



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

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OFFICE OF
ECOSYSTEMS, TRIBAL AND
PUBLIC AFFAIRS

December 3, 2010

William W. Stelle, Jr.
Regional Administrator
NMFS Northwest Region
National Oceanic and Atmospheric Administration
7600 Sand Point Way NE
Seattle, Washington 98115

Re: U.S. Environmental Protection Agency (EPA) comments on the Draft Environmental Impact Statement to Inform the Columbia River Basin Hatchery Operations And the Funding of Mitchell Act Hatchery Programs (EPA Project Number: 04-049-NOA)

Dear Mr. Stelle:

This review was conducted in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Under our policies and procedures, we evaluate the environmental impact of the proposed action and the adequacy of the impact statement.

The EIS considers four action alternatives in order to inform a National Marine Fisheries Service (NMFS) policy direction that will guide the distribution of Mitchell Act hatchery funds and inform NMFS' future review of Columbia River basin hatchery programs under the Endangered Species Act (ESA). The alternatives are crafted with the recognition that adverse effects of hatchery operations are contributing to the decline of listed salmon and steelhead in the Columbia Basin. As a result, each of the action alternatives utilizes a different suite of strategies to reduce the adverse effects of hatchery operation on natural-origin fish. We are broadly supportive of this direction, and we believe that the species recovery goals under ESA are directly in line with the "fishable/swimmable" goal of the Clean Water Act (protection and propagation of fish, shellfish, and wildlife and recreation in and on the water)¹. We encourage NMFS to consider CWA goals in conjunction with ESA goals as a preferred alternative is crafted in the FEIS.

While we are supportive of the direction being pursued in the DEIS, our review of the document raised a number of questions and concerns. Many of our concerns relate to the completeness of the DEIS with regard to the range of alternatives and implementation scenarios analyzed. We also identified concerns related to a lack of information on the economic analysis; the monitoring, evaluation and reform (MER) program; tribal consultation; and the basis for the hatchery reform principles put forward in the document. Finally, we provide a detailed review of

¹ Clean Water Act Section 101(a)(2)

the water quality sections (3.6 and 4.6) and we make some recommendations to improve the readability of the document. The attached comments provide detail on each of these question and concerns, as well as recommendations as to how they might be addressed.

Based on our review, we have assigned the DEIS a rating of EC-2. A copy of the EPA rating system is also enclosed. We appreciate this opportunity to comment and if you have any questions or concerns please contact Teresa Kubo of my staff at (503) 326-2859 or by electronic mail at kubo.teresa@epa.gov .

Sincerely,



Christine B. Reichgott, Manager
Environmental Review and Sediment Management Unit

Enclosures:

EPA Detailed Comments on the Mitchell Act DEIS

EPA Rating System for Draft Environmental Impact Statements

**EPA Region 10 Detailed Comments on the
Draft EIS to Inform the Columbia River Basin Hatchery Operations
And the Funding of Mitchell Act Hatchery Programs
December 3, 2010**

Implementation Scenarios

We appreciate the effort on the part of NMFS to expand the scope of this analysis to include all 178 hatchery programs in the Columbia River basin. The impacts associated with the operations of Mitchell Act hatcheries cannot be analyzed and understood without also considering the operations and impacts of the other hatcheries in the basin. We are challenged, however, by the implementation scenarios for a number of reasons. We recognize that the implementation scenarios were developed for the purposes of analysis only, and that the DEIS is not intending to make a determination about the operation or closure of any specific hatchery. We believe, however, that the scenarios developed and analyzed should be implementable.

As noted on page 2-56 of the DEIS, NMFS does not fund or operate non-Mitchell Act funded hatcheries and, therefore, cannot mandate their termination. Further, because NMFS does not guide the disbursement of non-Mitchell Act funds, it is not clear how the non-Mitchell Act-funded hatcheries could be required to meet the performance metrics established in the DEIS. We recognize that NMFS reviews non-Mitchell Act-funded hatchery programs under the Endangered Species Act, but as noted in the DEIS, those reviews only occur in response to specific proposals for operational changes submitted by operating agencies and tribes. Given these limiting factors, it is not clear why the DEIS did not analyze an alternative that seeks to meet the established performance goals while assuming no change in non-Mitchell Act-funded hatcheries. If performance goals cannot be met without operational changes at the non-Mitchell Act-funded hatcheries, that fact should be disclosed, and carefully considered as a preferred alternative is developed.

Another implementation concern has to do with how the various implementation scenarios address commitments under the 2008 Columbia River Fish Management Plan authorized in *U.S. v Oregon*. Our concerns are not that some of the implementation scenarios under certain alternatives may be inconsistent with the commitments in the Management Agreement since CEQ guidance² and legal precedent³ support the development of a broad range of alternatives, and alternatives that may be outside of the legal jurisdiction of the lead agency. What is concerning, however, is the lack of clarity in the document around the process for addressing the requirements of the Management Agreement in the future. The DEIS states that, "NMFS assumes that affected parties will exercise their authority regarding production measures following this environmental analysis in a manner that is consistent with the most current Management Agreement" (DEIS p. 2-21). If parties to the agreement are to proceed with management that is consistent with the current Management Agreement, but the management direction is not consistent with what was analyzed under the EIS, it is not clear how the DEIS is supporting the decision-making process.

² <http://ceq.hss.doe.gov/nepa/regs/40/40p3.htm>

³ *Natural Resources Defense Council, Inc. v. Morton*, 458 F 2d 827 (D.C. Cir. 1972) (*Morton*)

Best Available Science

The performance metrics and the “primary, contributing, and stabilizing” population designations provide the underlying basis for the analyzed alternatives. The document notes that these hatchery reform concepts were developed by the Hatchery Science Review Group (HSRG), but does not provide additional information about the scientific basis for the proposed reform concepts. In order to provide agency and public reviewers with a level of confidence that the proposed metrics represent the best available science, we recommend that the FEIS provide a discussion of whether and to what extent these concepts have been peer reviewed and tested. It would also be helpful to include a discussion of hatchery reform concepts other than proportion of hatchery origin spawners (pHOS) and proportion of natural origin broodstock (pNOB), and why these were not considered in the context of alternative development.

Monitoring Evaluation and Reform (MER)

In their report to Congress on hatchery reform in the Columbia River basin, the HSRG recommended 1) setting clear goals; 2) scientific defensibility; and 3) monitoring, evaluation and adaptive management⁴. This last recommendation is reflected in the DEIS on page 2-14, where the document states that each alternative’s policy direction includes goals and/or principles related to monitoring, evaluation, and reform (MER). We support this direction agree that MER is foundational to successful hatchery reform in the basin. The document falls short, however, in elaborating on what a comprehensive, basin-wide plan for MER would look like. We recommend that the FEIS include a robust discussion of the monitoring program, including program development; key monitoring parameters; how implementation and effectiveness monitoring would be addressed; triggers for adaptation/reform; and the likely extent to which it would be adequately implemented/funded.

Tribal Consultation

The DEIS is very conscientious about breaking out and analyzing impacts to tribes and tribal fisheries, and we appreciate the attention given to this component of the analysis. We are concerned, however, over the lack of detail in the document around tribal consultation, and compliance with Executive Order 13175 (*Consultation and Coordination with Indian Tribal Governments*). Given the role of tribes as co-managers within the basin, and the potential ramification of the proposed alternatives to tribal fisheries and hatchery operations, it is reasonable to expect a robust discussion of consultation efforts and outcomes in the EIS. Tribal involvement is noted at the scoping phase (DEIS p. 2-11), and a number of tribal representatives are listed among the list of preparers on page 8-2, but it is not clear from these brief notations if formal consultation was pursued. We strongly recommend that the FEIS include a discussion of tribal consultation efforts and outcomes, and how tribal concerns will be addressed in accordance with federal tribal trust responsibilities.

Economics

The Mitchell Act Coalition has reported that the total Columbia River basin household personal income generated from Columbia Basin fisheries is about \$408 million, of which \$142

⁴ http://www.hatcheryreform.us/hrp_downloads/reports/columbia_river/report_to_congress/_hsrg_report_12.pdf

million come from anadromous wild and hatchery salmon and steelhead⁵. Table 3-24 of the EIS puts this estimate at \$46 million. We recognize that this large discrepancy may be driven in large part by the smolt to adult return (SAR) ratio utilized in the economic analysis. Appendix J of the EIS demonstrates that a higher SAR can greatly influence the results of an economic analysis. Because the overall assessment of social, economic and environmental justice impacts rests in part on the assessment of harvest-related income, we recommend that the FEIS address these conflicting estimates directly, and elaborate on the rationale behind the methodology selected.

Range of Alternatives

The document analyzes four action alternatives. Alternatives four and five are distinct among these because they draw a geographical distinction between the Interior Columbia recovery domain and the Willamette/Lower Columbia recovery domain and because they apply different performance metrics in each of these domains. The analysis provides valuable insight regarding how the "intermediate" and "stronger" performance goals would affect each of these domains. The analysis does not, however, provide a rationale for applying different metrics to each domain. It also does not provide a rationale for treating the two domains separately. We find that the current construction does add value to the decision-making process, but we recommend that in the FEIS, another alternative be crafted that applies the stronger performance metric to both domains. Given the overall goal of species recovery, and the overarching direction from the HSRG to manage harvest, hatchery broodstock and natural spawning escapement to meet or exceed the HSRG standards, an alternative that applies the stronger performance metric to the entire basin seems to be a logical bookend for the purposes of analysis. If the development of such an alternative is not pursued, the rationale for that decision should be provided in the FEIS.

Water Quality

As noted in our cover letter, we believe that the species recovery goals under ESA are directly in line with the "fishable/swimmable" goal of the CWA⁶. We encourage NMFS to consider CWA goals in conjunction with ESA goals as a preferred alternative is crafted in the FEIS.

In our capacity as administrators of the Clean Water Act, we have reviewed the water quality sections within the DEIS (3.6 and 4.6) and offer the following specific comments. The comments are organized by section, page and line within the DEIS.

3.6.3.1

Page 3-140 at 31: The DEIS states, "The water quality parameters discussed could be transported from hatcheries to the aquatic system through discharges of hatchery water used for operations (referred to as effluent), decomposition of hatchery-origin salmon carcasses placed in streams to enhance nutrient levels, and releases of large numbers of hatchery-origin salmon into receiving streams." We note that NPDES permits only address the discharge of pollutants from hatcheries,

⁵ http://www.fws.gov/gorgefish/carson/reports/MA%20Fact%20Sheet%203_3_06.pdf

⁶ Clean Water Act Section 101(a)(2)

not the planting of carcasses in the watershed, or the release of fish to the stream. The carcasses and fish are not seen as pollutants.

Page 3-141 at 11: The DEIS describes chemical or physical parameters associated with hatchery operation that have the potential to impact receiving waters. Among the parameters listed is "sediment". We note that in effluent, this is measured as "settleable solids" and "total suspended solids"; in the stream, it is discussed as turbidity or sediment.

Page 3-141 at 12: The DEIS states that some water quality parameters could also be affected by decomposition of salmon carcasses and suggests that spawned-out salmon could occur at the facility site. We note that permits usually prohibit discharge of carcasses at the hatchery.

Page 3-142 at 6: The DEIS states that effluent discharge permits for hatcheries specify effluent temperature limits. We note that only some permits have temperature limits; most do not.

Page 3-143 at 10: The DEIS states that there is a low risk of water quality violations from nutrients with adequate dilution by receiving water. We note that risk of nutrient impairment depends on the characteristics of the stream. Icicle Creek is impaired because of phosphorus, primarily from the Leavenworth National Fish Hatchery. We also note that dilution comes into play only if there is a mixing zone allowed by the state. We are not aware of any such mixing zones for the hatcheries in Washington and Idaho.

3.6.3.1.4

Page 3-144 at 6: The DEIS states that changes in pH likely arise from primary production (algal growth via photosynthesis) within hatcheries. We recommend that NMFS consider the findings in the 2006 TMDL study of the Wenatchee River prepared by the Washington Department of Ecology. That study showed pH above the acceptable 8.5 can be caused by excess growth of periphyton in the river, which can be caused by excess nutrients from any source, including hatchery effluent.

3-144 at 22: The DEIS makes reference to "settling nutrients". More appropriately, the DEIS should discuss "settling solids" - which have nutrients in or on them, rather than settling nutrients as a methods to reduce solids.

3.6.3.2.1

Page 3-147 at 3: The DEIS states that, "for discharges from hatcheries not located on Federal or tribal lands within Oregon and Washington, the EPA has delegated its regulatory oversight to the states" and that, "Oregon, Washington, and Idaho are all responsible for certifying that NPDES-permitted projects not located on Federal or tribal lands comply with state water quality standards." We add to this with the following clarifications: Oregon has the NPDES program for federal facilities but not for tribal facilities; Washington certifies EPA written federal permits that are not on tribal land, but does not certify tribal permits; and Idaho certifies all permits (EPA written) except tribal permits.

3.6.3.2.2

Page 3-151 at 5: We note that there is no mention or discussion of the federal hatchery general permit which EPA issued effective August 1, 2009. It applies to 10 federal and tribal hatcheries in Washington in the Columbia River basin. EPA also issued a general permit for cold water hatcheries in Idaho, including 8 in the Columbia-Snake River basin. It was effective Dec. 1, 2007.

Page 3-152 at 28: We note that pH, temperature, and total ammonia as nitrogen are only required for direct discharges from offline settling basins, which is a small percentage of the facilities.

Page 3-152 at 31: We note that temperature monitoring is only required of warm water facilities, and that copper & hardness are only required when copper is being used.

Page 3-153 at 1: We note that monitoring of total inorganic nitrogen and total nitrogen is only required at one facility each.

4.6.3

Page 4-201 at 20: Federal regulations do not have water quantity requirements.

Page 4-201 at 22: The DEIS states that all hatchery programs in the analysis area are in compliance with their NPDES discharge permit. This is a broad characterization of the hatchery system. We recommend that the FEIS provide additional basis for this statement. We also recommend that consideration be given to the status of the hatchery NPDES permits. For example, the Leavenworth National Fish Hatchery is under a 35 year old permit. Efforts are ongoing to issue a new permit, but the much has changed in both the water quality and technology arena that bring into question the benefit complying with a 35-year-old permit.

Page 4-201 at 26: The DEIS states that hatcheries have not been identified as a source of impairment to streams. Again, this is a broad characterization that cannot be applied to all hatcheries. For example, the Leavenworth National Fish Hatchery is seen as a source of impairment to Icicle Creek at least for dissolved oxygen and pH, and because of its phosphorus discharges that encourage algal growth. We recommend that the FEIS provide a more careful characterization of the water quality impacts from hatcheries.

Page 4-201 at 29: The DEIS states that any hatchery facility that would increase production under any of the alternatives would have to do so in compliance with an NPDES permit. We note that a standard condition of NPDES permits is that any proposed increase in discharge of pollutants must be reported to the permitting authority (which may then take action to modify a permit). Some permits, however, have mass limits on pollutants, which would limit such hypothetical increases.

4.6.3.1.2

Page 4-202 at 7 (and repeated throughout the document): We recommend that the FEIS utilize language consistent with water quality permitting. Water quality is not something to be "increased" or "degraded". Rather, water quality is something to either be "improved" or "degraded".

Page 4-202 at 9: Each of the action alternatives is characterized as decreasing the contribution of hatchery facilities to the impairment of 303(d) waters. We understand the rationale behind this statement, but note that these statements conflict with previous statements in the EIS that hatcheries, “have not been identified as a source of impairment” (4.6.3 at 26). We recommend that the FEIS revisit the logical progression of these statements in order to allay confusion on the part of the reviewer.

General

Enhancing public participation in government planning and decision making is fundamental to NEPA. A well developed document, written in language that can be understood by a broad range of stakeholders, is critical to ensuring successful public involvement. We found the Mitchell Act DEIS to be cumbersome to read, particularly with regard to the lack of explanation around technical concepts (such as the performance goals and metrics), and the overuse of acronyms that are not familiar to readers outside the hatchery management process. We recommend that as the FEIS is crafted, care is taken to improve the readability of the document. In particular we recommend that the discussions on page 2-22 related to the performance goals and metrics be expanded. It would also be helpful to introduce these foundational concepts before the alternatives are presented. We also recommend that the use of acronyms be scaled back.

**U.S. Environmental Protection Agency Rating System for
Draft Environmental Impact Statements
Definitions and Follow-Up Action***

Environmental Impact of the Action

LO – Lack of Objections

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC – Environmental Concerns

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO – Environmental Objections

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU – Environmentally Unsatisfactory

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 – Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 – Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 – Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.