or stock-specific analyses of natural production, harvest management, and artificial production are necessary to make an informed choice amongst alternative operational policies (see, for example, the discussion of natural production policy on page 37 noting that selection of an appropriate policy requires stock-specific analysis). It is also not appropriate to select a preferred habitat policy at this time for the reasons discussed below.

3.2 We are also concerned about the inclusion of economic measures related to lost revenues associated 3.2 with harvest, while the economic costs of providing those opportunities are not presented in any way. The WAC clearly states that cost-benefit analyses are not required, but also states that "For purposes of complying with SEPA, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations." (WAC 197-11-450). Clearly, qualitative, non-economic considerations are at the forefront for the protection of a species that is in severe decline. We suggest that WDFW either 1) fully describe the economic costs and benefits associated with harvest, including production costs of hatchery fish on a per-harvestable-adult basis, or 2) omit reference to the economic benefits of harvest from the EIS.

4. The DEIS and SSMP come before revisions and completion of the WDFWs Steelhead Science and Management review paper, most recently reviewed by the public in February 2007.

4.0 We find it unacceptable that the WDFWs Steelhead Science and Management review paper is not yet 4.0 complete, yet the agency has proceeded with the development of a draft SSMP and now this DEIS for the SSMP. We and other interested parties submitted detailed and constructive comments on the draft

Science paper (our comment letter is attached). The degree to which WDFW has considered these comments is unclear, but they are not reflected in the logic supporting the draft SSMP and the DEIS.

Why was the science document offered for public review and comment if WDFW was not prepared to recognize valuable stakeholder contributions? The contributing authors have invested considerable effort to educate themselves on the extent and the limits of the available science. Likewise, considerable effort has been invested in the review of the Science paper, and constructive comments have been offered in the spirit of collaboration. Yet we see little indication that these comments have been recognized or considered in the drafting of the SSMP or the DEIS. We are particularly interested in the reliance of the SSMP and the DEIS preferred alternative on continued hatchery production, which a wealth of scientific evidence indicates is detrimental to the viability of wild steelhead populations. WDFW has not provided convincing evidence that the unspecified hatchery reforms promised in the SSMP will overcome the considerable uncertainty surrounding the role of hatcheries in maintaining viable salmonid populations. 4.0 cont.

This failure to respect public process and the contribution of stakeholders is of deep concern to the Wild Steelhead Coalition. We feel strongly that responses to those comments and completion of the Science paper should be a top priority for WDFW before moving forward with adoption of a SSMP and associated EIS. We also ask WDFW to clarify that their actions to date regarding response to public comments are consistent with the requirements of the Administrative Procedures Act (RCW 34.05).

5. The DEIS relies on a number of value laden and unsubstantiated assertions and assumptions, which undermine the credibility of the analysis and could lead to arbitrary and capricious decision-making. The lack of a critical evaluation of the performance of steelhead hatchery programs in meeting WDFW objectives is especially glaring.

Throughout the DEIS there appear unsubstantiated assumptions or assertions that are apparently factored into the alternatives analysis. This in inconsistent with a primary purpose of SEPA, which is to ensure informed decision-making based on thorough, objective analysis. A partial list of such assumptions and assertions appear below:

- That carrying capacity can be accurately determined for each watershed (p. 38) 5.0
- That managing for wild steelhead protection and health could have negative impacts on other salmonid stocks or ecosystem health (p. 38) 5.1
- That an artificial production policy that gives primacy to the protection of wild stocks "could hinder the use of artificial production for stock recovery" (p. 51) 5.2
- That increasing hatchery production of steelhead smolts benefits steelhead fishing opportunities. 5.3

In 2004 we submitted a comment letter for the Grandy Creek DEIS (attached) wherein we showed a negative relationship between WDFW's smolt releases and adult returns for both wild and hatchery steelhead in the Skagit Basin. Yet throughout the SSMP DEIS there is an unstated assumption that decreasing smolt releases will result in decreasing fishing opportunities, and increased hatchery smolt production will result in increased steelhead fishing opportunities. For which programs is this assumption valid? And under what conditions might we expect increased hatchery production of steelhead smolts to support WDFW steelhead management goals? Such assertions should be tested with an analysis of the extensive steelhead data that exists in WDFWs archives. A meta-analysis of the performance of Washington's steelhead hatchery programs wherein smolt release and adult return data are analyzed for each program, as well as annual smolt release and annual returns for wild steelhead, is sorely needed to critically evaluate the performance history for Washington's steelhead hatchery programs. We have advocated such an analysis in our February 17, 2007 comment letter on the Draft Science paper (attached).

5.4 5.4

- That the reduction or loss of sportfishing harvest opportunity would have a severe economic impact (the unstated assumption being that catch and release fishing opportunities could not substitute for harvest fisheries) (p. 14, 49, 51)

  This value-laden assumption is arbitrary, untested, and not supported by experience. The state of Montana effectively ceased hatchery production on its blue ribbon trout streams many years ago, despite similar refrains about the economic impacts on rural communities imposed by reduced fishing opportunity. This bold management decision has resulted in substantial increases in the abundance and productivity of valued sport fish populations. The predicted dire economic consequences for recreation dependent communities were never realized, in fact recreational uses have expanded in conjunction with the improved condition of the resource. We submit that a similar outcome is possible for steelhead in Washington State. If WDFW insists on maintaining this assumption as a basis for alternative evaluation, the potential economic benefits of catch and release fisheries on viable, sustainable wild steelhead populations should be given equal consideration.

6. The DEIS contains insufficient information regarding WDFW's habitat management authority and habitat condition to enable an informed analysis of habitat alternatives and the selection of a preferred alternative

6.0 6.0

a. The DEIS fails to identify several habitat protection measures available to WDFW

As the DEIS accurately notes, the protection and restoration of habitat is essential for achieving wild steelhead populations that meet VSP criteria. (p. 40). Habitat protection and restoration policy is appropriately established at the state level because WDFW's authority is established pursuant to state legislation and WDFW's habitat programs are developed with a statewide scope. Consequently, a comprehensive analysis of habitat policy is appropriate in this non-project EIS because basin and/or stock-specific information is not necessary to determine appropriate statewide habitat policy.

The DEIS contains insufficient information to enable an informed decision about habitat policy. First, it fails to identify all of the statutory and regulatory means by which the agency can protect habitat. In particular, water quantity is completely omitted from the habitat analysis (p. 40) despite the fact that WDFW has statutory authority to require the Department of Ecology to set instream flow rules where necessary to protect fish and wildlife. RCW 90.22.010.

6.1 6.1

Similarly, the DEIS does not mention Outstanding Resource Waters designations, an important and highly relevant tool available under the federal Clean Water Act to protect high-quality rivers that either provide cold water refugia for aquatic species or are of exceptional statewide ecological significance. 33 U.S.C. § 1370. Rivers designated as Outstanding Resource Waters are protected from future water quality degradation, and designation can be obtained by petitioning the Department of Ecology. In its supplement to the Puget Sound Chinook Recovery Plan, NOAA explicitly endorses use of this tool for Chinook recovery, and the same rationale applies with equal force to steelhead. The DEIS also fails to address the opportunity presented by the Endangered Species Act listings of many Washington wild steelhead stocks. WDFW has the opportunity to work directly with NOAA to ensure that "critical habitat" is appropriately designated and that strong habitat protection and restoration actions are included in steelhead recovery plans being developed by NOAA.

6.2 6.2

These authorities and opportunities – and any others that have not been mentioned – must be identified and analyzed before WDFW selects a habitat policy for the SSMP. We realize that there may be political resistance to some habitat protection measures WDFW could either implement or request, but that is not a legitimate basis for limiting the scope of analysis. (See WAC 197-11-402(10): "EISs shall serve as the means of assessing the environmental impact of proposed agency actions, rather than justifying decisions already made.")

6.2 cont.

Lastly, the DEIS also lacks a discussion of current habitat conditions relative to those necessary to achieve WDFW's primary goal of healthy wild steelhead populations.[1] For example, there is no discussion of the fact that most steelhead rivers either lack instream flow rules or have outdated instream flow rules based on flawed science. Such information provides a factual context or baseline for determining the appropriate policy.

6.3

6.3

b. The DEIS lacks a comprehensive analysis of WDFW's habitat protection authority under the Hydraulic Code and thus fails to provide sufficient information upon which to determine an appropriate policy

The DEIS gives just passing mention to the hydraulic permit approval (HPA) process, which WDFW is responsible for administering. The statute and implementing regulations are not presented so it is not possible to ascertain how useful this authority could be. Moreover, there is no discussion of the level of resources currently devoted to implementation of this program (or any of the other state programs identified), or of the adequacy of the law with respect to WDFW's ability to assure healthy wild steelhead populations. Without this essential information it is not possible for the public to provide meaningful comment or for WDFW to make informed policy decisions.

Had such an analysis been presented, it would have revealed major deficiencies in the law itself, the way it has been administered, and the resources available to administer it. Specifically, the law does not authorize WDFW to require mitigation for permitted projects beyond 10 years, there is no required evaluation of cumulative impacts, there is no civil stop work authority under the statute, insufficient resources are dedicated to implementing the program, and permits are almost never denied. This information is essential for an objective analysis of the adequacy of the program to inform policy-making.

Conclusion

The Wild Steelhead Coalition appreciates the opportunity to comment on the DEIS for the SSMP. While we applaud the efforts that WDFW has invested in the future of our wild steelhead resource, we feel that the SSMP and the DEIS require substantial revision to be compliant with state and federal regulations. Because we feel that the DEIS is fundamentally flawed in so many respects, we recommend that WDFW step back, complete the science paper, continue developing the SSMP, and then issue a new DEIS that addresses our comments and the new information from the revised science paper and SSMP. We encourage WDFW to address the concerns we have raised, and look forward to working with the agency to protect the future for wild steelhead and steelhead fisheries in Washington State.

Sincerely,

Rich Simms, President, Wild Steelhead Coalition

[1] The Regional Management Plans should include additional analysis of habitat conditions at the regional scale, which should guide the relative allocation of WDFW resources and selection of the specific habitat protection tools in each region. It bears emphasis, however, that the RMPs are not the place for establishing statewide habitat protection and restoration policy.

Simms(WSC), Richard

February 17, 2006

To: Bill Gill
Washington Department of Fish and Wildlife

Re: Comments on the January 20, 2006 draft of
***Onchorhynchus mykiss*: Assessment of Washington Populations and Programs**
Eds. James Scott and William Gill

Dear Bill,

The contributors and editors have made a fine start at developing a comprehensive assessment of Washington's steelhead populations and programs, and I commend you all for the efforts put into writing this document. This is an important report because it provides an opportunity to lay out a comprehensive status review for our state's steelhead populations and programs, to provide a critical review of management practices and performance, and hopefully to shed some light on future management approaches that can improve the future for Washington's steelhead populations and steelhead fisheries. My review begins with a few general comments, and then proceeds with more specific comments and recommendations for each chapter.

I look forward to reading the next draft of this important report, and if you have any questions or comments about my review please contact me at your convenience.

Sincerely,

Nathan Mantua, Ph.D.
Vice President of Science and Education
Wild Steelhead Coalition
218 Main St., #264
Kirkland, WA 98033

Simms(WSC), Richard

General Comments:

This draft now has an excellent collection of pieces on aspects of wild and hatchery fish abundance, productivity, and interactions. However, the report suffers greatly from a lack of synthesis of information and critical evaluations of past, present, and future management practices. I believe that the first deficiency can be directly addressed by adding an "integration and synthesis" chapter that explicitly links findings from relevant chapters. For example, there is a clear dynamic between harvest and hatchery policies that poses risks for the life history diversity, abundance, and productivity of wild steelhead populations, yet this topic is not discussed in this draft. Likewise, there are clear links between habitat complexity, life history diversity, spatial diversity, productivity, and population resilience, yet again this integrative issue is not explicitly discussed.

The management chapter of this report would benefit from the addition of more explicit case studies of key issues, challenges, and options. The management chapter now describes management trade-offs in a general, almost in an academic fashion, yet it lacks clear case studies that reflect key management issues that the agency is now grappling with. Specifically, management sub-sections with explicit statewide, region-wide, and river-specific hatchery reform and harvest management options are needed to clarify the challenges and options facing WDFW managers. For example, a section on hatchery reform should acknowledge the HSRG's area wide recommendations, then evaluate those recommendations, and offer management alternatives. The Hatchery Scientific Review Group published their final report in 2004, then also wrote a short memo in 2005 that explicitly restated their general recommendations for steelhead management (attached). However their steelhead management memo is not cited in this report, and the recommendations from their reports seem to have had little impact on the contents of this draft. ***The scientists in the HSRG spent several years and over $20 million federal dollars developing their reports!*** The findings and recommendations of the HSRG and other federally-funded blue ribbon panels ought to be of great value for WDFW's efforts to reform their steelhead management programs. Additionallly, for the past several years there has been a raging debate about wild steelhead harvest policies in Washington state, yet inexplicably this debate is largely avoided in the current draft. Harvest policy options also deserve the same kind of challenges, evaluations, and alternatives presented for hatchery reform options. Finally, integrated hatchery, harvest, and habitat policies should be offered and evaluated at the end of this critical chapter.

Chapter 1, Introduction:

1. page 2: As part of the purposes of this report, it seems that an evaluation of management performance in meeting management goals would be valuable for informing future discussions about management issues. Likewise, an evaluation of the space-time changes in steelhead populations over the entire state for as long a period as possible would also be a valuable contribution.

2. page 2: As noted in comments to follow, stock status assessments in this report focus on the period since the early 1990s, and this short historical perspective fails to recognize the longer-term information and understanding for the status of Washington's steelhead populations. A more comprehensive appreciation for the status of Washington's steelhead populations would also benefit with some discussion of steelhead stock status in California, Oregon, Idaho, British Columbia, and Alaska. For example, a paragraph or two about steelhead ESU's listed as *Threatened* or *Endangered* with extinction under the Federal Endangered Species Act would help to provide a broader regional perspective for the status of Washington's steelhead populations. Frankly, I find it surprising that the introduction fails to convey the widely recognized fact that many of Washington's wild steelhead populations are in an extremely depleted state relative to that of just a few decades ago.

Chapter 2, Biology:

1. pages 8-9: Following Finding 2-2, it seems that a strong recommendation to protect the diversity of life history types in *O. mykiss* populations is warranted. There are a number of management actions that have the potential to improve protections for resident forms of *O. mykiss*, including the increased use of selective gear rules to reduce the negative impacts of bycatch, and the elimination of "trout fisheries" in anadromous fish streams.

Chapter 3, Hatcheries:

1. page 2, 2nd paragraph: It might be worth noting that the average annual production of steelhead is actually "steelhead smolts", and that the statewide averages listed in this paragraph do not necessary represent regional or program specific performance measures. Large project-to-project and region-to-region variations in the performance of hatchery programs deserve to be mentioned here, since the risks and benefits of hatchery programs vary across a wide spectrum of spatial scales.

2. page 7, middle paragraph: There is an abundance of evidence that environmental variations in freshwater, estuaries, and the ocean play an important role in the observed space-time variability in smolt-to-adult survival rates, and this should be noted in this paragraph.

3. page 7, last paragraph: recent studies by Kostow (probably not yet published?) indicate that NATURES rearing programs with native broodstock in Hood River are producing smolts that share many phenotypical traits with non-local Hood River hatchery smolts, especially when released fish are later captured downriver in smolt traps. Perhaps this new work could be discussed in the revised version of this report.

4. page 8, 3rd paragraph: In discussing the performance of Cowlitz hatchery rearing strategies, it might be worth noting that 0.43% adult recoveries is well below the state average of about 1.1% (based on 8.8 million smolts released each year, and about 90,000 hatchery adults harvested each year),

Simms(WSC), Richard

5. page 8, 4th paragraph: What are the estimated SARs for the Marblemount hatchery steelhead from earthen versus asphalt lined ponds? From the recent data I've seen from Skagit basin hatchery programs, typical return rates are extremely low. What are the "significantly improved return rates" for smolts reared in the earthen pond? If they remain substantially below the statewide average of 1.1%, it would suggest (to me at least) that this change in tactics fails to result in a truly significant improvement in the performance of this hatchery effort.

6. page 11, figure 3-2: It would be informative to see a figure showing the history of annual steelhead smolt releases for programs in Puget Sound, and how those compare with the history of SAR indices. It is my understanding that there is a strong negative correlation between total numbers of smolts released and SAR indices for Puget Sound steelhead hatcheries, and this should be noted and discussed. A longer historical perspective on hatchery programs in Puget Sound would also be of interest. Data for smolt releases, at least, should go back to earlier decades.

7. page 34: In what year was the genetic material used in the Currens study collected? It is not clear what is meant by "current" in table 3-5.

8. page 38, middle paragraph: It should be worth noting that hatchery-wild steelhead smolt interactions in small and large estuaries, inland waters, and the coastal and open ocean are largely unknown, but potentially important (see, for instance, Levin et al. 2001). It might be interesting to estimate the ratios of natural to hatchery smolt production for river basins having significant hatchery programs. For example, in the Skagit Basin recent hatchery smolt releases average around 500,000 per year. Is that significantly more, similar to, or significantly less than the natural smolt production in the Skagit Basin? Assuming 100 smolts per wild spawner in the Skagit basin (likely an overestimate) with approximately 3000 wild spawning females, there are many more hatchery than wild steelhead smolts produced in the Skagit Basin. What are the ecological implications for such an imbalance in the lower Skagit estuaries, the inland waters of the Whidbey Basin, and the rest of Puget Sound where these smolts co-mingle? If there are carrying capacity limitations in the different environments used by steelhead, it seems highly likely that large smolt releases during times of poor SARs leads to major negative impacts on wild and hatchery steelhead SARs. A history of steelhead smolt releases for all Puget Sound programs, compared with the annual SAR indices shown in Figure 3-2, would also be of value for considering the possibility of strong negative interactions between smolt release sizes and SAR rates, especially during periods of especially low marine survival.

Levin, P. S., R. W. Zabel, J. G. Williams. 2001. The road to extinction is paved with good intentions: negative effects of fish hatcheries on threatened salmon. Proceedings of the Royal Society of London. Series B, 268:1153-1158.

9. page 43, finding 3-1: A note on the regional and program-specific texture of economic and conservation benefits of hatchery programs should be added here. For example, it is difficult to

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argue that the statewide average metrics cited in this chapter apply to programs in Puget Sound that have realized extremely low SARs over the past decade. This issue is raised in finding 3-6, but it would benefit from a more explicit discussion in finding 3-1.

10. page 45, recommendation 3-4: An additional alternative to different types of hatchery programs for Puget Sound that deserves consideration is complete elimination of underperforming hatchery programs and/or hatchery programs that pose significant risks to depleted wild stocks. The money saved from closing underperforming hatchery programs could be redirected to habitat enhancement, enforcement, and/or monitoring programs.

11. Hatchery programs typically create mixed-stock fisheries, and the history of steelhead exploitation should be reviewed in this chapter with a focus on the role that hatchery programs have played in harvest management and harvest impacts on wild fish. Among the key concerns here are fisheries with planned harvest rates that are appropriate for hatchery programs but extremely inappropriate for wild stocks and the increased by-catch of non-target stocks (resident *O. mykiss*, cutthroat, char, etc.) when hatchery programs induce intense harvest fisheries. For winter steelhead, for example, typical harvest plans allow for very high and often non-selective harvest rates in the months of November-February, and these fisheries have clearly resulted in extremely strong selection pressures against November-February returning wild steelhead, and likely strong selection pressures against resident *O. mykiss* occupying the "hatchery fish corridors" during these same months. The hatchery-harvest dynamic is one of the most important management issues facing WDFW, and deserves carefully consideration in this chapter and in the management chapter.

12. The recently completed Hatchery Scientific Review Group (HSRG) made a number of steelhead specific area-wide recommendations, and I believe that this chapter would benefit from a new section discussing the merits of those recommendations. Especially notable in their recommendations is their call for Wild Steelhead Management Zones in order to protect and preserve the genetic integrity of wild steelhead populations. Such management zones may be especially important and politically feasible in regions like Puget Sound where hatchery programs have failed to produce adults for vibrant fisheries, and where wild stocks are experiencing exceptionally low productivity. A copy of the HSRG's May 2005 memo on steelhead recommendations is attached.

Chapter 4, Management:

1. pages 19-21: Figures showing catch data for Washington steelhead would be improved with data series that extend as far back in time as possible. Focusing on just the past decade of information provides a very short historical perspective, and feeds directly into what some fisheries scientists have dubbed "the shifting baseline syndrome". See the attached journal article for a brief discussion of this syndrome in fisheries management.

2. page 34: Perhaps more could be said about Ricker's (1958) conclusions about constant escapement maximizing average catch if the 3 listed conditions are met:

i. The population is a single homogenous unit;
ii. the initial population size at the start of fishing is known without error; and
iii. the stock-recruit relation is stationary.

Based on the information contained in this report and many others, it is clear that **none of those 3 conditions apply to wild steelhead populations in Washington state**, yet a "maximum sustained harvest" constant escapement policy **is the guiding policy** for harvest fisheries on the Olympic Peninsula. The management section would greatly benefit from a much expanded discussion and critique of the MSH policies now used on the few remaining systems that remain open for wild steelhead harvest fisheries.

3. From my (perhaps poorly informed) perspective, the 2 areas in which WDFW has the greatest management levers are hatchery and harvest policies. The management section would benefit from an expanded discussion and critique of hatchery and harvest policies of the past and present, and the potential benefits of new hatchery and harvest policies that incorporate lessons learned from the experience of management agencies within and beyond the boundaries of Washington state. The focus, I think, should be integrating hatchery and harvest policies to meet the commendable stated management goals to ... *"protect, restore and enhance the diversity and long-term productivity of Washington's steelhead and their habitats in order to sustain ... fisheries and provide for cultural, economic, and ecological benefits for the residents of Washington state"* (page 35). The legal and institutional capacity to meet these goals should also be critically evaluated, because there are likely many cases where key obstacles to success stem from an inability to deal with important factors like instream flows, floodplain habitat protection, or other habitat issues. Identifying such obstacles must be an initial step on the road to developing strategies and plans for overcoming them. If it seems likely that WDFW cannot successfully meet their stated management goals because of legal or institutional constraints, it is important to convey this message to the Governor's office, the Legislature, the Fish and Wildlife Commission, the Tribes, and the citizens of Washington state. If such obstacles exist but are not identified and confronted, there seems to be little hope that WDFW can successfully achieve their stated management goals.

Chapter 6, Diversity and Spatial Structure:

1. This is an important topic, but as it is now written it lacks key information about population-specific life history diversity parameters and the impacts of habitat loss and degradation on life history diversity and spatial structure. Detailed information on the diversity and spatial structure of steelhead populations is clearly hard to come by, but there are some reports that can be cited to bolster this chapter. Specifically, information should be drawn from McLachlan's (1994) report and a report by WDFW staff to the F&W Commission (1996) that examine changes in the run-timing for Quillayute system wild winter steelhead, and Washington Department of Game

catch data from the 1940s, 1950s, 1960s, and 1970s that indicate a systematic depletion of early returning wild winter steelhead in several of Washington's winter steelhead streams.

McLachlan, B. 1994. Historical Evidence Indicating the Natural Return Timing of Quillayute Winter Steelhead with Reference to the Present Return Timing. A Preliminary Report to the Washington Wildlife Commission. January 22, 1994.

WDFW, 1996. WDFW Staff. An Analysis of the Natural Return Timing of Wild Steelhead in the Quillayute River System. Report to the Washington Fish and Wildlife Commission, December, 1996.

2. page 7, 2nd paragraph: In addition to the 3 characteristics listed here as metrics for evaluating spatial structure and diversity, an additional metric that may be useful is an index of habitat complexity, and how habitat complexity has changed over time. For example, the loss of off channel, floodplain, and estuary habitat has been extensive in many Washington streams, and these losses generally represent a simplification of steelhead habitat. Diverse, complex, and connected habitat clearly plays an important role in supporting life history diversity in steelhead populations, and it should be possible (I think) to develop metrics of habitat diversity and/or complexity changes as one index for the potential for life history diversity in steelhead populations. Measures for accessible stream miles may be misleading measures of habitat capacity for steelhead if those stream miles lack productive habitat features. Perhaps this point is being made in chapter 7 where "loss of potential production" is estimated using habitat measures and the EDT model, and if this is the case the Chapter 7 habitat-related changes in potential production might be better linked with diversity and spatial structure issues in this chapter.

Chapter 7, Abundance and Productivity:

1. A general comment on this chapter is that it suffers from the "shifting baseline syndrome", meaning that assessments of recent abundance trends are seriously lacking longer-term historical reference points (see the attached article by Daniel Pauly). Perhaps the steelhead catch data collected by the Washington Department of Game are not directly comparable to escapement and catch estimates from the past few decades, but they do provide valuable insights into the relative abundance of today's steelhead populations with respect to those from the 1940s-1970s. Perhaps WDG catch data could be plotted with WDFW run-size reconstructions for a few indicator steams from each ESU to better provide this longer-term historical perspective.

2. A second general comment is that this report, and this chapter, would both benefit from a greater use of the WDFW steelhead run-size reconstruction records. WDFW has a great deal of stream specific run-size, harvest, and escapement data that would clearly add value to this chapter. I recommend that graphs showing the run reconstruction data from a few index streams in each ESU or management zone be shown in this chapter in order to better inform readers about the abundance, harvest, and escapement histories for different steelhead populations.

Simms(WSC), Richard

July 18, 2004

To: **Teresa Eturaspe**
SEPA/NEPA Coordinator
Habitat Program Regulatory Services, WDFW
600 Capitol Way North
Olympia, WA 98501-1091

From: **Nathan Mantua, Ph. D., Jeff Johnson, and Todd Ripley, representing The Wild Steelhead Coalition, 218 Main St. Box #264, Kirkland WA 98033**

Re: **Comments on the Draft EIS for the Proposed Skagit River Steelhead Rearing and Acclimation Facility**

The Wild Steelhead Coalition respectfully submits the following comments on the DEIS for the proposed Lower Skagit Steelhead Rearing and Acclimation Facility. Because we have chosen to review the proposed project from a hatchery reform perspective we also find it necessary to comment on the goals and plans for the proposed facility. We support science based hatchery reform with great enthusiasm, and we also support WDFW efforts to improve Skagit Basin steelhead hatchery programs. Developing a project that consolidates hatchery releases at a single site with rearing and acclimation ponds, volitional smolt release ponds, and an adult collection facility are all elements of high priority hatchery reforms in the Skagit Basin. However, our review of the proposed project as described in the DEIS suggests that the existing plans do not go nearly far enough to reflect the kind of science based hatchery reform outlined by recently published expert panel reports (for instance the HSRG's 2004 report).

Based on WDFW's historical smolt release, adult return, and harvest data for both wild and hatchery steelhead, it is abundantly clear that Skagit Basin steelhead hatchery programs are in dire need of major reforms. We request that any and all hatchery program activities, including the proposed Skagit River steelhead rearing and acclimation facility, should follow the guidelines of science-based hatchery reform. To that end, our comments on the DEIS are explicitly tied to the Hatchery Scientific Review Group's (HSRG's) principles of hatchery reform and area wide recommendations for hatchery reform.

As specified by the HSRG, three key principals for hatchery reform are:

- Clearly stated goals,
- scientifically defensible programs,

and

- informed decision making.

Our chief concern with the proposed facility as described in the DEIS is, in fact, its failure to explicitly present clear and convincing evidence that the proposed project reflects an effective implementation of the HSRG's hatchery reform principles. In our estimation the proposed activity does not qualify as a science-based hatchery reform project. The HSRG has offered an explicit set of *area wide recommendations*, yet the current DEIS does not explicitly evaluate the compliance of the proposed facility with those hatchery reform recommendations. Therefore we request that the revised EIS contain a new section that evaluates the proposed project in the context of each of the HSRG's area wide recommendations. The proposed project calls for sustained hatchery smolt production of 534,000 fish, yet WDFW data clearly indicate that smolt releases in excess of 400,000 fish in the Skagit Basin have always been followed by exceptionally low wild and hatchery steelhead returns two years later. This facet of the proposed project reflects a distinct lack of informed decision making, and the DEIS does not describe how smolt plants in excess of 400,000 fish fits within the context of the Skagit Basin and Skagit Bay ecosystem, does not describe how the proposed project will emphasize smolt quality over smolt quantity, and does not describe how the proposed project can be justified as part of a regional approach to managing hatchery programs. Each of these points, and others, are discussed in more detail in below.

Our comments follow in three main sections, one each for the three HSRG principles of hatchery reform. A fourth section contains a brief summary of our major comments and concerns.

Goals of the proposed facility

The stated goals of the proposed acclimation and rearing facility are to:

Provide increased returns of harvestable adult hatchery steelhead to the lower Skagit River basin through the use of acclimation at a lower Skagit River location, and to do so in a manner that would provide increased protection of naturally spawning wild steelhead in the Skagit River system (DEIS, 2004).

1. The DEIS does not describe the process by which these goals were developed. We request that a revised EIS contains additional information about the goal development process.

We request that steelhead management goals in the Skagit Basin should be to first recover and protect the depleted wild steelhead population, and second to provide quality fishing opportunities. WDFW's smolt release, run-reconstruction, and harvest records all indicate that recent hatchery operations are consistently failing to achieve management objectives and are in dire need of major reforms. In the past decade alone, substantial increases in the number of hatchery smolts annually released have coincided with dismal returns for both hatchery and wild adult steelhead spawners two years later (Figures 1 and 2, also see Table 1).

2. We request that the proposed project's goals be re-evaluated given the historic ecological importance of the Skagit Basin's wild steelhead population and extremely

productive wild steelhead fishery, and the dire conditions that stock has been in for the past decade.

In the 1950s and 1960s, the Skagit Basin supported steelhead harvests that consistently exceeded 10,000 fish per season, occasionally exceeding 20,000 fish per season (see Figure 1 and Table 1). Although Washington's fisheries records did not distinguish between wild and hatchery fish in their harvest records until 1976, it is widely accepted that the hatchery fish contribution to the total catch was relatively small compared to the contribution from wild fish. Since the early 1990s wild steelhead returns to the Skagit Basin have been at their lowest levels on record, and the proposed project does not offer plans that are likely to dramatically improve the situation for wild steelhead or learn more about the causes for the recent era of dismal hatchery and wild steelhead production in the Skagit Basin. We request that WDFW focuses on wild stock recovery, rather than hatchery production, as the pathway to restoring productive steelhead fisheries to the Skagit Basin. We further request that a "wild stock restoration" alternative be included and carefully examined in the revised EIS.

Scientific Defensibility

3. We request that WDFW planners provide a more rigorous assessment of the likelihood that the proposed project will support a hatchery program that will meet the stated project goals.

While the proposed project's goal includes "increased hatchery production" and "increased protection of naturally spawning wild steelhead in the Skagit River system", there is little evidence that construction of the proposed facility, by itself, promises to achieve either objective. Are there similarly sized hatchery programs in Puget Sound or Georgia Basin rivers that are now supporting a consistently productive fishery for winter run hatchery steelhead while recovering a wild steelhead population that has been at historically low abundance levels? According to the data presented in DEIS Table 3-15 (and our Table 1), the stated harvest goals of 10,000 hatchery winter run steelhead in the Skagit Basin have <u>never</u> been realized (at least in the period since 1976), a fact that deserves further discussion in a revised EIS. Because this program's goals are unrealistic, the scientific legitimacy of the proposed project is highly suspect.

4. We believe that the DEIS discussion of past hatchery operations and harvest records should be revised and expanded to better reflect the data and to explicitly acknowledge the negative correlation between the number of smolts planted and the number of adult hatchery and wild Skagit River steelhead retuning and caught two years later.

The DEIS states that annual hatchery steelhead smolt plants of 534,000 fish is the status quo for the Skagit Basin. However, according to DEIS Table 2-4 1998 was the only year documented to have smolt releases that reached or exceeded that number. (Figure 1, Table 1).

A brief review of hatchery plant, harvest, and run-size reconstruction data for the Skagit Basin indicates a clear negative association between the number of smolts planted and

both the harvest and run-size two years later. This is especially evident for the period since 1976 and should be evaluated at length in a revised EIS.

- The data presented in Figure 2 compares the number of smolts released from 1960-2001 versus the total steelhead (wild + hatchery fish) harvested two years later (1962-2003). The harvest data are offset by 2 years from the smolt release data to focus on the typical ocean-age of returning adults. The correlation between these records from 1960-75 was 0.07 indicating no relationship, while the correlation is -.45 for the period from 1976-2001 indicating a strong negative association.
- The data in Figure 3 compares annual total steelhead run-size versus annual smolt releases for the Skagit Basin. Run-size data are offset by 2 years to focus on the typical ocean-age of returning adults. The correlation between these records is -.52 indicating a strong negative association.
- The data in Figure 4 compares annual hatchery steelhead harvest versus annual smolt releases for the Skagit Basin. Harvest data are offset by 2 years to focus on the typical ocean-age of returning adults. The correlation between these records is -.38 indicating a negative association.
- The data presented in Figure 5 compares annual wild steelhead run-size (catch + escapement) versus annual smolt releases for the Skagit Basin. Run-size data are offset by 2 years to focus on the typical ocean-age of returning adults. The correlation between these records is -.60 indicating a strong negative association.

5. We request that a revised EIS include a new section devoted to a thorough response to the HSRG area wide recommendations, listed in the form of questions below (in italics). We provide some comments in response to selected questions below.

- *Does the project fit within a regional approach to managing hatchery programs?*
- *Will the Skagit Basin hatcheries be operated within the context of their ecosystems?*

As noted above, the proposed project calls for sustained hatchery smolt production of 534,000 fish, yet WDFW data clearly indicate that smolt releases in excess of 400,000 fish in the Skagit Basin have always been followed by exceptionally low wild and hatchery steelhead returns two years later. In contrast, significantly smaller hatchery smolt releases in the 1950s-1980s coincided with much better hatchery and wild steelhead returns two years later. The data suggest that the large smolt plants typical of the past decade are contributing to the current crisis in Skagit Basin steelhead fisheries for both hatchery and wild stocks.

- *Will management success be measured in terms of contribution to harvest, conservation, and other goals?*
- *Will the proposed project emphasize quality, not quantity, in fish releases?*
- *Will the hatchery program be operated as either genetically integrated or segregated relative to naturally spawning populations?*
- *Will the size of the hatchery program be consistent with stock goals?*

Based on the past performance of Skagit Basin steelhead hatcheries in producing adult steelhead, there is no justification for sustaining the enormous smolt plants typical of the past decade.

- *Is flexibility incorporated into hatchery design and operation?*
- *Will the proposed program be evaluated regularly to ensure accountability for success?*
- *Does the proposal contribute to the development of a system of Wild Steelhead Management Zones?*
- *Will the program use in-basin rearing and locally adapted broodstocks?*
- *Will eggs be taken throughout the natural period of adult return?*
- *Will hatchery spawning protocols maximize effective population size?*
- *Will the program take into account both freshwater and marine carrying capacity in sizing the hatchery program?*

The conventional wisdom in northwest steelhead circles now holds that recent declines in Puget Sound's wild and hatchery steelhead populations are largely a result of reduced marine survival rates. If that is indeed the case, it means that there is a sharp survival bottleneck somewhere in the marine environment for steelhead and that there are trade offs between the size of smolt releases and survival rates for both wild and hatchery steelhead. The available evidence suggests that the twin goals of increasing the number of adult hatchery steelhead and reducing negative impacts on wild steelhead are not likely attainable by maintaining the high smolt smolt production levels typical of the past decade.

- *Does the program reduce risks associated with outplanting?*

Yes, consistent with this aspect of the HSRG recommendations, the proposed project calls for consolidating smolt releases at a single facility that will be equipped with an adult collection trap.

- *Does the program include clear goals for educational programs?*

Informed Decision Making

6. We were unable to find explicit plans for careful monitoring and evaluation for key performance metrics, or plans for adaptively managing the proposed project as new information on hatchery performance comes in.

A review of the hatchery production, run-size, and harvest data indicates that a lack of informed decision making has contributed to the major problems that now plague Skagit Basin steelhead fisheries. If the proposed program is to achieve its goals, it must include a carefully designed and implemented monitoring and evaluation plan and we request that

such a plan be detailed in a revised EIS. Key metrics that we recommend be included for regular monitoring and evaluation are: hatchery smolt releases, natural smolt production, adult hatchery and wild fish returns, hatchery and wild fish contributions to harvest, hatchery smolt residualism rates, hatchery adult stray rates, and hatchery/wild fish interactions in the Skagit estuary and Puget Sound.

Summary and Recommendations

There should be no doubt that Skagit Basin steelhead hatchery operations have been in dire need of reform for many years now. Since 1976, increasing hatchery smolt production has coincided with decreasing adult steelhead returns (wild and hatchery origin). Adult production goals of 10,000 hatchery fish for harvest (equally split between tribal and sport fishers) have never been met in the period since 1976. Based on the history of Skagit Basin steelhead hatchery programs, we believe that the stated goals driving the proposed project are extremely unlikely to be attained with the plans described in the DEIS.

The discussion surrounding the proposed project could offer a timely opportunity for designing significant science-based reform in Skagit Basin steelhead hatchery operations. However the existing project design now falls far short of meeting the stringent criteria of science-based hatchery reform as detailed in recent expert reports like that of the HSRG. Our review finds that a fundamental weakness in the proposed project plans is a lack of adherence to key HSRG principles for science based hatchery reform: the project is aimed at goals that are unlikely to be consistently achieved with the design described in the DEIS, and does not provide a detailed plan for institutionalizing badly needed informed decision making in hatchery planning and operations.

We are concerned that the DEIS does not carefully evaluate past hatchery performance, especially the evidence suggesting a high risk for negative impacts on both wild and hatchery adult returns for the proposed size of smolt releases.

Although the DEIS lists 10 different alternatives originally examined to determine whether they could reasonably approximate the applicant's goals for the project, the DEIS offers only two basic alternatives. The "No Action" alternative would maintain status quo Skagit Basin steelhead hatchery operations. Because hatchery operations have consistently failed to meet harvest objectives, and the extensive evidence that the same failed hatchery operations are having significant negative impacts on wild steelhead, the "No Action" alternative is unacceptable. The remaining project alternative is to develop a new rearing and acclimation facility at either Grandy Creek or in the Baker River (from the information presented in Appendix A, it is not clear why the O'Toole and Cumberland Creek sites were not included as alternatives). Given the fact that WDFW data (see Figure 2) clearly show a negative correlation between the number of hatchery smolts planted and the number of steelhead harvested 2 years later, another very simple alternative is to sharply reduce smolt plants and consolidate those that remain to the Baker River release site where there is an existing adult collection trap. Because (wild and hatchery) steelhead run-sizes are negatively correlated with the number of hatchery smolts planted 2 years earlier, a reduction in hatchery smolt plants may actually have the twin benefits of increasing both hatchery and wild steelhead adult returns. An adaptive management design would promote the kind of experimentation required to determine whether or not such simple actions might be beneficial

to steelhead program goals, and that design is missing from the list of proposed project alternatives.

Rearing and acclimation ponds may prove to be critical new infrastructure for reducing hatchery smolt residualism rates, increasing smolt-to-adult survival rates, and increasing the fidelity of adult returns to the collection trap thereby reducing stray rates for hatchery spawners. However, this new infrastructure alone must be part of a more comprehensive plan to qualify as the kind of science based hatchery reform detailed by the HSRG. If rearing and acclimation ponds are to be built, we believe that the Grandy Creek site is an especially poor choice for them due to the required alteration of mainstem river bank, risks of dewatering Grandy Creek, and risks to wild fish of all species that will be posed by intense harvest fisheries that will surely be concentrated in the vicinity of the site. The Baker River site poses fewer fishing impacts risks to wild fish because of its location off the mainstem Skagit, poses fewer negatives with respect to altering active natural riverbank, and it already has extensive infrastructure in place. Due to the differential risks posed by the two sites, we recommend the Baker River site as our preferred alternative for consolidating and sharply reducing hatchery steelhead smolt production in the Skagit Basin.

From the 1950s to the early 1970s the Skagit Basin provided steelhead harvests in line with the goals of the proposed project. Those harvests were composed of significant numbers of wild fish, and those harvests proved to be unsustainable. We believe that the spectacular Skagit River wild steelhead runs of a few decades past should serve as restoration targets for today's long-range planners. We also believe that new hatchery projects in the Skagit Basin must be part of long-term efforts to restore the Skagit's once magnificent wild steelhead runs. History shows us that a management focus on harvest has never served the long-term interests of Skagit River steelhead fisheries. Consequently, we believe that additional alternatives with additional management goals should have been included in this DEIS. For example, a significant reduction or even complete elimination of steelhead hatchery plants coupled with a reprogramming of this project's funds for habitat restoration and protection should also be evaluated as a means for improving steelhead fisheries in the Skagit Basin. This alternative would, however, require a shift in the stated goals away from increasing harvest opportunities for hatchery fish, and that is a shift in priorities that we embrace and hope to encourage in others.

Sincerely,

Nathan Mantua, Ph. D.
Jeff Johnson
and Todd Ripley
representing the Wild Steelhead Coalition

Simms(WSC), Richard

Table 1. Historic To Present Skagit Steelhead Data (1994 FEIS Appendices & 2004 DEIS). Provided courtesy of Bill McMillan and Washington Trout.

Year	Smolt Release	Hat. Harvest 2 Years Later	Wild Harvest 2 Years Later	Total Harvest 2 Years Later (Tribe portion)	Wild Escapement 2 Years Later	Total Steelhead (With Hat. Esc.)
1946	?	?	~3,807	3,807+(?)	?	?
1947	?	?	~5,394	5,394+(?)	?	?
1948	?*	?	~7,287	7,287+(?)	?	?
1949	?*	?	~6,007	6,007+(?)	?	?
1950	?*	?	~13,784	13,784+(?)	?	?
1951	?*	?	~13,277	13,277+(?)	?	?
1952	?*	~1,210 (~7%)	~16,076	17,286 (41)	~16,076	~34,000
1953	?*	?	?	11,231+(?)	?	?
1954	?*	?	?	22,488+(?)	?	?
1955	?*	?	?	15,140 (715)	?	?
1956	?*	?	?	12,023 (438)	?	?
1957	?*	?	?	16,006 (7)	?	?
1958	?*	?	?	20,082 (457)	?	?
1959	?*	?	?	14,483 (493)	?	?
1960	95,900	?	?	13,719 (1,937)	?	?
1961	79,100	?	?	13,638 +(?)	?	?
1962	148,400	~8,216	~14,000	22,216+(?)	~14,000	~38,000
1963	101,000	?	?	13,324+(?)	?	?
1964	210,800	?	?	16,699+(?)	?	?
1965	183,700	?	?	16,830+(?)	?	?
1966	245,400	?	?	20,392+(?)	?	?
1967	201,300	?	?	13,708+(?)	?	?
[redacted]						
1972	155,200	?	?	10,385 (8,658)	?	?
[redacted]						
1974	118,400	?	?	7,985 (6,338)	?	?
1975	117,500	?	?	2,710 (1,469)	?	?
1976	204,700	6,498	1,158	7,656 (4,252)	5,757	14,950
[redacted]						
1980	202,600	3,948	1,407	5,355 (2,697)	9,609	15,139
1981	171,700	2,332	947	3,279 (1,981)	7,732	11,044
1982	236,700	[illegible]	375	5,301 (3,307)	[illegible]	[illegible]
1983	237,200	9,483	1,718	11,201 (4,973)	8,603	23,506
1984	236,600	7,189	2,149	9,338 (4,897)	11,098	21,775
[redacted]						
1987	136,100	4,194	2,568	6,762 (3,640)	11,854	19,395
1988	212,104	4,574	1,623	6,197 (3,563)	10,017	17,066
[redacted]						
1990	210,071	3,285^	135	3,420 (2,393^)	7,514	10,934^
1991	205,800	2,542	1,364	3,906 (867)	6,900	10,916
1992	165,000**	727	1,126	1,853 (201)	6,412	8,429
[redacted]						
1994	?*	2,200	477	2,677 (1,182)	n/a	n/a
[redacted]						
1999***	422,623	1,603	239	1,842 (217)	4,584	6,701
2000***	470,000	2,957	146	3,103 (112)	5,394	9,247
2001***	461,680	449	60	509 (35)	6,818	7,440
2002***	430,000	n/a	n/a	n/a	n/a	n/a
2003***	488,500	n/a	n/a	n/a	n/a	n/a

Key To Table 1:

Rows in [illegible] are the 21 years when hatchery winter run smolt releases were **250,000-610-000**. 1994* may also have been a release of over 250,000 hatchery winter run smolts, but there was no release data provided in either the 1994 FEIS or the 2004 DEIS so it is excluded. Of those 21 years, there were 19 years of harvest data with an average **Total Harvest of 6,397** winter steelhead annually. For 4 of those years the tribal harvest was **not included** in either EIS. There was an annual **Hatchery Harvest of 3,057** steelhead in the 14 years hatchery harvest data were available with an average **release of 365, 576 smolts.**

In 31 white rows and 5 of 6 [illegible] rows are the 36 years in which hatchery winter smolt releases were **0-250,000** (1994 excluded as unknown). In those 36 years there was an average **Total Harvest of 10,949** winter steelhead annually. For 15 of those years the tribal harvest was **not included** in either EIS. When smolt releases were 0-250,000 the annual total harvest averaged **4,552 more steelhead** than in the years when 250,000-612,000 were released. That represents a **71% greater** annual Total Harvest when hatchery smolt releases were often half, or less, of the other 21 years. Hatchery harvest is only known for 11 of the 36 years. In those 11 years, an average **smolt release of 201,689** provided a **Hatchery Harvest of 4,518** steelhead annually – **1,461 (48%) more hatchery steelhead harvested per year than in the 14 years when an average of 163,887 more smolts were released.** Or put in another way, **81% more smolts yielded 32% fewer hatchery steelhead** harvested per year.

Marked in [illegible] are **10 year intervals** spaced prior to, and after, the first big hatchery winter steelhead return from 148,400 smolts released at Barnaby Slough in 1962. This traces the **downward progression** in Wild Harvest and Total Steelhead (run size) at 5 ten years intervals from 1952 to 2002. This decline **coincides with increasing hatchery steelhead smolt releases** and harvest pressures created to harvest the adult hatchery returns.

An * indicates prior to 1960 there were no smolt release numbers provided for the era of the operation of **the Birdsview Steelhead Hatchery at Grandy Creek.** It was sold to WDG when the USFWS ceased hatchery operation there in July, 1947 (Baker River Project Relicense Initial Consultation Document, March 2002, as found in the Appendices). Exactly how long that WDG steelhead hatchery continued operation after 1947 is not known. It was **still listed in the Pacific Northwest Fishing and Hunting Guide (1956) as an operational WDG steelhead facility on lower Grandy Creek.** Neither the 1994 FEIS nor the 2004 DEIS mention the WDG operation of this steelhead hatchery beyond its once having been operated by the USFWS beginning in 1905. Low steelhead returns there probably led to the Barnaby Slough facility.

An § has been put beside the Hatchery Harvest, Wild Harvest, Wild Escapement, and the Total Steelhead run size for the [illegible] and [illegible] smolt release years regarding the adult returns they provided in [illegible] and [illegible]. In the absence of Skagit information, a 1954 Hatchery Harvest estimate of [illegible] found on the Satsop River (Royal 1972) was used. **Hatchery returns were very low** in those early years. Personal correspondence with Curt Kraemer (Nov. 12, 2003) provided the 1964 hatchery sport catch. A Wild Escapement estimate was made for both years as ~equal to the total harvest due to relatively low angling pressure in that era. The average number of steelhead fishermen in Washington was found to be 63% greater between 1962-1969 than between 1954-1961 and fishing tackle was less efficient in the earlier years (Royal 1972). This may have resulted in less than 50% harvest of the run size in 1954. Increasing anglers and efficiency by 1964 may have resulted in harvest somewhat above 50% of the run size. With no other estimates to go by, 50% was used as a ballpark figure. By [illegible], declines in Wild Escapements and Total Steelhead suggested that harvest above 50% of the wild run size had been occurring and no escapement estimate was attempted. After the Boldt Decision required escapement determinations, in the 26 years from 1978-2001 wild escapement **exceeded 10,000 steelhead only 4 years.** Although no escapement numbers exist prior to that time, **the predominantly wild** Total Harvest in the 14 years of adult returns from 1948 to 1961 **exceeded 10,000 fish 10 times,** and low angler pressure may have resulted in at least equal escapement. The harvest of less than 10,000 steelhead from 1948-1953 occurred when low angler numbers and tackle inefficiency likely provided significantly greater escapement than harvest.

An ^ is beside the Hatchery Harvest, Total Harvest (tribe), and Total Steelhead for the adult returns from the 1990 smolt release year because the 2004 DEIS did not provide the full tribal catch. However, it was included in the Appendices of the 1994 FEIS.

In **red type** is the **612,181** smolts released in **1998.** It has been **the only year that achieved the 534,000 hatchery smolts that the 2004 DEIS calls the "status quo"** planned since 1992. The adult returns 2 years later resulted in **the 2nd lowest Hatchery Harvest** in Skagit history, the **5th lowest Wild Harvest,** the **2nd lowest Wild Escapement,** the **2nd lowest Total Wild Steelhead** run size, and the **lowest Total Steelhead** run size (hatchery and wild) in Skagit history.

The ** designates years which include hatchery **summer steelhead smolts** in the total as provided to Washington Trout by Steve Foley (WDFW) in the absence of 1992 and 1993 smolt numbers in the 1994 FEIS. (They are also absent from the 2004 DEIS.) Summer steelhead hatchery smolts were likely between 10,000-30,000 of the total.

The *** indicates the **most recent 5 years** of smolt releases within 50,000-110,000 of the 534,000 smolt goal.

Simms(WSC), Richard

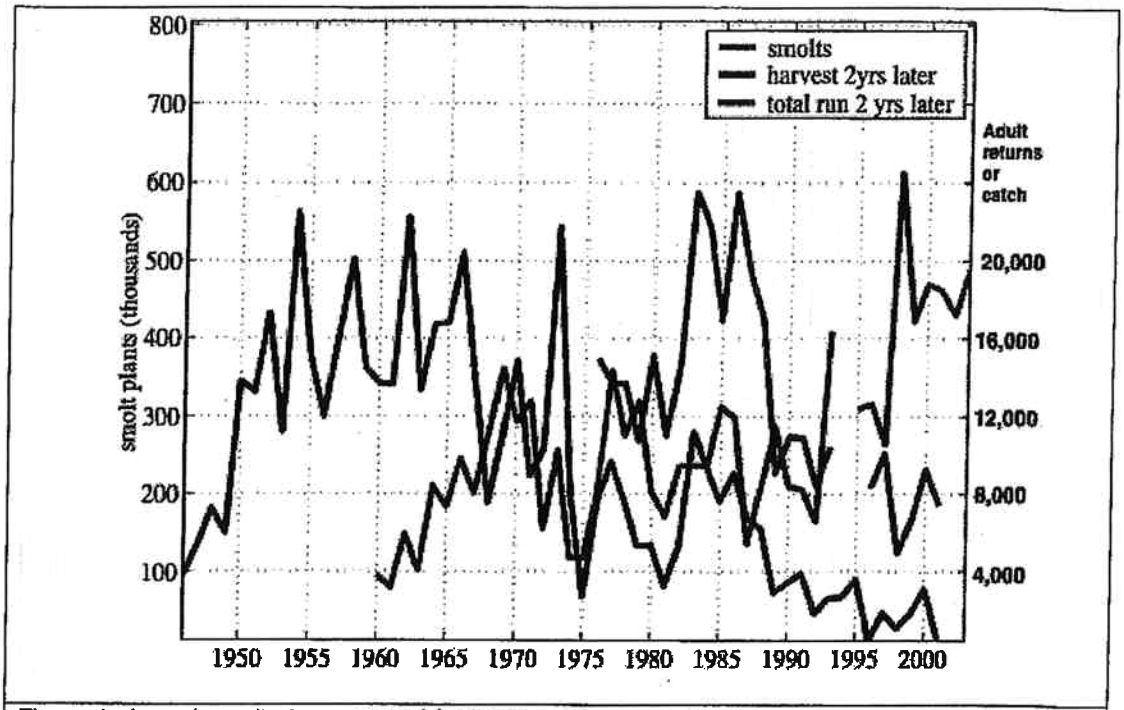

Figure 1: Annual smolt plants, annual harvests (wild+hatchery), and total annual steelhead run-size (harvest+escapement) for the Skagit Basin. The harvest and run-size data are shifted 2 years back in time to aid in the direct comparison with annual smolt releases.

Data provided by Bill McMillan and Washington Trout (see Table 1). Plots were created by Nathan Mantua, Ph. D., VP of Science and Education for the Wild Steelhead Coalition.

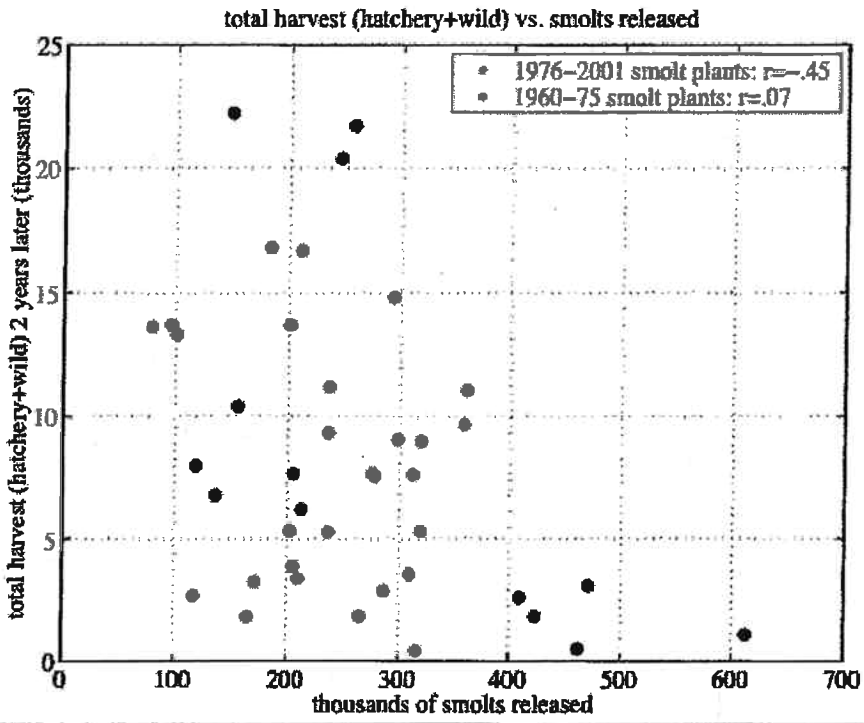

Figure 2: Comparison of annual total steelhead harvest (hatchery+wild) versus annual smolt releases for the Skagit Basin. Harvest data are offset by 2 years from the smolt release data to focus on the typical ocean-age of returning adults. Blue dots are for smolt plants from 1960-75 (and harvests from 1962-77). Red dots are for smolt plants from 1976-2001 and harvests from 1978-2003; "r" values in the legend are correlation coefficients for the two periods of record. The Correlation between these records from 1960-75 was 0.07 indicating no relationship, while the correlation is -.45 for the period from 1976-2001 indicating a strong negative association.

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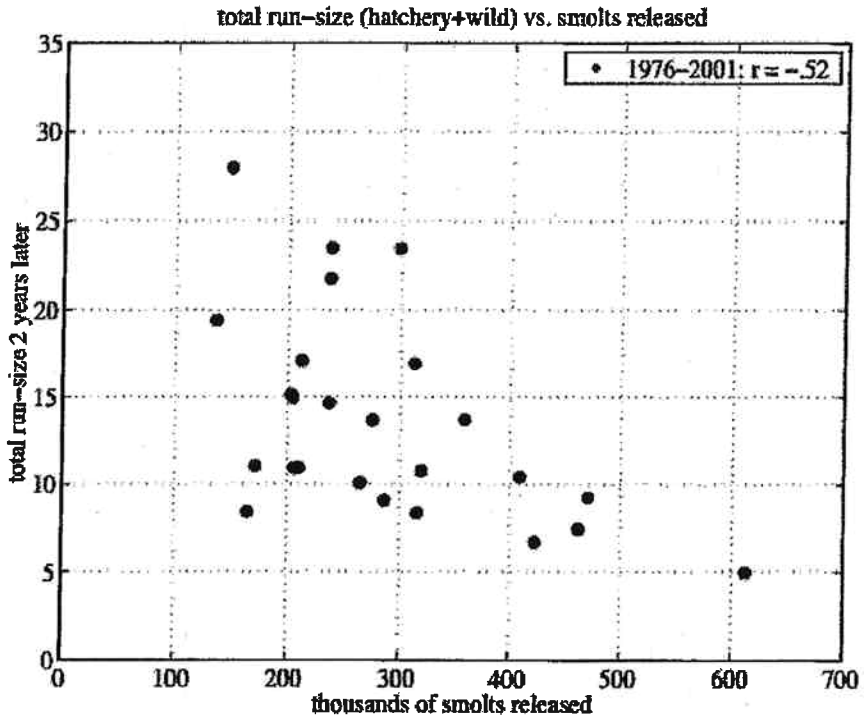

Figure 3: Comparison of annual total steelhead run-size versus annual smolt releases for the Skagit Basin. Run-size data are offset by 2 years to focus on the typical ocean-age of returning adults. Red dots are for smolt plants from 1976-2001 and run-sizes from 1978-2003; "r" value in the legend is the correlation coefficient for the data points shown. The correlation between these records is -.52 indicating a strong negative association.

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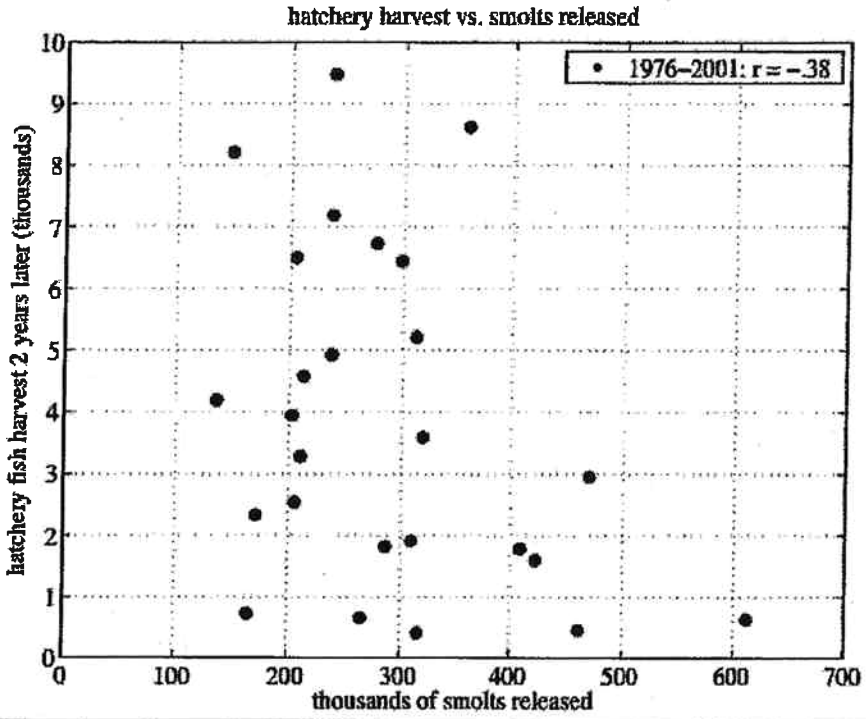

Figure 4: Comparison of annual hatchery steelhead harvest versus annual smolt releases for the Skagit Basin. Harvest data are offset by 2 years to focus on the typical ocean-age of returning adults. Red dots are for smolt plants from 1976-2001 and harvests from 1978-2003; "r" value in the legend is the correlation coefficient for the data points shown. The correlation between these records is -.38 indicating a negative association.

Data provided by Bill McMillan and Washington Trout (see Table 1). Plots were created by Nathan Mantua, Ph. D., VP of Science and Education for the Wild Steelhead Coalition.

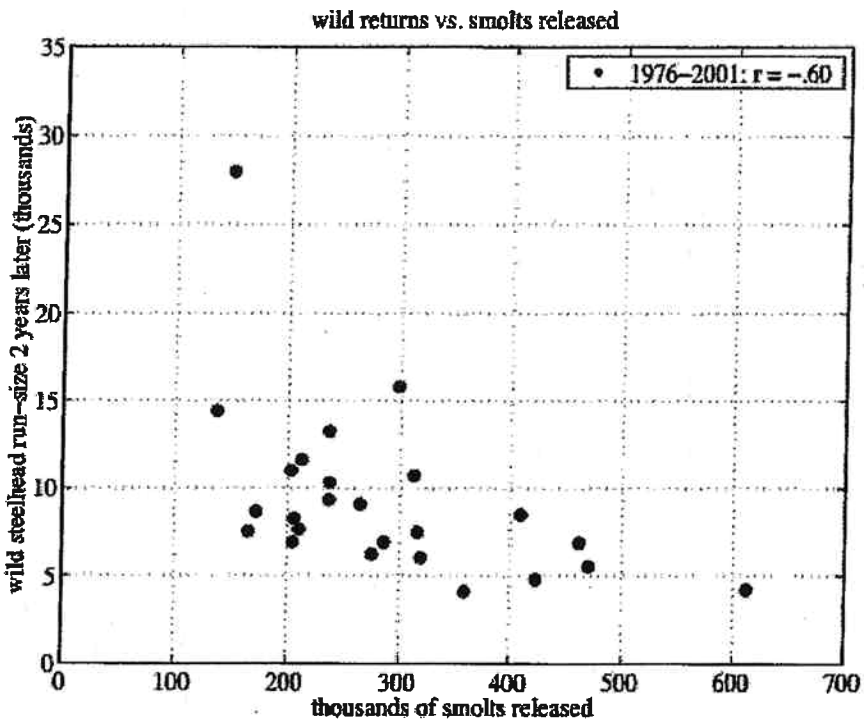

Figure 5: Comparison of annual wild steelhead run-size (catch+escapement) versus annual smolt releases for the Skagit Basin. Run-size data are offset by 2 years to focus on the typical ocean-age of returning adults. Red dots are for smolt plants from 1976-2001 and run-sizes from 1978-2003; "r" value in the legend is the correlation coefficient for the data points shown. The correlation between these records is -.60 indicating a strong negative association.

Data provided by Bill McMillan and Washington Trout (see Table 1). Plots were created by Nathan Mantua, Ph. D., VP of Science and Education for the Wild Steelhead Coalition.

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Olympia, WA 98501

SUBJECT: Statewide Steelhead Management Plan

In opening, we wish to express our sincere appreciation for the dedication and effort expended by WDFW personnel in the preparation of Oncorhynchus mykiss, the Draft Statewide Steelhead Management Plan and the Draft Environmental Impact Statement for the SSMP. Steelhead have never, in the nearly 80 year history of our Steelhead Trout Club, received this amount of official attention. We are honored to have had the opportunity to make our grass roots contribution, however small, to these documents.

1 Comment Noted

In studying the various management alternatives set forth in the DEIS we find elements in each that our membership support and other elements which promote controversy as to whether or not the lot of steelhead and steelhead fishermen will be adequately addressed. We therefore have chosen to not support any specific alternatives. In most respects, with reservations, we favor the preferred alternatives.

Among our primary reservations is our belief that a number of subjects not addressed specifically are critical to success of the Plan. These subjects are: Co-Management, Catch and Release, Creating Wild Fish Runs and Acoustic Tagging.

2 Comment Noted

Co-Management

The perception, whether justified or not, that the tribes are over-harvesting their share of fish is common to nearly all steelheaders who have an opinion on the subject. The WDFW cannot expect to receive a reasonable level of public acceptance for the plan unless this is corrected.

Fishermen believe:

(a) A large part of the decimation of steelhead runs can be correlated directly with tribal over fishing resulting from the Boldt Decision.
(b) WDFW data show tribal catches far exceeding sharing agreements.
(c) WDFW has not assured accurate accounting of tribal catches.
(d) WDFW has not obtained prescribed sharing results in negotiations.

2 cont. We understand that these beliefs cannot be addressed directly in the plan; but inclusion of an agreed upon statement of the necessity for, and the methods of achieving equitable sharing must be prominently set forth, discussed and publicized.

3 10.01 Catch and Release

Not surprisingly, we find no support for the proposition that C&R improves the health of the steelhead. At the same time there is considerable controversy as to the damage done by C&R. What is the effect on survivability, ability to spawn, and the success in hatching? What is the effect of wading through spawning beds, what about multiple C&R, etc? There is little or no scientific data to quantify these effects. We request that studies to achieve answers to this controversy be incorporated in the Plan.

4 10.04 Creating Wild Fish Runs

We all agree steelhead are remarkably adaptable and resilient animals. At the same time millions of dollars are being expended as if this were not the case. Distinct Population Segments (and apparently sub DPS) are the subject of exhaustive scientific study and complex management schemes to assure every gene is properly controlled lest one might stray.

The necessity for these expenditures needs to be questioned in light of the character of steelhead. For example: A remarkable and very successful run of wild steelhead (by WDFW definition) has been created in the South Fork of the Skykomish. This was accomplished using a variety of different stocks with no regard to gene flow etc. It is understood that this is true of a run of wild fish in the South Fork of the Stillaguamish as well, and it appears it is happening on other streams. Please include in the Plan specific provisions to further explore the potential of and possibilities for implementation of such runs with a concomitant reduction in the expense and uncertainty of more complex management programs.

The fact is that left on their own in good habitat an introduction of viable number of healthy fish will adapt just fine as a native run with all of the favorable attributes of any other run.

5 10.07 Acoustic Tagging

The Steelhead Trout Club has been the leader in instituting acoustic tagging on the Green River. We believe programs of this nature are critical to the long term determination of what needs to be done to bring back the steelhead. These programs should be a more highly visible and emphasized element of the plan.

We thank you for the opportunity to submit these concerns. Please be assured of our continued commitment to support the WDFW in its commitment to improve the lot of steelhead.

Russ Simonson
President

Smith, Dana – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Smith, Richard – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Speer, Peter

From: "Peter Speer" <PeterSpeer@filtrona.com>
To: <SEPAdesk2@dfw.wa.gov>
Date: Mon, Sep 10, 2007 10:17 AM
Subject: Washington's Steelhead Management Plan

Teresa Eturaspe
SEPA/NEPA Coordinator
Regulatory Services Section, Habitat Program

Dear Teresa,

1 Simms(WSC)

I have reviewed and support the comments delivered to your office by the Wild Steelhead Coalition, based in Kirkland.

I respectfully request that their recommendations be adopted and incorporated into the Draft Environmental Impact Statement for Washington's Steelhead Management Plan.

Many thanks for your consideration of my views.

Best regards,

Peter Speer

1520 2nd Street

Kirkland WA 98033

St. John, David

King County
Department of
Natural Resources and Parks
Director's Office
King Street Center
201 South Jackson Street, Suite 700
Seattle, WA 98104-3855

September 10, 2007

Teresa Eturaspe
SEPA/NEPA Coordinator, Regulatory Services Section
600 Capitol Way North
Olympia, WA 98501

Re: Statewide Steelhead Management Plan

Dear Ms. Eturaspe:

I am pleased to provide the comments of the King County Department of Natural Resources and Parks (DNRP) on the Draft Environmental Impact Statement (DEIS) for the "Statewide Steelhead Management Plan" (SSMP). I extend our thanks to the Washington Department of Fish and Wildlife (WDFW) for the opportunity to provide our input as this planning process proceeds. I also offer our thanks for extending the comment deadline through September 10, 2007, to allow a thorough review and preparation of well-crafted comments.

King County appreciates WDFW's willingness to advance the identification and implementation of actions that will contribute to the near- and long-term viability of Puget Sound's steelhead populations. We believe that, by virtue of our recent shared experience developing strategies to recover Puget Sound's salmon, citizens, governments, private organizations and stakeholders are prepared to contribute to a comprehensive strategy that gives steelhead the best chance to return to robust health. As a co-manager of the state's fisheries resources WDFW must make important contributions to such an effort, and this planning process has the potential to position WDFW to do just that. It is our hope that our comments support WDFW's progressive and prudent use of its authorities and resources to the benefit of these native fish and the ecosystems, cultures, and economies they help sustain.

Our comments are grouped into two categories. First, provided immediately below, are comments of a more general nature that pertain to WDFW's overall approach to steelhead management as reflected in the SSMP and DEIS or to issues that will influence multiple elements of the overall management strategy. Second, provided as Attachment A, are comments that pertain to specific portions of text in the DEIS or SSMP. We are hopeful that packaging our comments in this way will add clarity and facilitate their incorporation into the Final Environmental Impact Statement (FEIS). In addition, I have attached two previous letters from DNRP to WDFW in regard to the development of the SSMP. These letters should be considered part of our comments on the DEIS and SSMP. Given the inter-relatedness of the

St. John, David

issues addressed in these comments I strongly recommend that WDFW staff involved in this process review all of our comments prior to acting on any one individually.

General Comments

1 7.2

- The cover letter notes that this is a "phased non-project review proposal", and as such focuses on "… issues that are ready for decision and excludes from consideration of [sic] issues already decided or not yet ready." This statement implies that WDFW has undertaken or participated in a process to identify key issues, has sorted them into the categories noted, and has expounded here on only the "ready" issues in the SSMP and DEIS. There is no explicit recognition of the "decided" and "not yet ready" issues in the review materials. The thorough vetting of the SSMP and DEIS that WDFW seeks through this review process is illusory without at least a cursory description of the issues in these two categories. They certainly establish important context for the decisions presented, and likely will have great bearing on implementation of the policies and actions described in the SSMP and DEIS. This being the case, our comments on the materials may overlook fundamental and confounding constraints on what we perceive to be effective management solutions or opportunities to shape agency actions where flexibility exists. The FEIS and SSMP should list and describe the key issues affecting steelhead management that have already been decided or are not yet ready to be decided.

2 7.2

- In summary, as a matter of their probable contributions to reducing the risk of further decline of wild steelhead populations, producing tangible recovery benefits for them, and supporting the range of ecological, cultural and economic values associated with them, none of the alternatives is sufficient as proposed. The generality of the descriptions of the alternatives prevents a rigorous comparison of their effectiveness in supporting the goals and objectives of the SSMP. Also, the cumulative effects analysis seems formulaic and should be much more explicit in any revisions to the text, for example addressing the linkages between efforts to recover Chinook, bull trout and steelhead and the biological costs from deleterious artificial production actions.

3 1.1

We suggest foremost that WDFW craft a Preferred Alternative that more directly addresses the needs of steelhead conservation and recovery. Elements of Alternatives 1 and 2 depict what we believe to be the minimum expectation for WDFW's management of the resource. These Alternatives offer several actions that would support the best opportunities to achieve the conservation outcomes sought. For example, the Artificial Production action and prioritization of research into climate change and human population growth impacts on steelhead from Alternative 1, and the Natural Production action from Alternative 2, appear prudent and offer the most support for the stated goals and objectives. We support WDFW's view that the "status quo", reflected in Alternative 3, is not sufficient for getting our steelhead stocks on a trajectory toward viability, including abundance, productivity, diversity and distribution. In our view, Alternative 4 does not meet the State Environmental Policy Act (SEPA) standard for an alternative (WAC 197-11-442) and is wholly inadequate for making progress toward the stated goals of the SSMP. It therefore should not have been

included in the DEIS. Alternative 3, rather than Alternative 4, should have served as the "bookend" alternative. 3 cont.

- The comments we provided in our EIS scoping comments letter dated January 11, 2007 (attached) were addressed to varying degrees in the SSMP and DEIS. For example, we are pleased to note that the Viable Salmonid Population (VSP) framework is prominent in the conservation approach conveyed. We are also pleased that the importance of integrating habitat, harvest and hatchery actions is clearly recognized. We believe, however, that several of our comments were not addressed sufficiently. Important gaps remain in the following areas: 4 4.0

    1. Identification of specific near- and long-term goals for steelhead populations and their management;
    2. Development of a well-founded, science-based view of steelhead populations and their habitat (see comment below regarding WDFW's 2006 steelhead assessment document);
    3. Thorough evaluation of the impact of the alternatives (and each of their Operational Policy Categories) on each VSP parameter, in particular productivity;
    4. Evaluation of the effects of summer-run hatchery programs on natural spawning steelhead;
    5. Statement of the scientific basis for assumptions about the habitat context (e.g., past, ongoing and current habitat quality and quantity factors influencing VSP) for each alternative; and
    6. Description of how the alternative or management approach will differentially or uniformly guide management of steelhead and resident *Oncorhynchus mykiss*.

  Several of the following general and specific comments address these and other issues raised in our scoping comments and how they are attended to in the SSMP and DEIS.

- We caution against considering the referenced document *"Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs"* (the *Assessment*) the sole scientific basis for steelhead conservation or recovery planning in general or for this planning process specifically. That document was an initial, informative step in advancing steelhead conservation and provided some useful information. However, as King County noted in our September 15, 2006 letter (attached) to Mr. William Gill providing comments on the document, it had serious shortcomings in content and presentation. These deficiencies made it more of a context piece for a comprehensive science document. Such a document would provide detailed evaluation of available historic and recent data reflecting on steelhead biology, ecology and management, as well as the identification of key data gaps. In our earlier comments we encouraged WDFW to further advance the science foundation for steelhead conservation by developing such a document. We are hopeful that such a document is forthcoming in the near future, especially in light of the advancement of this planning process (e.g., toward more detailed regional planning) and 5 Comment Noted

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5 cont.

the new demand for formal recovery planning now that another steelhead Distinct Population Segment (DPS) – Puget Sound – is listed under the Endangered Species Act (ESA). This document should reflect the challenges that result from the widespread lack of VSP-related data and recommend how these gaps will be addressed in order to support actions that will improve the VSP status of the DPS and populations.

6 3.2

- In our comments on the *Assessment* we expressed concern about the consideration of economic measures related to lost revenues associated with harvest, while the economic costs of providing those opportunities are not presented. The DEIS also entangles biological needs and economic pressures, and addresses the latter incompletely. The WAC clearly states that cost-benefit analyses are not required, and goes on to state that the presence of important qualitative factors is cause enough for not including cost-benefit analyses (WAC 197-11-450). Clearly, qualitative, non-economic considerations are fundamental to the protection of a species that is in severe decline.

  In this context we do believe there is value in discussing economic implications of alternatives, but only if WDFW fully describes the economic costs and benefits associated with harvest and hatchery production. The FEIS and SSMP should make a clear break in the presentation and consideration of biological and economic factors influencing conservation and management of steelhead. For the purpose of evaluating the environmental impacts from implementation of the SSMP, the definition of stock health should be split into two distinct parts: 1) population viability and 2) capacity to sustain fishing mortality or 'harvestability'. The DEIS should focus primarily on population viability. Separate consideration of economic and environmental impacts should be provided for Alternatives 1 and 2. Effects on recreational activities are not environmental effects, unless fishing mortality is expected to be significantly displaced to other species. If this is the concern, it should be explained more fully and weighed against the mandate to recover steelhead. If economic pressures are cited in risk analysis, a clear rationale should be provided, and the alternatives should evaluate the return on investment from hatchery programs. What is the NET revenue for Washington State, accounting for the full range of costs of hatchery operations?

7 2.1

- The use of a phased approach for developing effective management strategies in the current context is problematic. The multiple populations comprising distinct steelhead DPS exist within equally distinct bio-regions with very different social, ecological and biological attributes. Any attempt to choose a single management approach to the many and varied characteristics of the DPS seems bound to fail, if only for failing to recognize the idiosyncrasies of the social, cultural, and ecological context for each DPS. We encourage WDFW to take prudent steps to understand the various requirements for healthy populations within each DPS, develop goals and objectives for the DPS, and choose a management approach that best accomplishes those objectives. The only apparent theme that is appropriate statewide is the use of the VSP parameters and principles as a guide to crafting the management goals, strategies, and objectives for each DPS.

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7 cont.

Assuming a constructive relationship between this overall planning effort and the development and implementation of an ESA §4(f) Recovery Plan for Puget Sound Steelhead, we support WDFW's decision to undertake Regional Management Plans (RMPs) for the various regions of the state. This approach will allow the necessary attention to the relevant unique needs of steelhead conservation from region to region and thus increase the prospects for effective strategies. We are concerned, however, about the lack of clarity regarding 1) the details of alternatives and strategies; 2) how much of the content of the RMPs would be dictated by the SSMP and where the SSMP would allow flexibility at the regional level to address issues of substance (e.g., the use of an integrated hatchery program in a specific watershed); 3) the formality of the process to develop RMPs; and 4) the role of watershed planning groups, governments, stakeholders, and other parties in the development of RMPs. Our concerns are compounded by the existing data limitations that will add significant uncertainty to management decisions made now (see preceding comment above about the need to develop a strong science foundation). They are also compounded by a potential interpretation of WAC 197-11-443 (2) that would consider an RMP "consistent" with the broadly construed SSMP and therefore not be subject to a thorough public vetting through SEPA review. In regard to the development of RMPs:

1. WDFW should clearly indicate that the RMPs will be developed through a formal, SEPA-driven review process allowing for Environmental Impact Statement scoping comments, review of draft documents, and public comment opportunities;

2. the FEIS and SSMP should clearly describe and provide examples to illustrate which elements of the anticipated RMPs would be prescribed by the SSMP and where there is flexibility in the development of the RMPs to diverge from or augment what is contained in the SSMP; and

3. the FEIS and SSMP should provide a general description of the roles WDFW foresees the co-managers, watershed groups, governments, and various stakeholders playing in the development of the RMPs and the development and approval of population-level and DPS-level goals. Most or all of these parties are engaged in implementing existing salmon recovery plans (e.g., the Chinook Recovery Plan in Puget Sound) and have a standing interest in addressing new planning requirements as seamlessly as possible.

8 7.0

- This planning process takes place in the context of the initiation of the Puget Sound Partnership (Partnership). While the working details of how the Partnership will foster and energize efforts to recover and sustain Puget Sound's salmon still need resolution, it is appropriate at this point to give specific consideration to how the Partnership can help advance steelhead conservation and the actions WDFW suggests in the SSMP. The FEIS and SSMP should include a description of how WDFW will engage the Partnership and regional conservation initiatives in advancing actions that would benefit from their support.

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9 2.0

- With National Marine Fisheries Service's May 2007 ESA listing of the Puget Sound steelhead DPS, the region now anticipates a Recovery Plan (ESA §4(f)) for this DPS. At this time there is no clear consensus in the region on how recovery planning will proceed. Regardless of the immediate need to address this regional shortcoming, WDFW should at minimum use this planning process to show recognition of the need to recover, in the ESA context, listed steelhead populations and how its specific policies and actions will contribute to recovery. The FEIS and SSMP (and eventual Regional Management Plans) should provide a more complete discussion of the linkages between WDFW's management approach and actions and the identification and achievement of steelhead recovery goals and objectives. They should also discuss the linkages between WDFW's efforts to support steelhead and ongoing recovery efforts for Puget Sound Chinook salmon and bull trout.

King County greatly appreciates WDFW's open and collaborative approach to identifying and implementing actions that will improve the fate of steelhead. We feel this helps set a positive tone for the work the Puget Sound region and our watersheds must do to develop comprehensive, H-integrated strategies for steelhead. We look forward to continuing to work closely with WDFW as this planning process proceeds and, more broadly, as steelhead recovery planning takes shape. Please feel free to contact David St. John, Government Relations Administrator at the Department of Natural Resources and Parks at 206-296-8003 if you have questions about these comments or how they would best be reflected in the Final Environmental Impact Statement.

Sincerely,

David St. John
Government Relations Administrator
Department of Natural Resources and Parks

Attachment

cc: Theresa Jennings, Interim Director, King County Department of Natural Resources and Parks
Terry Williams, Fish and Natural Resources Commissioner, Tulalip Tribes
Isabel Tinoco, Natural Resources Director, Muckleshoot Indian Tribe
Rob Purser, Fisheries Director, Suquamish Tribe
Joe Anderson, Fisheries Director, Puyallup Tribe
Jim Kramer, Executive Director, Shared Strategy for Puget Sound
Bob Lohn, Regional Administrator, NOAA National Marine Fisheries Service
Bill Ruckelshaus, Chair, Puget Sound Partnership Leadership Council
David Dicks, Executive Director, Puget Sound Partnership
Sara LaBorde, Senior Policy Advisor, Washington Department of Fish and Wildlife

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Comments on the DEIS:

11.00 11.00 p. 1, re: content of Alternatives – As a programmatic DEIS this document should address how the science that WDFW knows is needed for steelhead recovery can be better transferred to locals more effectively than it is currently.

11.01 11.01 p. 3, re: content of Alternatives – A useful 5th alternative could be a combination of Alternatives 1 and 2 where elements of each one are employed as necessary to meet overall SSMP objectives. That is, some DPSs may require the implementation of Alternative 1 whereas others may employ Alternative 2 depending on the VSP status of the population and DPS.

11.02 11.02 p. 3, re: Alternative 3 – It would be useful in describing the status quo alternative to describe how the current approach actually is protective of wild steelhead production. As it is, the "wild fish management" strategy appears to be one where additional 10% mortality on under-escaped wild fish runs is acceptable. How would this yield wild fish conservation?

11.03 11.03 p. 3, re: Alternative 3 – The HPA program serves to reduce the level of harm posed by development and other hydraulic projects, but the cumulative impacts of all permitted projects are not addressed by this program.

11.04 11.04 p. 3, re: Alternative 2 – The concept of "wild stock gene banks" is introduced here but needs much more explanation throughout the document. If conservation actions to achieve healthy stocks within DPSs includes the "banks" it begs the question of sufficiency, especially relative to VSP objectives. VSP objectives are cited as a part of this approach, but it's not clear how setting these objectives on a per-population basis would proceed, especially given a lack of abundance data for up to half the stocks statewide. Seemingly it would take several years to develop VSP objectives (where no data exist).

Under Alternative 2, there is apparent resignation that WDFW can't control habitat impacts, but under the alternative (or Alternative 1) there is no discussion regarding the regulatory powers for authorizing hydraulic projects (HPA) that the Department does have. How might HPAs be otherwise implemented under existing authorities? How might enforcement or monitoring be better implemented? Is this an issue of capacity rather than legislative authority?

11.05 11.05 p.4, re: Alternative 1 – This alternative suggests hatchery programs would be eliminated, with grave consequences for harvest. It also suggests Adaptive Management would be predicated on "greatly enhanced research" and extend to tackling questions posed by global warming. These descriptions, scary as they might sound, are simply unrealistic as an Alternative for EIS consideration. More likely, some hatchery programs might be suspended or modified depending on individual circumstances to meet conservation objectives. We suggest enhanced Adaptive Management capability would be dependent more on simple but comprehensive descriptions of the status of steelhead populations (basic fisheries management inputs), not greatly enhanced research that focuses on global warming.

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11.05 cont.

p. 4, re: Alternative 1 – Attempting to manage to carrying capacity seems fraught with peril. The normal pattern of steelhead and salmon populations is variation, often significant, over time, more like a boom and bust cycle than the smooth curves of theoretical population growth. We might hypothesize that these variations have important adaptive and evolutionary consequences in that the differential mortalities associated with the pattern may maintain variation in the population over time, much like differential environmental regimes maintain variation in space. Although we should be cautious and inquisitive about extreme population variations, damping that variation and forcing a maximum abundance pattern on a population may inadvertently select for the single genetic or life history group that happens to do well under a particular environmental regime and drastically reduce overall variation that provides resilience to the population when the regime shifts, as it surely will.

For a variety of demographic and ecological reasons, populations may not reach carrying capacity in any environment they occupy and, depending on stochastic variation, a population may overshoot K in some years. Either could be the result of demographic factors related to natural events or to artificial ones. Attempting to maximize (or stabilize) any single population attribute (abundance, i.e.) has unintended consequences and inadvertent effects on other VSP parameters of the population, most particularly on diversity. Perhaps a more appropriate model for population management would be the use of "range of variability" concepts that recognize patterns in population responses to environmental and demographic variability.

11.06 11.06

p. 5, re: Need – The DEIS states that goals for the SSMP may include hatchery programs that provide maximum recreational opportunities compatible with healthy, diverse fish and wildlife populations. The FEIS and SSMP should list and describe its assumptions about the conditions that are necessary for such programs to be effective and present specific examples of where existing programs have produced these outcomes.

11.07 11.07

p. 6, re: Plan Objectives – Among the 9 objectives, Adaptive Management is not specifically identified. Reasons to be concerned regarding the application of adaptive management are present, however. Objective 7 will require that outcomes (or performance standards) for management be identified – presumably these are ties to VSP-based objectives – but, pursuing management within a "flexible framework" needs to be better described.

11.08 11.08

p. 9, re: content of Table 1 – The approach of managing for average carrying capacity (abundance), as difficult as that may be, is conceptually more consistent with Alternative 2 than Alternative 1, the most conservative alternative. Under the most conservative alternative, managing for VSP objectives, especially if they are described from the standpoint of recovery under the ESA on a per-population basis, would ensure that management actions (All H-actions) consider potential effects or outcomes to populations from the standpoint of VSP rather than just for whether available habitat is seeded (carrying capacity).

p. 9, re Table 1 – Table 1 describes the differences between plan alternatives in terms of specific Operational Categories. In general, the plan refers to the most conservative approach as "managing for carrying capacity abundance", the preferred alternative as "managing for VSP

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11.8 cont. abundance", and the status quo as driven primarily by "Maximum Sustainable Harvest" abundance. There are several problems here. First, VSP abundance is not at all defined in the document, but it is implied that it is lower than carrying capacity. But this is an apples and oranges comparison – in the VSP framework, abundance cannot be considered in isolation from the other 3 elements. Also, "carrying capacity" may not be known and may well be far below historical or other benchmark conditions. So, managing for current carrying capacity is not necessarily "most conservative". Finally, the notion that managing for carrying capacity represents a maximum level of conservation understates the role "surplus" escapement plays in maintaining the productivity of a population.

11.09 11.09 p. 10, re: Table 1 – In Alts. 1 and 2, each of the operational categories should recognize its effect on all VSP parameters. To isolate a single VSP parameter--such as abundance in the natural production category of alternative 2—is to misconstrue the relationship among the VSP parameters and fail to recognize that a population or DPS, to achieve viability, may require maintaining diversity or improving spatial structure as its primary objective. An objective that focuses only on abundance may unwittingly compromise diversity and spatial structure before the effect is realized.

11.10 11.10 p. 11, re: Key Relationships – The text suggests that too many fish can return than the freshwater environment can sustain. If this is true, then hatchery production should represent the sum of freshwater carrying capacity less natural freshwater productivity. Future estimates of key relationships between production and capacity should consider habitat and water quantity and quality as well as how these vary across the continuum of freshwater residence.

11.11 11.11 p. 11, re: Key Relationships – The document mentions that the HSRG has found some hatchery practices to have adverse impacts on the health of wild stocks. These impacts should be explained in detail in the context of status quo operations. Also, the document states that the "…analysis of impacts aims to give the Department the widest latitude for proposing strategies to minimize or avoid significant adverse impacts…". It is not clear what this is supposed to mean, but 'wide latitude' is often used as a way to justify only minor adjustments in the status quo.

11.12 11.12 p. 17, re: Environmental Setting – Revisions to this section should include some discussion regarding uncertainty of steelhead production relative to the continuum of anadromous-resident forms of *O. mykiss*.

11.13 11.13 p. 17, re: Habitat Degradation and Alteration – The document notes that the Forest & Fish Act and other Plans will eventually provide "…shade, woody debris and other stream ecological benefits that were not present prior to 1999.". This should be restated to indicate that the level of protection may have increased in some areas as a result of these plans, but that other areas may well have less shade now than in 1999 due to practices allowed under these plans.

11.14 11.14 p. 18, re: Federally Managed Lands – It is an overstatement to conclude that "… nearly all steelhead freshwater habitats fall under the jurisdiction of various Federal programs and agreements." It is the case that Habitat Conservation Plans, the Northwest Forest Plan,

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11.14 cont. Federal Energy Regulatory Commission licenses, Army Corps of Engineers dam operations manuals, and other federal management vehicles can play a role in conservation. WDFW should not assume that in every case federal agencies use their authority and discretion to the most benefit of steelhead. WDFW should also not overlook the significant role the hundreds of local governments around Puget Sound can play in employing their authorities and resources to manage, protect and restore steelhead habitat.

11.15 11.15 p. 21, re: genetic information for Puget Sound steelhead – The document cites 10- and 14-year old information as the state of the knowledge regarding genetic composition/differentiation of stocks in the Puget Sound DPS. If this truly is the best available science at this stage, the SSMP should include specific steps to greatly improve it.

11.16 11.16 p. 36, re: Natural Production – The 2nd paragraph suggests that, "It must fit in with an ecosystem approach that protects and restores salmonids stocks and other indigenous aquatic species to levels that sustain healthy ecosystem processes." Does this mean the success of the SSMP is dependent upon this approach? Does it mean the SSMP will be developed based on these concepts? This is not reflected in the Alternatives. WDFW should elaborate on what this statement means for steelhead recovery. What are the implications for fixed harvest escapement goals? What are the implications for better understanding species interactions as part of capacity estimation? What does this mean regarding the value and role of steelhead to sustain ecosystem processes that otherwise are not included as part of the "healthy" stock definition in the first place?

11.17 11.17 p. 36, second paragraph – Define "natural ecological functions".

11.18 11.18 p. 39, re: Habitat Protection and Restoration – The section 3.1.2 entitled "Habitat Protection and Restoration" should recognize the role of local governments in land use management, habitat protection, and restoration and describe a program for collaboration between WDFW and local agencies for meeting these objectives. It should also address WDFW's management of lands under its purview, such as the agency's Wildlife Areas, many of which have a direct association with steelhead habitat. Aggressive restoration on these lands should be a key element of the State's participation in regional recovery efforts.

11.19 11.19 p. 39, third paragraph – This paragraph notes that "For the purposes of this plan, habitat protection analysis can be divided into preservation, water quality and restoration. Responsibility for habitat protection and restoration in Washington is shared among many agencies. The Department of Fish and Wildlife is responsible for protecting fish life from hydraulic projects that may affect the bed or flow of the state's waters…." We note that WDFW is also responsible for commenting on water right applications (see chapter 77.55 RCW) and suggest that the agency use this avenue to support achieving steelhead conservation and recovery.

11.20 11.20 p. 39, first paragraph – Identify most limiting habitat factors in each DPS or by stock to guide restoration actions. The DEIS simply points to a need for 'an increased amount of steelhead habitat'. We suggest the WDFW specify the life stages or specific habitat types that are

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lacking – by region – to guide on the ground efforts to restore population viability. WDFW should also integrate the VSP concept with goals for improved habitat.

11.21 p. 40, sixth paragraph – The DEIS correctly notes other agency involvement or responsibility and that the "state has numerous programs in place to preserve and restore habitat." It goes on to point out three significant laws – two of which are intended to protect habitat, one of which (SEPA) is designed to ensure deliberate decision making with regard to environmental issues. We would agree that SMA and GMA can be used effectively to protect habitat, but it is necessary that WDFW actively participate in those programs as the voice of the State fisheries managers. It is neither sufficient nor reasonable to say "The point of quoting all of these rules and regulations is to show that although the Department has a limited role in habitat protection, there are plenty of tools available for agencies and the public to use in habitat protection. Citizens and other agencies have the same ability as the Department to examine a Shoreline Master Plan, Critical Areas Ordinance or SEPA proposal to see if it adequately protects steelhead habitat." (see page 41) Rather WDFW should amplify its role while commenting on shoreline permits or water right permits (see RCW 77.55.050).

11.22 p. 41, re: Habitat Protection and Restoration, Alternative 3 – Please clarify what is meant by characterizing the Alternative as "neutral" with respect to habitat impact on either species or recreation opportunity. The Growth Management Act, for example, requires special consideration for salmonids, rather than an equal balancing of all interests.

11.23 p. 42, in re: Alternative 2 – The preferred alternative "requires the Department to increase participation in SMA, GMA, SEPA, HPA and external conservation processes to ensure laws are enforced and habitat is protected and to increase participation in habitat recovery through the Salmon Recovery Act and meets ESA requirements." WDFW should describe how those actions will be different than current actions if this alternative is implemented.

p. 42, re: Alternative 2 – Consider risks from sympatric competition and altered flow regimes on steelhead. Specify levels of planned enforcement actions pertaining to land use and water use. Explain whether this includes flood protection, flow regulation, stormwater management, or other programs or activities.

11.24 p. 44, re: Fisheries Management – Under 3.1.3 "Fisheries Management", knowledge of only abundance, timing, and spatial structure of stocks will be insufficient as a basis for actions, coordinated or not, to craft robust fisheries management actions. Knowledge of population diversity and productivity—both strongly influenced by spatial structure—will also be necessary for developing management actions. Any actions, whether habitat-based, artificial production-based, or harvest-based should be well grounded in the ecological and evolutionary principles described in the McElheny et al. document.

11.25 p. 44, re: Fisheries Management – Please describe the potential effect of incidental recreational bycatch of other listed fish by fishermen in pursuit of hatchery steelhead (and vice-versa). As more species are listed, we will invariably need to integrate our collective responses.

St. John ATTACH A

11.26 11.26 p. 46, re: Alternative 4 – Consider elevated risks of incidental (catch-and-release related) mortality to depleted populations, especially where fishing pressure is high (due to the presence of a hatchery population, for example). In particular, evaluate the risks to wild fish if the 10% mortality rate is calculated *with replacement* (for example, released fish have a 1 in 10 chance of dying each time they are caught, but are potentially caught numerous times due to high fishing pressure).

11.27 11.27 p. 48, re: Artificial Production – Define 'significantly adverse' negative impacts to depleted wild steelhead stocks from hatchery programs

11.28 11.28 p. 48, third paragraph – The document states that efforts to cut hatchery programs are "almost always met with criticism by the public". It is certainly true that vocal members of the public may object to closures if their recreation or livelihood is focused on hatchery fish, but it is likely a gross overstatement to say that the general public would criticize such a move, particularly when informed of the costs of hatchery programs, both environmental and monetary.

11.29 11.29 p. 48, re: Artificial Production – Identify 'trigger points' for initiating and terminating hatchery-based conservation programs (population rescue). Revise Alternative 1 to allow for such conservation programs with a 5-10 year sunset clause, or a functionally similar 'relicensing' process so that the hatcheries have a clear goal that once met leads to their closure. Disallow fishing on stocks in 'rescue' status to remove incentive to establish conservation hatcheries where they are unnecessary.

11.30 11.30 p. 49, re: Fisheries Management – What does it mean to say that "Selection of an effective policy is proportionally dependent on the certainty of our understanding of stock population dynamics…." This should imply a commitment to a precautionary approach. Please clarify if it does or if it implies some other overarching approach.

11.31 11.31 p. 49, in re: Artificial Production in Alternative 2 – The preferred alternative should contemplate elimination (not only reduction) of outplants in places where programs are inconsistent with strategies.

11.32 11.32 pp. 49-50, re: Artificial Propagation Alternatives – The document refers to "properly integrated" and "properly segregated" programs, without defining what constitutes a properly managed program. Both kinds of programs have substantial risks for wild populations. These risks need to be clearly defined and the likelihood of their being realized, under each alternative, described.

11.33 11.33 p. 50, re: description of Alternative 1 – This section provides an example of how Alternative 1 is couched as an extreme and untenable alternative by describing wild stock protection "without regard to negative impacts on local economies". Such framing of the Alternative undoubtedly colors the perspective of reviewers. There are many elements of Alternative 1 that, in a proper context and with clearly defined goals, could be incorporated into very reasonable alternatives. Future descriptions of all alternatives should cast them in as neutral terms as possible given their substantive elements and their factual basis.

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11.34 11.34 p. 51, re: Cumulative Impacts – The call for a "coordinated All-H watershed recovery program" is appropriate and necessary. Is the assumption that these will come to exist through H-Integration efforts underway – at varying degrees of detail and effectiveness – for the Chinook Recovery Plan? The FEIS and SSMP should clarify WDFW's assumptions and advance H-Integration by reflecting on how lessons learned about how to do (or not do) H-Integration will be applied to steelhead management.

11.35 11.35 p. 52, in re: Section 3.2.1 Regulatory Compliance – This section should address existing resources dedicated to regulatory compliance and how implementation of the preferred alternative would change that.

11.36 11.36 p. 53, re: Hydro Actions in Table 2 – WDFW should request that NOAA and USFWS require, rather than encourage, actions to pass smolts/kelts downstream and adults upstream at all FERC-licensed facilities located downstream of natural barriers to migration.

11.37 11.37 p. 55, re: Regulatory Compliance Alternatives – The tangible differences between the Alternatives should be more clearly conveyed. We assume that WDFW isn't doing more or less than its explicit legislative direction would allow. The description of Alternatives would be improved by showing where WDFW's flexibility is being put to constructive use.

11.38 11.38 p. 57, in re: Section 3.2.2 Monitoring, Evaluation and Adaptive Management – The Preferred Alternative should include a larger, better-integrated research and monitoring program. This program should demonstrate how the information gathered will be used to direct "outcome-based management within a flexible framework." In addition, any adaptive management and monitoring program should address WDFW's hypotheses about the biological response of steelhead to Operational and Administrative actions.

11.39 11.39 p. 60, re: Research Alternative 2 – Key research topics should initially be developed at the statewide level, even if more specific proposals are developed at a regional scale. For example:

- How does a wild population react (in terms of VSP parameters) to the elimination of hatchery releases in the watershed?
- What level of genetic introgression is likely to compromise the long-term fitness of wild stocks?
- In segregated programs that utilize differential spawn timing (e.g., hatchery summers, wild winters), what are the ecological interactions between wild and hatchery juveniles/adults?

11.40 11.40 p. 60, re: Research Alternative 1 – The DEIS proposes human population increase and global warming impacts as likely objects of study under the "Most Conservative" alternative. These are key topics that the Department should be considering under any Alternative. These factors will have substantial impacts on stocks statewide and it is the responsibility of the Department to consider them in their planning and management.

St. John ATTACH B

Comments on the SSMP:

12.01 12.01 p.5, re: Strategy 2 – It has been known for decades that an MSH-based escapement level is not likely to be sufficient over the long-term. While the MSH/MSY paradigm still persists in many management frameworks, the suggestion of something different should not be presented as a new concept.

12.02 12.02 p. 5, re: Strategy 2 – The strategy section ties the escapement strategy appropriate for a stock to its SaSSI status. The SaSSI rating system is not robust enough to justify higher levels of acceptable risk on "healthy" populations. Moreover, even for "healthy" populations, MSH should not be the benchmark level for adequate escapement, due to high levels of uncertainty, management error, and the importance (from a recovery perspective) of establishing some populations as truly robust and abundant to serve as potential sources for other watersheds.

12.03 12.03 p. 6, re: Action 1 – Given that the SSMP is focused on WDFW's management authorities, which do not comprehensively address habitat management, the identification of limiting factors called for in 1(a) could be problematic. The authors should clearly indicate if the limiting factors summary will be inclusive of all habitat factors (i.e., not just those that WDFW directly effects), and, if so, how other habitat managers will be involved in assessing them.

12.04 12.04 p. 8. re: Habitat Protection and Restoration Strategies – WDFW should assume a lead role in restoration planning and implementation on all State-owned or managed land.

12.05 12.05 p. 9, re: Habitat Protection and Restoration Strategy 6 – Authors should clarify whether this series of actions pertains only to actions WDFW reviews for HPAs.

12.06 12.06 p. 13, re: Fishery Management Actions – What is the basis for the 10% assumption to capture a multitude of sources for incidental mortality? Moreover, the document states that the assumed rate should be no higher than 10%. It would be more precautionary and appropriate to assume a higher rate in the absence of good data since this is just one portion of the computed total mortality rate.

12.07 12.07 p. 13, re: Fishery Management Strategy #7 – The notion of "maximized" economic and cultural benefits seems out of tune with managing adaptively. This statement should be revised to reflect that these benefits will be maximized within the overall effort to conserve the steelhead resource to assure that these types of benefits can be realized over the long term.

12.08 12.08 p.14, re: Action 4, (b) – If overlap occurs in the run timing of wild and hatchery steelhead stocks for which the abundance or escapement of the wild stock is not known, the plan recommends that no recreational fishery be allowed "beyond the time and area that hatchery fish are reasonably available". Instead, given the uncertainty of these stocks, a more appropriate precautionary approach would ban recreational fishing "whenever wild fish are reasonably vulnerable".

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12.09 12.09 p. 19, re: Artificial Production, Strategy 5, (b) – In a segregated scenario, in the absence of a hatchery or trapping facility, no hatchery juveniles should be released into the system, absent a verifiable and extremely efficient method/facility for culling hatchery fish from the natural spawning grounds.

12.10 12.10 p. 19, re: Strategy 5, (c) – It should be stated clearly what the PNI goal should be in an integrated scenario (e.g., PNI>0.7), while acknowledging that during very low wild stock abundance, sufficient broodstock may not be available to meet that criterion. In these cases, PNI should be increased when possible to the extent that wild broodstock is available over time, but a minimum PNI must be maintained to ensure progress in the right direction. This means that hatchery output must be curtailed in order to ensure that minimum value given broodstock constraints.

12.11 12.11 p. 21, re: Actions for Integrated Programs (g) – The last clause suggests that habitat actions can make up for losses due to demographic risks. While habitat actions are of course important, demographic risks can decimate the genetic fitness of a population in a short time while habitat actions may take decades to produce anticipated gains. Moreover, if genetic fitness is compromised, it is unlikely that the population will miraculously gain fitness by virtue of habitat alone. We recommend that the habitat element of the strategy be separated from the truly demographic factors associated with integrated production.

12.12 12.12 p. 21, re: Artificial Production elements for RMPs – We strongly support Action 6 (a) regarding the assessment of benefits and risks for each program relative to VSP parameters in all regional plans.

12.13 12.13 p. 21, first paragraph under Action #6, fifth line – Strike "not": sentence should read "… for stocks that are listed under the Endangered Species Act…"

12.14 12.14 p. 22, re: Strategy #1b – An increase in accountability should be joined with an increase in support to ensure that these laws are effective, through adequate monitoring and evaluation and incorporation of new information into decision-making processes.

12.15 12.15 p. 24, first paragraph, line eleven – The text overlooks that assumptions about steelhead biology and ecology and the effects of human actions on them will be significant drivers of an effective adaptive management program, whether they are recognized up front or not. WDFW should clearly describe its assumptions on these points and use them to guide the development of the monitoring, evaluation and adaptive management program.

12.16 12.16 p. 25, re: Monitoring and Evaluation Actions – Several of these actions are very important for the long-term prospects of steelhead, particularly as they relate to the impacts of artificial production. Actions 4, 6, and 7 are critical to understanding these linkages.

12.17 12.17 p. 29, re: Strategy 7 – Consider risks from treating resident *O. mykiss* differently than anadromous *O. mykiss* in the SSMP, from a VSP perspective. How do these risks vary among DPSs and regions?

St. John, David

Attachment B

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January 11, 2007 letter to WDFW SEPA/NEPA Coordinator providing King County DNRP's EIS Scoping Comments on WDFW's development of the Statewide Steelhead Management Plan

St. John, David

King County
Department of
Natural Resources and Parks
Director's Office
King Street Center
201 South Jackson Street, Suite 700
Seattle, WA 98104-3855

January 11, 2007

SEPA/NEPA Coordinator
Regulatory Services Section
WDFW Habitat Program
600 Capitol Way N
Olympia,WA 98501

To Whom It May Concern:

I am writing to provide formal comments from the King County Department of Natural Resources and Parks (DNRP) in response to the December 22, 2006, scoping notice from Washington Department of Fish Wildlife (WDFW) seeking comments on the development of an Environmental Impact Statement (EIS) for the anticipated steelhead management plan. DNRP is pleased to offer the following input to WDFW as the plan is developed and its associated State Environmental Policy Act (SEPA) process is completed.

WDFW plays a key management role in the conservation of steelhead and all of the state's native salmonids. The progressive and prudent use of the agency's primary authority and responsibility for managing harvest and hatchery interactions will be fundamental to improving the prospects for steelhead. As a large natural resource management agency DNRP can identify with the challenges WDFW faces in addressing a complex and far reaching issue like steelhead conservation, for example maintaining beneficial continuity as an agency but improving programs where improvements are needed. We support WDFW's efforts to collaboratively develop a management plan that will position the agency to make significant contributions to the health and enjoyment of the steelhead resource. We encourage WDFW to use the management planning and EIS process to establish a strong science foundation for steelhead management across the harvest, hatchery and habitat and to make advances in how it employs its specific natural resource management authorities in this context.

After consideration of the conservation needs of steelhead and the role WDFW can play in meeting those needs, we feel the following issues must be considered in the process of developing the management plan and conducting the necessary SEPA review for it:

- Evaluation of any alternative will be most beneficial if the near and long term goals for alternatives are specific and explicit. At this point we are not aware of any ecosystem-

based conservation goals for Puget Sound steelhead populations that could be used to provide a target and evaluation tool for proposed steelhead harvest, hatchery and habitat actions. While this planning process may help WDFW find beneficial management actions that act on accepted principles of conservation biology, we feel the lack of specific conservation goals will limit the agency's ability to accurately gauge the ultimate conservation value of the proposed alternatives.

- The plan should be grounded in a well-founded, credible science-based view of steelhead populations and their habitat. This science-based perspective should employ the principles of the Viable Salmonid Population[1] concept developed by the National Marine Fisheries Service (NMFS). The VSP framework and its core conservation principles are the emerging standard for assessing the health of salmonid populations and their response to large scale management actions. The VSP framework should be used in the EIS to evaluate all alternatives.

- The evaluation of the impact of alternatives on the VSP parameter productivity should include specific and detailed recognition that productivity of steelhead populations, cohorts and individuals is influenced by harvest and hatchery management actions in addition to habitat conditions.

- As the foundation for any alternative, WDFW should clearly state and provide the scientific basis for its assumptions about the habitat context for the alternative and its specific actions. This will be especially important background for any statements in the management plan that describes population, watershed or regional level goals or objectives. While WDFW's management authorities are significant, as they do not extend in large measure to habitat they are not extensive enough to allow the agency to establish goals or objectives at these scales and then assure they will be achieved simply through its actions alone.

- The alternatives evaluated and the final management plan should be consistent with ecosystem-based (multi) species recovery plans, including especially the Water Resource Inventory Area Chinook plans and the bull trout Recovery Plan. For example, actions considered or approved for inclusion in the management plan should be sequenced with habitat actions from these plans to ensure they are complementary and provide benefits cost-effectively. The EIS should incorporate sequencing of actions in assessing the effects of the alternatives.

- The alternatives evaluated and the final management plan should clearly describe how the management approach will differentially or similarly guide the management of steelhead

[1] McElhany, P., M.H. Ruckelshaus, M.J. Ford, T.C.Wainwright, and E.P. Bjorkstedt. 2000. Viable salmonid populations and the recovery of evolutionarily significant units. U.S. Dept. Commerce, NOAA Tech. Memo. NMFS-NWFSC-42,156 p.

St. John, David

and resident *Oncorhynchus mykiss*. The assessment of impacts should include an analysis of how the ecological value of steelhead, apart from that of resident *O. mykiss* will be protected.

- The assessment of impacts should include an analysis of how the alternatives could exacerbate or ameliorate the Listing Factors leading to the proposal by NMFS to list steelhead as threatened under the Endangered Species Act (Federal Register – 71 FR 15666, March 29, 2006).

- The Hydraulic Project Approval (HPA) program does offer WDFW a measure of influence in protecting and restoring dynamic ecosystem processes, structures and functions that will contribute to steelhead conservation. The alternatives and final management plan should incorporate a HPA program that is oriented toward process-based habitat restoration, rather than attempting to create and maintain static habitat structure or meeting single-species needs. Such a program would, for example, call for the evaluation of HPA applications in the watershed context, guide project siting, design and implementation so that they are responsive to the landscape context, and encourage actions that restore dynamics of floodplains, marine shorelines and stream channels, where consistent with historic conditions and where such can be done safely.

- Supplemental EIS on Puget Sound should consider how WDFW would coordinate with the Washington Department of Ecology when implementing the steelhead management plan.

- As a procedural matter, WDFW should also request scoping comments on the anticipated Supplemental EISs that will be prepared on the regional plans. We suspect that the conservation science, goals and objectives, and priorities for steelhead will be clearer over time and new information and ideas will provide a better sense of the issues that will need formal evaluation at the regional scale. At this point our sense is that the supplemental EIS for the Puget Sound region will need to address the issues raised in detail in this letter and other issues, as illustrated by the following list of examples:
    - Direct and indirect impacts on the environment
    - The extent to which the management plan and its actions coordinate with, supplement, and do not conflict with other mandates such as those from the Endangered Species Act, Clean Water Act, Model Toxics Control Act, and the Comprehensive Environmental Response, Compensation, and Liability Act
    - Coordination with other state agencies in establishing goals for and implementing actions to benefit steelhead
    - Impacts on clearly delineated populations or stocks
    - Interactions with conservation actions for other listed or declining species
    - Integration of hatchery programs into watershed conservation strategies
    - The role disease may play in depleted steelhead populations
    - The effects of competition, predation and disease among sympatric species

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- The effects of altered flow regimes on life history strategies, specifically flows for returning adults, summer flows for parr, and flows for smolt migration

To provide further indication of our perspective on WDFW's emerging management approach to steelhead I have attached our comments on the agency's Steelhead Assessment document. Please consider the attachment as part of our EIS scoping comments.

Thank you for the opportunity to provide comments on this important planning process. We look forward to continuing to work closely with WDFW, the respective tribes, watershed groups and the range of participants in salmon recovery efforts toward the conservation and recovery of all salmonids native to our waters. Please contact me at (206)296-8003 if you have any questions about these comments or would like to know more about King County's contributions to salmonid conservation and recovery.

Sincerely,

David St. John
Water Resources Special Project Manager
King County Department of Natural Resources and Parks

Attachment

cc: Sara LaBorde, Senior Policy Advisor, Washington Department of Fish and Wildlife
Isabel Tinoco, Natural Resources Director, Muckleshoot Indian Tribe
Terry Williams, Natural Resources Director, Tulalip Tribes
Joe Anderson, Fisheries Director, Puyallup Tribe
Rob Purser, Fisheries Director, Suquamish Tribe

St. John, David

Attachment C

September 15, 2006 letter to Mr. William Gill providing King County DNRP's Comments on WDFW's document *Oncorhynchus mykiss: Assessment of Washington State's Anadromous Populations and Programs*

St. John, David

King County
Department of
Natural Resources and Parks
Director's Office
King Street Center
201 South Jackson Street, Suite 700
Seattle, WA 98104-3855

September 15, 2006

William T. Gill
Fish Program
Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, WA 98501-1091

Dear Mr. Gill:

I am writing to provide comments from the King County Department of Natural Resources and Parks (King County) on the document "*Oncorhynchus mykiss:* Assessment of Washington State's Anadromous Populations and Programs" (Assessment) developed by the Washington Department of Fish and Wildlife (WDFW). King County appreciates WDFW's efforts to assemble this document and the opportunity to provide comments.

Under the leadership of Executive Ron Sims, King County is a leader in habitat protection and restoration efforts for salmon and steelhead in King County and the Puget Sound region. King County's conservation efforts go back many years, to the development of basin plans that helped define our present natural resource management objectives and guide the expenditure of time and funds for conservation. More recently, King County led the development of two watershed salmon recovery plans and contributed significantly to two others, completed a science-based update of our Critical Areas Ordinance that protects important salmon and steelhead habitats and habitat processes, and initiated a regional water supply planning process that will evaluate options for meeting water demands in the context of instream needs and climate change factors. These efforts will contribute significantly to the long term sustainability of salmon and steelhead in King County watersheds.

As you may be aware, King County has concluded from the available information that Puget Sound steelhead should be afforded the protections of the Endangered Species Act. The prospect of having another salmonid listed under the ESA is a reminder that there is much work to be done in the Puget Sound region to sustain the natural resources that are integral to Pacific Northwest culture and quality of life. In this context, WDFW's efforts to compile and synthesize the scientific, legal and administrative information describing the health and management of steelhead is an important contribution to actions that will put them on a healthy trajectory.

The following comments are provided to assist WDFW in taking the next steps with the Assessment and, more importantly, moving from the assessment stage into action identification, budgeting, work planning and implementation. These comments are more general in nature; where references to specific sections of the document would be helpful they are provided. A short list of additional text-specific comments is provided in Attachment A.

St. John, David

- The purpose of the Assessment should be more clearly stated, particularly as it relates to future policy and program decisions and decision-making processes we assume WDFW will use to forward the goal of steelhead conservation. What are the (proposed) conservation goals and objectives for steelhead? What is the connection between the Assessment and a customary stock management plan? What is the connection to a decision-process that will set priorities and allocate budget for actions? Mixing the biological information with the policy/management information contributes to the haziness. Putting the biological information under separate cover or at least pulling it into a separate section in the front of the Assessment would make the basis for the recommendations clearer and will provide a more defensible basis for eventual specific actions. It would also be useful to dedicate a chapter to the history of the steelhead resource, to provide a sense of what a healthy steelhead population might look like and inform discussions of what the region should be trying to achieve with conservation measures.

- Given WDFW's primary roles of harvest and hatchery manager, presentation and discussion of habitat issues affecting steelhead conservation are best addressed in a separate or restructured, co-authored document. At various points the Assessment presents hypotheses about the role of habitat conditions in the decline and hoped-for re-invigoration of steelhead populations, but provides little foundation for identifying, prioritizing and implementing habitat actions that would be particularly beneficial for steelhead. In addition, presenting a good portion of the discussion of habitat impacts in Chapter 3 on artificial production confuses the issue and seems to jump from presentation of biological information into justification of past (and future) hatchery policy and program decisions. An effective conservation strategy requires the accurate and thorough assessment of factors from habitat, harvest and hatchery management. Prior to finalizing the Assessment and turning attention to developing management actions across habitat, harvest and hatchery management (Hs), WDFW should engage scientists and policy staff with expertise in habitat factors affecting steelhead and complete an analysis of habitat information pertinent to steelhead conservation. This group should include experts who have direct experience developing and implementing habitat protection measures, to help ensure a strong foundation for eventual recommendations for habitat management actions. We recognize that WDFW and co-manager staff have substantial knowledge of on-the-ground habitat conditions. That knowledge would be valuable in creating a complete picture of habitat management needs for steelhead.

- The importance of integrating the Hs should be emphasized and reflected in specific recommendations. Chinook recovery planning has shown that the longer it takes to get the Hs on the same page around conservation goals and strategies the greater the opportunity for manageable issues to become problems. Finding 4-6 raises the question of H integration but unfortunately is not followed by a specific recommendation. At the very least, WDFW should recommend that the process for and results of the current integration efforts for the Chinook recovery plan be assessed for their value to steelhead conservation. Engaging watershed groups as they implement their integration strategies over the coming months may be a more productive, albeit logistically challenging, recommendation.

St. John, David

- We support the recommendations to create a stable, long-term steelhead monitoring program that will provide a stronger basis for identifying and prioritizing management actions. The gaps in fundamental knowledge about steelhead biology, genetics, population structure, and status limit our ability to create effective conservation strategies. The recommendation for enhanced DNA marker analysis (p. xiv) should be revised such that proposed methods and program plans, including how additional DNA data will be factored into management decisions, are peer reviewed prior to the allocation of funding to and implementation of this analysis. WDFW should identify advantageous linkages to the developing Chinook recovery adaptive management and monitoring program, e.g., habitat trend and climate change monitoring, and ensure common needs are met economically.

- Chapter 2 provides a good basis for understanding the biology of steelhead. The data and examples are particularly helpful. More information on several issues would be helpful:
    - the role disease may play in depleted steelhead populations
    - the effects of competition and disease from sympatric species
    - the effects of altered flow regimes on life history strategies, specifically flows for adults, summer flows for parr, flows for smolt migration

- Chapter 3 provides a solid review of hatchery practices and the deleterious interactions between hatchery and wild origin steelhead. The chapter lacks specific recommendations that address the key issues identified and should be revised to include such recommendations. The text should be clearer (e.g., on page xii, 1st paragraph, 2nd sentence) that many of the deleterious impacts of hatchery operations have been shown to be highly likely or inevitable and therefore should not be presented as "potential". Underestimating or downplaying the likelihood of impacts can contribute to 1) inaccurate assessments of costs and benefits and 2) implementation of management actions with overestimated expected outcomes. We recognize the efforts to reduce the effects of hatchery-origin fish on wild fish. It is very likely, however, that with the decreasing numbers of steelhead what in the past may have been marginal impacts from large numbers of hatchery-origin fish are now more damaging. WDFW should add a recommendation to evaluate discontinuing hatchery production in watersheds where the wild-origin population is not in need of emergency conservation measures in a hatchery and coupling that with actions in the other Hs to see effects. WDFW should also add a recommendation to evaluate discontinuing hatchery production of summer steelhead in watersheds where they would intermingle with dwindling wild winter-run fish during overlapping freshwater residence/spawning.

- The time is right to develop the "population rescue" document suggested in Recommendation 3-7. Our experience with early-run kokanee illustrated to us the real potential that by the time it becomes conventional wisdom that a population is verging on extirpation it is too late to successfully develop and initiate hatchery-based conservation programs. While the abundance of early-run kokanee was much lower than the current steelhead abundance when consideration of a conservation program for kokanee was first considered, the introgression of hatchery steelhead would argue that this difference in abundance does not justify delay. Developing this document would help insulate WDFW and decision-makers from the pressure and heated rhetoric that is likely to emerge when conditions get so bad that immediate rescue measures would be needed. This population rescue document should have

St. John, David

clear goals and objectives, and establish a robust adaptive management and monitoring program that would show if rescue efforts are effective, for example that the removal of natural origin females, from a depressed population like the Cedar River, from the spawning grounds for hatchery spawning is justifiable.

- The attempt to incorporate the Viable Salmonid Population framework into consideration of future management is a great advance. To our knowledge this is among the first documents supporting salmon management that makes a true effort to apply this framework. While taking this approach leads to finding data gaps that otherwise might not be found and to new demands for cross-H management, these issues need to be addressed and are well worth the decision to make this paradigm shift.

- The potential contributions of watershed planning groups to steelhead conservation are overlooked and should be recognized. Efforts to conserve steelhead should capitalize on the maturing watershed-based institutions that continue to make important contributions the long term health of salmonids in Puget Sound watersheds.

- Discussion of the economic context should have its own chapter. Placing the discussion in the artificial production chapter (Chapter 3) and framing it as "benefits" implies that achieving economic objectives is most assured if artificial production programs are maintained or expanded, and that their benefits outweigh their near and long term costs, including the costs in terms of diversity and fitness in the wild portion of the population. Portraying this as a hypothesis would be more appropriate, but even then only after a complete presentation of the economic data. The economics, reflecting management actions from all of the Hs, of maintaining and enjoying viable steelhead populations is important context for developing conservation strategies and should be addressed more discretely and thoroughly.

- Discussion of productivity (Chapter 7) should present and discuss the full range of management actions that can influence productivity. Productivity of the freshwater habitat is a function of the environmental (natural and anthropogenic) conditions during migration/spawning, incubation and rearing, in combination with the quality of the fish that return to spawn. Habitat's role in this equation is obvious, but often overlooked is the role of decades of harvest and hatchery management actions that have directly or indirectly influenced the ability of returning fish to produce (abundant) offspring. Page 4-31 of the assessment document offers brief recognition of these dynamics; a more thorough discussion is needed.

- At various points the assessment highlights the potentially close relationship steelhead have with resident *O. mykiss*, and the hypothesis that the resident fish are closely-enough related to function as a hedge against the permanent loss of steelhead. While King County's perspective remains that grouping these fish in the same population for purposes of conservation is not precautionary – especially in the context of the important data gaps pointed out in the Assessment – and has negative risks to the viability of steelhead, it would be helpful if WDFW developed management recommendations that describe how resident *O.*

St. John, David

mykiss should be managed to avoid or minimize negative impacts on steelhead, especially if steelhead are listed as proposed by the National Marine Fisheries Service.

- We recognize WDFW's interest in providing a comprehensive statewide picture, for itself as a co-manager and for all interested parties, but providing more focus on distinct regions like Puget Sound would be more helpful for the identification of limiting factors and necessary management actions. For example, the habitat conditions facing Puget Sound populations and Upper Columbia populations are markedly different, the latter having been much more influenced by large dams than the former. Such differences have implications for our understanding of how the respective populations reached their current conditions and their prospects for improved health. It is probable that harvest and hatchery impacts also vary in important ways from region to region. Lumping the regions is also problematic in discussions like that in Chapter 7 regarding escapement. The data in Table 7-2 and Figure 7-14 provide a strong contrast to the general statement in Finding 7-3 about promising recent trends in data, at least for Puget Sound populations. A region-specific approach to presenting the scientific, legal and administrative information would provide a better basis for identifying beneficial management actions from each H for Puget Sound steelhead.

Thank you for the opportunity to provide comments. King County looks forward to continuing to work closely and constructively with WDFW, the tribes, watershed groups and the range of participants in salmon recovery efforts in returning our native salmonids to robust health. Please feel free to contact me at (206)296-8003 if you have any questions about these comments or would like to learn more about King County's efforts to protect and restore habitat to the benefit of all of our native salmon.

Sincerely,

David St. John
Special Projects Manager
King County Department of Natural Resources and Parks

cc: Pam Bissonnette, Director, King County Department of Natural Resources and Parks
Sara Laborde, Senior Policy Advisor, Washington Department of Fish and Wildlife
Isabel Tinoco, Natural Resources Director, Muckleshoot Indian Tribe
Terry Williams, Natural Resources Director, Tulalip Tribes
Joe Anderson, Fisheries Director, Puyallup Tribe
Rob Purser, Fisheries Director, Suquamish Tribe

St. John, David

Attachment A
Specific Comments on WDFW July, 2006 Steelhead Assessment Document

Chapter 3, pg 1: Figure 3-1 shows an over 5X increase in hatchery output of steelhead smolts from the early 1960s to 1980 followed by a 20-year period of sustained, high level of hatchery smolts being released from1980 to 2000. A comparative line on this graph showing run sizes or survival over time of wild and hatchery fish would help put this change in stocking rates into perspective and help address whether the increases have resulted in any improvement or degradation in survival and per capita increase in run size.

Chapter 3, pg 2: in discussion of conservation benefits, NMFS's policy is cited to document the potential conservation benefits of hatcheries. While these potential benefits may accrue, it would be helpful to references to the scientific literature that supports the following hypotheses: a) that abundance increase caused by hatcheries are sustainable and not just a short-term artifact, b) that sustainable productivity increases are occurring for wild fish, and c) that conservation hatcheries have been shown to be effective and that their use for "conservation" purposes is for any other situation other than a "last-gasp" effort. Again, the NMFS policy document seems to be more supportive of the use of hatcheries than the literature would generally indicate, presumably to avoid causing economic hardships and impacts to existing fisheries, rather than a science-based assessment.

Chapter 3, pg 5: The discussion of integrated programs should note the costs to wild fish caused by their intermingling with hatchery fish. What are the effects of the homogenization and intermingling of would and hatchery fish? It appears, that wild fish are being removed to benefit hatchery fish rather than vice versa.

Chapter 3, pg 17, 2nd Para: The logic here (and again in discussion on page 47) suggests that a hatchery is comparable to a stream. Since a hatchery is artificial and doesn't subject the fish to the same natural selection pressures, this analogy confuses the issue. Please explain how the two environments differ in natural selection pressures and stochastic environmental processes and, given those differences, how they are comparable.

Chapter 3, pg 17, 3rd Para: The way Waples (1999) is cited, gives appearance that his work is a lone voice. There is considerable other work that supports the conclusion that "a loss of some diversity is inevitable." Please cite work or logic that supports Waples' conclusion or work to the contrary so as to give the reader a better appreciation of the range of thinking on this.

Chapter 3, pg 17, 4th Para.: How realistic is a "genetically ideal" (i.e., totally randomized mating process) population? Is there any evidence that this is an accurate assumption for salmon? If not, what are ramifications of this using this assumption? Wouldn't use of this assumption underestimate the true effects (as next paragraph, pg 18, suggests)?

Chapter 3, pg 29, 1st para: What is the evidence that assumption of equal heritabilities and selection pressures in the natural and hatchery environments" is valid. If not valid, what are

St. John, David

ramifications and downside effects? How and to what extent and would degree of hatchery impact on fitness be under or overestimated?

Chapter 3, pg 30, 3rd para.: While the risks to diversity are lowered using local stocks, by what measure is it determined that even those lowered risks are acceptable?

Chapter 3, pg 31, assumption # 4 of use of the Ford model: What is the evidence that genetic change is reversible? What are ramifications if this assumption does not bear out? How has AHA incorporated those ramifications?

Chapter 3, pg 45, 3rd para: What evidence is there that meeting CWA standards is sufficient to prevent or to minimize effects to the extent possible? Are the CWA standards based on fish conservation or ESA recovery goals?

Chapter 3, pg 47, 4th Para: How are benefits and risks measured comparably to know when one is greater than other?

Chapter 3, pg 49, 4th Para.: How is effectiveness defined: Numbers of fish caught? Better fitness of wild stocks? Is there evidence that fish populations will improve simply because habitat improves?

Taylor, Mark

SEPAdesk - Emailing list

From: "Mark Taylor" <mtaylor@n-sea.org>
To: <SEPAdesk@dfw.wa.gov>
Date: 08/20/2007 4:00 PM
Subject: Emailing list

1 Noted

Please add the Nooksack Salmon Enhancement Association to your email listing for all documents regarding Salmon, Steelhead, Trout and Char for the State of Washington and Puget Sound (i.e. the Steelhead DEIS that just came out)…

Thanks!

Mark Taylor
Executive Director
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added to Statewide
Whatcom Co.

Teixeira, Fred – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Thompson, Herbert

Teresa A. Eturaspe
SEPA/NEPA Coordinator, Regulatory Services Section
600 Capitol Way North
Olympia, WA 98501

Fax 360-902-2946

Dear Ms Eturaspe:

Thank you for the opportunity to read and to comment on the Draft Environmental Impact Statement that correlates with the State Steelhead Management Plan. I attended the Sequim meeting in August and began my learning process then. **I also read parts of *Oncorhynchus mykiss:* Assessment of Washington State's Anadromous Populations and Programs,** before writing this letter.

1 8.3 It is a hard decision. Nonetheless, I find a few more things in Alternative 3, the Status Quo, that I find defendable compared to Alternative 2 (the Department's preferred). Thus I am more in favor of Alternative 3. Parts of the VSP concept are, in my opinion, vulnerable (especially spatial structure), and at any rate are not adequately defined and illustrated in the draft.

2 Comment Noted Given more resources, a hybrid between alternatives 3 and 2 would probably be closer to the ideal. It is a natural reaction to modify table 1 in the Draft accordingly. In the Monitoring, Evaluation, and Adaptive Management category, for example, it is probably close to imperative that you do work in both the alt 2 and alt 3 boxes. As far as Outreach and Education, I find it hard to believe that outside (nongovernmental) sponsors, including commercial ones, would not fund this for you, at least a significant chunk of it (I make this latter assessment from experience in both state and federal governments).

3 7.3 Thus, this could very well be approachable from the status quo situation.

I make several other comments in an addendum (which I faxed along with this letter). It is there for whatever good it will do, for anyone who wants to read it.

Sincerely,

Herbert A. Thompson

Herbert A. Thompson
Port Angeles
September 9, 2007

Thompson, Herbert

Addendum to letter by **Herbert Thompson,** on **DEIS** for Steelhead Management Plan. September 9, 2007.

4 12.23 1) For the final EIS, suggest you add the following acronyms, with adequate definitions, to the list: HCP, SEPA, SSMP, SCPAG, HPA, DPS, HRSG. Also, clarify whether RMP is a Resource Management Plan or a Regional Management Plan, because RMP is used here and in the *O. mykiss* document both ways.

5 12.20 2) There are places in the DEIS where the sentence structure, usage, etc, could be improved. Each science of course has its idiosyncracies regarding such things, but it may well mean something different to the educated but lay public. When you say "Potential recreation impacts on harvest opportunity may result in some watersheds from these program change strategies" (referring to alt 2) it means that recreation is impacting steelhead harvest, in some watersheds. This appears in several places.

6 7.6 3) "external conservation practices" deserves a straightforward definition, period, and not a waltz around the bushes. What does it refer to? More scholarly research? Greater enforcement of environmental/habitat rules/policies? You need to be clear on this.

7 12.22 4) The word "healthy" is used often to describe steelhead stocks and abundance. I think it is a worthless term in this context. You need to state that 'healthy' can and will be defined, ie, in some percent or fraction of the escapement number, or in some way that is not vacuous (it must be measureable).

8 12.23 Throughout the document, the implication arises that managing for MSH is too vulnerable to habitat degradation. No one is going to buy this without a lot of explanation. MSH happens now primarily through hatchery activity. It appears to me that the real issue is that, according to the WDFW, managing for MSH is too expensive to allow other 'adaptive management strategies' to be implemented, including environmental issues, and that is how MSH (presumably) affects the fishery. Thus it is more a budget issue, and less of an operational or ecological impact.

Finally, at least a few of us who read the DEIS and *O. mykiss* have three other impressions that stand paramount:

9 10.10 1) Much of the problem behind the steelhead question concerns the Puget Sound runs and what is different about the marine ecology that diminishes the escapement via changes in early marine rearing. (Survival rates for Puget Sound programs, discussed in Chapter 3 of *O. mykiss,* finding 3.8, p 54)

10 10.11 2) The steelhead cycle is now down, but that is natural or at least historical. We would expect a peak again in 2009-2010. What will those returns suggest, and what is the impact of that on present plans? (ie, what were the 2 and 5 yr plans of WDFW prior to this DEIS? You must have had them).

11 5.4 3) There is a sense of a decided tendency in these publications to generalize against the sport/recreation fishery, exempting the obvious problems in commercial and tribal practices.

Thompson, Herbert

Thompson Addendum September 9, 2007 (concluded).

12 DONE Thanks

***O. Mykiss* paper:**

You have a typo concerning your definition of the equation in 2.3.1 Evolution of Anadromy (in text under the equation, $W(H_1)_A$ is defined twice).

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Thompson, Richard – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Urabeck, Frank

September 8, 2007

Teresa A. Eturaspe
SEPA/NEPA Coordinator
Agency Responsible Official
Regulatory Services Division
Habitat Program

Subject: Draft EIS for the Statewide Steelhead Management Plan (SSMP)

Dear Ms. Eturaspe:

The following are my comments on the subject document:

1 Comment Noted

1. Overall the DEIS is well written and does a reasonable job of defining and assessing the probable impacts of implementing the SSMP. However, the subject, and all its facets, is a bit overwhelming for the average angler, and even many of us who have extensive backgrounds in steelhead management and wild steelhead recovery. The technical and policy issues are complex.

2 7.4

2. Because the tribal co-managers are essential to successful wild steelhead recovery and the retention of meaningful sport fishing, the FEIS and the SSMP needs to expand and strengthen the discussion of tribal role in meeting the goals and the objectives of statewide steelhead recovery and preservation, especially the critical element of harvest and the movement by all harvesters to selective fishing. Some of the tribes have already demonstrated an ability to selectively harvest via rod and reel. Others are considering fish trap weirs that would allow for selective harvest of salmon as well as steelhead.

3 7.0

3. Fact Sheet – Here you say that the Department will be responsible for the RMPs. Elsewhere in the text you suggest that it will be the "Lead Entities (WIRAs). Please clarify, as I believe it should be the Co-managers with inputs from the WIRAs or other appropriate Lead Entities. On p 16 you say that the watershed plans will be created by "local entities." Who are these? WDFW had already begun watershed planning with the watershed tribes. Why not continue and complete this work, but involve the public as SCPAG has requested, and also coordinate with the appropriate Lead Entities for coverage of Habitat issues and proposals?

4 Noted

4. I like the seven DPSs and look forward to participating in the planning for several of the watersheds that will be rolled up into the DPSs.

5 Noted

5. Four alternatives presented on page 9 cover the range of reasonable options. I agree with Alternative 2 as the Preferred Alternative.

6 10.06

6. Historical Background (p 15) needs to be expanded to better cover the tribal role in fishery management and shared responsibility for declines due to over harvest of wild stocks. The text needs coverage of the Boldt decision and subsequent impacts from non-selective commercial fisheries. You just can't talk about the sports side of the equation. It is vastly misleading. Also there should be some summary presentation of the status and trends of the various wild stocks to give

6 cont. the reader perspective and a sense of the urgency to take action for recovery. The current text does not set the stage adequately for the subsequent discussions.

7 10.24 7. As I asked for previously, it would be useful to have a schematic showing all the state, federal and local government steelhead significant activities/processes and their relationships to each other leading to wild steelhead recovery. We do need a road map. Hopefully, WDFW will have that at the October 16 SCPAG meeting.

8 7.4 8. Again, for the SSMP to have any credibility and viability, it has to be accepted and supported by all the tribes, as they are key to success. Otherwise it is only a roadmap for mostly unilateral action that could be undermined by the lack of tribal cooperation. Unless we have the tribes with us, it will be hard to gain state and federal funds for implementation of the SSMP and formulation of the watershed and RMPs.

9 10.16 9. DPS discussions – Puget Sound, Olympic Peninsula, Southwest Washington, missing population info provided for Columbia River DPSs.

10 7.4 10. Final EIS must surface tribal views and those of local and regional entities that will have roles in developing steelhead recovery plans. I plan to talk to the new Executive Director of Puget Sound Partnership when I return from vacation on how the Puget Sound RMP will be put together, in follow-up to early discussion I had with Bob Lohn.

11 10.06 11. 3.1.3 Fisheries Management – Need to include discussion of selective fishing tool to achieve wild fish escapement goals and HSRG recommended limits of hatchery fish on spawning ground. This tool has to be used by all, tribal and non-tribal if we are serious about saving and restoring wild runs of steelhead and still having viable tribal and non-tribal fisheries. Otherwise hatchery production will have to be cut and could be forced through litigation, leading to little if any fishing opportunities by anyone. If that happens, all harvesters, tribal and non-tribal will lose and a critical political force for saving wild steelhead will be significantly diminished, if not eliminated. Non-tribal folks can't achieve wild steelhead goals unilaterally. Continuing current practices is insane, including having tribal and non-tribal fisheries before annual harvest management plans – which do not receive any public input – are approved.

12 10.15 12. SSMP, Natural Production, p5 – need to clarify if tribal agreements mandate harvest management based on MSH. If that is the case – as some of us have been told – then changing to allow greater escapement of wild steelhead is going to be a challenge, dependent on voluntary agreements by individual tribes. Consequently, we need tribal buy-in of the SSMP goals and objectives.

13 8.0 13. SSMP, Natural Production Actions.p6 – need to include bird and other fish species (including resident rainbow and cutthroat) predation in the monitoring discussion. There is evidence that suggests that Cedar River wild steelhead run was lost primarily due to predation from explosion of resident rainbow population resulting from well-intended, but misguided management decision to close river to all fishing for nearly a decade. Lake Washington trout management also contributed to increase in predatory populations of cutthroat. Text should include discussion of actions that can be taken to reduce predation by birds and other fish species.

14 10.25
14. SSMP, Habitat Protection and Restoration, Encourage Local Problem Solving, p8 – provide an example of local problem solving that has produced meaningful results for steelhead. Also, describe the WDFW involvement role. This section should address the importance of stream flow control where existing dams have that capability and are managed for steelhead spawning and egg incubation, e.g. Cedar River Masonry Dam, Green River Howard Hanson Dam.

15 10.09
15. SSMP, Strategies, 7) Develop Guidance … -- What about WIRA salmon recovery councils which play the key role in Puget Sound region? Need to review habitat elements of WIRA produced Chinook habitat proposal to assess value for steelhead. Priority then needs to be given to those projects, which benefit both species.

16 10.09
16. Define Lead Entities in the Glossary.

17 10.27
17. SSMP, Fishery Management, intro statement, p12 – text incorrectly suggests that sports anglers should only have opportunity to fish allowed by the tribes. This is now a hot button issue with a major backlash from the North of Falcon sports advisors over recent practices of WDFW allowing the tribes to define salmon sport fisheries.

18 Noted
18. SSMP, Fishery Management, Strategies, 3) Develop Comprehensive All-H Strategy—This has to address wild steelhead by-catch in Lower Columbia River from non-tribal commercial harvesters during late winter, spring, summer and fall salmon fisheries. So-called selective commercial fisheries there have fallen well short of expectations.

19 10.26
19. SSMP, Fishery Management, Strategies, 4) Account for all .. – This has to include gill-net drop out mortality. Consideration should be given to old idea of negotiating with individual and willing tribes to secure, by payment, some part or all of anticipated tribal share of returning hatchery steelhead, additional non-tribal harvest opportunity on an annual basis.

20 10.28
20. SSMP, Fishery Management, Strategies, Table 1, p15 – for Abundance Less than Wild MU escapement object include "Close all tribal fisheries" below "Close all recreational steelhead fisheries". Add into next two boxes the words "non-tribal and tribal" between the words "no" and "fisheries".

Sorry, ran out of time to get typed other comments that I will reflect in future discussions about the SSMP via the SCPAG and through direct communications with appropriate WDFW staff.

Good luck

Frank Urabeck
Fish Advocate
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Wallis, Tim

From: "Tim Wallis" <timw@map-limited.com>
To: <SEPAdesk2@dfw.wa.gov>
Date: Mon, Sep 10, 2007 7:40 AM
Subject: Steelhead Management Plan

Dear Teresa Eturaspe,

[Simms(WSC)] 1

I have reviewed and support the comments delivered to your office by the Wild Steelhead Coaliton to be adopted and incorporated into the Draft Environmental Impact Statement for Washington's Steelhead Management Plan.

-Sol

Watts, Carol – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

Weeks, Ken & Jocelyn – American Rivers Form Letter

See Simms(WSC) for Wild Steelhead Coalition and American Rivers' Response

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7 September 2007

Teresa A. Eturaspe, SEPA/NEPA Coordinator
Regulatory Services Section WDFW
600 Capitol Way N
Olympia WA 98501-1091

Re: The WDFW Draft Environmental Impact Statement (DEIS) on its Statewide Steelhead Management Plan (SSMP).

Dear Ms. Eturaspe:

1 Simms(WSC)

The habitat policy expressed in the DEIS is insufficient to protect wild steelhead waters. It inadequately identifies statutory and regulatory means for protecting habitat. Water quantity is not covered, even though WDFW has statutory authority to require the Department of Ecology to set instream flow rules to protect fish and wildlife. Also, the DEIS does not mention Outstanding Resource Waters designations under the federal Clean Water Act, which can protect cold water refugia or are of exceptional ecological significance.

The DEIS does not deal with the ESA status of Washington's steelhead. WDFW should state in detail in the EIS how it will work NOAA to get critical habitat designated—and to ensure that NOAA develops appropriate habitat protection and restoration actions in that agency's steelhead recovery plans. The EIS should show how WDFW would use ESA to increase protection for steelhead and their habitat.

The revised DEIS should cover habitat protection and restoration approaches and methodological considerations in detail. The present DEIS states only vague intent. I note that the SSMP to which the DEIS applies puts great emphasis on artificial production of steelhead and secondarily on harvest management (with insuffient consideration of wild steelhead aspects)—but contains almost nothing specific on protecting and restoring steelhead habitat. I also note that the DEIS authors were careful to stipulate (twice, I believe) in the section on habitat that artificial production should be used to mitigate for habitat loss. The above shortcomings indicate lack of appropriate dedication by the agency to protecting and restoring the natural basis of wild steelhead production—and that WDFW is determined to downplay habitat issues and programs in order to forge ahead with its traditional, failed emphasis on artificial production.

For long-term benefit to our steelhead resource, I urge you to revise the DEIS n view of the above matters.

Sincerely,

Ray J. White, Ph.D.
Fishery Resource Consultant

Yen, Alan

From: Alan Yen <sedgeyen@yahoo.com>
To: <SEPAdesk2@dfw.wa.gov>
Date: Tue, Sep 11, 2007 4:34 PM
Subject: Wild Steelhead DEIS

Teresa Eturaspe
SEPA/NEPA Coordinator
Regulatory Services Section, Habitat Program

Dear Teresa Eturaspe,

1 Simms(WSC)

As a voter and fisherman, I have reviewed and support the comments delivered to your office by the Wild Steelhead Coaliton to be adopted and incorporated into the Draft Environmental Impact Statement for Washington's Steelhead Management Plan. I believe that the first priority in the management plan should be to ensure the longterm welfare of the fish, and not to seek a "balance" between fish conservation and sporting use. The long term future of the sport fishing for steelhead can only be ensured if conservation of the fish is successful.

Respetedly,

Alan Yen
Seattle

Subject Area: WSC/American Rivers/King County Comments (Comments are numbered in order of WSC paragraphs and subparagraphs)

1.0 Comment Summary - The DEIS improperly treats the secondary goal of providing fishing opportunity as equal to WDFW's legislatively mandated primary goal of assuring healthy stocks of wild steelhead.

Response – RCW 77.04.012 states "Wildlife, fish, and shellfish are the property of the state. The commission, director, and the Department shall preserve, protect, perpetuate, and manage the wildlife and food fish, game fish, and shellfish in state waters and offshore waters. The Department shall conserve the wildlife and food fish, game fish, and shellfish resources in a manner that does not impair the resource. In a manner consistent with this goal, the Department shall seek to maintain the economic well-being and stability of the fishing industry in the state. The Department shall promote orderly fisheries and shall enhance and improve recreational and commercial fishing in this state. The commission may authorize the taking of wildlife, food fish, game fish, and shellfish only at times or places, or in manners or quantities, as in the judgment of the commission does not impair the supply of these resources." The legislation does not recognize a primary or secondary goal. There is a mandate to conserve game fish, not impair the resource, maintain economic well-being and stability of the fishing industry and to promote orderly fisheries along with enhancing and improving recreational fishing. "Fishing industry" includes all forms of fishing that involve take. The terms primary, secondary and dual relating to goals are removed from the SSMP and FEIS to eliminate confusion.

1.1 Comment Summary - SEPA regulations state that "[r]easonable alternatives shall include actions that could feasibly attain or approximate a proposal's objectives, but at a lower cost or decreased level of environmental degradation." WAC 197-11-440(5)(b). Alternative 4, which would maximize harvest opportunity, is patently inconsistent with the primary goal of protecting and restoring wild steelhead. In addition, it is contrary to the requirements of the ESA, compliance with which the DEIS properly states is an SSMP objective (p. 6). Accordingly, it is per se unreasonable and should not be included as an alternative.

Response – Some portions of the fishing public would like to see increased harvest. As noted on page 4 DEIS, "The **least conservative** alternative (Alternative 4) presents the feasibility of attempting to increase recreational utilization opportunity while preserving or possibly enhancing wild stocks, or at least minimizing adverse impacts on wild fish to some unavoidable but acceptable levels. The increased utilization concept in Alternative 4 is based on strategies to increase hatchery production and manage for wild conservation at MSH abundance levels. Initially, the first would likely be accomplished by an increase in the scale of properly segregated programs, while integrated programs would carefully be developed to offset increased impacts to wild stocks. The Departmental role in habitat protection and restoration would essentially be unchanged from the status quo. Regulatory compliance and outreach efforts would focus on harvest and hatchery issues. Additional monitoring and research should be prioritized on

determining and evaluating critical thresholds for perpetuation of wild stocks." It may be arguably feasible but it certainly does not meet the plan objectives.

1.2 Comment Summary - Moreover, the treatment of these two goals as of equal weight skews the analysis of the alternatives throughout the document.

Response – See 1.0.

1.3 Comment Summary - Numerous comments stated that the SSMP DEIS did not contain enough details to evaluate potential impacts.

Response - In accordance with the State Environmental Policy Act Rules (Chapter 197-11 WAC), the Department has assessed the environmental impacts associated with implementation of the SSMP using a "broad to narrow" approach. This approach is referred to as phased review, and is appropriately used to assist "agencies and the public to focus on issues that are ready for decision and exclude from consideration issues already decided or not yet ready." The Programmatic Environmental Impact Statement (EIS) evaluates the principal components of the SSMP. These components include natural production, habitat protection and restoration, fisheries management, artificial production and several administrative support functions. This EIS evaluates impacts associated with alternative methods or approaches to implementing these components, and acknowledges that additional, more detailed analysis will be conducted as specific projects are identified. WAC 197-11-055 (2) notes that "The lead agency shall prepare its threshold determination and environmental impact statement (EIS), if required, at the earliest possible point in the planning and decision-making process, when the principal features of a proposal and its environmental impacts can be reasonably identified." Consistent with this guidance, WDFW has prepared its EIS at a time when the principal components have been identified and the effects of implementation can be reasonably identified. However, many specific watershed and regional details associated with the SSMP are not yet identified, and only limited information is available for some of the projects that have been identified. EISs may be "phased" in appropriate situations (WAC 197-11-060 (5)). WAC 197-11-060(5)(a) states that "Lead agencies shall determine the appropriate scope and level of detail of environmental review to coincide with meaningful points in their planning and decision making processes." WAC 197-11-060(5)(g) states "Any phased review shall be logical in relation to the design of the overall system or network…" The Department has conducted the phased review of the SSMP consistent with WAC 197-11-060(5). At this time, broad policy concepts have been developed; these concepts will be further refined as WDFW enters into implementation of the specific elements of the program. The purpose of this Programmatic EIS is to frame or "bracket" the potential range of impacts, so that the broad implications and tradeoffs associated with implementing the program can be understood. Accordingly, the impact evaluation is based on currently available information and published reports, and does not include extensive site-specific investigations, which are more appropriately conducted during watershed or regional level evaluations.

2.0 Comment Summary - The DEIS fails to acknowledge and analyze the proposed alternatives relative to compliance with the Endangered Species Act (ESA).

Response – Plan objective 3 on page 6 of the DEIS (Now Plan objective 1 of the FEIS) states "Meet all federal and state laws, including treaty obligations." By definition, alternatives adopted for the plan will comply with ESA requirements. Section 3.2.1 on page 52 "There are many state and federal rules and regulations designed to protect the fish and their habitats that can help the plan. Gaining compliance with the regulations is essential to protecting and maintaining important habitat functions as well as ensuring that fishery protection strategies are followed." Agency compliance with the Endangered Species Act would be included in these rules. Additionally, the SSMP addresses compliance with the ESA throughout the document as does Appendix C, Summary of Initial Environmental Impact.

2.1 Comment Summary - We are also concerned about the use of a phased EIS process for the SSMP. The WAC describes the required contents for an EIS that follows a non-project EIS as follows: "A nonproject proposal may be approved based on an EIS assessing its broad impacts. When a project is then proposed that is consistent with the approved nonproject action, the EIS on such a project shall focus on the impacts and alternatives including mitigation measures specific to the subsequent project and not analyzed in the nonproject EIS.

Response – Section 1.1.3, page 4 and Section 1.6 on page 13 of the DEIS, explain that a SEPA review will be required for each RMP and, as required by WAC 197-11-443(2), "the EIS on such a project shall focus on the impacts and alternatives including mitigation measures specific to the subsequent project and not analyzed in the nonproject EIS." Since the SSMP contains broad guidelines, all impacts and alternatives specific to the subsequent project would have to be analyzed. Also see Response 1.3.

3.0 Comment Summary - Preferred alternatives should not have been selected for the four operational policies because critical information and analysis is missing from the proposed alternatives, and preferred alternatives for natural production, fishery management, and artificial production require stock-specific information.

Response – SEPA does not require the designation of a "preferred alternative" in an EIS but by identifying a preferred alternative, reviewers are made aware of which alternative the lead agency feels is best or appears most likely to be approved. This can be particularly helpful for agency proposals when what is actually being proposed may otherwise not be clear. We wanted to identify the preferred alternative early in the process but recognized changes were likely to occur prior to issuing the FEIS. Early designation of a preferred alternative in no way restricts the agency's final decisions.

3.1 Comment Summary - Preferred policy alternatives for natural production, fishery management, and artificial production should be advanced in the Regional Management Plans (RMPs) consistent with the goal of maintaining the long term viability of steelhead populations and, where necessary, supporting their recovery under the ESA.

Response – The plan is designed to provide a framework for use by state steelhead managers to develop the Regional Management Plans (RMPs). It will also provide consistent overarching guidelines for co-manager development of the watershed plans with individual Tribes. Supplemental to the *SSMP* the Department will develop and implement RMPs that identify the long-term goals, benchmarks for modifications to management actions, escapement objectives, and the expected trajectory for the diversity, spatial structure, productivity, and abundance of each wild stock. Modifications may be made as needed during the SEPA process but the preferred alternatives adopted by the FWC will be the framework.

3.2 Comment Summary - We are also concerned about the inclusion of economic measures related to lost revenues associated with harvest, while the economic costs of providing those opportunities are not presented in any way. The WAC clearly states that cost-benefit analyses are not required, but also states that "For purposes of complying with SEPA, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations." (WAC 197-11-450). Clearly, qualitative, non-economic considerations are at the forefront for the protection of a species that is in severe decline. We suggest that WDFW either 1) fully describe the economic costs and benefits associated with harvest, including production costs of hatchery fish on a per-harvestable-adult basis, or 2) omit reference to the economic benefits of harvest from the EIS.

Response – As mentioned in Response 1.0, the Department shall conserve the wildlife and food fish, game fish, and shellfish resources in a manner that does not impair the resource. In a manner consistent with this goal, the Department shall seek to maintain the economic well-being and stability of the fishing industry in the state. The Department shall promote orderly fisheries and shall enhance and improve recreational and commercial fishing in this state. There is a mandate to “conserve game fish, not impair the resource, maintain economic well-being and stability of the fishing industry and promote orderly fisheries along with enhancing and improving recreational fishing.” In carrying out the agency’s mandate it is proper for the Department to recognize a potential economic impact though we are not required to provide an economic analysis, we feel we must address a potential economic impact.

4.0 Comment Summary - The DEIS and SSMP come before revisions and completion of the WDFWs Steelhead Science and Management review paper, most recently reviewed by the public in February 2007.

Response – Comments received in the summer of 06 are being incorporated in the final version of the Steelhead Science Paper (SSP). The findings and recommendations for the SSP are unlikely to make substantive changes to the document and the foundation of the SSMP is therefore unlikely to be effected. Comments received concerning SEPA scoping in January are addressed in Appendix B.

5.0 Comment Summary - Throughout the DEIS there appear unsubstantiated assumptions or assertions that are apparently factored into the alternatives analysis. This is inconsistent with a primary purpose of SEPA, which is to ensure informed decision-making based on thorough, objective analysis. A partial list of such assumptions and assertions appear below:
That carrying capacity can be accurately determined for each watershed (p. 38)

Response – We concur with concerns about the difficulty in accurately determining carrying capacity. Even if we could determine carrying capacity it is still unlikely to meet goals in many watersheds and therefore fails to meet the SSMP goal for self-sustaining natural production. The line refers to the most conservative alternative in the Natural Production Section and is used to disqualify it because it fails to meet the SSMP goal.

5.1 Comment Summary - Throughout the DEIS there appear unsubstantiated assumptions or assertions that are apparently factored into the alternatives analysis. This is inconsistent with a primary purpose of SEPA, which is to ensure informed decision-making based on thorough, objective analysis. A partial list of such assumptions and assertions appear below: That managing for wild steelhead protection and health could have negative impacts on other salmonid stocks or ecosystem health (p. 38)

Response – We agree that significant adverse environmental impact to habitat for other species of plants, fish or wildlife, unique species and fish and wildlife migration routes is unlikely if either of these alternatives is adopted. The expected outcome of this would be additional steelhead occupying their niches in the ecosystems. The line refers to the status quo and least conservative alternatives in the Natural Production Section and is used to disqualify them because they fail to meet the SSMP goal.

5.2 Comment Summary - Throughout the DEIS there appear unsubstantiated assumptions or assertions that are apparently factored into the alternatives analysis. This is inconsistent with a primary purpose of SEPA, which is to ensure informed decision-making based on thorough, objective analysis. A partial list of such assumptions and assertions appear below: That an artificial production policy that gives primacy to the protection of wild stocks “could hinder the use of artificial production for stock recovery” (p. 51)

Response – We agree that the Department needs the flexibility to use artificial production for stock recovery if feasible. The line refers to the status quo and least conservative alternatives in the Artificial Production Section and is used to disqualify them because they fail to meet the SSMP goal.

5.3 Comment Summary - Throughout the DEIS there appear unsubstantiated assumptions or assertions that are apparently factored into the alternatives analysis. This is inconsistent with a primary purpose of SEPA, which is to ensure informed decision-making based on thorough, objective analysis. A partial list of such assumptions and assertions appear below: That

increasing hatchery production of steelhead smolts benefits steelhead fishing opportunities (p. 51).

Response – We agree in part with concerns that an increase in hatchery production of steelhead smolts benefits steelhead fishing opportunities and recognize the difficulty in quantifying this. The line refers to the least conservative alternative in the Artificial Production Section and is used to disqualify it because it fails to meet the SSMP goal.

5.4 Comment Summary - Throughout the DEIS there appear unsubstantiated assumptions or assertions that are apparently factored into the alternatives analysis. This is inconsistent with a primary purpose of SEPA, which is to ensure informed decision-making based on thorough, objective analysis. A partial list of such assumptions and assertions appear below: That the reduction or loss of sportfishing harvest opportunity would have a severe economic impact (the unstated assumption being that catch and release fishing opportunities could not substitute for harvest fisheries) (p. 14, 49, 51)

Response – Current law makes no distinction between catch and release fishing and angling. “Angling” in the sportfishing rules is defined as fishing for personal use. RCW 77.08.010(43) says “Personal use" means for the private use of the individual taking the fish or shellfish and not for sale or barter." RCW 77.08.010(9) says “To fish," "to harvest," and "to take," and their derivatives means an effort to kill, injure, harass, or catch a fish or shellfish. This conforms with the Endangered Species Act definition of “take” where “take” means to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” As stated in Response 1.0, the Department shall conserve the wildlife and food fish, game fish, and shellfish resources in a manner that does not impair the resource. In a manner consistent with this goal, the Department shall seek to maintain the economic well-being and stability of the fishing industry in the state. The Department shall promote orderly fisheries and shall enhance and improve recreational and commercial fishing in this state. There is a mandate to conserve game fish, not impair the resource, maintain economic well-being and stability of the fishing industry and to promote orderly fisheries along with enhancing and improving recreational fishing. There is only one region in the state that is not subject to Federal ESA take authorization for steelhead fisheries – the coast. Therefore, most fishing activity, C&R or harvest, is subject to accepted limits on wild fish. Hatchery fish form the basis of any fishing opportunity where the ESA is in effect. The Department maintains that severe economic impact would result if there were significant reductions in hatchery production. The Department estimates it spends about $2.5 million per year on steelhead hatchery production which generates about $100 million in economic activity (O mykiss, Chapter 3, Finding 1). It is appropriate for the Department to recognize a potential economic impact.

6.0 Comment Summary - The DEIS contains insufficient information regarding WDFW’s habitat management authority and habitat condition to enable an informed analysis of habitat alternatives and the selection of a preferred alternative.

Response – WDFW has authority to "manage" only property (habitat) that it owns or leases. It has the authority to regulate "hydraulic projects that may affect the bed or flow of the state's waters to protect fish life." Sections 3.1.2 and 3.2.1 of the DEIS describe the Department's habitat regulatory authority which is limited to HPAs. Additional information about HPAs can be obtained at http://apps.leg.wa.gov/RCW/default.aspx?cite=77.55 or http://apps.leg.wa.gov/WAC/default.aspx?cite=220-110. Item 5, page 8 of the SSMP discusses enhancement of the authority as does action item 1 on page 22. Habitat conditions in each watershed must be addressed in the RMPs to support the SSMP.

6.1 Comment Summary - The DEIS fails to identify several habitat protection measures available to WDFW, RCW 90.22.010 for setting in-stream flows, Outstanding Resource Waters designations and ESA actions with NOAA.

Response – Plan objective 3 on page 6 of the DEIS (now Plan objective 1 of the FEIS) states "Meet all federal and state laws, including treaty obligations." By definition, alternatives adopted for the plan will comply with ESA requirements and the Department and co-managers will work with NOAA to develop the state's recovery plan. The SSMP addresses compliance with the ESA throughout the document. Section 3.2.1 on page 52 DEIS states, "There are many state and federal rules and regulations designed to protect the fish and their habitats that can help the plan. Gaining compliance with the regulations is essential to protecting and maintaining important habitat functions as well as ensuring that fishery protection strategies are followed." These rules and regulations include in stream flow authority and the Clean Water Act but they are added to the SSMP for clarification. The Department has used and will continue to use RCW 90.22 when possible. It should be noted that RCW 90.22.010 says "the Department of ecology (DOE) shall, when requested by the Department of fish and wildlife to protect fish, game or other wildlife resources under the jurisdiction of the requesting state agency, or if the Department of ecology finds it necessary to preserve water quality, establish such minimum flows or levels as are required to protect the resource or preserve the water quality described in the request or determination…" however, RCW 90.22.020 and 030 make it clear that DOE can only set the minimum flow after holding a public hearing AND can not impact existing senior water rights. In other words, the statute is only useful if the water rights in the stream are not fully allocated.

6.2 Comment Summary - These authorities and opportunities – and any others that have not been mentioned – must be identified and analyzed before WDFW selects a habitat policy for the SSMP.

Response – The preferred alternative for Habitat Protection and Restoration found on pages 9 and 42 of the DEIS is "Fully implement and enforce current authorities, and increase participation in effective external conservation processes. Encourage other agencies/entities to follow suit." The policy statement found on page 8 of the SSMP is "Protect and restore the quality, quantity, and productivity of freshwater and marine habitat necessary to sustain and restore healthy steelhead stocks." It is not necessary to name every rule when the aim is full implementation of existing authority.

6.3 Comment Summary - The DEIS gives just passing mention to the hydraulic permit approval (HPA) process, which WDFW is responsible for administering. The statute and implementing regulations are not presented so it is not possible to ascertain how useful this authority could be. Moreover, there is no discussion of the level of resources currently devoted to implementation of this program (or any of the other state programs identified), or of the adequacy of the law with respect to WDFW's ability to assure healthy wild steelhead populations. Without this essential information it is not possible for the public to provide meaningful comment or for WDFW to make informed policy decisions.

Response – Good comment. The statute (RCW 77.55) and implementing regulation (WAC 220-110) for HPAs will be cited in the FEIS. As mentioned in 6.0, Sections 3.1.2 and 3.2.1 of the DEIS describe the Department's habitat regulatory authority which is limited to HPAs. Item 5, page 8 of the SSMP discusses enhancement of the authority, as does action item 1 on page 22. A discussion on the level of resources currently devoted to HPAs is unnecessary to understand that the status quo has been inadequate to fully protect steelhead habitat. The Department recognizes that only through more directed efforts (Alternative 2) or directed efforts with additional staffing (Alternative 1) will the HPA Program be effective in protecting critical steelhead habitat.

General Comments about the DEIS

7.0 Comment Summary – The DEIS does not explain how WDFW will coordinate the SSMP with watershed and regional groups.

Response – In general, the Department will work with the appropriate tribes, watershed and regional groups to examine the limiting factors analysis required by RCW 77.85 and ESA recovery plans and apply SSMP Action Items 2 on page 6, 6 on page 16 and 6 on page 21 to blend the natural production, artificial production, fisheries management, and monitoring, evaluation and adaptive management actions into an RMP for each region. The SSMP is the proper place for setting general guidelines for coordination with salmon recovery groups established in RCW 77.85 and the FEIS is modified accordingly.

7.1 Comment Summary – The DEIS should point out that Alternative 1 is already in place in eastern Washington.

Response – We concur that eastern Washington and the Lower Columbia Regions are operating in a more conservative manner than other parts of the state because they are operating under ESA recovery plans. An ESA recovery plan is intended to sufficiently recover a species so it can be delisted while the SSMP is intended to restore and maintain healthy steelhead stocks. By definition, a healthy stock has sufficient abundance, productivity, diversity and spatial structure to be resilient through environmental fluctuations, to perform natural ecological functions in freshwater and marine systems, provide related cultural values to society, and sustain tribal and recreational fisheries. The SSMP recognizes that not all steelhead stocks are listed and seeks to provide flexible management strategies that will allow each region to pick actions that best fit its situation to meet the goal of restoring and maintaining wild stocks.

7.2 Comment Summary – The SSMP lacks strategy, timelines and benchmarks for rebuilding the stocks and is to general.

Response – The Department maintains the SSMP outlines strategies, timelines and benchmarks for rebuilding stocks. We appreciate the desire for more specificity, but substantial variation exists across the state between the status of stocks, habitat conditions, and the role of tribal, local, and federal authorities. One approach will not fit all cases, so the *SSMP* will provide

the Department with overarching guidance for development of RMPs tailored to meet recovery and sustainability goals for each DPS. The strategy is to develop seven RMPs from watershed plans created by local entities with input from the respective Tribes, during the next (timeline) 24 to 36 months. These RMPs include the Puget Sound, Olympic Peninsula, Southwest Washington, Lower Columbia River, Mid-Columbia River, Upper Columbia River and Snake River Basin Distinct Population Segments. Upon completion of the phased SEPA reviews, the final *SSMP* will provide the collection of individual watershed plans and RMPs. Measurable goals and long term benchmarks are called out for Natural Production on page 6, Habitat Protection and Restoration on page 8, Fisheries Management on page 13 and Artificial Production on page 19. However, these long term benchmarks and goals can only be established as each watershed is considered. SSMP Appendix B on page 76 provides a further explanation of the long term goals.

7.3 Comment Summary – Leadership and funding will be needed to successfully implement the plan.

Response – The Department agrees. The Department has taken the lead in developing this plan and made a concerted effort to involve the public from its earliest stages. SSMP, page 9 states "With local governments, Salmon Recovery Funding Board, Governor's office, Congressional representatives, and state legislators, secure federal, state, and local funding to continue protection and restoration of freshwater and marine habitat for steelhead." The SSMP recognizes the importance of funding in strategies and action items in Habitat Protection and Restoration, Artificial Production, Regulatory Compliance, Monitoring and Adaptive Management and Research.

7.4 Comment Summary – The DEIS and SSMP do not adequately explain how they will be used with the tribal co-managers, if the co-managers approve or if the co-managers will support the plan.

Response – The overlapping nature of the tribes' and state's fisheries jurisdictions and authorities creates a co-management relationship. The statewide plan is intended to provide uniform department guidance for WDFW employees in managing the state portion of the co-manager relationship. Tribal councils provide direction for the tribal portion of the co-manager relationship. As a result, there is a need for the state and the tribes to cooperate in the discharge of their respective authorities. (SSMP, page 1) The Department shall implement a cooperative management approach
for fishery resources subject to both state and tribal management, with the state and tribes exercising their respective authorities. (SSMP, pg 3)

7.5 Comment Summary – Habitat should be added to the Plan objectives.

Response – Habitat is inherent in all of the plan objectives. DEIS Objective 3 (Now FEIS Objective 1) addresses habitat enforcement as does Sections 3.1.2 and 3.2.1. It is also covered in SSMP pages 8 through 11.

7.6 Comment Summary – "External conservation practices" deserves a straightforward definition.

Response – The term "external conservation practices" does not appear in the DEIS or the SSMP. The term "external conservation processes" appears on DEIS page 3 in the context of "Acknowledging the existing constraints on the ability of WDFW to control habitat impacts, this alternative instructs the Department to emphasize a higher level of involvement within existing authority and increase participation in effective external conservation processes" i.e. other city, county, state and federal conservation processes beyond department authority."

7.7 Comment Summary – The definition of wild and natural fish as "naturally produced fish from a locally adapted stock regardless of origin or parentage" implies that hatchery fish may be continuously used over multiple generations to rebuild wild populations. …The definition needs to be changed to treat wild fish as fish born from wild parents.

Response – The implications of the comment would be correct if the definition of a wild or natural fish only specified "naturally produced fish regardless of origin or parentage." However, by including the qualifier "...locally adapted stock..." we are in fact providing a working definition that agrees with the comment's proposal that "wild fish born in the wild from wild parents." By definition, a wild parent is a parent that is locally adapted. In watersheds with a population included in an ESA listed DPS, all progeny from naturally spawning adults, regardless of parentage (hatchery or natural-origin), are typically considered by NOAA Fisheries to be part of the listed DPS.

7.8 Comment Summary – The FEIS should include an assessment of existing regional Monitoring, Evaluation and Adaptive Management Programs to determine if gaps exist that should be addressed in the SSMP and RMPs.

Response – We agree that existing regional Monitoring, Evaluation and Adaptive Management Programs should be assessed to determine what gaps exist but it is beyond the scope of this EIS. That will be addressed during creation of the RMPs. See response 1.3.

8.0 Comment Summary – Predation is not addressed in the plan.

Response – Predation is addressed on pages 6 and 7 of the SSMP under Action item 4, "Support programs that restore balanced ecological functions and reduce predation impacts to steelhead.

8.1 Comment Summary – The DEIS does not take into account historic abundance or specific life history structure of populations.

Response - The discussion of historic abundance occurs in the SSMP on page 76 in Appendix B. Though the DEIS does not explicitly reflect upon historic abundance or specific life history structure of populations, the SSMP, which represents the preferred alternative recognizes that pre-settlement abundances were likely much higher than initially estimated and that realization will influence the development of both intermediate and long-term goals for steelhead.

8.2 Comment Summary - Integrated hatcheries are not proven strategies to recover depressed populations of wild fish, and cannot be until the cycle is completed by terminating the hatchery infusions, and than monitoring stock status. As such, these hatcheries should be treated with caution as test cases and utilized only with specific geographic limitations, rather than as a broadly applied reform.

Response – DEIS, 3.1.4 Alternative 2 (Preferred Alternative) allows for the opportunity to adaptively monitor and manage integrated recovery and conservation programs for the purpose of stabilizing at-risk wild stocks, and properly segregated harvest programs to enhance recreational fishing for the public. Appendix B, page 80, says "Implementation of integrated hatchery steelhead programs Stakeholders expressed general opposition to the widespread development and use of integrated hatchery programs, particularly in the Puget Sound region. However, if a risk analysis showed an integrated program to be more beneficial than a segregated program, the integrated program included a sunset provision, with a clearly defined monitoring plan, then it could potentially be considered."

8.3 Comment Summary – There is insufficient data in the Department to determine VSP in the watersheds and no established way to determine VSP numbers.

Response – We agree and we note that the DEIS Alternative 2 identifies that we would develop and implement monitoring and evaluation plans. The preferred alternative provides more specifics in the Monitoring and Evaluation Sections. We don't agree that insufficient data prohibits the ability to implement VSP-based strategies in the watersheds. While presenting a significant challenge when dealing with insufficient information, Technical Recovery Teams used a science-based approach to assess current status and identify VSP goals for Snake, Yakima and Upper Columbia River steelhead populations. VSP analysis for wild steelhead populations will be used to assist in developing interim escapement objectives to rebuild wild steelhead populations. Recent work by the Interior Columbia River TRT and Lower Columbia River TRT have begun to set a quantifiable value that encompasses VSP parameters, Furthermore, see definition page for what VSP represents in the context of the SSMP.

8.4 Comment Summary – The DEIS assumes more knowledge and data than exists and also assumes selection of Alternative 2.

Response - We agree the wording makes it seem a selection of Alternative 2. We would change the wording in the DEIS from "support the VSP-based natural production strategies" to "support natural production strategies."

9.0 Comment Summary – The plan needs to consider increased hydrologic activity due to climate change.

Response – We agree and SSMP Strategy 10 on page 9 calls for the formation of a climate response plan. Action item 11 on page 10 defines actions specific to steelhead that will take place such as "Participate in national and international fishing forums that quantify and assess impacts of climate change.

9.1 Comment Summary – The plan needs to address grazing leases on WDFW lands.

Response – We agree. The plan calls for the Department to "assess the potential impacts of WDFW land management activities on steelhead." This includes review and evaluation of all grazing permits, as well as other DFW land management activities, for consistency with fish and wildlife objectives, ESA impacts and the DFW lands habitat conservation plan during the 07-09 biennium with the goal of having 100% of riparian habitat on WDFW owned land protected from grazing livestock. See SSMP page 10, Action item 5.

9.2 Comment Summary – The plan needs to restore and protect more habitat.

Response – We agree. Habitat Protection and Restoration, starting on SSMP page 8 calls for promotion of an All-H strategy, development of guidelines for lead entity and Regional Fisheries enhancement groups to assist in habitat restoration programs for steelhead and promotion of funding for habitat protection and restoration. Regulatory Compliance on page 22 calls for improved and increased performance of enforcement activities. The Department will continue to work with salmon recovery groups formed in accordance with RCW 77.85 to benefit steelhead.

10.0 Comment Summary – Alternative 1 and 2 are the same in Section 3.1.1. Alternative 2 would allow wildstock retention where VSP goals are achieved while Alternative 1 would allow no provision for fishing opportunity on stocks that meet VSP goals.

Response – Alternative 1 and 2 are not the same. The goal of Alternative 1 is "Maximize wild protection (Most conservative alternative) - Manage for carrying capacity." Carrying capacity is defined as "The maximum number of individuals or biomass of a given species or complex of species of fishes that a limited and specific aquatic habitat may support during a stated interval of time." By definition, the incidental take of a fish makes the population less than carrying capacity and may limit fishing opportunity. The goal of Alternative 2 is "Increased wild protection (Preferred Alternative) - Manage for viable salmonid population (VSP) abundance." Viable salmonid population is defined as "Parameters that are used to evaluate the status of a given stock. The four parameters are abundance (A), productivity (P), diversity (D), and spatial structure (S). The standard permits fishing as long as the stock is abundant, productive and diverse within its spatial structure.

10.01 Comment Summary – We received many comments that "The Department should encourage catch and release" likewise we received many comments that the Department should "discourage catch and release." Also, the Department should limit retention of wild steelhead until VSP is achieved or the runs are restored.

Response – We concur the Department should limit retention of wild steelhead until VSP parameters are achieved and the *SSMP* seeks to reduce mortality on under-escaped wild steelhead stocks. See Section 3.1.3. This objective can be met while allowing for limited retention or catch and release fisheries of wild steelhead in rivers with healthy wild stocks. The plan also provides a tool for fisheries managers to know when harvest of hatchery fish must be closed to prevent excess incidental mortality to wild fish. This is consistent with RCW 77.12.04's charge that the "department shall conserve the wildlife and food fish, game fish, and shellfish resources in a manner that does not impair the resource. In a manner consistent with this goal, the Department shall seek to maintain the economic well-being and stability of the fishing industry ("Fishing industry" includes all forms of fishing that involve take) in the state. The Department shall promote orderly fisheries and shall enhance and improve recreational and commercial fishing in this state. The commission may authorize the taking of wildlife, food fish, game fish, and shellfish only at times or places, or in manners or quantities, as in the judgment of the commission does not impair the supply of these resources." SSMP page 12, Strategy **2)** Promote Selective Harvest says the plan is to **"**reduce impacts to non-target stocks and species.

> a. Steelhead Fisheries. Promote the use of fishing methods and regulations that focus harvest on hatchery-origin steelhead and provide for the conservation of wild steelhead.
> b. Other Fisheries. Develop and promote the implementation of fishing methods and regulations that maximize the harvest of the target species while maintaining impacts to non-target species within allowable limits.

SSMP Action item 3 and 4 on pages 13 and 14 provide guidelines for establishing fishing opportunity. Action Item 7 is to provide recreational fishers with two general types of fishing opportunities on adult steelhead:

> a. Retention: Retention fisheries will allow the opportunity to catch and retain hatchery and/or naturally produced fish that are more abundant than the escapement objective.
> b. Catch-and-Release: Catch-and-release fisheries will be used to maximize the opportunity to catch and release steelhead (or catch rate) and provide extended fishing periods for hatchery and/or naturally produced fish that are more abundant than the escapement objective. Catch-and-release fisheries can be targeted on hatchery or wild fish but they must be consistent with wild fish protection guidelines.

10.02 Comment Summary – The Department should consider goals other than VSP.

Response – A long-term goal is crucial in defining the scope of the Department's management actions, and thus establishes a benchmark from which management can be assessed. DEIS, Appendix B, page 76 explains the Departments decision to recommend VSP as the SSMP goal. Several comments suggested four main alternatives for a long term goal:

1) Historical abundance levels extending beyond those currently described in the 'steelhead
science paper':
a. Use cannery pack data or other anecdotal information prior to European settlement.
b. Establish long-term abundance goals greater than current level.
2) MSH-based goals (maximum sustainable harvest):
a. Fishery management driven goal
b. Based on stock recruitment information
c. Successful when habitat and stock are at healthy levels.
3) Technical recovery teams (TRT) use Viable Salmonid Population (VSP) characteristics
(McElhany et al. 2000).
a. VSP represents characteristics of a population that collective define the depth and breathe of health and productivity to withstand natural perturbations within its life history.
b. Characteristics include abundance (number of fish), productivity (ability to replace itself), diversity (variation among), and spatial structure (physical distribution).
4) Healthy and harvestable goals for steelhead stocks.
a. Consistent with federal ESA recovery plans for listed populations
b. Based on 'Properly Functioning Conditions' (PFC) for habitat
c. Co-manager recovery goals for Puget Sound Chinook derived from PFC, expressed as a range of spawners at MSH to replacement level.

Considering the state's population growth, the commensurate required infrastructure and the condition of the habitat currently throughout the state, recovering steelhead to historical abundances is an impractical goal.

Maximum sustainable harvest goals are insufficient to meet the rebuilding rates required to increase abundance, diversity and spatial structure of populations throughout the state, even though MSH goals are sufficient when populations are at abundances that achieve density dependent parameters.

Viable Salmonid Population represents metrics to assess a long-term goal because it describes measurable characteristics of a population, but in and of itself fails to capture fisheries in relation to a stock as well as adequately define numerical values. Thus MSH is fishery management biased, while VSP is population biased. Some combination of the two captures the conservation and sustainable fishery goals of the Department. Thus, the Department chose a long-term goal based on the concept of "healthy and harvestable" stocks utilizing the concept of VSP as a metric for population health, and developing numerical values similar in principle to those developed by the Department and Puget Sound Tribes and TRT analyses of Columbia Basin stocks.

The Department will place the highest priority on the protection of wild steelhead stocks and the restoration of these stocks to healthy and harvestable levels. See 'Goals and Policies' as well as

the ‘Natural Production Policy Statement’ on pages 3 & 5, respectively, of the statewide steelhead plan; see page 5 as well for the definition of a healthy stock. The Department acknowledges the policy for wild steelhead management framed by the definition of healthy will be difficult to achieve, and nearly impossible without substantial habitat improvements; for stocks with low abundance, an interim escapement objective must be established that builds stock abundance in lieu of an escapement goal based on MSH. See Response 10.22.

10.03 Comment Summary – WDFW needs to have assessments for hatcheries and alternate plans for steelhead recovery if conservation and integrated hatchery programs fail to live up to their billing upon close monitoring.

Response – The Department has an adaptive management program written into the SSMP. SSMP Action item 5 on page 20 discusses assessment of hatchery programs. DEIS Section 3.2.2 covers monitoring and adaptive management as does the SSMP on page 24. Alternate plans to deal with integrated hatchery programs would be developed as needed should monitoring show a program is not achieving the desired result as called for on SSMP pages 24 through 26.

10.04 Comment Summary - The Department spends too much on reintroducing a species that will do it on its own.

Response – The Endangered Species Act requires recovery plans for listed species and RCW 77.85 states “The legislature finds that it is in the interest of the citizens of the state of Washington for the state to retain primary responsibility for managing the natural resources of the state, rather than abdicate those responsibilities to the federal government, and that the state may best accomplish this objective by integrating local and regional recovery activities into a statewide strategy that can make the most effective use of provisions of federal laws allowing for a state lead in salmon recovery, delivered through implementation activities consistent with regional and watershed recovery plans.” The Department is complying with the law and the plan provides the flexibility to use reintroduction where there are depleted populations.

10.05 Comment Summary - Alternate 2 should be amended to incorporate a program to monitor each wild stock to determine if VSP objectives are being achieved.

Response – We agree. The SSMP Policy statement on page 24 says “Implement monitoring, evaluation and adaptive management to influence management decisions to protect the abundance, diversity and productivity of wild steelhead stocks and the habitats they rely on.” This broad policy gives the Department the ability to select the level of monitoring needed to get the job done. Alternative 1 and 2 in DEIS section 3.2.2 take into account the reality that funding constraints may place on the Department. The Department would certainly monitor all stocks if the resources were available.

10.06 Comment Summary - The Department needs to encourage non-lethal commercial and tribal harvest that can release wild steelhead.

Response – SSMP page 12 states the Department is to, "Promote Selective Harvest. Reduce impacts to non-target stocks and species.

a. Steelhead Fisheries. Promote the use of fishing methods and regulations that focus harvest on hatchery-origin steelhead and provide for the conservation of wild steelhead.
b. Other Fisheries. Develop and promote the implementation of fishing methods and regulations that maximize the harvest of the target species while maintaining impacts to non-target species within allowable limits."

10.07 Comment Summary – Acoustic tagging should be highly visible and emphasized in the plan.

Response – We agree. SSMP page 28, Action item 4 says the Department will "Cooperatively establish and participate in a multi-agency, international study that would incorporate acoustic tagging and genetic baseline information to understand ocean migration patterns."

10.08 Comment Summary – The fish pamphlet should include more information about the proper way to handle fish by "C&R" fishers.

Response – This is a very good comment and the suggestion has been passed on to see how the pamphlet or other informational material can best provide this information.

10.09 Comment Summary – The glossary should include the definition of lead entity. WRIA salmon recovery councils should be established.

Response – WRIA salmon recovery councils were established by HB 2496 in 1998 and are codified as lead entities. Lead entities are explained in RCW 77.85.050. The RCW can be accessed through http://apps.leg.wa.gov/rcw/.

10.10 Comment Summary – Much of the problem behind the steelhead question concerns the Puget Sound runs and the effects of marine ecology on early rearing.

Response – Comment noted.

10.11 Comment Summary – The steelhead cycle is now down but it is natural or at least historical.

Response – Comment noted.

10.12 Comment Summary – A new section of the SSMP should be added and devoted to establishing a criteria to determine each anadromous water's ability to sustain a viable population of wild steelhead. Waters that are found to be deficient in their ability to sustain wild steelhead, such as streams with dams that have inadequate fish passage, should be exempt from policies in the SSMP until such time the constraints have been identified and corrected.

Response – The SSMP addresses criteria for determining a waters' ability to sustain wild fish. The Natural Production section contains 4 strategies for "maintaining and restoring stocks to healthy levels" and is reinforced by strategies in 7 other sections of the plan which stress establishment of long term goals and benchmarks for modifications to management actions, escapement objectives, and establishment of diversity, spatial structure, productivity, and abundance of each wild stock within 2 years. These would identify water's named in the comment and make a new section unnecessary.

10.13 Comment Summary – The DEIS should quantify "significant adverse environmental" impact. This subjective approach to criteria opens the door to interpretation and disagreement and may not actually protect wild steelhead. Because of this problem, the alternative (Preferred Alternative 2) should be rejected because it is not sufficient to achieve its objective.

Response – The proper context of the phrase cited in the comment is "This alternative would manage hatcheries and programs to help ensure wild steelhead abundance, productivity, spatial structure, and life history-diversity. VSP objectives are achieved by limiting adverse interactions between hatchery and wild stocks. It places greater emphasis on protection of wild steelhead stocks than Alternative 3 and would accept some negative impacts as long as they are not significantly adverse to wild steelhead stocks or ecosystem health." The purpose of the SEPA process and this DEIS is to identify significant adverse environmental impacts and avoid them. The definition of the term "significant adverse environmental impact" can be found on page 31 (Section 2.6) of the SEPA Manual. "SEPA rules state that significant is a reasonable likelihood of more than a moderate adverse impact on environmental quality. It is often non-quantifiable. It involves the physical setting, and both the magnitude and duration of the impact." The language commented on is required by the SEPA process. The preferred alternative would accept some negative impacts as long as they are not significantly adverse to wild steelhead stocks or ecosystem health and that is sufficient for the alternative to achieve its objective.

10.14 Comment Summary – The only mention of wild stock gene banks is found in Artificial Production as if its primary purpose is to provide emergency (i.e. hatchery) backup for failing populations. This relates to several comments requesting gene banks be established.

Response – We agree. Strategies and actions for establishing wild stock gene banks have been moved to the Natural Production sections of the FEIS and SSMP. The strategy is "Establish a network of wild stock gene banks across the state where wild stocks are largely protected from the effects of hatchery programs. At least one wild stock gene bank will be established for each major population group in each steelhead DPS. Each gene bank established will have the following characteristics and management:

a. Each stock selected for inclusion in the gene bank must be sufficiently abundant and productive to be self-sustaining in the future.
b. No releases of hatchery-origin steelhead will occur in streams where spawning of the stock occurs, or in streams used exclusively by that stock for rearing.
c. Fisheries can be conducted if wild steelhead management objectives are met as well as any necessary federal ESA determinations."

The action is "Develop an implementation plan for establishing a network of wild stock gene banks" and this fits in with the goals and timelines established in the plan.

10.15 Comment Summary – Do tribal agreements requiring MSH threaten VSP?

Response - MSH is the legal starting point in the Boldt Case area, however the Department has the latitude to work with co-managers to agree to establish something different. Our goal is to restore and maintain healthy populations and we believe the characteristics represented within VSP would achieve this goal. NOAA's Viable Salmonid Population concept has been used as the basis for recovery objectives described in the Lower Columbia Salmon Recovery and Subbasin Plan. NOAA has approved the plan.

10.16 Comment Summary – WDFW grazing leases on WDFW lands permit out of stream consumptive use of over appropriated water resources on streams with listed steelhead. RCW 90.14 provides no protection for out of stream livestock use.

Response – WDFW is complying with state law regarding livestock watering on its grazing leases. Livestock watering is permitted without a water right as long as it does not impact senior water rights and there is no directed withdrawal of water to a watering device. Stock watering is required to stop if a senior water right is impacted but only until adequate flow resumes. RCW 90.44.050 specifically exempts stock watering from water rights for ground water withdrawals and RCW 90.22.040 says "It shall be the policy of the state, and the Department of ecology shall be so guided in the implementation of RCW 90.22.010 and 90.22.020, to retain sufficient minimum flows or levels in streams, lakes or other public waters to provide adequate waters in such water sources to satisfy stockwatering requirements for stock on riparian grazing lands which drink directly therefrom." RCW 90.22.010 says "the Department of ecology (DOE) shall, when requested by the Department of fish and wildlife to protect fish, game or other wildlife resources under the jurisdiction of the requesting state agency, or if the Department of ecology finds it necessary to preserve water quality, establish such minimum flows or levels as are required to protect the resource or preserve the water quality described in the request or determination…" however, RCW 90.22.020 and 030 make it clear that DOE can only set the minimum flow after holding a public hearing AND can not impact existing senior water rights. Water rights issues are a subject for legislative action and are beyond the scope of this environmental impact statement.

10.17 Comment Summary – Table 1 & 2 give the impression hatchery broodstock counts are as important as wild escapement. This runs counter to placing the highest priority on natural production.

Response – The plan provides specific guidance in fishery management to support the natural production goal. The delineation between wild and hatchery fish is important with regards to river systems where both occur. Removal of hatchery fish through harvest is one important method for reducing the risk these fish impart to natural production through spawning in the wild. Hatchery fish also represent the background of future fisheries, so the specific strategies and actions need to provide the flexibility to support the differences in run sizes for hatchery and wild fish, while at the same time supporting the highest priority on natural production.

It's important to impart the value of hatchery fish as it relates to supporting future hatchery production programs because an underlining intent is for future hatchery fish to support fishery opportunities. This will not be accomplished if achieving broodstock goals for a facility are not an inherent value reflected in fisheries management.

10.18 Comment Summary – DPS discussions – Puget Sound, Olympic Peninsula, Southwest Washington missing population information provided for Columbia River DPSs.

Response – Good Comment. The population information is added to the FEIS in the appropriate DPSs.

10.19 Comment Summary – What does the term “bridge people with fish mean?”

Response – The term was an unsuccessful attempt to say “At hatchery facilities that implement kelt-reconditioning programs, develop the infrastructure for convenient public opportunity to view wild adult steelhead.” The FEIS now contains this wording.

10.20 - Comment Summary – The glaring omission in this plan is the failure to address commercial take of wild, native and T&E steelhead in the Columbia River commercial gill nets a legal (and Illegal) by catch. This is clearly a violation of the ESA that no one is enforcing. The potential for wiping out small runs of wild and native fish is great. I would encourage you to address this in the plan by recommending selective commercial fishing technology in the Columbia and enforcement to prevent this in the future.

Response - Fisheries that operate in the Columbia River do so in a manner consistent with the federal ESA incidental take levels established by NOAA Fisheries. These incidental take limits are set such that the fisheries are deemed not to pose jeopardy to the recovery of listed steelhead The SSMP addresses incidental take of steelhead in its Fishery Management Section when it says, " In fisheries where steelhead are captured incidentally to the harvest of other species, implement regulations/selective fishing techniques that protect the wild stocks.

a. Protect juvenile steelhead and resident rainbow trout by closing fisheries during the spring smolt migration period and/or through the use of minimum fish size, gear restrictions and bag limits, or area closures during periods when the fisheries are open.
b. Develop methods for improving the selective harvest of salmonids in commercial fisheries."

The plan also commits "For commercial fisheries, the Department will use a site-specific mortality rate" to adaptively manage all fisheries handling steelhead to achieve abundance goals set forth for individual populations identified in the RMPs. Site specific mortality rates take into account the local stream conditions and gear being used. In situations where stocks are listed under the federal ESA, the impact limits set forth as part of that listing will take precedence, however, this does not preclude RMPs from setting forth additional actions that are more conservative then those required as part of the federal listing.

10.21 Comment Summary - A 0.70 Percent Natural Index (PNI) target for integrated hatchery programs is woefully low. Based upon the Department's own long-term studies on the Kalama, a 30 percent straying rate of hatchery fish into the wild breeding population is disturbing. Presence of 30 percent of hatchery fish means that the likelihood of wild-wild pairings is less than 50 percent. Since only wild-wild pairings produce returning adults, the proposed index reduces the productivity of the wild stock by 50 percent each generation. This is not acceptable in a watershed where wild steelhead management should be the top priority. Except in cases, such as the Cowlitz, where natural production is not viable, the SSMP should aim to eliminate completely hatchery and wild interactions. As a first step, the SSMP should establish refugia where no hatchery fish would be stocked, followed by temporary weir removal during known periods of heavy straying.

Response - We do not agree that a Proportionate Natural Influence (PNI) of 0.7 necessarily equates to a 30% incidence of hatchery-origin adults in natural spawning areas. The PNI varies with both the proportion of hatchery broodstock consisting of natural-origin fish (pNOB) and the proportion of natural spawners consisting of hatchery-origin fish (pHOS). By definition, the PNI is equal to pNOB/(pHOS + pNOB) and, as can be seen table below, a PNI of 0.7 can be achieved with numerous combinations of pNOB and pHOS.

Proportionate Natural Influence (PNI)	Proportion of broodstock of natural-origin (pNOB)	Proportion of natural spawners of hatchery-origin (pHOS)
0.7	0.1	0.043
0.7	0.3	0.129
0.7	0.5	0.214
0.7	0.7	0.300
0.7	0.9	0.389

Mathematical models of genetic interactions indicate that natural selective forces direct the expression of a trait for PNI values exceeding 0.5. For stocks of high biological significance (referred to as primary populations), the Hatchery Scientific Review Group (HSRG)

recommends that the PNI should exceed 0.67[1]. For stocks of moderate biological significance (referred to as contributing populations), the HSRG recommends that the PNI should exceed 0.5.

The long-term studies conducted in the Kalama River were conducted with segregated programs (Chambers Winter or Skamania Summer stock) and the conclusions are not applicable in this context.

10.22 Comment Summary - On page 6 of the plan, under strategy 4, the statement that ` presettlement abundances were likely much higher than initially estimated' needs explanation. Higher than which earlier estimates? Presumed higher based on which evidence? The same comment is made again on p76 (81) See also Response 10.2.

Response – We agree that the sentence on page 6 is unclear. Our intent is twofold. First, we acknowledge that substantial uncertainty exists in our estimates of pre-settlement abundance. Second, we recognize that the pre-settlement abundance of steelhead was not a fixed number, but likely varied widely in response to variations in marine conditions and steelhead survival. We will change the last sentence on page 6 under Strategy 4 to read: "These goals will recognize that long-term variations in the abundance of wild steelhead, even with pre-settlement freshwater habitat, will occur in response to variations in marine conditions and steelhead survival."

10.23 Comment Summary – Throughout the document, the implication arises that managing for MSH is too vulnerable to habitat degradation. No one is going to buy this without a lot of explanation. MSH happens now primarily through hatchery activity. It appears to me that the real issue is that, according to the WDFW, managing for MSH is too expensive to allow other `adaptive management strategies' to be implemented, including environmental issues, and that is how MSH (presumably) affects the fishery. Thus it is more a budget issue, and less of an operational or ecological impact.

Response – We would maintain that our management at MSH has not been shown for all populations to provide adequate natural spawners to ensure they can withstand natural perturbations and remain healthy. Thus, our goal is to restore and maintain healthy populations and we believe the characteristics represented within VSP would achieve this goal. NOAA's Viable Salmonid Population concept has been used as the basis for recovery objectives described in the Lower Columbia Salmon Recovery and Subbasin Plan. NOAA has approved the plan.

10.24 Comment Summary - As I asked for previously, it would be useful to have a schematic showing all the state, federal and local government steelhead significant activities/processes and their relationships to each other leading to wild steelhead recovery. We do need a road map. Hopefully, WDFW will have that at the October 16 SCPAG meeting.

[1] Hatchery Scientific Review Group. 2007. Summary of HSRG initial findings for Chinook populations in the Lower Columbia River.

Response – Provided per request at October 16th SCPAG meeting .

10.25 Comment Summary – "… provide an example of local problem solving that has produced meaningful results for steelhead."

Response – Beyond the scope of the EIS. See Response 1.3.

10.26 Comment Summary - SSMP, Fishery Management, Strategies, 4) Account for all .. - This has to include gill-net drop out mortality. Consideration should be given to old idea of negotiating with individual and willing tribes to secure, by payment, some part or all of anticipated tribal share of returning hatchery steelhead, additional non-tribal harvest opportunity on an annual basis.

Response – Strategy 4 says "Incorporate all sources of fishing related mortality in fishery management. The remainder of the comment is beyond the scope of this EIS.

10.27 Comment Summary – SSMP, Fishery Management, intro statement, p12 - text incorrectly suggests that sports anglers should only have opportunity to fish allowed by the tribes. This is now a hot button issue with a major backlash from the North of Falcon sports advisors.

Response – We would maintain that state-tribal agreement is paramount to long term fishery management and conservation.

10.28 Comment Summary - SSMP, Fishery Management, Strategies, Table 1, p15 - for Abundance Less than Wild MU escapement object include "Close all tribal fisheries" below "Close all recreational steelhead fisheries". Add into next two boxes the words "non-tribal and tribal" between the words "no" and "fisheries.

Response - Beyond the scope of the EIS. See Response 1.3.

Detailed Comments from King County about the DEIS

11.00 Comment Summary - Content of Alternatives - As a programmatic DEIS this document should address how the science that WDFW knows is needed for steelhead recovery can be better transferred to locals more effectively than it is currently.

Response – We agree. Our success in steelhead recovery is in a large part dependent on how well we can form partnerships with local governments. SSMP pages 8 and 32 provide policy guidance on department plans for Outreach and Education and communication of technical assistance.

11.01 Comment Summary - A useful 5th alternative could be a combination of Alternatives I and 2 where elements of each one are employed as necessary to meet overall SSMP objectives. That is, some DPSs may require the implementation of Alternative 1 whereas others may employ Alternative 2 depending on the VSP status of, the population and DPS.

Response – See 7.1.

11.02 Comment Summary - It would be useful in describing the status quo alternative to describe how the current approach actually is protective of wild steelhead production. As it is, the "wild fish management' 'strategy appears to be one where additional 10% mortality on under-escaped wild fish runs is acceptable. How would this yield wild fish conservation?

Response – See Response 1.3 &12.6.

11.03 Summary Response - The HPA program serves to reduce the level of harm posed by development and other hydraulic projects, but the cumulative impacts of all permitted projects are not addressed by this program.

Response – Good comment. Cumulative impacts are important stressors of steelhead habitat. The Department is currently reviewing how the HPA Program might effectively assess and implement HPA provisions to protect habitat. See 6.3.

11.04 Comment Summary - Page 3, Alternative 2, The concept of "wild stock gene banks" is introduced here but needs much more explanation throughout the document. If conservation actions to achieve healthy stocks within DPSs includes the "banks" it begs the question of sufficiency, especially relative to VSP objectives. VSP objectives are cited as a part of this approach, but it's not clear how setting these objectives on a per-population basis would proceed, especially given a lack of abundance data for up to half the stocks statewide. Seemingly it would take several years to develop VSP objectives (where no data exist).

Under Alternative 2, there is apparent resignation that WDFW can't control habitat impacts, but under the alternative (or Alternative 1) there is no discussion regarding the regulatory powers for authorizing hydraulic projects (HPA) that the Department does have. How might HPAs be otherwise implemented under existing authorities? How might enforcement or monitoring be better implemented? Is this an issue of capacity rather than legislative authority?

Response – The comment provides an interesting linkage between gene banks and VSP objectives. The Department encourages further review of using gene banks in achieving natural production goals on SSMP page 6. The comment is directed toward a summary of the alternatives required by SEPA as part of the Executive Summary. Comments regarding HPA authority are addressed in Response 6.3 and indeed, alternative 2 identifies using full authority to effect poisitive change for habitat.

11.05 Comment Summary – Page 4, Alternative 1-This alternative suggests hatchery programs would be eliminated, with grave consequences for harvest. It also suggests Adaptive Management would be predicated on "greatly enhanced research" and extend to tackling questions posed by global warming. These descriptions, scary as they might sound, are simply unrealistic as an Alternative for EIS consideration. More likely, some hatchery programs might be suspended or modified depending on individual circumstances to meet conservation objectives. We suggest enhanced Adaptive Management capability would be dependent more on simple but comprehensive descriptions of the status of steelhead populations (basic fisheries management inputs), not greatly enhanced research that focuses on global warming.

Attempting to manage to carrying capacity seems fraught with peril. The normal pattern of steelhead and salmon populations is variation, often significant, over time, more like a boom and, bust cycle than the smooth curves of theoretical population growth. We might hypothesize that these variations have important adaptive and evolutionary consequences in that the differential mortalities associated with the pattern may maintain variation in the population over time, much like differential environmental regimes maintain variation in space. Although we should be cautious and inquisitive about extreme population variations, damping that variation and forcing a maximum abundance pattern on a population may inadvertently select for the single genetic or life history group that happens to do well under a particular environmental regime and drastically reduce overall variation that provides resilience to the population when the regime shifts, as it surely will.

For a variety of demographic and ecological reasons, populations may not reach carrying capacity in any environment they occupy and, depending on stochastic variation, a population may overshoot K in some years. Either could be the result of demographic factors related to natural events or to artificial ones. Attempting to maximize (or stabilize) any single population attribute (abundance, i.e.) has unintended consequences and inadvertent effects on other VSP parameters of the population, most particularly on diversity. Perhaps a more appropriate model for population management would be the use of "range of variability" concepts that recognize patterns in population responses to environmental and demographic variability.

Response – The comment is directed toward a summary of the alternatives required by SEPA as part of the Executive Summary. Section 3 provides a detailed discussion of the alternatives that provides more descriptive information.

11.06 Comment Summary - p. 5, re: Need - The DEIS states that goals for the SSMP may include hatchery programs that provide maximum recreational opportunities compatible with healthy, diverse fish and wildlife populations. The FEIS and SSMP should list and describe its assumptions about the conditions that are necessary for such programs to be effective and present specific examples of where existing programs have produced these outcomes.

Response – The Artificial Production chapter of the SSMP provides details about strategies and actions for the operation of artificial production programs consistent with hatchery reform principles. Lists and descriptions of assumptions about more specific conditions that are necessary for such programs to be effective are beyond the scope of this DEIS and are best

addressed at the RMP level where specific watershed and population objectives can be addressed. See Response 1.3.

11.07 Comment Summary - p. 6, re: Plan objectives - Among the 9 objectives, Adaptive Management is not specifically identified. Reasons to be concerned regarding the application of adaptive management are present, however. Objective 7 will require that outcomes (or performance standards) for management be identified.- presumably these are ties to VSP-based objectives - but, pursuing management within a "flexible framework" needs to be better described.

Response – The comment is directed toward a summary of the objectives required by SEPA as part of the Executive Summary. Adaptive Management is discussed in DEIS Section 3.2.2 and SSMP page 24.

11.08 Comment Summary - p. 9, re: content of Table 1- The approach of managing for average carrying capacity (abundance), as difficult as that may be, is conceptually more consistent with Alternative 2 than Alternative 1, the most conservative alternative. Under the most conservative alternative, managing for VSP objectives, especially if they are described from the standpoint of recovery under the ESA on a per-population basis, would ensure that management actions (All H-actions) consider potential effects or outcomes to populations from the standpoint of VSP rather than just for whether available habitat is seeded (carrying capacity).

p. 9, re Table 1 - Table 1 describes the differences between plan alternatives in terms of specific Operational Categories. In general; the plan refers to the most conservative approach as "managing for carrying capacity, abundance", the preferred alternative as "managing for VSP abundance", and the status quo as driven primarily by "Maximum Sustainable Harvest" abundance. There are several problems here. First, VSP abundance is not at all defined in the document, but it is implied that it is lower than carrying capacity. But this is an apples and oranges comparison - in the VSP framework, abundance cannot be considered in isolation from the other 3 elements. Also, "carrying capacity" may not be known and may well be far below historical or other benchmark conditions. So, managing for current carrying. capacity is not necessarily "most conservative". Finally, the notion that managing for carrying capacity represents a maximum level of conservation understates the role "surplus" escapement plays in maintaining the productivity of a population.

Response – The comment is directed toward a summary table required by SEPA as part of the Executive Summary. Alternative 1, Carrying capacity is defined on DEIS page 64 as “The maximum number of individuals or biomass of a given species or complex of species of fishes that a limited and specific aquatic habitat may support during a stated interval of time.” By definition, the incidental take of a fish makes the population less than carrying capacity and may limit fishing opportunity. The goal of Alternative 2 is ”Increased wild protection (Preferred Alternative) - Manage for viable salmonid population (VSP) parameters.” Viable salmonid population is defined on DEIS page 69 as “Parameters that are used to evaluate the status of a given stock. The four parameters are abundance (A), productivity (P), diversity (D), and spatial

structure (S). The standard permits fishing as long as the stock is abundant, productive and diverse within its spatial structure. It is discussed in depth in SSMP page 5.

11.09 Comment Summary - p. 10, re: Table 1 - In Alts. 1 and 2, each of the operational categories should recognize its effect on all VSP parameters. To isolate a single VSP parameter--such as abundance in the natural production category of alternative 2-is to misconstrue the relationship among the VSP parameters and fail to recognize that a population or DPS, to achieve viability, may require maintaining diversity or improving spatial structure as its primary objective. An objective that focuses only on abundance may unwittingly compromise diversity and spatial structure before the effect is realized.

Response – We agree. Abundance should be replaced with parameters because that is what is meant. Diversity and spatial structure are inherent in carrying capacity. Abundance is not the only effect to be considered. The comment is directed toward a summary of table required by SEPA as part of the Executive Summary. Response 11.8 also relates to this comment.

11.10 Comment Summary - p. 11, re: Key Relationships - The document mentions that the HSRG has found some hatchery practices to have adverse impacts on the health of wild stocks. These impacts should be explained in detail in the context of status quo operations. Also, the document states that the "...analysis of impacts aims to give the Department the widest latitude for proposing strategies to minimize or avoid significant adverse impacts...". It is not clear what this is supposed to mean, but `wide latitude' is often used as a way to justify only minor adjustments in the status quo.

Response – See Response 1.3.

11.11 Comment Summary - p. 11, re: Key Relationships - The text suggests that too many fish can return than the freshwater environment can sustain. If this is true, then hatchery production should represent the sum of freshwater carrying capacity less natural freshwater productivity. Future estimates of key relationships between production and capacity should consider habitat and water quantity and quality as well as how these vary across the continuum of freshwater residence.

Response – SSMP page 18 through 21 present strategies and actions to address this comment.

11.12 Comment Summary - p. 17, re: Environmental Setting - Revisions to this section should include some discussion regarding uncertainty of steelhead production relative to the continuum of anadromous-resident dromous-resident forms of 0. mykiss.

Response – SSMP page 28 provides strategies and actions for addressing anadromous-resident dromous-resident forms of 0. mykiss.

11.13 Comment Summary - p. 17, re: Habitat Degradation and Alteration - The document notes that the Forest & Fish Act and other Plans will eventually provide "... shade, woody debris and other stream ecological benefits that were not present prior to 1999.". This should be restated to indicate that the level of protection may have increased in some areas as a result of these plans, but that other areas may well have less shade now than in 1999 due to practices allowed under these plans.

Response – Conversations with DNR indicate that no timber lands subject to the Forest and Fish Act have less protection now than they did in 1999 and the comment is not entirely accurate. Shade rules from prior to 1999 remain in effect and buffers have been increased from 50 feet to 75 feet. Prior to the adoption of the Forests and Fish Report, interim, no-cut buffers were temporarily expanded to 100' on steelhead streams to protect them until all of the recent science on streamside buffers could be incorporated into complex rules. Although some buffers decreased after the permanent rules were in place, they were based on robust science and an active adaptive management program. WDFW maintains an active role in the development and implementation of the Forests and Fish adaptive management program (CMER).

11.14 Comment Summary - p. 18, re: Federally Managed Lands - It is an overstatement to conclude that "... nearly all steelhead freshwater habitats fall under the jurisdiction of various Federal programs and agreements." It is the case that Habitat Conservation Plans, the Northwest Forest Plan, Federal Energy Regulatory Commission licenses, Army Corps of Engineers dam operations manuals, and other federal management vehicles can play a role in conservation. WDFW should not assume that in every case federal agencies use their authority and discretion to the most benefit of steelhead. ' WDFW should also not overlook the significant role the hundreds of local governments around Puget Sound can play in employing their authorities and resources to manage, protect and restore steelhead habitat.

Response – We agree. In the SSMP, we state *"With the existing limited ability of WDFW to directly control habitat degradation, the Department is currently working with other agencies to support initiatives that would be beneficial to steelhead and other salmonids. As indicated in the attached map, nearly all steelhead freshwater habitats fall under the jurisdiction of various Federal programs and agreements."*

11.15 Comment Summary - p. 21, re: genetic information for Puget Sound steelhead - The document cites 10- and 14-year old information as the state of the knowledge regarding genetic composition/differentiation of stocks in the Puget Sound DPS. If this truly is the best available science at this stage, the SSMP should include specific steps to greatly improve it.

Response – We agree. WDFW is committed to developing and using the best available science in the management and research of steelhead conservation tools. Also see SSMP pages 22 through 29 provide strategies and actions to further address the comment.

11.16 Comment Summary - p. 36, re: Natural Production - The 2"d paragraph suggests that, "it must fit in with an ecosystem approach that protects and restores salmonids stocks and other indigenous aquatic species to levels that sustain healthy ecosystem processes." Does this mean the success of the SSMP is dependent upon this approach? Does it mean the SSMP will be developed based on these concepts? This is not reflected in the Alternatives. WDFW should elaborate on what this statement means for steelhead recovery. What are the implications for fixed harvest escapement goals? What are the implications for better understanding species interactions as part of capacity estimation? What does this mean regarding the value and role of steelhead to sustain ecosystem processes that otherwise are not included as part of the "healthy" stock definition in the first place?

Response – SSMP page 6, Strategy 3 states the plan is to “Manage from Ecosystem Perspective. Protect and restore salmonid stocks and other indigenous aquatic species to levels that sustain healthy ecosystem processes, including food web links to wild stocks of steelhead.” It simply recognizes the plan must relate to recovery efforts for other threatened or endangered species as well as implement actions in a manner that reflects the diversity inherent in ecosystems and the health that prevails when this occurs.

11.17 Comment Summary - p. 36, second paragraph - Define "natural ecological functions".

Response – The term "natural ecological functions" is added to the FEIS and SSMP definitions. Natural ecological function is defined as the activity or role performed by an organism or element in relation to other organisms, elements or the environment. As used here, the statement, “sustain healthy ecosystem processes” recognizes the importance of steelhead in the ecosystem. For example, most steelhead die after spawning (although certainly not all), and as they decay the nutrients they provide to the system benefits juvenile steelhead as well as other fishes and wildlife. Sustaining abundant, diverse, productive, and geographically expansive steelhead populations is necessary to conserve populations, maintain fisheries, and contribute to the benefit of other fish and wildlife.

11.18 Comment Summary - p. 39, re: Habitat Protection and Restoration - The section 3.1.2 entitled "Habitat Protection and Restoration" should recognize the role of local governments in land use management, habitat protection, and restoration and describe a program for collaboration between WDFW and local agencies for meeting these objectives. It should also address WDFW's management of lands under its purview, such as the agency's Wildlife Areas, many of which have a direct association with steelhead habitat. Aggressive restoration on these lands should be a key element of the State's participation in regional recovery efforts.

Response – We agree. For example, DEIS Section 3.1.2 recognizes the responsibility of local governments for Shoreline and Growth Management which are very important habitat protection mechanisms. SSMP page 8, Strategy 1 is to Encourage local problem solving with participation by local citizens, concerned groups, the tribes, and state, local, and federal agencies in the development or implementation of improved strategies for habitat protection and restoration. SSMP page 22, Strategy 1) b and c are to “Work to increase the accountability of government

entities for the enforcement of state and local habitat protection laws" and "Establish partnerships in enforcing laws needed to protect salmon habitat."

11.19 Comment Summary - p. 39, third paragraph - This paragraph notes that "For the purposes of this plan, habitat protection analysis can be divided into preservation, water quality and restoration. Responsibility for habitat protection and restoration in Washington is shared among many agencies. The Department of Fish and Wildlife is responsible for protecting fish life from hydraulic projects that may affect the bed or flow of the state's waters...." We note that WDFW is also responsible for commenting on water right applications (see chapter 77.55 RCW) and suggest that the agency use this avenue to support achieving steelhead conservation and recovery.

Response – We agree. In the past, WDFW has had limited success in strongly influencing water withdrawals. As the demand for water will undoubtedly increase with increasing human population growth and climate change, WDFW will increase our efforts to conserve instream flows for the benefit of steelhead (and other fish and wildlife) under alternatives 1 and 2. See also Response 6.3.

11.20 Comment Summary - p. 39, first paragraph - Identify most limiting habitat factors in each DPS or by stock to guide restoration actions. The DEIS simply points to a need for `an increased amount of steelhead habitat'. We suggest the WDFW specify the life stages or specific habitat types that are lacking - by region - to guide on the ground efforts to restore population viability. WDFW should also integrate the VSP concept with goals for improved habitat.

Response – We agree. The detailed habitat needs affecting specific life history stages in specific watersheds is best incorporated within the Regional recovery plans, and not within the SSMP. Within the DEIS, see related discussions on pages 43 and 39.

11.21 Comment Summary - p. 40, sixth paragraph - The DEIS correctly notes other agency involvement or responsibility and that the "state has numerous programs in place to preserve and restore habitat." It goes on to point out three significant laws - two of which are intended to protect habitat, one of which (SEPA) is designed to ensure deliberate decision making with regard to environmental issues. We would agree that SMA and GMA can be used effectively to protect habitat, but it is necessary that WDFW actively participate in those programs as the voice of the State fisheries managers. It is neither sufficient nor reasonable to say "The point of quoting, all of these rules and regulations is to show that although the Department has a limited role in habitat protection, there are plenty of tools available for agencies and the public to use in habitat protection. Citizens and other agencies have the same ability as the Department to examine a Shoreline Master Plan, Critical Areas Ordinance or SEPA proposal to see if it adequately protects steelhead habitat." (see page 41) Rather WDFW should amplify its role while commenting on shoreline permits or water right permits (see RCW 77.55.050).

Response – Good comment. We agree. Our stating the limited role we possess in habitat protection was not meant to diminish our activity in the processes where we have demonstrated success, including direct SMA, GMA, and CAO involvement. Under alternatives 1 and 2, we seek to increase our participation in these activities as described in the SSMP, page 8, and in the DEIS page 42. See also Response 6.3.

11.22 Comment Summary - p. 41, re: Habitat Protection and Restoration, Alternative 3 - Please clarify what is meant by characterizing the Alternative as "neutral" with respect to habitat impact on either species or recreation opportunity. The Growth Management Act, for example, requires special consideration for salmonids, rather than an equal balancing of all interests.

Response – The proper context for this comment is found in the explanation for Alternative 3 on DEIS page 41, the status quo alternative. The complete sentence is “Not as pro-active as Alternatives 1 and 2, this status quo alternative is essentially **neutral** with respect to habitat impact on either other species or recreation opportunity.” Since the alternative is status quo, and there would be no changes in how the Department conducts business, the effect would be neutral.

11.23 Comment Summary - p. 42, in re: Alternative 2 - The preferred alternative "requires the Department to increase participation in SMA, GMA, SEPA, HPA and external conservation processes to ensure laws are enforced and habitat is protected and to increase participation in habitat recovery through the Salmon Recovery Act and meets ESA requirements." WDFW should describe how those actions will be different than current actions if this alternative is implemented.

p. 42, re: Alternative 2 - Consider risks from sympatric competition and altered flow regimes on steelhead. Specify levels of planned enforcement actions pertaining to land use and water use. Explain whether this includes flood protection, flow regulation, stormwater management, or other programs or activities.

Response – Specific implementation actions are beyond the scope of the EIS. However, as one example, WDFW might pursue stronger enforcement actions against HPA violations. Currently, many county prosecutors are reluctant to engage in HPA violations. Increased efforts in this area by WDFW under alternatives 1 and 2 may improve steelhead habitat by securing greater mitigation under enforcement actions. See also Response 1.3.

11.24 Comment Summary - p. 44, re: Fisheries Management- Under 3.1.3 "Fisheries Management", knowledge of only abundance, timing, and spatial structure of stocks will be insufficient as a basis for actions, coordinated or not, to craft robust fisheries management actions. Knowledge of population diversity and productivity-both strongly influenced by spatial structure-will also be necessary for developing management actions. Any actions, whether habitat-based, artificial production-based, or harvest based should be well grounded in the ecological and evolutionary principles described in the McElheny et al. document.

Response – Comment noted.

11.25 Comment Summary - p. 44, re: Fisheries Management - Please describe the potential effect of incidental recreational bycatch of other listed fish by fishermen in pursuit of hatchery steelhead (and vice-versa). As more species are listed, we will invariably need to integrate our collective responses.

Response – Section 9 of the Endangered Species Act prohibits the directed taking of threatened or endangered species. It is possible to obtain incidental take permits under sections 4d and 10. In order for an incidental take to occur, the fisher must be fishing for a non-listed species such as salmon or hatchery steelhead. The incidental take permit would allow a small percentage of listed fish to be killed via hooking mortality. Once that percentage was killed all fishing would stop. In the event the targeted species is not reasonably present and the only fish present were listed steelhead, salmon or bulltrout, the fishery would be closed until the run is delisted.

11.26 Comment Summary - p. 46, re: Alternative 4 - Consider elevated risks of incidental (catch-and-release related) mortality to depleted populations, especially where fishing pressure is high (due to the presence of a hatchery population, for example). In particular, evaluate the risks to wild fish if the 10% mortality rate is calculated with replacement (for example, released fish have a I 'in 10 chance of dying each time they are caught, but are potentially caught numerous times due to high fishing pressure).

Response – SSMP page 12, Strategy 2 and SSMP page 13, Action 2 address the comment.

11.27 Comment Summary - p. 48, re: Artificial Production - Define `significantly adverse' negative impacts to depleted wild steelhead stocks from hatchery programs.

Response – The term “depleted wild steelhead stocks” does not appear in the DEIS. The term “significantly adverse” occurs on DEIS page 49 in the explanation of the preferred alternative. It says *“This alternative would manage hatcheries and programs to help ensure wild steelhead abundance, productivity, spatial structure, and life history-diversity VSP objectives are achieved by limiting adverse interactions between hatchery and wild stocks. It places greater emphasis on protection of wild steelhead stocks than Alternative 3 and would accept some negative impacts as long as they are not* ***significantly adverse*** *to wild steelhead stocks or ecosystem health.”* The definition of the term “significant adverse environmental impact” can be found on page 31 (Section 2.6) of the SEPA Manual. It is defined as a reasonable likelihood of more than a moderate adverse impact on environmental quality”. It is often non-quantifiable. It involves the physical setting, and both the magnitude and duration of the impact.

11.28 Comment Summary - p. 48, third paragraph - The document states that efforts to cut hatchery programs are "almost always met with criticism by the public". It is certainly true that

vocal members of the public may object to closures if their recreation or livelihood is focused on hatchery fish, but it is likely a gross overstatement to say that the general public would criticize such a move, particularly when informed of the costs of hatchery programs, both environmental and monetary.

Response – Comment Noted.

11.29 Comment Summary - p. 48, re: Artificial Production - Identify `trigger points' for initiating and terminating hatchery-based conservation programs (population rescue). Revise Alternative 1 to allow for such conservation programs with a 5-10 year sunset clause, or a functionally similar 'relicensing' process so that the hatcheries have a clear goal that once met leads to their closure. Disallow fishing on stocks in `rescue' status to remove incentive to establish conservation hatcheries where they are unnecessary.

Response – SSMP Goals and Policies on page 3 "promote(s) the achievement of the natural production policy and provide fishery-related benefits by implementing artificial production programs with the following characteristics:

o *Conservation Programs*. Artificial programs implemented with a conservation objective shall have a net aggregate benefit to the diversity, spatial structure, productivity, and abundance of the target wild stock.

o *Harvest Programs*. Artificial production programs implemented to enhance harvest opportunities shall provide fishery benefits while allowing watershed specific goals for the diversity, spatial structure, productivity, and abundance of wild stocks to be met.

Artificial Production strategy 5 combined with Monitoring and Adaptive Management on page 24 provide the flexibility to examine the need for segregated and integrated programs without imposing arbitrary time limits.

11.30 Comment Summary - p. 49, re: Fisheries Management - What does it mean to say that "Selection of an effective policy is proportionally dependent on the certainty of our understanding of stock population dynamics...." This should imply a commitment to a precautionary approach. Please clarify if it does or if it implies some other overarching approach.

Response – The proper context of the comment can be found on DEIS page 36 in the Introduction to Natural Production Section 3.1.1. It says "The natural production operations policies for the *SSMP* set the foundation for the rest of the plan. ***Selection of an effective policy is proportionally dependent on the certainty of our understanding of stock population dynamics***, the condition of the habitat, and the status of the stock. It must fit in with an ecosystem approach that protects and restores salmonid stocks and other indigenous aquatic species to levels that sustain healthy ecosystem processes. The policy must identify factors that limit the health of each stock so modifications to fishery, hatchery, and habitat management can be tailored to the situation." When viewed in the intended context, the line in question illustrates the need for flexibility for planning the best management plan for each stock. SSMP page 13 states if a stock status is unknown the Department is to apply a precautionary approach.

11.31 Comment Summary - p. 49, in re: Artificial Production in Alternative 2 - The preferred alternative should contemplate elimination (not only reduction) of outplants in places where programs are inconsistent with strategies.

Response – SSMP page 20, Action 5 d explains the conditions for eliminating a program. See Response 11.29

11.32 Comment Summary - pp. 49-50, re: Artificial Propagation Alternatives - The document refers to "properly integrated" and "properly segregated" programs, without defining what constitutes a properly managed program. Both kinds of programs have substantial risks for wild populations. These risks need to be clearly defined and the likelihood of their being realized, under each alternative, described.

Response – SSMP page 19, describes strategies for properly operating segregated and integrated programs.

11.33 Comment Summary - p. 50, re: description of Alternative 1 - This section provides an example of how Alternative 1 is couched as an extreme and untenable alternative by describing wild stock protection "without regard to negative impacts on local economies". Such framing of the Alternative undoubtedly colors the perspective of reviewers. There are many elements of Alternative 1 that, in a proper context and with clearly defined goals, could be incorporated into very reasonable alternatives. Future descriptions of all alternatives should cast them in as neutral terms as possible given their substantive elements and their factual basis.

Response - The proper context of the comment can be found on DEIS page 50 in the explanation of alternative 1 in Artificial Production Section 3.1.4. It says “This alternative places the greatest emphasis on protection of wild steelhead stock health. Eliminating competition with hatchery fish could reduce VSP abundance for some integrated hatchery programs aimed at wild stock recovery. Wild and hatchery produced steelhead compete in common areas for most of their life cycles and elimination of hatchery competition with wild populations could mean elimination of many hatchery releases. This alternative emphasizes wild steelhead stock protection ***without regard to negative impacts on local economies*** by loss of recreational harvest opportunity for hatchery fish.” See response 3.2.

11.34. Comment Summary - p. 51, re: Cumulative Impacts - The call for a "coordinated All-H watershed recovery program" is appropriate and necessary. Is the assumption that these will come to exist through H-Integration efforts underway - at varying degrees of detail and effectiveness - for the Chinook Recovery Plan? The FEIS and SSMP should clarify WDFW's assumptions and advance H-Integration by reflecting on how lessons learned about how to do (or not do) H-Integration will be applied to steelhead management.

Response – As mentioned in response 1.3, the Department has conducted the phased review of the SSMP consistent with WAC 197-11-060(5). At this time, broad policy concepts have been

developed; these concepts will be further refined as WDFW enters into implementation of the specific elements of the program in each regional and watershed plan. Strategies and actions for incorporating All-H watershed recovery programs into the plan are mentioned on SSMP pages 8, 12 and19.

11.35 Comment Summary - p. 52, in re: Section 3.2.1 Regulatory Compliance - This section should address existing resources dedicated to regulatory compliance and how implementation of the preferred alternative would change that.

Response – Specific implementation actions are beyond the scope of the EIS. However, as one example, WDFW might pursue stronger enforcement actions against HPA violations. Currently, many county prosecutors are reluctant to engage in HPA violations. Increased efforts in this area by WDFW under alternatives 1 and 2 may improve steelhead habitat by securing greater mitigation under enforcement actions. See also response 1.3.

11.36 Comment Summary - p. 53, re: Hydro Actions in Table 2 - WDFW should request that NOAA and USFWS require, rather than encourage, actions to pass smolts/kelts downstream and adults upstream at all FERC-licensed facilities located downstream of natural barriers to migration.

Response – Good comment. Constitutional separation of powers prevents state agencies from requiring federal agencies to take actions, however, department involvement with various technical committees, utility owners and FERC have resulted in fish passage improvements on the Lewis, Baker, Columbia and White Salmon Rivers. The FERC relicensing process for large dams is lengthy, complex, and often unproductive. Securing fish passage at these structures consumes decades of hard work, if it occurs at all. In some instances, the upstream habitat to support steelhead is no longer present, or has been greatly diminished, which leaves the requirement to pass steelhead in question. Nevertheless, requiring fish passage where steelhead can benefit above FERC-regulated dams is an appropriate effort under alternatives 1 and 2. The Department will continue its active participation in the FERC relicensing and license implementation process while working with NOAA and USFWS to make sure the terms of the re-licensing agreements are carried out.

11.37 Comment Summary - p. 55, re: Regulatory Compliance Alternatives - The tangible differences between the Alternatives should be more clearly conveyed. We assume that WDFW isn't doing more or less than its explicit legislative direction would allow. The description of Alternatives would be improved by showing where WDFW's flexibility is being put to constructive use.

Response – Specific implementation actions are beyond the scope of the EIS. Under Alternative 2, the Department recognizes that more could be accomplished for steelhead under existing authorities. The Department is currently involved in numerous legislatively driven processes that affect steelhead habitat. These include GMA, SMA, and CAO advisory roles,

Forests and Fish adaptive management and compliance monitoring, permit assistance in issuing HPAs, reviewing Forest Practices applications, developing and distributing science based tools, providing technical assistance to watershed restoration groups, and others. Under Alternative 2, the Department will review critical functions and make efficiency adjustments where necessary and possible. Under Alternative 1, the Department will also review critical functions, but will likely seek greater support from the legislature.

11.38 Comment Summary - p. 57, in re: Section 3.2.2 Monitoring, Evaluation and Adaptive Management - The Preferred Alternative should include a larger, better-integrated research and monitoring program. This program should demonstrate how the information gathered will be used to direct "outcome-based management within a flexible framework." In addition, any adaptive management and monitoring program should address WDFW's hypotheses about the biological response of steelhead to Operational and Administrative actions.

Response – We agree. SSMP page 24 adequately explains the strategies and actions called for by the preferred alternative.

11.39 Comment Summary - p. 60, re: Research Alternative 2 - Key research topics should initially be developed at the statewide level, even if more specific proposals are developed at a regional scale. For example:

1. How does a wild population react (in terms of VSP parameters) to the elimination of hatchery releases in the watershed?
2. What level of genetic introgression is likely to compromise the long-term fitness of wild stocks?
3. In segregated programs that utilize differential spawn timing (e.g., hatchery summers, wild winters), what are the ecological interactions between wild and hatchery juveniles/adults?

Response – We agree. Suggested topics will be considered as SSMP Strategy 1 on page 28 is implemented should the plan be adopted.

11.40 Comment Summary - p. 60, re: Research Alternative I - The DEIS proposes human population increase and global warming impacts as likely objects of study under the "Most Conservative" alternative. These are key topics that the Department should be considering under any Alternative. These factors will have substantial impacts on stocks statewide and it is the responsibility of the Department to consider them in their planning and management.

Response – Good comment. The inclusion of ”human population increase and global warming impacts,” as noted on page 3, was included in Alternative 1 to illustrate that research must be prioritized and the amount of research that can be conducted is dependent on the level of funding provided. The FEIS changes the phrase to “human population increase and climate change impacts” and adds it to the preferred alternative. The Department is currently engaged in climate

change research and the effects on salmonids, but due to funding and staff limitations, our assessments are cursory thus far.

Detailed Comments from King County about the SSMP

12.01 Comment Summary - p.5, re: Strategy 2 - It has been known for decades that an MSH-based escapement level is not likely to be sufficient over the long-term. While the MSH/MSY paradigm still persists in many management frameworks, the suggestion of something different should not be presented as a new concept.

Response – Comment noted

12.02 Comment Summary - p. 5, re: Strategy 2 - The strategy section ties the escapement strategy appropriate for a stock to its SaSI status. The SaSI rating system is not robust enough to justify higher levels of acceptable risk on "healthy" populations. Moreover, even for "healthy" populations, MSH should not be the benchmark level for adequate escapement, due to high levels of uncertainty, management error, and the importance (from a recovery perspective) of establishing some populations as truly robust and abundant to serve as potential sources for other watersheds.

Response – Strategy 2 in the Natural Production section is not a stand-alone strategy. The section contains 4 strategies for "maintaining and restoring stocks to healthy levels" and is reinforced by strategies in 7 other sections of the plan which stress establishment of long term goals and benchmarks for modifications to management actions, escapement objectives, and establishment of diversity, spatial structure, productivity, and abundance of each wild stock within 2 years.

12.03 Comment Summary - p. 6, re: Action 1 - Given that the SSMP is focused on WDFW's management authorities, which do not comprehensively address habitat management, the identification of limiting factors called for in 1(a) could be problematic. The; authors should clearly indicate if the limiting factors summary will be inclusive of all habitat factors (i.e., not just those that WDFW directly effects), and, if so, how other habitat managers will be involved in assessing them.

Response – WDFW will work cooperatively with regional recovery entities to develop, review, and implement limiting factors analyses and associated recovery actions. These analyses and actions will occur both where the Department has direct control (e.g., WDFW-owned lands) and on private, state, and federally owned and managed lands. See also Response 7.0.

12.04 Comment Summary - p. 8. re: Habitat Protection and Restoration Strategies - WDFW should assume a lead role in restoration planning and implementation on all State-owned or managed land.

Response – Comment noted.

12.05 Comment Summary - p. 9, re: Habitat Protection and Restoration Strategy 6 - Authors should clarify whether this series of actions pertains only to actions WDFW reviews for HPAs.

Response - Good comment. Mitigation sequencing as described on page 9 will be applied to both, WDFW-owned lands and HPA regulated activities.

12.06 Comment Summary - p. 13, re: Fishery Management Actions - What is the basis for the 10% assumption to capture a multitude of sources for incidental mortality? Moreover, the document states that the assumed rate should be no higher than 10%. It would be more precautionary and appropriate to assume a higher rate in the absence of good data since this is just one portion of the computed total mortality rate.

Response – We agree and edit the sentence to read: "As a precautionary measure, assume and apply an overall mortality rate of 10% for steelhead caught and released in recreational fisheries unless an ESA permit directs otherwise The 10% mortality factor incorporates immediate mortality of fish caught and released, delayed mortality, potential mortality of fish that are hooked but not landed, potential reductions in reproductive success, potential effects of multiple encounters, and uncertainty in the number of encounters. For commercial fisheries, the Department will use a site-specific mortality rate. The 10% figure comes from ESA permits on the Columbia River that limit incidental mortality to 10%. This has been deemed to pose "no jeopardy" to the recovery of the listed stocks. The rate has fairly robust monitoring and data to support compliance with the 10% limit.

12.07 Comment Summary - p. 13, re: Fishery Management Strategy #7 - The notion of "maximized" economic and cultural benefits seems out of tune with managing adaptively. This statement should be revised to reflect that these benefits will be maximized within the overall effort to conserve the steelhead resource to assure that these types of benefits can be realized over the long term.

Response – We agree. The SSMP has been changed to clarify the intent.

12.08 Comment Summary - p.14, re: Action 4, (b) - If overlap occurs in the run timing of wild and hatchery steelhead stocks for which the abundance or escapement of the wild stock is not known, the plan recommends that no recreational fishery be allowed "beyond the time and area that hatchery fish are reasonably available". Instead, given the uncertainty of these stocks, a more appropriate precautionary approach would ban recreational fishing "whenever wild fish are reasonably vulnerable".

Response – See Response 12.6. It is also important to allow removal of hatchery fish to reduce genetic and ecological risks they may pose with some level of acceptable risk to wild fish.

12.09 Comment Summary - p. 19, re: Artificial Production, Strategy 5, (b) - In a segregated scenario, in the absence of a hatchery or trapping facility, no hatchery juveniles should be released into the system, absent a verifiable and extremely efficient method/facility for culling hatchery fish from the natural spawning grounds.

Response – We agree the risks need to be managed. See the Artificial Production Chapter – Segregated hatchery program for specific management limits and methods.

12.10 Comment Summary - p. 19, re: Strategy 5, (c) - It should be stated clearly what the PNI goal should be in an integrated scenario (e.g., PNI>0.7), while acknowledging that during very low wild stock abundance, sufficient broodstock may not be available to meet that criterion. In these cases, PNI should be increased when possible to the extent that wild broodstock is available over time, but a minimum PNI must be maintained to ensure progress in the right direction. This means that hatchery output must be curtailed in order to ensure that minimum value given broodstock constraints.

Response – We generally agree but note that the intent is to achieve a PNI equal to or greater than 0.70 on "average". As indicated in the comment, wild stocks will not always return at the same abundance, and there may be times when a reduction in the size of the hatchery program would be warranted. To incorporate this additional complexity in planning for an integrated program, we will make the following change to the SSMP, page 21: "Evaluate PNI and the effect of annual variations in wild stock abundance, potential range of changes in the productivity of wild spawners,…".

12.11 Comment Summary - p. 21, re: Actions for Integrated Programs (g) - The last clause suggests that habitat actions can make up for losses due to demographic risks. While habitat actions are of course important, demographic risks can decimate the genetic fitness of a population in a short time while habitat actions may take decades to produce anticipated gains. Moreover, if genetic fitness is compromised, it is unlikely that the population will miraculously gain fitness by virtue of habitat alone. We recommend that the habitat element of the strategy be separated from the truly demographic factors associated with integrated production.

Response - Good comment. In an all-H strategy, habitat will play an important and equal role in recovering steelhead. As accurately stated, especially in populations with low abundance or low genetic diversity, demographic effects can more substantially affect recovery than habitat actions. However, where populations are stable and demographic risks are low, some habitat actions can have a pronounced effect, say in the replacement of a fish passage blockage. Therefore, inclusion of an all-H perspective, by watershed or population, is necessary.

12.12 Comment Summary - p. 21, re: Artificial Production elements for RMPs - We strongly support Action 6 (a) regarding the assessment of benefits and risks, for each program relative to VSP parameters in all regional plans.

Response – Comment noted

12.13 Comment Summary - p. 21, first paragraph under Action #6, fifth line - Strike "not": sentence should read "... for stocks that are listed under the Endangered Species Act..."

Response – Thank you. Done.

12.14 Comment Summary - p. 22, re: Strategy #lb - An increase in accountability should be joined with an increase in support to ensure that these laws are effective, through adequate monitoring and evaluation and incorporation of new information into decision-making processes.

Response – Comment noted.

12.15 Comment Summary - p. 24, first paragraph, line eleven - The text overlooks that assumptions about steelhead biology and ecology and the effects of human actions on them will be significant drivers of an effective adaptive management program, whether they are recognized up front or not. WDFW should clearly describe its assumptions on these points and use them to guide the development of the monitoring, evaluation and adaptive management program.

Response – See Response 1.3

12.16 Comment Summary - p. 25, re: Monitoring and Evaluation Actions - Several of these actions are very important for the long-term prospects of steelhead, particularly as they relate to the impacts of artificial production. Actions 4, 6, and 7 are critical to understanding these linkages.

Response – Comment noted

12.17 Comment Summary - p. 29, re: Strategy 7 - Consider risks from treating resident 0. mykiss differently than anadromous 0. mykiss in the SSMP, from a VSP perspective. How do these risks vary among DPSs and regions?

Response – Comment noted. Implementation of the policies, strategies and actions will be crucial to the Departments ability to answer the question.

12.18 Comment Summary – The definition of Mark Selective fishery on page 35 is incorrect.

Response – The definition has been corrected in the FEIS and the SSMP to read “A fishery requiring the release of fish possessing an adipose fin.”

12.19 Comment Summary – Comment makes suggestions about basic editing.

Response – The editing points in the comment are well taken and the appropriate corrections have been made.

12.20 Comment Summary – Sentence structure in Alternative 2 on page 3 needs clarification.

Response – The comment is well taken. The last 3 sentences of Alternative 2 on page 3 are changed to read “This could result in some additional restrictions on harvest opportunity. Artificial production program changes will focus on identifying and reducing the adverse impacts. In some watersheds, potential recreational impacts on harvest opportunity may result from the implementation of these strategies to support the statewide plan." The issue of wild stock gene banks is moved to the Natural Production Section.

12.21 Comment Summary – The five year status report to the Director should be combined with the 5 year NOAA status reviews.

Response – The Department is not required to report on all steelhead populations to NOAA. It does provide information every five years for fisheries affecting ESA listed populations and on non-listed stocks upon NOAA's request. If ESU 1's ESA report is in 2005, ESU 2's report is in 2006, and ESU 3's report is in 2007, when does the Director's report occur? The intent of the 5-year review is to have a point in time when WDFW has a substantive review ("an event") of all, not just listed, steelhead populations to be incorporated into the Statewide Steelhead Management Plan.

12.22 Comment Summary – The word “healthy” is used often to describe steelhead stocks and abundance. It is a worthless term in this context. You need to state that “healthy” can and will be defined, i.e., in some percent or fraction of the escapement number, or in some way that is not vacuous (it must be measurable).

Response – The term “healthy stock” is defined on page 66 of the DEIS and page 34 of the SSMP.

12.23 – Comment Summary – Suggest addition of acronyms to the FEIS.

Response – Standard writing procedure calls for an acronym to be designated in parenthesis in the first place it appears in a document so the reader can see what the abbreviation means. This had been done throughout the DEIS and SSMP. However, to avoid confusion, the following changes are made to the FEIS and SSMP. DEIS page 3, Sentence in second paragraph beginning with “Currently, WDFW habitat protection … is changed to read “Currently, WDFW habitat protection efforts revolve around the **Habitat Project Approval (HPA)** process and a support focus on maintaining involvement in State and Federal protection and restoration processes.”

The following acronyms are added to the List of Acronyms and Abbreviations on DEIS page 70 and SSMP page 38 in their proper alphabetical position.

DPS- Distinct Population Segment
HCP – Habitat Conservation Plan
HPA – Hydraulic Project Approval
SCPAG – Steelhead and Cutthroat Policy Advisory Group
SEPA – State Environmental Policy Act
SSMP – Statewide Steelhead Management Plan